Evaluation of the Lost Spaces in Karakol and Sakarya Districts of Famagusta, North Cyprus

Koorosh Ghotb

Submitted to the Institute of Graduate Studies and Research in partial fulfillment of the requirements for the Degree of

> Master of Science in Urban Design

Eastern Mediterranean University December 2014 Gazimağusa, North Cyprus Approval of the Institute of Graduate Studies and Research

Prof. Dr. Elvan Yılmaz Director

I certify that this thesis satisfies the requirements as a thesis for the degree of Master of Science in Urban Design.

Prof. Dr. Özgür Dinçyürek Chair, Department of Architecture

We certify that we have read this thesis and that in our opinion it is fully adequate in scope and quality as a thesis for the degree of Master of Science in Urban Design.

Prof. Dr. Naciye Doratlı Supervisor

Examining Committee

1. Prof. Dr. Naciye Doratlı

2. Prof. Dr. Şebnem Hoşkara

3. Assoc. Prof. Dr. Mukaddes Fasli

ABSTRACT

Most of the modern cities, nowadays are faced with the huge amount of unused and misused spaces which spread throughout in the urban fabric. These ill-shaped and ugly spaces mostly emerged after industrial revolution and later on under the influence of modern movement in architecture and planning. Factories and highways were built and millions of people aspiring for a better life moved to the cities. Over time, cities became more crowded and polluted, thus factories were shut down and relocated to the cities peripheries. Moreover, people who now have their own car started to leave inner cities and settled in suburbs, far from air pollution and crowdedness (Shojaee far, 2011). As a result cities were drastically faced with huge vacancy in inner parts, abandoned factories with contaminated soil and massive unused spaces in urban areas. On the other side, designers and architects which were charmed by the modern movement, ignored the importance of the relation between space, human needs and buildings. Cities, buildings, roads and streets were built with too little concern about human needs.

The city of Famagusta which was one of the best tourist destination in Mediterranean Sea with an important trading port, is faced with the problem of unused and lost spaces. Thus, the focus of this research is the analysis and evaluation of unused and misused spaces which mostly emerged after events of 1974 in Famagusta.

This study is based on scholars' and experts' debates and ideas about urban voids, lost spaces, residual spaces, unused spaces and so on. The process of study is based on qualitative and quantitative research which covers collecting data and preparing the maps as well as site surveying. Accordingly, a holistic criteria has been defined in order to be able to determine the lost spaces in the study area, which is the newly developed parts of Famagusta. The result of this research presents the total amount and location as well as types of lost spaces within the study area.

Keywords: Lost space, Residual space, Unused space, Urban voids, Negative voids, Empty space, Famagusta, North Cyprus Modern kentlerin birçoğu günümüzde kent dokusunun içine yayılmış büyük miktarda kullanılmayan veya yanlış kullanılan mekanlarla/alanlarla yüzyüzedir. Bu biçimsiz ve çirkin mekanların birçoğu endüstri devriminde sonrasında, daha sonra da mimari ve planlamada modernitenin etkisiyle ortaya çıkmıştır. Fabrika ve karayollarının inşası ile, milyonlarca kişi daha iyi bir yaşam için kentler göç etmişlerdir. Zaman içinde kentlerin giderek kalabalıklaşması ve kirlenmesi nedeniyle fabrikalar kapanmaya ve kentlerin dışına doğru taşınmaya başlamıştır. Bunun yanı sıra, özel araç sahipliliğinin artmasına bağlı olarak, pek çok aile kent merkezlerini terketmeye ve hava kirliliği ve kalabalıklık gibi sorunlardan uzak olan banliyölere yerleşmeye başlamıştır. Bunun sonucunda kent merkezlerinde büyük boşluklar oluşmuş, terkedilmiş fabrikalar geride kirlenmiş toprak ve büyük çaplı kullanımlayan mekanlar/alanlar bırakmışlardır. Diğer yandan, modern akımın etkisinde kalan tasarımcı ve mimarlar, insan, mekan ve bina arasındaki ilişkinin önemini göz ardı etmişlerdir. Kentler, binalar yollar ve sokaklar insan gereksinimlerine pek fazla dikkate almadan inşa edilmeye başlanmıştır.

Geçmişte, Akdeniz'deki en iyi turizm destinasyonlarından biri olan ve önemli bir limana sahip bulunan Gazimağusa, bugün kullanılmayan ya da etkin olarak kullanılmayan kayıp alanlar sorunuyla karşıkarşıya bulunmaktadır. Bu bağlamda bu tez, özellikle 1974 sonrasında Gazimağusa kentinde oluşmuş kullanılmayan ya da etkin olarak kullanılmayan kayıp alanların analiz ve değerlendirilmesine odaklanmıştır. Bu çalışma uzmanların, kentsel boşluk, kayıp, artık ve kullanılmayan alanlarla ilgili tartışma ve fikirlerine dayanılarak yapılmıştır. Kalitatif araştırma metodu kullanılarak yapılmış olan bu çalışma sürecinde, literatür taraması, arazi çalışması ile bilgi toplanması yapılmış ve harita ve envanter formlarının hazırlanmıştır. Bunun yanısıra, Gazimağusa'nın yeni gelişen bölgelerinde kayıp alanların belirlenebilmesi için bütüncül ölçütler tanımlanmıştır. Bu araştırmanın sonucunda çalışma alanındaki toplam alan, konum ve tür olarak kayıp alanlar sistematik bir biçimde sunulmuştur.

Anahtar kelimeler: Kayıp alan, Artık alan, Kullanılmayan alan, Kentsel boşluk, Negatif boşluk, Boş alan, Gazimağusa, Kuzey Kıbrıs To My Father, My Mother, And, My Sister.

ACKNOWLEDGMENT

I would like to express my sincere gratitude to Prof. Dr. Naciye Doratli, not just as my supervisor which she did great job for me, from start to finish of this study and without her, I couldn't finish this research, but also as my teacher, instructor and who has taught me the way of life, with her compassion, and her kindness.

Besides my advisor, I would like to thank the rest of my thesis committee: Prof. Dr. Şebnem Hoşkara and Assoc. Prof. Dr. Mukaddes Fasli, for their encouragement, insightful comments and hard questions.

Last but not the least; I would like to thank my family, my parents: Nematollah and Shahrzad, and my sister Katayoon, because of their support not just here, but also in my whole life.

TABLE OF CONTENTS

ABSTRACT
ÖZv
DEDICATION
ACKNOWLEDGMENT
LIST OF TABLES
LIST OF FIGURES
1 INTRODUCTION
1.1 Problem Statement
1.2 Aim of the Research
1.3 Methodology
1.4 Limitation of Study
2 THEORETICAL FRAMEWORK
2.1 Understanding Urban Void6
2.1.1 Deliberate Urban Voids7
2.1.2 Undesirable Urban Voids10
2.1.2.1 Creation of undesirable Urban Void11
2.1.2.1.1 Phenomenological Void11
2.1.2.1.2 Functional Void12
2.1.2.1.3 Geographical Void13
2.2 Residual Spaces15
2.2.1 Types of Residual Spaces16
2.3 Lost Space
2.3.1 Factors Behind Emergence of Lost Spaces

2.3.1.1 Increased Dependence on Automobile	23
2.3.1.2 Modern Movement in Design	
2.3.1.3 Zoning and Urban-Renewal	
2.3.1.4 Privatization of Public Space	
2.3.1.5 Changing the Land-Use	
2.3.2 Types of Lost Spaces	
2.3.3 Impact of Lost Spaces in the Urban Environment	
2.3.4 Potential of Lost Spaces in the Urban Environment	
2.4 Similarities of Undesirable Urban Voids in the Urban Environment	
3 EVALUATION OF LOST SPACES IN KARAKOL AND SAKARYA DIST	FRICTS43
3.1 Background information	43
3.1.1 Cyprus / North Cyprus	
3.1.2 Famagusta	46
3.2 Lost spaces in newly developed part of Famagusta	49
3.2.1 Two Newly Developed Districts Under Focus (Karakol and S	akarya) 50
3.3 Methodology for the Analysis	53
3.4 Evaluation of lost spaces in Karakol and Sakarya districts	
3.4.1 Infrastructural border zones	
3.4.2 Expansion Areas	59
3.4.3 Geographical Void	71
3.4.4 Summary of Findings	72
4 CONCLUSION AND RECOMMENDATIONS	79
4 CONCLUSION AND RECOMMENDATIONS	

LIST OF TABLES

Table 2.1: Characteristics and similarities of urban negative voids	40
Table 2.2: Similarities between different types of unused	41
Table 3.1: Criteria for identification of lost spaces and negative voids	53
Table 3.2: The amount of total unused spaces	73
Table 3.3: The amount of total unused spaces without military area	73

LIST OF FIGURES

Figure 2.1: Types of Solids and Voids
Figure 2.2: Abandoned Maraş (Varosha) since 197412
Figure 2.3: Old airport field as a functional void
Figure 2.4: Geographical void in Hollywood hill
Figure 2.5: I-70 Highway in U.S
Figure 2.6: Leftover spaces between intersections and highways
Figure 2.7: Empty Parking-lot which most of the time is vacant
Figure 2.8: Residual green space in suburbs
Figure 2.9: Vast empty space in Nashville, TN
Figure 2.10: Early road condition before national interstate highway system in USA 23
Figure 2.11: Interstate I-105 California- Norwalk
Figure 2.12: Harbor Freeway
Figure 2.13: Le Corbusier's proposal for a modern city of three million inhabitants 26
Figure 2.14: Silicon Valley, CA. Huge amount of Parking lot around buildings
Figure 2.15: Piazza Navona, Rome: Streets carved out from buildings and defined by them . 29
Figure 2.16: Le Corbusier concept for City of twentieth century
Figure 2.17: Plan voisin by Le Corbusier
Figure 2.18: Concept of contact intensity in urban life
Figure 2.19: Effects of distance between workplace and residential space on urban space 32
Figure 2.20: Zoning effect on Boston
Figure 2.21: Vast unused spaces around buildings, Massachusetts
Figure 2.22: Vacant land in inner city of the Lancaster
Figure 3.1 : Geographic location of Cyprus in Mediterranean Sea

Figure 3.2: Famagusta's four main parts	47
Figure 3.3: Eastern Mediterranean University aerial view	48
Figure 3.4: Vast unused spaces as a result of lack of a physical plan for development.	49
Figure 3.5: Districts of Famagusta5	50
Figure 3.6: Study area	52
Figure 3.7: Six zones in the study area5	56
Figure 3.8: Electrical power station surrounded by fenced area (1:C1-1)	58
Figure 3.9: Infrastructural border zone areas location5	59
Figure 3.10: Empty spaces used for parking (5:D1-4)	50
Figure 3.11: Buildings without parking space	51
Figure 3.12: Empty plot as a parking lot (4:D1-1)	51
Figure 3.13: Dual-use spaces location	52
Figure 3.14: Leftover space near Lemar Complex (1:D3-2)	53
Figure 3.15: Leftover spaces location	53
Figure 3.16: Residual green space behind the Northern Land Residential Complex (1:D4-1) 6	54
Figure 3.17: Residual green space near EMU Beach club (2:D4-1)	65
Figure 3.18: Green area around the lake (3:D4-1)	65
Figure 3.19: Residual green space in Karakol neighborhood (5:D4-3)	56
Figure 3.20: Residual green spaces location	56
Figure 3.21: Empty area used for agricultural purpose (1:D2-8)	57
Figure 3.22: Empty spaces used for construction leftovers (1:D2-15)	58
Figure 3.23: Expansion areas in Gülseren neighborhood (4:D2-2)	59
Figure 3.24: Construction leftovers in empty spaces (5:D2-15)	70
Figure 3.25: Empty spaces along the streets (5:D2-1)	70
Figure 3.26: Empty expansion areas location	71

Figure 3.27: Gülseren Lake	. 72
Figure 3.28: Gülseren Lake location	. 72
Figure 3.29: Visualization of analyzed unused spaces in study area without military area.	. 74
Figure 3.30: Vast empty area without accessibilities (1:D2-8)	. 75
Figure 3.31: A public park in Karakol neighborhood	. 75
Figure 3.32: A public Park in Sayarya district	.76
Figure 3.33: Designed green space (Park) in study area	.76

Chapter 1

INTRODUCTION

In most of the contemporary cities, the problem of unused spaces which emerge and remain in urban body, became a serious matter, and urban designers and architects play an important role to solve and bring back these unused spaces to urban body as collective and integrated frameworks to increase the livability within the cities. In most of the cities, urban development takes place in a way that buildings become isolated objects in space but not part of the urban pattern. Unfortunately, urban development is realized according to two-dimensional land use plans, with too little concern with the three dimensional relationships between human needs, space and buildings. In this regard, urban space is rarely makes an intense connection between buildings and other spaces in the city. Thus, what appears in most of environmental context today, is ill and unshaped anti-space.

As an example for this matter, in America because of lack of attention to the relationship between human behavior and urban fabric, in fifties and sixties, people moved to suburbia and previously viable land in cities became vacant (Jackson, 1985). Nowadays, every modern city has enormous amount of vacant, derelict and unused land in its downtown. After years, with fundamental changes in economic, industrial, and business patterns, the cities have more intensified problem of lost space in the inner core (Trancik, 1986).

Lost spaces emerge unintentionally in the cities, which means their existence has direct relation to lack of true understanding of the relationship between human, building and space. For instance, a vast area that turned into a parking lot or a plaza that is sunken between buildings, despite a nice and modern design gradually becomes a lost space, if the designers don't consider these relations. On the other hand, lost spaces generally are spaces that occurred as a result of poor city planning and lack of master plan for development. Rapid development in cities, brings about less attention to value of the land, and creation of undesirable spaces which are, residual space, leftover space and unused space. These kinds of undesirable voids are like thorn in the flesh of the city, and they need to be pulled out.

1.1 Problem Statement

Based on the initial discussion above, the problem area and field study of this research is the city of Famagusta, which is the third largest city of North Cyprus. As a result of the lack of a Master Plan and also, enacted regulations, new developments take place in a piecemeal fashion, which results in a considerable amount of lost spaces especially in the newly developing districts of the city. Observations reveal that the voids contribute to the discontinuity and dispersion and represent a veritable reality of a disintegrated tissue.

1.2 Aim of the Research

The aim of this study is to evaluate and analyze the lost spaces in the newly developing districts of the city of Famagusta to help the developers for an incremental continuous regeneration of the urban fabric. Based on this aim, the main research question of this research is:

• What are the lost spaces in the newly developing districts of Famagusta and how they were emerged?

In order to be able to answer to the main research question, this research also will answer to following questions:

- What are urban voids in cities?
- What is residual or leftover space?
- What are the reasons behind emergence of leftover spaces?

1.3 Methodology

A qualitative research strategy will be utilized/ applied for the purpose of this study and quantitative data is used for collecting the information. The research methodology is consists of two stages: 1- a literature review of related documents, maps and photos to define a holistic criteria for understanding lost spaces, and 2- an physical analysis in the study area based on defined criterion to identify lost spaces.

Stage 1: literature review and defining criteria

The focus of research in this part is the definition and causes of urban voids, residual area, terrain vague, lost space and their characteristics and elements, and the factors that cause the lost space.

Discussion on the definition of lost space is to make a comparison between several authors' suggestions on matters related to the lost space. Academic research includes theoretical studies, guidelines and also resources to assist to carry out further research. Overall this stage is carried out by acquiring theoretical information or data from the literature to help in carrying out the study.

Sources of information for this part are books, printed documents, photos, maps, satellite images and so on. The survey on the background of the study area is one of the important components in the research to be undertaken. This study was made to examine and identify urban lost space.

Stage 2: Analysis and evaluating data

After completing the literature review and defining criteria based on existing discussions in the first stage, in this stage by using the criteria as reference, it has been tried to identify and evaluate the lost spaces in the case study area. To achieve this goal, field observation technique or visual survey on the physical spaces of the city was required to obtain the relevant data on urban space activities and evaluation of the current situation and weaknesses. The amount of each type of residual spaces within the city as well as the proportion of each of them was measured in order to give idea about the seriousness of this problem.

1.4 Limitation of Study

This study involved only spaces outside the buildings, such as roads, squares, parks, and other related spaces. According to Krier, the urban area has a clear meaning when viewed in terms of geometric features. He described the external space as urban space itself (Krier, 1979). Therefore, a study to identify the lost space in the city involves only void spaces but not the other types of spaces, which are unused.

Also in this research, the limitation of the study has been made based on several factors, the appropriateness of the study, time and retrieval. Although, behavior and human activity that take place in the city is a tool that influences the formation of urban

lost space and it will be briefly discussed in this research. Thus, the focus of this study is on lost space in physical terms.

This study will only examine the lost space in physical terms, in newly developed part of the city of Famagusta. Accordingly, two districts of Karakol and Sakarya has been chosen for this study. The reasons behind of this selection are, firstly these areas are mostly has been emerged after events of 1974, and secondly, these areas are somehow considered as central part of the city.

Chapter 2

THEORETICAL FRAMEWORK

This chapter describes the matters to understanding about the definition, elements and aspects of the concept of 'Lost Space'. As the purpose of this research is to find and identify the physical features of lost spaces, all discussions and debates will be around this issue. The theories that will be highlighted here are taken from scholars and researchers who worked on this field. In addition, relevant theories are also discussed in accordance with the factors that would be a help in converting lost spaces into positive spaces. To this end, it has been tried to explain the types of unused urban spaces through this research and study on the causes of these phenomena to make a better understanding about the emergence of these negative areas.

2.1 Understanding Urban Void

Nowadays most of the modern cities have been missing the traditional quality of urban space in the recent decades and accordingly experienced significant destruction of their cores, which is obvious in the high emptiness rates and growth of criminal activity in the city-centers. Almost every city has amount of vacant, unused and abandoned spaces which are voids in general.

Nevertheless not all urban voids can be described as unused or leftover and etc. In fact many voids are designed to be voids; they are kind of human gathering symbol and represent attraction between the individual and the public, like parks, squares and etc. (Torre, 2000). These urban voids are developed in two ways: Deliberately and Undesirable. Those that are created by planners and designers which are deliberately voids, such as streets, squares, parking lots or parks and etc. These spaces, whether well designed or not, are part of urban fabric and generally called positive voids. These are spaces that are designed to serve citizens and make a better environment of living or carrying traffic and etc. In contrast, there are some other urban voids that emerged by lack of understanding of the human needs and relations between space and buildings (Tiesdell & Carmona, 2012), which can be categorized as undesirable voids and discussed under different names, such as residual space, lost space, unused space, neglected space, terrain vague or leftover space. These undesirable spaces are almost the same in terms of the meaning and with a little differentiation in context, which mostly happen in negative ways such as, residual or leftover spaces which emerge in cities after planning and development of the city. There are also some voids that were designed as positive voids initially, but due to ignorance of the vital urban factors human, space, building, they are turned into negative voids and lose their performance. These negative spaces -which are the focus of this research-, need to be reconsidered and turned into positive spaces. For a better understanding of this matter, in the following, first deliberate urban voids and then undeliberate urban voids will be discussed.

2.1.1 Deliberate Urban Voids

In order to understand the positive urban voids, first 'positive spaces' must be discussed, then positive urban voids can be described according to definition of positive spaces. Positive space in urban fabric refers to a shaped space (Alexander, 2011; Carmona, 2003, p. 138). Where a component happens in space, the component exists with its shape, as well as acts to characterize the form of the space around it. In order to be a successful positive space, both the component itself and the space around

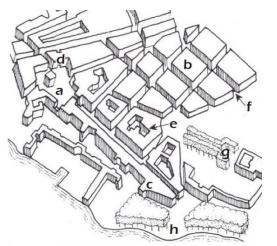
it must involve together, each one escalating the other. At the point when this happens, every piece of space has positive shape as a core and there are no undefined and insignificant remains (Hall, 2010). Based on the characteristic of positive spaces, it can be concluded that the positive urban void in the urban fabric is a void that is designed with a certain shape, which works with buildings and spaces around it.

Positive spaces are spaces with strong connection to spaces around them and they have positive effects on citizens' lifestyle. But no matter how hard designers try to design cities to be flawless and perfect, sometimes they can't apply all aspect of qualitative and quantitative design which considers the relationship between human needs, space and buildings. Furthermore, as Douglas Adams says, it is SEP (Someone Else Problem)(Tibbalds, 2002), which means, they throw the problems in someone else hand to fix it, thus those designed spaces that are supposed to play a functional role in collaborating with existing elements in urban fabrics, gradually would turn into unused spaces and eventually, they would become lost space. Due to the location of lost spaces which are mostly in the inner cities, they naturally are valuable, and are in need to be reconsidered and transformed into a positive space.

One of the scholars who had great research about the transformation of positive voids to negative voids over time, and lack of foresight about urban mechanism which also caused to this so-called positive spaces to lost spaces, is Roger Trancik (1986). For this purpose, he worked on both urban solids and voids and then he defined five major causes for emergence of lost spaces in the cities:

• Urban solid types: public monuments or dominant institutional buildings, the field of urban blocks, and directional or edge defining building.

• Urban-voids types: entry foyers, inner-block voids, networks of streets and squares, parks and gardens, and linear open-space systems.



a. Public monuments & institutions

- b. Field of urban blocks
- c. Edge defining buildings
- d. Passage into personal domain
- e. Inner block void
- f. Network of streets & squares
- g. Parks & gardens
- h. Open space

Figure 2.1: Types of Solids and Voids (Trancik, 1986)

In the following, five types of voids that might be seen in the urban fabric, which are defined by Trancik, is presented. According to him, these are deliberately or wanted voids. In case of failure to comply with the urban quality aspects, these voids could turn into unused spaces.

The first type of deliberate void is the passage into one's personal domain transitioning into public spaces. It can be formed as a lobby, door niche or front yard.

The second type of deliberate void is the 'inner block void' that is a semiprivate residential space for circulation, leisure, rest or utility which is consist the single family housing neighborhood.

The public squares and network of streets are the third types of deliberate void. They are used by automobiles and are developed between blocks that contain the active

public street life. These spaces in fact are as addition to home and define it as a place to be and also travel. Since the streets are the main void in the third type, sidewalks automatically considered as secondary void because pedestrians are only using them. Moreover, the ally is another sample which is used by pedestrians and automobiles for deliveries and services.

The fourth type of deliberate void includes gardens, parks and also public spaces. They are merged the rural settings into an urban fabric. Moreover, plazas are also categories as this type, however because of their formation, shape and location they may not be consumed as parks.

The fifth type of deliberate void is linear open spaces which usually located along the wetland zones, waterfronts and rivers. They usually made by formal and informal green ways which cut through districts to make edges and also link places together.

As it can be seen, Trancik just defined deliberate voids in urban space but not the other voids, however intentional, are vacancies, parking lots and other voids that are unusable due to numerous reasons, such as, building plots, typographical topographies of a hillside (These voids will be explored in further pages).

2.1.2 Undesirable Urban Voids

In this research, it has been tried to examine various definitions of negative urban voids, such as; unwanted, undesirable, unintentional and previously developed, based on characteristics of these spaces on the cities. These aspects which will be explored further are the main reasons, which turn urban spaces into unpopular, unpleasant, antisocial and eventually, unused spaces. The negative voids of the city are spaces which mess up the urban fabric and leaving it unfinished. Sometimes called urban wrecks, they are limited between public and private space, without belonging to none of them. Negative urban voids are unwanted urban areas that are in need to be reconsidered and redesigned. Those are spaces which have no positive contribution to the environments or users. They are ill-defined, without measurable boundaries and fail to connect elements in a coherent way. A mass can produce a typical urban image whereas a void can produce a vivid image that evokes negativity when placed into the context of an urban environment. In this research the creation and types of negative voids will be more explored for a better understanding of the difference between negative and positive voids.

2.1.2.1 Creation of undesirable Urban Void

Undesirable voids in urban environment emerge in various ways. Andrea Rojas (2009), architect and educator at the University of Diego Portales of Chile argued that, an urban void mainly is created by three factors. These factors also become the basis for classification of these urban voids, which are: Phenomenological voids, Functional voids and Geographical voids.

2.1.2.1.1 Phenomenological Void

The phenomenological void is a term that appears due to a specific event like war or natural disasters within a city or area, and causes clearing urban context or historic transformation. It is defined as "a place that has been characterized by context and history that is now outside the realm of urban functionality, growth, and transformation" (Rojas, 2009). In the result of change, the phenomenological void contains the high amount of emotion and memory. Closed Maraş (Varosha) district of Famagusta, which is closed to habitation since 1974, is a contemporary example to this type of voids (Figure 2.2).



Figure 2.2: Abandoned Maraş (Varosha) since 1974 (Stefanos, 2004)

2.1.2.1.2 Functional Void

The functional void may happens in different local, regional and global scales. This kind of void appears within the urban context due to a change in the pattern of use. Even though this change may be global in nature, local history and geography often play an important role in determining to what extent the void is revealed. Functional voids have surfaced in many cities that are traditionally organized around a single, central core. As the importance of the urban core reduced in the face of industrial and social changes, the decrease in urban population and density, acts as a catalyst to urban decay and the rise of functional voids. As the function of urban land changes and as urban populations decline, the result is the growth and spread of urban voids.

The site of the Ex-Cerrillos airport is placed on the west side of Santiago. The growth and expansion of the city around this area left the airport surrounded by new development, so it had to be moved to another location. This change of altered patterns of use within the city (Figure 2.3).



Figure 2.3: Old airport field as a functional void (C.M, 2004)

2.1.2.1.3 Geographical Void

The geographical void is represented by a break in urban form due to natural topographical features such as rivers, valleys, hills, lakes, and other unusual terrain. These voids contrast the urban environment because of their ability to consistently sustain dense vegetation and other forms of wildlife. This void, unlike the other two, represents a break in the urban conditions that is typically not considered a nuisance or "eyesore" to city dwellers. Instead, these areas are often viewed as an "escape" from the traditional city grid and are utilized in numerous respects for their natural, aesthetic and recreational values. Though lacking of urban characteristics, the geographical void is typically not free of human activity (Figure 2.4).

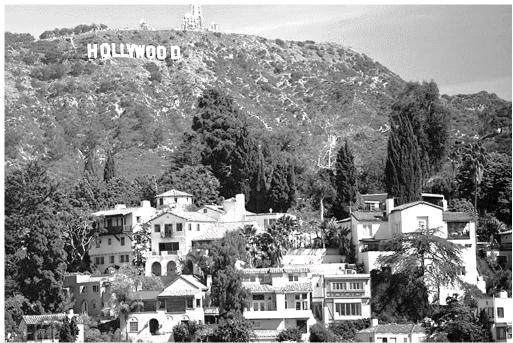


Figure 2.4: Geographical void in Hollywood hill (Matsumoto, n.d)

Even though all three void types represent a distinct absence of the urban condition, a finer lens may reveal that in more recent times the boundaries distinguishing each type have become blurred. For example, phenomenological and functional voids that have been neglected and ignored for long periods of time begin to experience a break-through of vegetation and other components of nature reminiscent of geographical void characteristics. Conversely, as the recreational use of geographical voids increase, urban characteristics such as paved walkways and parking lots are frequently imposed upon them. Finally, as the natural quality of geographical voids decreases and as the functional patterns of use in the city continues to change, these types of voids attract strong memory and emotional characteristics that are typically associated with the phenomenological void. The urban voids are a form of evolution in the city design and planners and designers are left wondering when it is time to rebuild, redesign, or relocate. The voids also challenge the economical and developmental "master plans" for the city's growing objectives over time.

2.2 Residual Spaces

Since the major focus of this research is unused, misused and negative urban voids within the cities, understanding the residual spaces as another definition for unwanted/undesirable voids, also could help to a better understanding about lost spaces aspects. To be classified as residual, there is an implication not only of smallness, but of awkwardness or inadequateness-leftovers. It is understood that the plot will be squeezed, stretched, incomplete and/or somehow characterized, conventionally, by unusability. Of course these plots exist in any urban environment, with a risk of remaining unidentified, becoming spatially appropriated by an adjacent plot, or hosting impermanent program of varying success (Kobel, 2010).

So what is residual space and why it is important? The dictionary offers one answer: "residual" means "remaining after a part is taken" or "a remainder." In Finding Lost Space, Trancik (1986) stated that:

Generally speaking, lost spaces are the undesirable urban areas that are in need of redesign—anti spaces, making no positive contribution to the surrounding or users. They are ill-defined, without measurable boundaries, and fail to connect elements in a coherent way.

But why residual or lost spaces are important? Tomas Wikström argued that, there are several reasons why residual areas are important as context and needs interaction and decisive encounters (Wikström, 2005):

• They provide transitions and intersections but also borders and barriers between sections or enclaves of the city. To pass them implies literally to cross a boundary. As fringe zones, they provide the exterior appearance, what we meet when leaving one enclave and entering another. As intermediate space, they may be experienced as "belonging" neither to this nor to that neighboring district.

- They represent land that is not subject to a complete and detailed order, but rather afford a certain freedom of action. As deserted or little-used land they are infrequently controlled by the owner. It is not always clear whose rules and norms regulate their use. They offer places for activities that are excluded from the organized urban environment for being too space consuming, annoying or disturbing. They make possible unexpected encounters between people that act outside of their customary roles
- Although sometimes included in plans, they often constitute the indirect result of planned building and exist in the outmost periphery of architects' and planners' intentions.

Despite of all reasons that Wikström defined, it should be noted that these areas veritably are disturbing spaces in urban fabric, and developing and turning them to a useful and positive space could be one step to achieve better environments.

2.2.1 Types of Residual Spaces

In the urban context five types of residual spaces which are "non-spaces," "leftover spaces", "dual-use spaces", "residual green spaces" and "empty spaces" can be seen.

These kinds of spaces which may emerge in every city, are quite important to study. Also by understanding these types of residual spaces and their aspects, it could be understand every cities more or less has faced with some or all of them. *Non-spaces* are often near movement corridors and include median strips and rights-ofway along highways and roads. Because people frequently view these spaces from moving vehicles, the landscape becomes a backdrop, seen from a moving perspective (Figure 2.5).



Figure 2.5: I-70 Highway in U.S (I-70, n.d)

Leftover spaces are not programmed and not connected to surrounding spaces. Created by intrusions into a previous open space, they include odd geometric spaces adjacent to intersections, setback frontages, underpasses, easements and traffic islands (figure 2.6).



Figure 2.6: Leftover spaces between intersections and highways (Anon, n.d)

Dual-use spaces are areas that have a single use at certain times but are otherwise underused, thus becoming residual spaces for certain periods—for example, parking lots that are largely vacant after business hours (Figure 2.7).



Figure 2.7: Empty Parking-lot which most of the time is vacant (Dalai, 2009)

Residual green spaces are "grassed or green areas of land that were not part buffers or setbacks required by legislation along the road network (i.e., defined by the road cadaster) and did not function as a park, or may not have been identified as a park by the local government" (Australia, n.d). This may be due to the incompatible adjacent land uses (i.e. surrounded by dual carriage ways), poor access and/or lack of infrastructure - all of which limited the use of this space for recreational purposes. Examples of these spaces include: undeveloped land allocated or zoned for recreation purposes; access or linking routes to assist pedestrian movements between roads or adjacent areas; spaces that contribute to the aesthetics or 'greenness' of the street or

neighborhood. Residual green spaces may represent areas which could be improved to provide more useable public open space (Figure 2.8).



Figure 2.8: Residual green space in suburbs (Australia, n.d)

Empty spaces are places to which no meaning is ascribed; the experience of them does not include sense making. In such "meaningless" places, the issue of difference never arises: There is no one there to negotiate with. Empty spaces, Bauman writes, are leftover places, "non-colonized places and places which neither the designers nor the managers of perfunctory users wish, or feel need to, earmark for colonization". They are "the waste-products of architectural blue-printing and the neglected fringes of urbanist visions". They are, one could say, regions that emerge as a contrast to the regionalization of modernist planning. (Bauman 2001) (Figure 2.9)



Figure 2.9: Vast empty space in Nashville, TN (Anon, 2010)

The main similarities of these terms are that they often are empty and people try to avoid them as much as they can, even a parking lot which is empty during the night. Additionally, people have no trust to these spaces especially during the night, because these spaces more or less are lost and abandoned in the city and obviously they suffer from lack of lighting and security (Bauman, 2001). Hence empty spaces are not only defined in relation to the actual function of the planned and built urban environment, but also from the points of view of different groups of inhabitants. This means that any place can be an empty space for some individual, for some cultural group, social class or local inhabitants.

2.3 Lost Space

Lost space is another definition for negative void (space) which may any city be faced with, but what exactly is lost space? "Lost space is the area within a city that is unused by pedestrians or not occupied by buildings or streets"(Anon, 1987). According to Trancik (1986), the term of "Lost Space" is a space which may be a landscape that is not organized or the excess space around the building which is not used or a sunken plaza that is not used because it's located far from a sidewalk in the city. In other words, the lost space is result of the absence of the person responsible for the upkeep and maintenance of a much less space to use it.

Generally, the lost space is the residual urban area without any function and requires redesign of the waste spaces, which does not contribute positively to the dwellers and the environment. In other words, lost space is socially unused and leftover spaces within the larger infrastructure of urban space.

One of the definition of these kinds of areas coined by Ignasi de Sola-Morales, called "Terrain Vague" to describe landscapes that are 'unknown, imprecise, blurred and uncertain.' They are the marginal, in-between, abandoned spaces left behind by the network city:

It is impossible to capture in a single English word or phrase the meaning of *terrain vague*. The French term *terrain* connotes a more urban quality than the English *land*; thus *terrain* is an extension of the precisely limited ground fit for construction, for the city...The French word also refers to greater and perhaps less precisely defined territories, connected with the physical idea of a portion of land in its potentially exploitable state but already possessing some definition to which we are external (Berger, 2007).

Terrain Vague locales typically in industrial wastelands, vacant and derelict buildings, and urbanized areas falling between investment cycles, and declining suburban developments. These physically excluded sites are no longer the social or economic centers of activity for the city and hence either ignored or totally forgotten. However, Morales' perspective runs counter to the dominant view. According to him, these 'strange places' that exist outside the cities are effective circuits and productive structures in a 'potentially exploitable state' – to be considered more as an architectural opportunity than as an absence (Berger, 2007).

It is important to consider the underlying complexities inherent in the empty, semi abandoned, and disused places of the city. The terrain vagues of the metropolis can carry both a negative and a positive connotation in our collective sub consciousness. The absence of use and activity and the state of deterioration of these post-industrial landscapes sets them apart from the order, growth and vitality of the rest of the city. These are spaces of pause, void, and absence, and also promise, possibilities, and expectations. The first step, Morales argues, in reclaiming such waste landscape is to identify that its existence is an inevitable result of urban growth (Murthy, 2010).

The French word "vague" has Germanic and Latin origins. The German Woge refers to a sea swell, significantly alluding to movement, oscillation, instability, and fluctuation. Two Latin roots come together in the French vague. Vague descends from vacuus, giving us "vacant" and "vacuum" in English, which is to say "empty, unoccupied," yet also "free, available, unengaged." which is the realm that Roger Trancik refers to as a *lost space*.

2.3.1 Factors Behind Emergence of Lost Spaces

According to Trancik (1986), there are five major causes for the emergence of lost spaces in cities, which they are:

- Increasing dependence on the automobile.
- Modernism in Architectural design.
- Zoning legislation and urban-renewal.
- Privatization of public space and
- Changing land-use

As explained earlier, Trancik defined five types of urban voids. He also finds out five mentioned above dangerous culprit which has propel a positive void to a negative void.

Because these reasons somehow have influence on most modern cities, it is important to know their aspects and effects on urban fabric to find a solution to avoid these kinds of mistakes.

2.3.1.1 Increased Dependence on Automobile

Of all mentioned factors, dependence on the automobile is the most important issue to deal with, which is deeply rooted in the human life. The need to transport growing quantities of people, goods, and raw materials has led to the creation of an extensive infrastructure and a system of highways in the outskirts of cities and caused to emerging traffic accident, parking lots and thoroughfares as prevailing types of open space (Tammaro, Ingold, & Lafranchi, 2010).

World War I was the first "motorized" war, and thousands of trucks were built by American factories for military use. In 1919 a convoy of 20 Army trucks was sent from Washington, D.C. to San Francisco to further demonstrate the capability of such vehicles for wartime transportation. It took 56 days to complete the trip. One of the officers making the journey was Captain Dwight D. Eisenhower, who became greatly impressed with the possibilities of highway transportation (Figure 2.10).



Figure 2.10: Early road condition before national interstate highway system in USA (Kieffer, 1919)

During World War II, Gen. Eisenhower saw the advantages Germany enjoyed because of the autobahn network. He also noted the enhanced mobility of the Allies when they fought their way into Germany. These experiences shaped Eisenhower's views on highways. 'The old convoy', he said, "had started me thinking about good, two-lane highways, but Germany had made me see the wisdom of broader ribbons across the land" (Administration, 1977; Solomon, 2004), and the federal government of the United States in 1940 started an enormous road-building program to answer the needs of military defense (support Allies of World War II) and population development, but the most intensive growth occurred after the Second World War and was enhanced by the construction of the interstate highway system (Figure 2.11), funded by federal legislation in 1956 (Safdie, Kohn, & Books, 2009).



Figure 2.11: Interstate I-105 California- Norwalk (I-105, 1987)

Due to the improvement in the economic cycle after World War II, more or less, every American and Western European people has been afforded to buy a car. Hence, the car became an important part of our society. This transportation improvement made people able to move to outside the cities and live in suburbs. There is no need to live close to their workplace, thus urban sprawl emerged. Cities became scattered and connected together just by highways and freeways. These highways, constructed over a period of decades, have gradually been surrounded by residential and commercial districts, generating a new kind of territory that differs radically from historical models. In the populated hinterlands, these highway territories become barriers as well as sources of noise and air pollution. Additionally they often prevent efficient land use, while generating spatial segregation and interruption (Tammaro et al., 2010). As these roads and boulevards cut through the cities, they create huge large area of lost space (Trancik, 1986) (figure 2.12).



Figure 2.12: Harbor Freeway (I-110, 1958)

Also, transportation has quickly took place as a necessary factor in architectural design and the ideas of urban designers. In addition to essential transport infrastructure, such as roads, highways, streets and so on, motorization caused emerging an scope of new sorts of structures to provide and embedded cars, like multilevel parking lots and gas stations. Emergence of these types of buildings caused architects use the design, the shape and manufacture principles of the car as a model and reference for future designs. The most important example in this matter, perhaps presented by Le Corbusier as proposal for a modern city of three million inhabitants in 1922, which used the car as a point of reference in architecture and planning. (Figure 2.13). By reviewing his works it could be easily understand that he placed a car intentionally in front of his buildings, and somehow the car connected with the structures, obviously illustrate the presence of the car in his design (Tammaro et al., 2010).

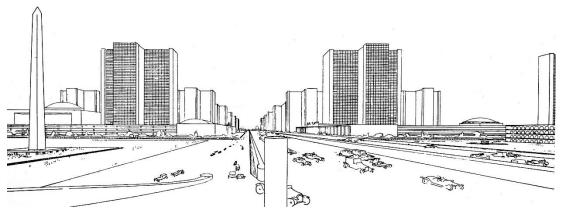


Figure 2.13: Le Corbusier's proposal for a modern city of three million inhabitants (Safdie et al., 2009)

Le Corbusier believed that, "We must create vast and sheltered public parking places where cars can be left during working hours" (Corbusier, 1987b). In this regards in newer North American cities, the patterns of development, land-use, and land coverage were all determined by the requirements and presumptions of car-dominated transportation from the beginning of their major growth. Each new act of city building required appropriate parking to be included at the outset, and wide urban streets were laid out and constructed with the specific goal of assuring car access. Buildings, the distances between them, and the sequences of entering and exiting them all deferred to the demands of the car. The result was an unprecedented scale and pattern: large amounts of paved open space devoted primarily to roadways and parking, with structures interspersed at distances. Every physical premise of the traditional city disappeared: continuous pedestrian circulation; a well-defined and habitable public domain; and the entire array of architectural details on buildings and streets, benches, trees, and all. The new form addressed the issue of vehicular access and parking, but did not replace or reinvent. Le Corbusier's vision is commonplace in every contemporary city today. But, we can see that even Le Corbusier and his colleagues underestimated and misunderstood the impact that the automobile would have on urban form. Even with the original modernist emphasis on grand networks of highways, roads, parking lots, and parking structures, the effect of this entire automobile infrastructure was simply beyond anyone's frame of vision at the time (Safdie et al., 2009). It is as if the modernists allowed the city to be designed by the will of the car, only to discover, decades later, that its will was rather different from what they had anticipated (Figure 2.14).



Figure 2.14: Silicon Valley, CA. Huge amount of Parking lot around buildings (Bing, 2013)

2.3.1.2 Modern Movement in Design

Modern Movement in Architectural and urban design was another cause of lost space issue, which emerged in 1930 to about 1960. This movement and functionalism ignores the importance of urban spaces such as roads, urban squares and street space in the city and makes freestanding and isolated building without considering on urban outdoor space. In contrast, in traditional cities, buildings define streets and squares (Trancik, 1986) and they developed where there was a need for them, shaped by the residents of the city in a direct city-building process (Gehl, 2011).

For instance, in the Piazza Navona, Rome, Streets and squares carved out from buildings and defined by them (Figure 2.15) (Adam, 2009).



Figure 2.15: Piazza Navona, Rome: Streets carved out from buildings and defined by them (Anon, 2012)

By emerging of functionalism which is related to modernism in around 1930, physicalfunctional characteristic of buildings were changed and turn to independent planning, which caused design isolated buildings in the urban fabric. The basis of this movement was medical knowledge in first decades of 1900. According to this knowledge building were to have light, sun, air, ventilation and access to open space. By emerging these criteria buildings orientations turned to the sun instead of the way that should be. This method needs more space, and this space caused the gap between buildings and eventually turns into lost space (Figure 2.16) (Gehl, 2011).

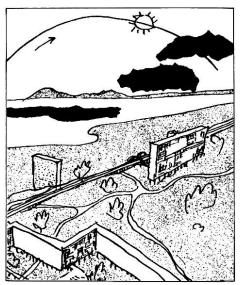


Figure 2.16: Le Corbusier concept for City of twentieth century (Trancik, 1986)

Moreover, in this period the concept of separating workspace from residential space were formulated in order to assure individual healthy living conditions.

One of the good examples in neglecting traditional urban spaces in design is, 'Plan Voisin' by Le Corbusier in 1925 (figure 2.17), which he proposed on most right bank of the Paris (medieval part of the city). Le Corbusier argued that the modern urban space is emerged by eliminating everything that is both natural and pre-modern and obliterate any link to their urban pasts (Stevenson, 2003; Taylor, 2003).



Figure 2.17: Plan voisin by Le Corbusier (Corbusier, 1925)

"WE MUST BUILD ON A CLEAR SITE!" (Corbusier, 1987a, p. 220). He believed that modern cities must build on cleared old cities. But clearing a large site in an old city is quite difficult and maybe faced with opposition. One of the problems with modernist urban design is that the space between buildings is not often well designed in this century, which is caused by modern movement in architecture (Andeson, Architecture, & Studies, 1978). In social perspective, missing the activities between buildings also disappear the lower contact scale. (Figure 2.18) (Gehl, 2011).

High intensity	Close friendships
	Friends
	Acquaintances
	Chance contacts
	Passive contacts ("see and hear"
Low intensity	contacts)
Figure 2.18: Concept of c	ontact intensity in urban life (Gehl, 2011)

The various transitional forms between being together and being alone have vanished. The limitations between isolation and social interaction become harsher -people are either alone or else with others on a relatively demanding and exacting level.

Increasing potential for telecommuting -the ability to work from home, fading differences between 'home' and 'workplace' – in another cause of increasing the speed of emergence of lost space in modern times which happened by separation of residential space from workspace. This improvement which has been addressed as both revolutionizing living and working conditions allowed a greater choice of residency. Thus, people could find the ability to live everywhere they want and do they jobs, so in most of the time they prefer to live in suburbs which is one of the reasons of urban sprawl and afterwards those spaces between workplace and homes turned to unused space (Carmona, 2003) (Figure 2.19).

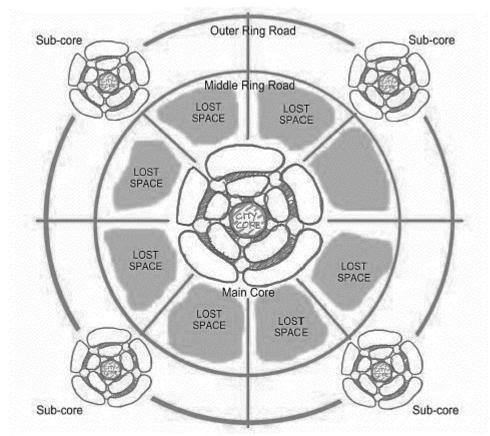


Figure 2.19: Effects of distance between workplace and residential space on urban space (Falconer, Liu, Lambert, & Co, 1987)

2.3.1.3 Zoning and Urban-Renewal

As mentioned before, by emergence of modernism and functionalism in architectural design and planning, and consideration to effect of medical knowledge on human life in 1930s, work spaces are separated from residential spaces (Gehl, 2011).

This policy and urban renewal were other reasons to loss of urban qualities during the 1950s and 1960s in United States. The aims was clearing ground, clean and foster the human welfare through dividing the land use to zones and building high-rise towers for ground level density. Unfortunately urban-renewal project rarely matched to reasons that make them happen, nor did they answer to social relationships that define existence of community. Zoning legislation had effects on functions that had often been integrated by separating them. (e.g. dividing the living space from working

space). Zoning legislation was chosen to protect citizen's under the mottos of "health, safety, and welfare" – as supposed by planners. The result has been cities subdivided into similar districts separated by traffic routes. Areas between zones are usually has the major lost spaces in the urban fabric (Trancik, 1986) (Figure 2.20).

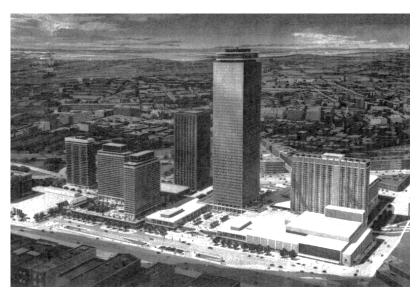


Figure 2.20: Zoning effect on Boston (Trancik, 1986)

2.3.1.4 Privatization of Public Space

Pervasive change in land use as well as sanctity of private companies is another reason that contributed to emergence of lost space in urban centers. As long as the downtown is heartbeat of the economy there are heavy requests for floor space in the center, thus the cities pushing toward the vertical developments. Each site turns to a place for image buildings as a corporate flagship and cities converted from collective spaces to private icons which became a showplace for private ego in the public realm (Tiesdell & Carmona, 2012). In traditional cities, designing the individual buildings had been involved with streets, squares, parks and other urban spaces in the public realm and designers follows the holistic standards were set by supporters and builders of renaissance, but in the modern cities, economy and efficiency defined the rule for design buildings. Moreover, the organized neglect of public space makes a massive problem in both: 1) decrease the investment in maintaining public space and 2) general lack of interest in maintaining the physical form and appearance of the city. As a result the unity of total urban environment is gone (Trancik, 1986) (Figure 2.21).

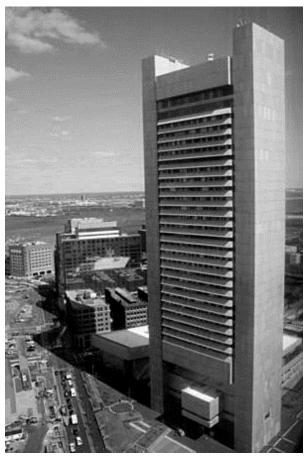


Figure 2.21: Vast unused spaces around buildings, Massachusetts (Jacoby, n.d)

The privatization of public space progressively weakens the sensation that people of different class and societies live in the same world. It separate people from each other and reduces the possibilities for identifying resemblances and recognizing alternations. Thus, by considering the privatized public spaces usually more attractive than the other places (because usually these places are managed by private sector), people try to reach these spaces and they forget to pay attention to other public spaces. So, those places turn to lost space by the time (Kohn, 2004).

2.3.1.5 Changing the Land-Use

The final main cause of lost space in cities has been the general change in land use which began after industrial revolution and World War II. There are many reasons and phases to changing land use in inner-cities and change the valuable areas to vacant and neglected space. In 1950s, by uncontrollable growth of population, factories, buildings and mass productions, the cities became more crowded and polluted. Meanwhile because of rapid growth of urban environments, residential and commercial areas bounded the factories which were in the edge of the cities before. After years of development these factories located in the middle of cities. These factories, industrial sites and military bases were shut down because of environment threaten and soil contamination. Thus sprawl development emerged and people moved to suburbs to run away from air pollution, thereby inner part of cities has faced with serious declined (Alker, Joy, Roberts, & Smith, 2000; Shojaee far, 2011).



Figure 2.22: Vacant land in inner city of the Lancaster (Summers, 2014)

Besides, the economic system advances into a service-oriented country, many sectors find it necessary to move their manufacturing procedures to less development countries or to suburban areas where expenses are lower. Because these factories were causes of air pollution and contamination of environment, governments shut them down and as a consequence of this industrial relocations and environmental regulations many places in inner cities has been vacant, derelict and turned to lost space (McAndrew, 2007; Trancik, 1986) (Figure 2.22).

Brownfield sites are one of the effects of changing land use and can provisionally be voids because of contamination and the attempt to clean up a foregone industrial site. The U.S.E.P.A¹ defines these sites as having "real or perceived environmental contamination" that blocks reclamation (Bowman & Pagano, 2004).

2.3.2 Types of Lost Spaces

Based on previous studies, it can be distinguished four rough types of lost space: interzones, fringes, infrastructural border zones, and expansion areas. Each of them, it appears, relate to certain phases and varieties of production of space.

Interzones are characteristic for modernist planning. They reflect the modernist principle of functional zoning which is the spatial counterpart of the industrial division of work. Interzones separate one unit of building from another, clearly emphasizing each part's spatial independence. The interzones are primarily shaped by the form of the surrounding enclaves and provide buffers that tolerate irregularities of the edges of each built unit.

¹ U.S. Environmental Protection Agency

Fringe areas are an adequate term for those parts of residual space that forms the border of each unit. Contrary to interzones, fringes have a long history, going back to the first human settlements. Whenever space is cleared for communal living, a fringe is established where ordered and cultivated land meets the wilderness.

Infrastructural border zones are generated by the traffic system, the electric power network and main water and sewage pipes. They may be understood against the background of modern welfare society and its struggle to control the negative effects of industrial and infrastructural growth. "Liminal value" – referring to tolerable amounts of noise, airborne pollution, electric fields, radiation etc. – is the keyword here. The main transportation arteries like thoroughfares and railroads are surrounded by safety zones and noise abatement zones, sometimes planted or containing rests of nature, sometimes covered with concrete tiles or gravel and more or less devoid of vegetation. Although such zones are often fenced in, they may provide arenas for activities, legitimate or illegal. Footpaths along (and sometimes illegally and dangerously crossing) such zones clearly illustrate deficiencies of the existing urban structure.

Expansion areas are future building or infrastructure sites. In a more general manner, such areas are related to phases of material expansion. The prerequisite, however, is a planning body of some sort, whether public or private, which has the power to set aside grounds for future building. Their character varies, from completely un-cleared or unkempt to well prepare for future building and provisionally used for parking or as storage-yards. When not surrounded by fences, they offer space for illegal dumping of garbage, old furniture and even car-wrecks. In some cases, they provide room for illegal or approved cross-country motorcycle tracks.

2.3.3 Impact of Lost Spaces in the Urban Environment

Residual, lost and leftover spaces or in general, all unused and misused spaces in the cities are ill spaces that need to be healed. They make cities ugly and unsecure, unbalanced and fragmented. Because these spaces make distances between usable spaces, citizens have to spend more time to reach to their desired destination and they need to drive longer and use more gas.

These unpleasant spaces which sometimes turns into a fake green space by nature, over time became a place for mischievous animals such as rats and stray dogs. Because of lack of proper lighting, these unplanned spaces are dangerous places especially in nights and many peoples would be afraid to enter into them. Additionally, they contribute to an increase in the rate of crimes in neighborhoods.

As mentioned before, lost spaces are often located in the inner cities which have high economic value and notwithstanding empty or designed -as Trancik mentioned, even 'a sunken plaza'- have to be considered in further planning. In terms of terrain vague or in brown field sites, which are also kind of lost spaces, due to high cost of cleaning and remediating the sites, instead of preparing the brownfield lands, investors prefer to use and develop the green fields sites that harm the nature and ruin the natural green spaces (Alker et al., 2000; Murthy, 2010; Shojaee far, 2011).

These meaningless spaces which are legacy of the post-world war II urbanism (Coelho, 2012) has direct impact on human behaviors. As Bauman states, people try to avoid empty places, as it is easy to feel lost and helpless in them, and surprised or a little frightened by the sight of other individuals in them (Bauman, 2001). In some cases these areas became a place for construction leftovers and a place for homeless people.

Furthermore, these areas are holes on city fabric which they suck livability from physiognomy of the cities.

2.3.4 Potential of Lost Spaces in the Urban Environment

Although lost spaces have negative impacts on cities and citizens, as mentioned earlier, because of their location, lost spaces which usually are in inner part of cities, have great potential to be transformed into positive space to be useful for both pedestrians and cars. Also they could be used as green areas or Local Park in neighborhoods which suffer from lack of green space.

Residual green spaces that can be found in almost every city are good examples to be used as well designed green space or parking lot. These spaces which at first sight are like green space, in fact, are unused spaces which are created over time and planners have to consider them in further developments.

Moreover, re-evaluation of lost spaces would be helpful in easing the traffic in the street. As mentioned earlier, lost spaces are usually located in the inner part of cities which are usually more crowded than the other parts of a city. By converting them into a parking areas, the streets would be freed from parking cars. Additionally, reevaluation of residual and unused spaces in residential parts and especially in uncrowded neighbors, it could be helpful in reducing crime and bringing safety and security for all citizens.

2.4 Similarities of Undesirable Urban Voids in the Urban Environment

The identification of the lost spaces is essential for understanding the potential of these unused lands to make decisions for better development of urban areas. This is because the process of identifying lost space is an attempt to be conscious about the availability and potential of waste area in the entire fabric of the city. To achieve this goal and also for a better understanding of lost spaces, it has been tried to define systematically the common features of the negative urban voids based on stated discussions in this chapter (Table 2.1).

Negative Void	Characteristic		Commons
	They usually happened because of lack of a proper master plan; also they are lands which	•	All of these negative voids emerged because
Residual Space	remain unused after architectural designing. They have lack of contribution with space around		of lack of attention during design to urban space qualities.
Terrain Vague	They usually happened in industrial sites which now are abandoned and remain unused. These spaces have close relation with the term brown field and contain derelict buildings and sites. They may contain contamination and harmful for people		These spaces make cities full of gap and fragmented. They make cities unsecure and unreliable. They waste citizen's
Lost Space	They are spaces with lack of attention in urban space and have suffered from ill-define planning. They contain broad vast of neglected space, unoccupied space and leftover spaces.	•	time and energy. They are places for garbage, construction leftovers and contamination.

Table 2.1: characteristics and similarities of urban negative voids (Source: Author)

These spaces are almost the same and they really call for tough challenge for urban planners and designers. As they are neglected and abandoned for years, through development of these unused spaces, the cities would become more compact and more secure than before. Literature survey reveals that, the undesirable voids in cities emerge due to a variety of factors and they are mainly referred to a residual spaces or lost spaces, under which different types are defined.

In order to be able to define criteria to determine and analyze unused spaces in an urban settlement, it has been tried to identify similarities between two remarkable definitions of unused spaces in cities. This means by determining the similar aspects of residual spaces and lost spaces, the result would be more comprehensive and easy to apply.

Residual Spaces	Non spaces	Leftover Spaces	Empty Spaces	Residual Green Spaces	l Dual-use Spaces		
Lost Space	s Inter Zor	nes Fringe	Areas	ra Structural order Zones	Expansion Areas		

Table 2.2: Similarities between different types of unused (Undesirarable) spaces (Source: Author)

All types of residual spaces have common features with different types of lost spaces, which means they have same effect and function. The expansion areas which may remain unused for long time as empty space, residual green space or maybe transformed into a dual use space or leftover space. Infrastructural border zones if just used as barrier or separator without any other functions, will be a non-space or over time it could be turned into a residual green space. As it has been mentioned in the previous lines, lost spaces and residual spaces are almost same in terms of aspects and characteristics, in fact, the time and way of use of any areas is crucial in defining types and characteristics of lost spaces and residual spaces.

Furthermore, there are three types of main urban voids (Phenomenological voids, Functional voids and Geographical voids), which may some of areas belongs to these kind of undesirable voids not lost spaces. Although in micro-scale they cover all four types of lost spaces or residual spaces, like functional voids which according to Trancik (1986) they emerged due to changing land use by relocating military bases, factories or any large scale industries and facilities, but in macro-scale they are undesirable voids in urban pattern.

Chapter 3

EVALUATION OF LOST SPACES IN KARAKOL AND SAKARYA DISTRICTS

3.1 Background information

3.1.1 Cyprus / North Cyprus

Cyprus, the third island in Mediterranean Sea after Sicily and Sardinia, is located in North of Egypt, south of Turkey and west of Syria with an area of 9282 km² (Figure 3.1).

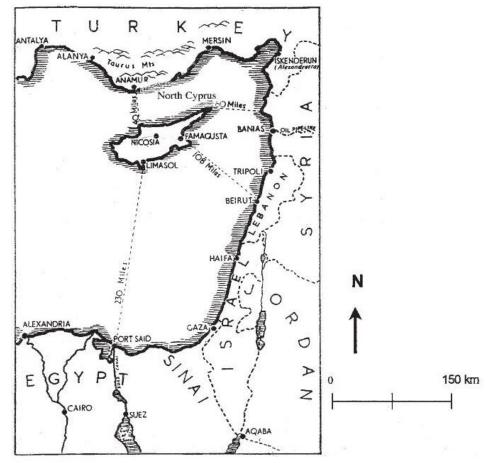


Figure 3.1 : Geographic location of Cyprus in Mediterranean Sea (Önal, Dağli, & Doratli, 1999)

This island also known for a highly urban life development, and about two-thirds of the people of island live in cities and towns (Oktay, 2002). Regardless of all previous powerful conquerors, e.g. Helens, Persians, Roman, Byzantine, Lusignan, Genoese, Venetian, Ottoman, British, etc., which ruled the island; the British period (1878-1960) from two major aspects had significant effect on physical developments in Cyprus. Firstly, by introducing some new functions, e.g. hospital, court house and some governmental organizations, many people attracted to cities and leaved rural areas to settle in the towns and cities. Consequently due to the increasing population in the cities and increasing demand for accommodation, the British implemented some 'social housing projects', for the first time in certain cities to answer the needs of the migrating population. Secondly, it was in British period that the first 'Streets and Buildings Regulations (CAP 96)' were also set up. According to this regulation which was enacted in 1946 and still in force in North Cyprus, 'any piece of land, which has access to a public road, is eligible for development'(Hoşkara, Çavuşoğlu, & Öngül, 2009). This regulation was one of the main factors for hasty housing development in further years.

By the end of World War II, Cyprus had experienced enormous economic change from an agricultural economy to commercial economy based on towns, thereby; people start to move to the cities (Anon, 1991). The peak period of urbanization (1946-1960) coincided with the transition from a dominantly rural economy to commercial and industrial economy that favored the growth of towns (Oktay, 2005). Following the internal conflicts in the 1960s and the events of 1974, the island was divided into two parts: southern part under the control of Republic of Cyprus occupying 65 percent of the total land area, and the northern part under control of Turkish-Cypriot Government, covering 35 percent of the total land area. Following this critical period the method and nature of urbanization has naturally changed on the island.

After the division of the island in 1974, there was a gradual change in the urban-rural ratio. By late 1990s, 55 percent of Turkish-Cypriot population were living in urban areas and 45 percent in rural areas. Considering the rapid urban development in the main cities in the last two decades, which was accompanied by the establishment and growth of the universities and the revival of tourism that had ceased following the period of civic conflict, the urban percentage of the population is probably about 60 percent (Oktay, 2005).

The planning system in North Cyprus is somehow imprecise. Due to enacting regulations and events that happened in 1974 and afterwards, -which has been discussed before, in-charge authorities couldn't establish an adequate and proper physical plan for North Cyprus. Hence, the lack of the contribution of national policies and/or regulatory bodies in respect of contemporary concepts on urban growth and planning -such as sustainable development, a compact cities approach, ecological concerns, etc., as well as the lack of development control over rapid urbanization, both in urban and rural settlements, constitute the two main negative inputs in relation to the development of urban environments in general, and to housing environments in particular (Hoşkara et al., 2009).In general, according to the Streets and Buildings Regulations, CAP 96; enacted in 1946, and lack of Master Plan, people were able to take building permission and construct everywhere regardless of supervisory of Town Planning Department (TPD)¹.This caused urban sprawl, and emergence of unused

¹ "The Town Planning Department (TPD) is the responsible central government authority for planning in Northern Cyprus and it is in charge of the preparation of the national physical plan, urban

spaces in cities. In particular, individual housing projects, irrespective of location, are erected without any master plan. These projects ignored the importance of environmental design, and also contribution to spaces around, which make them unattached to urban fabric.

3.1.2 Famagusta

Famagusta¹ (Latitude: 35.125 Longitude: 33.950) located on the eastern side of Cyprus island in the Eastern Mediterranean Sea, is the third largest city of North Cyprus with its population about 40920². "Today, the city of Gazimagusa is composed of four main parts: The Walled City (Old City), Aşagi Maraş (*Kato Varosha*), the Maraş (*Varosha*) region and the newly developed quarters to the north-west of the Walls"(Doratli, Hoskara, & Dagli, 2001) (Figure 3.2).

The city was an important trade and tourism center and served as a regional center before the division of island. Today, despite some restriction on its capacity due to the new circumstances of the island, the harbor still plays an important part in the trade activities of the northern region. In addition to the port, Famagusta reveals a unique experience of rapid expansion in the northern part of town, which is related neither to the usual mode of the increase in population, nor to the developing mechanization and industrialization, as in other developing countries. The main factor has been the transformation of the Higher Institute of Technology, founded in 1979, into a pioneering university (EMU); this development has led to remarkable changes in the socio-economic and demographic characteristics of the city, and uncontrolled rapid

development plans, privileged area plans controlled and supervised by planning orders under the law and all planning approvals" (Hoşkara et al., 2009).

¹ English: Famagusta, Greek: Ammóchōstos; Turkish: Gazimağusa or Mağusa, which the English name, has been chosen in this study.

² The population is according to "TRNC State Planning Organization" - http://www.devplan.org – in year 2011.

urban development in the form of multi-story housing developments scattered throughout all districts and invariably lacking appropriate environmental qualities.

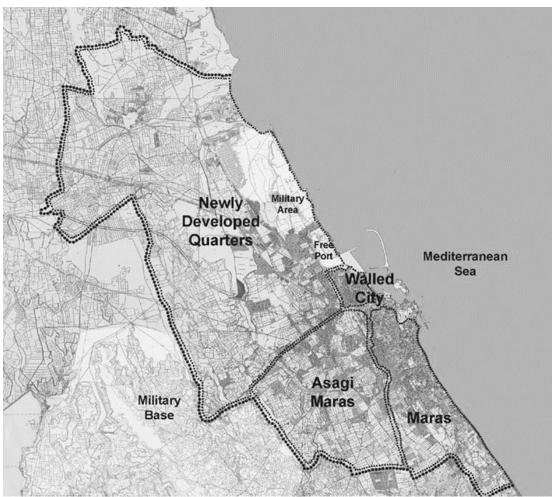


Figure 3.2: Famagusta's four main parts (Önal et al., 1999)

The Eastern Mediterranean University (EMU), with a student population of nearly 16000 from 85 different countries¹, has been a major factor in the overall development of physical, economic and social structure of the city in the last few decades (Figure 3.3).

¹ Based on census of EMU: www.emu.edu.tr



Figure 3.3: Eastern Mediterranean University aerial view (EMU, n.d)

Meantime, the city is faced with throng of new students from around the world and university staff which needed house and settlement. At that time, because of the deficiency of housing and lack of a proper master plan for the city, people started to build everywhere in the northern part. Over time, these inappropriate developments resulted in many unused and residual spaces in newly developing part of Famagusta, which can safely be named as lost spaces.

Today, Famagusta accommodates a wide diversity of residents, including the local Turkish-Cypriots, the immigrants of 1974 coming from the southern part of the island and different parts of Turkey, and university staff and student from many countries.

In new developed parts of the city which mostly developed after 1974, and moreover after the establishment of EMU in 1986, which are located on the north of old core of city, neither a planned development, nor a locally appropriate urban pattern can be observed. In all areas, the incompatible land use created by the random sprawl of commercial, recreational, and service functions on the main arteries and residential districts pervades in a disruptive fashion. Furthermore, the commercial and recreational units e.g. shops, restaurants, and etc., which are located on major streets foster traffic congestion and increase the need for parking facilities and infrastructure. In addition to these inappropriate types of development, due to absence of relevant planning policies and tools, the urban fabric in these areas are faced with a serious problem which is created by the unused building plots (Figure 3.4).



Figure 3.4: Vast unused spaces as a result of lack of a physical plan for development (Source: Author)

3.2 Lost spaces in newly developed part of Famagusta

As it has been stated before, due to the absence of a Master Plan, the rapid and piecemeal development towards the north direction takes place according to the "Streets and Buildings Regulations". Accordingly, every property which is accessible from a public road is eligible for construction. Furthermore, the insufficient taxation¹ system encourages people to keep their properties undeveloped. As a result especially in the newly developed parts of the city, Famagusta is faced with enormous amount of unused/ undesirable/ lost spaces.

¹ According to Article 20 of the Immovable Tax, No.18/2008 of the TRNC, the amount of tax for land is between 1 TL to 5 TL per square meters. www.kktcgelirvergi.net

3.2.1 Two Newly Developed Districts Under Focus (Karakol and Sakarya)

The city of Famagusta is divided into fifteen quarters. Karakol and Sakarya districts are the first newly developed districts. In this research, the main emphasis will be on this particular part of the city which mostly emerged after 1974 events and was under the pressure of development after the establishment of EMU (Figure 3.5).

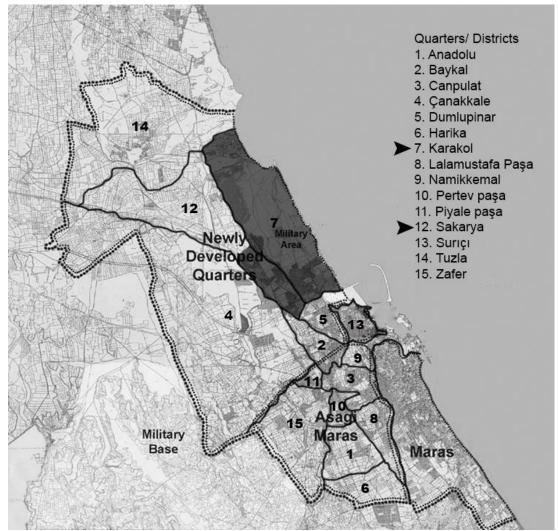


Figure 3.5: Districts of Famagusta (GoogleMaps, 2014)

Karakol district starts from 'Esref Bitlis Road' to 'EMU Beach Club' with an area of about 540 ha and the southern (Selected) part of Sakarya district which starts from Topçular Boulevard to EMU^1 with an area of about 93 ha. Hence the total study area will be about 633 ha. The selected part of Sakarya district contains, the Sakarya neighborhood itself, $UNFICYP^2$ - Sector 4 Headquarters and some social housing on the left side of case study area. Additionally, the EMU University and industrial zone belongs to this neighborhood which will be out of scope of this research.

Karakol district covers; military base³ with an area about 290 ha and it's located on the east side of the city. Also there is a lake in this area which is dry for most of the year. Moreover, this area contains Karakol neighborhood itself, Gülseren neighborhood; some part of Famagusta port which is also located on the east side; Glapsides neighborhood and beach and also EMU beach club (Figure 3.6).

¹ The EMU campus and industrial area are out of scope of the investigation of lost space.

² United Nations Peacekeeping Force In Cyprus

³ Turkish Cypriot Armed Forces - 4th Infantry Troops



Figure 3.6: Study area (GoogleMaps, 2014)

Since the planning and intervention in the military area is beyond the control of municipality, it should be noted that the total accessible area in the case study is about 334ha. Although, in the analysis, this area will be considered, the final result will be without the military area.

3.3 Methodology for the Analysis

For the evaluation of the lost spaces in Karakol and Sakarya districts, firstly, criteria has been defined (Table 3.1). This has been based on the similarities between different types of residual spaces and lost spaces determined at the end of chapter two (Page 41). Secondly, inventory forms has been prepared for the physical analysis. Thirdly, a map has been prepared for the site survey, through which all lost spaces has been determined and marked on the map according to the criteria. Finally for each lost space an inventory form has been prepared. Each form contains photo of area as well as location map and types of lost spaces which are related to that area (Appendix).

Autil01)							
	Similarities with Residual Spaces						
A Inter Zones B Fringe Areas C Infra Structural Border Zones D Expansion Areas	А	1	Leftover Spaces				
	Inter Zones	2	Residual Green Spaces				
	_	1	Leftover Spaces				
	_	2	Empty Spaces				
	T Hige Theus	3	Residual Green Spaces				
	С	1	Non Spaces				
		2	Empty Spaces				
		3	Residual Green Spaces				
	2	1	Dual-use Spaces				
		2	Empty Spaces				
		3	Leftover Spaces				
	4	Residual Green Spaces					
Geographical Voids							
Phenomenological Voids							
Functional Voids							

Table 3.1: Criteria for identification of lost spaces and negative voids (Source: Author)

Based on previous discussions about lost spaces, table 3.1 illustrates the twelve types of lost spaces which are categorized according to the types of residual spaces. These are lost spaces that are matching with residual spaces. For instance, the code D1 means, the area which is reserved for future construction, and because of lack of attention became leftover space.

3.4 Evaluation of lost spaces in Karakol and Sakarya districts

By applying the criterion to the study area, it could be understood that there are many unused spaces. These spaces which are mostly expansion areas and empty spaces, spread almost in the whole study area except the west side of the study area. These spaces and their types will further be explored to achieve the amount and the types of unused spaces in Karakol and Sakarya districts. The following analysis implemented according to Table 3.1, p.53 which is defined based on the theoretical framework in chapter two. Based on this table there are four types of lost spaces, A: Inter Zones, B: Fringe Areas, C: Infrastructural Border Zones and D: Expansion Areas, which are defined by their similarities with residual spaces. Moreover, the Gülseren Lake categorized as a geographical void which belongs to one of the three main general urban voids.

A: Inter Zones, which may become left over or residual green space. As discussed before, inter zones are spaces between buildings that are barely used by owners. These unused spaces are result of modernization and created to provide a better air circulation around the buildings according to CAP 96. But in most cases, they remain unused. According to their location, these lost spaces may become a fake green area or leftover.

B: Fringe Zones, may become also leftover spaces, empty spaces and residual green spaces. These are the lost spaces that are located between blocks or two separate lands and form the border of properties. These are also spaces that because of the absence of adequate attention turn to unused and leftover spaces, or because of their location they may become residual green spaces.

C: Infrastructural Border Zones are spaces that emerged to separate citizens from industrial growth, noises and air pollution. They usually located around the industrial sites, military areas, roads and so forth. Moreover, these non-spaces are often fenced in and have a buffer zone role. In most cases these spaces remain unused and they are consigned to nature and became residual green spaces. Also because of vast empty areas and lack of attention in terms of lighting and security these spaces (mostly in residential parts) are categorized as empty spaces.

D: Expansion Areas which cover vast areas in the study area are places that often remain for future development. These spaces which are usually un-cleared and unprotected, most of the time become a place for construction left overs. Furthermore, because of location of these lost spaces they may become a temporary parking lot or a place for illegal activities. Additionally, since these unused spaces have faced with lack of attention, they are empty spaces and sometimes they become residual green spaces. It should be noted that most of these areas have owners who left their properties unutilized.

For better addressing of these areas on the map it has been tried to divide the study area into 6 zones. The zones are just defined for finding specific areas in the study area more easily. In every zone there are several types of lost spaces which are determined according to suggested criteria. The following explanations are categorized based on every lost space types in the study area (Figure 3.7). It should be noted that all of these spaces which are explained and measured in further pages will be shown on the holistic map. Furthermore, each photo has a unique code which can be found in appendix.



Figure 3.7: Six zones in the study area (GoogleMaps, 2014)

3.4.1 Infrastructural border zones

As mentioned before, infrastructural border zones emerged to make a barrier between residential parts and industrial activities, military bases, roads, noisy, dangerous and polluted areas. According to physical analysis there are two kind of Infrastructural border zones in study area (Figure 3.9). First, infrastructural border zone which is non-space and located in power station and second, infrastructural border zone in military area which is empty space. The area around the Electric Power Station in the northern part of Zone 1 that is surrounded by vast safety zone is an example of Infrastructural border zone (1:C1-1). Whereas there are few electric towers in this area, but this area just acts as a fenced barrier between people and power station. This area with 0.67 hectare area covered with mud and weeds which no one care about and see it. As a result this is a non-space area around power station. (Figure 3.8).



Figure 3.8: Electrical power station surrounded by fenced area (1:C1-1) (Source: Author)

Another example of infrastructural border zones which now is empty, can be found in military area (3:C2-1). This area with 142 ha is located in the northern part of the military area, originally was a lake or lowland and over time became a vast and huge empty space covered with sand and mud. The area because of its role as a safety zone or barrier to protecting the military base and surrounded by fence, is categorized as

infrastructural zone. It should be noted that the area has potential to turn into a useful and positive area in order to serve the military activities.

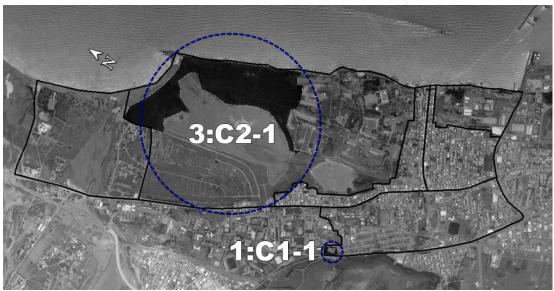


Figure 3.9: Infrastructural border zone area locations (GoogleMap, 2014)

3.4.2 Expansion Areas

As the whole study area is under control of the Municipality (except military part), it could be concluded that all of the empty spaces in the city are expansion areas and belongs to owners. Dual-use spaces, leftover spaces, residual green spaces and empty spaces are the most frequent types of lost spaces which emerged in the study area. These are the areas with potential to be built on or converted into a useful space, in fact these are the most problematic areas in the case study area. The following analysis will focus on these areas and their characteristics.

Dual-Use spaces

These empty expansion areas are turned into parking areas due to lack of parking lots in the city. According to physical analysis and site survey there are 11 dual-use spaces of different sizes (Figure 3.13). They often can be found in high density parts of the study area especially in the Karakol neighborhood. It should be considered that many empty spaces in the study area usually used as temporary parking area, but the focus of this research is on the areas which most of the time are used as parking area. For instance, the area around the Cami square is used as parking for customers of bank and other stores, and also a place for selling, buying and renting cars (1:D1-2). In Karakol neighborhood, which is one of the highest density parts of the study area in terms of population and housing, the problem of dual use spaces is easily visible (5:D1-4) (Figure 3.10).



Figure 3.10: Empty spaces used for parking (5:D1-4) (Source: Autor)

These areas as mentioned before are expansion areas which are now used as parking lot for local peoples. Distribution pattern of this sort of areas can be considered as an indication that the neighborhood suffers from lack of parking areas. It may also show that building regulations would be out of date for providing adequate parking space for construction of apartment blocks (Figure 3.11).



Figure 3.11: Buildings without parking space (Source: Author)

These expansion areas used by local people as parking-lot. This means in this areas lack of parking lot for people, made them to use this areas for parking. They are usually covered with mud and dirt and located between buildings (Figure 3.12).



Figure 3.12: Empty plot as a parking lot (4:D1-1) (Source: Author)



Figure 3.13: Dual-use space locations (GoogleMap, 2014)

Leftover spaces

These are expansion areas which remain empty after planning. Furthermore, they mostly emerged due to poor planning and usually have odd geometric shapes. In study area there are three areas which according to criteria are leftover spaces and located in zone 1 (Figure 3.15). First area is located behind the Lemar complex (1:D3-1). This area with an area about 0.36 hectare is leftover space and currently is unused and fills by mud and weeds. Second area is located close to Lemar complex and related to sport center (1:D3-2). The area emerged due to poor planning and also inaccurate placement of sport field. The outcome is vast amount of leftover space between sport fields. The third area is located in the south of zone and belongs to the building, which is under construction over many years. This area nowadays surrounded by wooden barrier and can be considered as leftover space (1:D3-3) (Figure 3.14).



Figure 3.14: Leftover space near Lemar Complex (1:D3-2) (Source: Author)

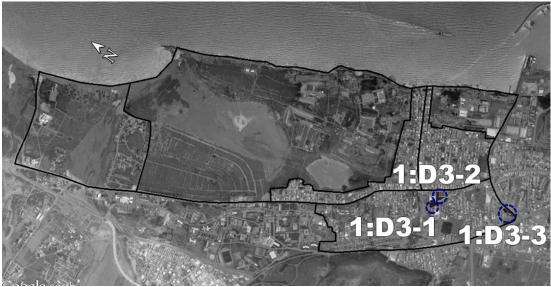


Figure 3.15: Leftover spaces location (GoogleMap, 2014)

Residual Green Space

As discussed before, the term 'residual green space' refers to lands which became natural green area over time. Based on physical analysis there are 9 areas which now are residual green space (Figure 3.20).

The eastern part of the Northern Land residential complex is one of the examples as such, which is an expansion area that turned into green space over time (1:D4-1). Also the area close to Lemar is a residual green space as well. All these areas almost have similar characteristics. They are covered with weeds and trees without design and unfortunately because of location and uncertain shape, none of them has potential to be transformed into a proper green space (Figure 3.16).



Figure 3.16: Residual green space behind the Northern Land Residential Complex (1:D4-1) (Source: Author)

Another example of residual green space is located near EMU Beach Club (2:D4-1). The area covered with trees and weeds without design. Due to its location and the amount of greenery area, this area can be transformed into a proper green space which would be utilized by EMU Beach Club and also Golden Bay Beach (Figure 3.17).



Figure 3.17: Residual green space near EMU Beach club (2:D4-1) (Source: Author)

The area around the Gülseren Lake is another residual green space which emerged due to proximity to water, this area which is located in the southern part of the Lake covered with various types of trees and self-grow plants which has no adequate designing (3:D4-1). This area can also turned into a well-designed green space for people (Figure 3.18).



Figure 3.18: Green area around the lake (3:D4-1) (Source: Author)

These seemingly green spaces are just expansion areas which over time become green space and hardly have design. The existence of these areas and also taking care of these areas by locals, shows that the neighborhood suffers from lack of green area and people try to upkeep these green areas. However it should be noted that because of lack of design and planning, they become a place for stray animals and rats (Figure 3.19)



Figure 3.19: Residual green space in Karakol neighborhood (5:D4-3) (Source: Author)

The green area in Famagusta Free-Port which emerged due to weather condition like humidity and proximity to the sea are the expansion areas which are left empty and became green space. Because of their location it's hard to assume a proper planning for them and in fact they are residual spaces which reduce the density of useful space in the Free-Port zone.

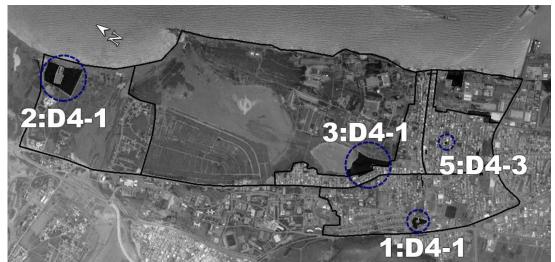


Figure 3.20: Residual green spaces location (GoogleMap, 2014)

Empty spaces

This type of lost space is the most visible problem in case study. Even dual used spaces which are discussed before are kind of empty spaces that are now used as parking lot. This particular type of lost space dominates the whole study area. In fact they can be found in the whole city. According to physical analysis there are 73 expansion areas in study area (Figure 3.26). Due to similarities between many of these areas in terms of aspects and properties, especially in Karakol neighborhood, the following analysis will encompass a few samples of each area. The rest of the areas and their photos can be found in appendix.

As the analysis shows there are several vast amount of unutilized and empty spaces in Sakarya district. These are areas that due to lack of master plan and also lack of accessibility turned into unused and undeveloped areas. It should be noted that in some parts local peoples use these areas for agricultural purpose (Figure 3.21). Furthermore, these areas which are currently used by people as a shortcut, during the night because of lack of lighting are dark and without sense of security.



Figure 3.21: Empty area used for agricultural purpose (1:D2-8) (Source: Author)

Additionally, these areas are used as places for construction leftovers. In fact there are some vast empty areas that are surrounded by other building and makes huge gaps in the middle of the built-up areas. In residential parts there are many lands which remain unutilized, these are areas which supposed to be built but kept by the owner for future developments or just left idle (Figure 3.22).



Figure 3.22: Empty spaces used for construction leftovers (1:D2-15) (Source: Author)

In the northern part of study area there are vast amount of empty spaces. These areas which are empty expansion areas covered more than 80% of the Glapsides neighborhood and also EMU facilities (Beach Club and EMU Congress Center). The majority of these areas are empty lowland between Sea and main road. Also, the Glapsides neighborhood in now somehow under developed and most of it remains empty and unutilized. These expansion areas today became empty spaces (2:D2-3).

In military area as the satellite images illustrates, northern part was meant to be a residential neighborhood with access to the main public road, but eventually turned into an unused and empty space. The area has also streets and is divided into blocks. Today this area is covered with mud and weeds (3:D2-1).

In Gülseren neighborhood like in other discussed areas, empty areas originally are expansion areas which are located between buildings and blocks. They would have been kept either for future development or due to financial problems just left unutilized. Their specifications in terms of situation and function are the same. They are covered with mud, dirt and weeds, and in some places they became place for construction leftovers (Figure 3.23).



Figure 3.23: Expansion areas in Gülseren neighborhood (4:D2-2) (Source: Author)

In Karakol neighborhood in every streets at least two or three empty spaces can be found, and usually these areas are filled with mud and dirt and in some places construction leftovers (Figure 3.24, 25).



Figure 3.24: Construction leftovers in empty spaces (5:D2-15) (Source: Author)



Figure 3.25: Empty spaces along the streets (5:D2-1) (Source: Author)

In northern part of Famagusta Free-Port, according to satellite images there are many spaces without any planning or development, they are empty land that are kept for future development and currently they are used as place to deposit cargo containers. These areas have potential to be turned into useful spaces (6:D2-1).

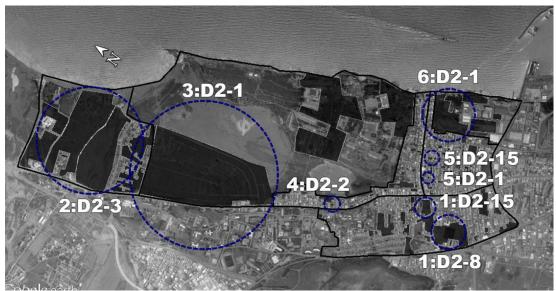


Figure 3.26: Empty expansion areas location (GoogleMap, 2014)

3.4.3 Geographical Void

The Gülseren Lake is the only geographical void in study area and located almost at the center of the study area with 78.7hectare area. The area around the lake is covered with weeds and self-growth plant. Because of situation of lake which is almost dry in warm seasons there are mosquitos which disturb people. The lake itself has a potential to be designed as recreational area for local people (Figure 3.27, 28).



Figure 3.27: Gülseren Lake (Source: Author)



Figure 3.28: Gülseren Lake location (GoogleMap, 2014)

3.4.4 Summary of Findings

As the analysis shows, beside the problem of empty spaces in the study area, there are some other problems which have negative effects on daily lifestyle of citizens:

- Lack of Green space
- Lack of Accessibilities (in particular in Sakarya districts)
- Lack of Parking-lot

Based on the analysis, the majority of lost spaces in terms of density is in the Karakol neighborhood. This area which has high density in number of buildings, suffers from fragmentation. As mentioned before, the empty spaces can be found almost in every streets of this neighborhood. These are areas which has to be considered in future development of the city.

By evaluating the inventory forms and extracting the amount of unutilized/ undesirable/ unused spaces in the study area and by considering the amount of these spaces, it could be understood that about 50% of this area –including military area- is unused space, which in itself is an urban disaster (Table 3.2).

	Туре	Amount: Hectare	Amount %	
C1	Infrastructural Border Zone: Non-space	0.68	0.11%	
C2	Infrastructural Border Zone: Empty space	78.56	12.6%	
D1	Expansion Areas: Dual-use space	1.08	0.17%	
D2 Expansion Areas: Empty Space		167.75	26%	
D3	Expansion Areas: Leftover Space	1.01	0.16%	
D4	Expansion Areas: Residual Green Space	28.33	4%	
GV	Geographical Void	78.7	10.8%	
	Total Unused Space	355.88	54%	
	Study Area	633.89		

Table 3.2: The amount of total unused spaces (Source: Author)

Table 3.3: The amount of total unused spaces without mili

	Туре	Amount: Hectare	Amount %
C1	Infrastructural Border Zone: Non-space	0.68	0.11%
D1	Expansion Areas: Dual-use space	1.08	0.17%
D2	Expansion Areas: Empty Space	114.35	18.0%
D3	Expansion Areas: Leftover Space	1.01	0.16%
D4	Expansion Areas: Residual Green Space	28.33	4%
GV	Geographical Void	14.54	2.29%
	Total Unused Space	148.98	24%

By comparing two tables of 3.2 and 3.3, it can be concluded that about 24% of accessible area of the study area is unused (Table 3.3, Figure 3.29).

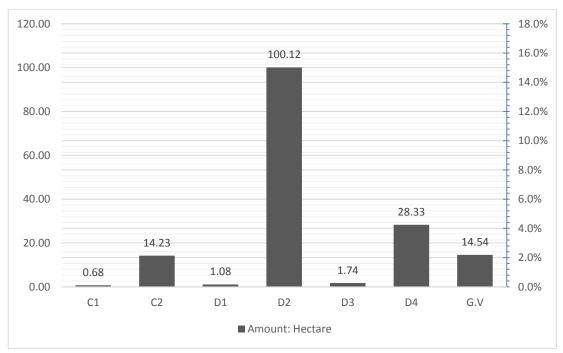


Figure 3.29: Visualization of analyzed unused spaces in study area without military area (Source: Author)

Despite that the total of study area is 633.89 ha, the unused spaces covers about 355 ha. As mentioned before, the military area is beyond the power of the Municipality in terms of design and intervention. So, by subtracting the unused spaces of military area which is about 206ha from total unused spaces, the result will be about 150ha.

As the chart (Figure 3.29) reveals, the newly developed part of Famagusta suffers from a vast amount of 'empty expansion areas', which is about 100 ha. These areas which emerged due to lack of Master Plan and also lack of proper accessibilities require more attention by the in charge authorities to prevent these problems in future development. Most of the areas that emerged due to lack accessibilities are located in Sakarya districts. They are vast areas which are surrounded by buildings and currently are covered with muds and dirt (Figure 3.30).



Figure 3.30: Vast empty area without accessibilities (1:D2-8) (GoogleMap, 2014)

Moreover, the study area suffers from lack of green space. For instance, the only parks in Karakol neighborhood has no lawn or green area for local people (Figure 3.31). In should be noted that, the lack of green space is not just for Karakol neighborhood but also in the Sakarya district (Figure 3.32) as well as the whole study area.



Figure 3.31: A public park in Karakol neighborhood (Source: Author)



Figure 3.32: A public Park in Sayarya district (Source: Author)

According to analysis, about 30 ha of case study area is residual green space, but there are only two designed green space (Local Park) in the study area with an area about 1.16ha (11600 m^2) (Figure 3.33).

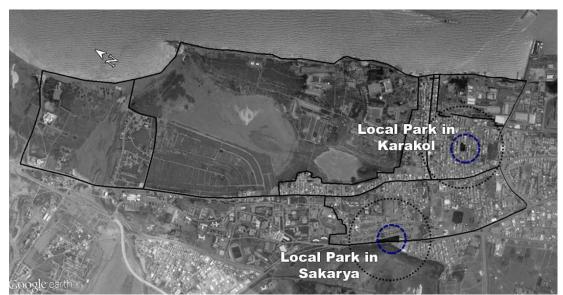


Figure 3.33: Designed green space (Park) in study area (GoogleMap, 2014)

The World Health Organization (WHO)¹, in its concern for public health, produced a document on the subject stating that every city should have a minimum of 9 m^2 of green space per person. An optimal amount would sit between 10 and 15 m^2 per person. As the population of study area (Karakol 7046 and Sakarya 7647) is about 14693² it could be concluded that the study area falls short (currently there is 1.2 m^2 for each person in study area). The problem worsens when the population continues to grow, but new green spaces are not being created at an equal pace. As it has been mentioned in the previous lines the amount of residual green spaces in the study area is about 30ha, all of which cannot be used and transformed into designed green space. It should be noted that the minimum amount of green space for study area based on WHO recommendations is about 14693 x $9 = 132237 \text{ m}^2$ (13.23ha). Furthermore, based on 'Standards for Outdoor Recreational Areas'³ the maximum distance from local parks must be 400m (Doted circles on the map), and most of the study area has no proper access to each of two parks. It should be noted that even each mentioned parks according to standards² (4000m² for 1000 person) are less than minimum. Currently for each person there is 0.78 m^2 green space in study area.

Additionally, as the analysis and photos shows, the study area suffers from lack of parking area, this problem caused that people park their car in empty spaces or on the sidewalks. Also due to inadequate provisions is regulations, as mentioned before, most of the buildings were built without adequate parking area. The total amount of empty areas which turned into dual use space as parking area is about 1ha. This means with

¹ www.who.int

² According to census in 2011

³ www.planning.org

growth of population and increasing the amount of cars, city will be faced with serious problems in terms of parking lots and heavy traffic.

Chapter 4

CONCLUSION AND RECOMMENDATIONS

As mentioned earlier, this research is an attempt to 'Evaluate the Lost Spaces in Karakol and Sakarya Districts of Famagusta'. Not only the newly developed parts of Famagusta which mostly emerged after 1974 events, but also the older parts suffers from lack of adequate planning.

The aim of this research as mentioned in chapter one, is finding, evaluating and analyzing the lost spaces in Famagusta.

These problems in planning happened by two main reasons, firstly: by enacting 'Streets and Buildings Regulations' in 1946 which still is implemented in North Cyprus, and secondly: by foundation of Eastern Mediterranean University in 1979. By enacting the mentioned regulations, which allows people to build every place that has access to roads and public networks; the face of cities has changed. Everybody likes to build near the main roads, and space between roads almost remains empty. After 1974, when the island was divided into two parts, south part of city has been abandoned and development of the city necessarily directed to the north. After the foundation of University in 1979 in northern part of Famagusta, the face of city suddenly changed. New students and university staff needs accommodations and homes, therefore, local people started to build around the University. Nevertheless, because of lack of master plan the development process almost happened around the two main roads of city

(Salamis Road and Gazi Mustafa Kemal Boulevard), the spaces between these roads as the analysis shows are almost empty.

Beside all planning problem in Famagusta, the low rate of taxation on idle and unutilized lands, is another reason that accelerates the emergence of lost spaces in the city. This means, according to TRNC Ministry of Finance, Revenue and Tax Office, the tax rate for lands is about 1 to 5 TL on every square meter. Due to this low taxation rate many owners can keep their lands unutilized. And also lack of rules and regulations against the owners who keep their lands unutilized, is another reason to make city fragmented.

The research used qualitative and quantitative research methods. It has been tried to use previous theories and researches about lost space by comparing the scholars' ideas in this matter to find and define a proper criterion.

To identify this criterion (Table 2.2, p 41), it has been tried to study the aspects and similarities of remarkable unused spaces types such as residual spaces and lost spaces. By comparing these problems (Table 3.1, p53), the result was twelve types of lost/unused spaces which originating from similarities between lost space and residual space.

The study area as mentioned before is selected from newly developed parts of Famagusta, Karakol district and Sakarya district with total area about 633ha. These two districts emerged almost after 1974 events and contain: military area, UN camp, EMU, Industrial area and residential areas.

By applying the criteria to study area, as (Table 3.2, p.73) shows, more than 60% of the city is unused, misused or underutilized. This amount of space is including the military area, which is beyond the power of the Municipality to design or make any intervention. By excluding military area which is about 290ha from the result, the total accessible unused/lost space area is 23% or about 150ha (Table 3.3, p74).

Famagusta suffers from the lack of 'Master Plan'. This means, all these unused and misused spaces which are spread through the city emerged because of lack of a proper master planning and management. Through analyzing the results of unused urban lands in the two districts of Famagusta it could be understood that the lack of Master Plan has how much impacts on the study area:

- Emergence of lost spaces and unused spaces
- Lack of green areas and recreational places
- Lack of parking lots
- Lack of accessibilities (which has impact on emergence of lost spaces)

Since the all of these problems are connected together the following analysis will examine them as a whole. It should be noted that the military area is not concluded.

• About 100ha of study area is expansion areas which remain empty, and this problem occurs almost in the whole study area. To avoid these kinds of problems, in charge authorities must enact some rules against the owners who keep their properties undeveloped and empty. Additionally, these areas as mentioned before mostly are expansion areas which turned into empty space, because of lack of accessibility. However, some parts of these empty areas are utilized as agriculture land by citizens. Most of these areas suffers from lack of

lighting and security during the night and needs for attention of local authorities.

- Moreover, about 1 ha of these expansion areas are turned into parking lots by local citizen which is in need to be considered by Municipality for either transforming them into proper parking areas or other appropriate uses.
- Gülseren Lake with an area about 14.5ha, is located at the center of the Karakol district. This lake which more or less is dry during warm seasons, is just geographical void that suffers from lack of attention. This area because of its location could be used as a recreational area for the citizens.
- Furthermore, as discussed before, lack of green areas in study area is easily visible and study area at least needs 13 ha designed green area which now it's only about 1.16 ha or in other hand instead of at least 9m² for each person it is 1.2 m². In charge authorities must consider this problem in future developments and also they have to be aware about distance between each local parks which is not more than 400m (¹/₄ mile).

Based on reasons and evaluation on case study, three solutions are recommended which over time we will see progress in reducing the amount of empty spaces in Famagusta:

- 1 Design and implementing holistic Master Plan for city.
- 2- Raising the tax rate on idle and unutilized lands.
- 3- Enacting the rules and regulations against owners who keep their lands empty.

For improving the quality of life of citizens it's recommended to:

1. Designing parking lots and parking areas in high density spots of study area

 Designing and transforming the green areas as local parks in distance less than 400m.

The whole idea of this research is evaluating and analyzing lost spaces/ unused/ misused and understands the reasons behind. This research is a beginning for those who want to design better cities. Moreover, this study will help to enthusiastic students and also Famagusta Municipality to study on findings of this research and use them as a guide line to solve the problems of this city regarding the unused spaces. It should be noted that the criteria which was defined in this research is not just limited to Famagusta, but can also be applied on other cities like Famagusta.

REFERENCES

- Adam, R. (2009). Traditional Urban Design. 2013. Retrieved from Adam Architecture website: http://www.adamarchitecture.com/publications/articles-papers/arttrad-urban-des-mar09.htm
- Administration, U. F. H. (1977). America's highways, 1776-1976: a history of the Federal-aid program: U.S. Dept. of Transportation, Federal Highway Administration : for sale by the Supt. of Docs., U.S. Govt. Print. Off.
- Alexander, C. (2011). The Fifteen Fundamental Properties of Wholeness. Retrieved 5.4.2014, from http://www.tkwa.com/fifteen-properties/
- Alker, S., Joy, V., Roberts, P., & Smith, N. (2000). The definition of brownfield. *Journal of Environmental Planning and Management*, 43(1), 49-69.
- Andeson, S., Architecture, I. f., & Studies, U. (1978). On Streets: MIT Press.
- Anon. (1987). *A review on Lost Space* (Vol. 19). United States of America: American Bar Association.
- Anon. (1991). Cyprus-Urbanization and Occupational Change. Retrieved 22.6.2014,
 2014, from http://www.mongabay.com/history/cyprus/cyprusurbanization_and_occupational_change.html

- Anon (Photographer). (2010). *Summer in Nashville* [Image] Retrieved 5.7.2013, from http://www.southnashvillelife.com/
- Anon. (2012). Piazza Nova. Retrieved 15/11, 2012, from https://www.courses.psu.edu/arch/arch316_clg15/lec07.html
- Anon (Photographer). (n.d). *Leftover spaces between intersections and highways* [Photograph] Retrieved, from http://ookaboo.com/o/pictures/picture/25143574/altAerial_photo_of
- Australia, U. o. W. (n.d). Definition: Residual Green Spaces. Retrieved 5.12.2014, 2014, from http://www.postool.com.au/cbeh/pos/faq/faq_framework_residual/
- Bauman, Z. (2001). Uses and Disuses of Urban Spaces. In B. Czarniawska-Joerges &R. Solli (Eds.), Organizing metropolitan space and discourse. Copenhagen:Liber Abstrakt.
- Berger, A. (2007). *Drosscape: Wasting Land Urban America*: Princeton Architectural Press.
- Bing (Cartographer). (2013). Silicon Valley. Retrieved from http://www.bing.com/maps/
- Bowman, A. O. M., & Pagano, M. A. (2004). *Terra Incognita: Vacant Land and Urban Strategies*: Georgetown University Press.

- C.M, P. (Photographer). (2004). *Ex Aeropuerto Los Cerrillos* [Photograph] Retrieved 5.6.2014, from http://farm8.staticflickr.com/7146/6402720855_2251b52d56
- Carmona, M. (2003). *Public Places Urban Spaces*. United Kingdom: Taylor & Francis.
- Coelho, R. (2012). *Designing public space in rebuilding the city without a plan: the example of the redevelopment of the Central Area of Cacém.* (PhD), Universidade do Porto.
- Corbusier, L. (1925). Plan voisin Retrieved 6.5.2013, 2014, from http://www.fondationlecorbusier.fr/

Corbusier, L. (1987a). The City of To-morrow and Its Planning: Dover.

- Corbusier, L. (1987b). The City of To-morrow and Its Planning (pp. 116-118). New York: Dover.
- Dalai (Photographer). (2009). One empty parking lot [Photograph] Retrieved 4.3.2014, from http://www.giantbomb.com/profile/dalai/blog/the-giant-bombcommunity-living-image/19257/?comment_page=3
- Doratli, N., Hoskara, S., & Dagli, U. (2001). Revitalising the Walled City of Gazimagusa (Famagusta). *Open House International*, 26(1), 42-59.

- EMU. (n.d). Eastern Mediterranean University Areal View. Retrieved 23.6.2014, 2014, from http://ww1.emu.edu.tr/
- Falconer, J., Liu, G., Lambert, G. R., & Co. (1987). A Vision of the Past: A History of Early Photography in Singapore and Malaya : the Photographs of G.R. Lambert & Co., 1880-1910. In Capture.JPG (Ed.): Times Edition.

Gehl, J. (2011). Life Between Buildings: Using Public Space: Island Press.

- GoogleMaps. (2014). Field Study. Retrieved 24.5.2014, 2014, from https://www.google.com/maps/@35.1457677,33.9190047,14z?hl=en
- Hall, P. A. (2010). *The Post-Industrial Urban Void / Rethink, Reconnect, Revive.* (Master of Architecture), University of Cincinnati, United States of America.
- Hoşkara, Ş. Ö., Çavuşoğlu, B. T., & Öngül, Z. (2009). Legal Frameworks and Housing Environments in North Cyprus. *METU JOURNAL OF THE FACULTY OF* ARCHITECTURE, 26(1), 81-100.
- I-70 (Photographer). (n.d). *I-70 Highway* [Photograph] Retrieved 3.4.2014, from https://www.fhwa.dot.gov/policy/otps/rowstudyproj.htm
- I-105 (Photographer). (1987). *Interstate California Norwalk* [Photograph] Retrieved 4.5.2013, from http://www.dot.ca.gov/interstate/timeline.htm

- I-110 (Photographer). (1958). *Traffic on the Harbor Freeway* [Photograph] Retrieved 5.3.2013, from http://www.dot.ca.gov/hwy50/
- Jackson, K. T. (1985). *Crabgrass Frontier: The Suburbanization of the United States*. New York: Oxford University Press.
- Jacoby, E. (Photographer). (n.d). *Federal Reserve Bank* [Photograph] Retrieved 3.7.2013, from www.b-lanza.com
- Kieffer, P. V. (1919). Wreck. Retrieved 4.5.2013, from http://www.archives.gov/
- Kobel, M. (2010). RetroFILL: residual spaces as urban infill. (Master of Architecture), Massachusetts Institute of Technology, United States of America.
- Kohn, M. (2004). Brave New Neighborhoods: The Privatization of Public Space.United Kingdom: Taylor & Francis Books, Inc.

Krier, R. (1979). Urban space: Rizzoli International Publications.

Matsumoto, H. (Photographer). (n.d). *California, famous Hollywood sign, aerial view* [Photograph] Retrieved 3.4.2014, from http://www.gettyimages.com/detail/photo/california-famous-hollywood-signaerial-high-res-stock-photography/107741560

- McAndrew, W. P. (2007). Brownfield Cause and Effect Analysis. United States: Penn State Erie, The Behrend College.
- Murthy, M. N. (2010). URBAN VOIDS and the Process of the Interstitial. (Master of Architecture), University of Cincinnati, United States of America.
- Oktay, D. (2002). The quest for urban identity in the changing context of the city: Northern Cyprus. *Cities*, 19(4), 261-271. doi: http://dx.doi.org/10.1016/S0264-2751(02)00023-9
- Oktay, D. (2005). Cyprus: the south and the north. In R. van Kempen, M. Vermeulen,A. Baan & E. I. f. C. U. Research (Eds.), Urban Issues and Urban Policies in the New EU Countries: Ashgate.
- Önal, Ş., Dağli, U., & Doratli, N. (1999). The urban problems of Gazimagusa (Famagusta) and proposals for the future. *Cities*, 16(5), 333-351. doi: 10.1016/S0264-2751(99)00031-1
- Rojas, A. (2009). Urban Voids in medium size Chilean cities. Retrieved 5.1.2014, 2014, from http://vagueterrain.net/journal13/andrea-rojas/01
- Safdie, M., Kohn, W., & Books, B. (2009). The City After The Automobile: An Architect's Vision: Westview Press.

- Shojaee far, M. (2011). An Evaluation on Sustainable Brownfield Regeneration Opportunities in periphery Area of Nicosia Buffer Zone. (Unpublished Master thesis), Eastern Mediterranean University, Famagusta, Cyprus.
- Solomon, J. D. (2004). 13 Projects for the Sheridan Expressway: A.k.a. Jump, Slump, Hump, Bump-Guide Specifications for a Post-Fordist Infrastructure *Pamphlet architecture* (Vol. 26). New York: Princeton Architectural Press.
- Stefanos, F. (Photographer). (2004). *Famagusta Sea Front* [Photograph] Retrieved, from

Stevenson, D. (2003). Cities And Urban Cultures: McGraw-Hill Education.

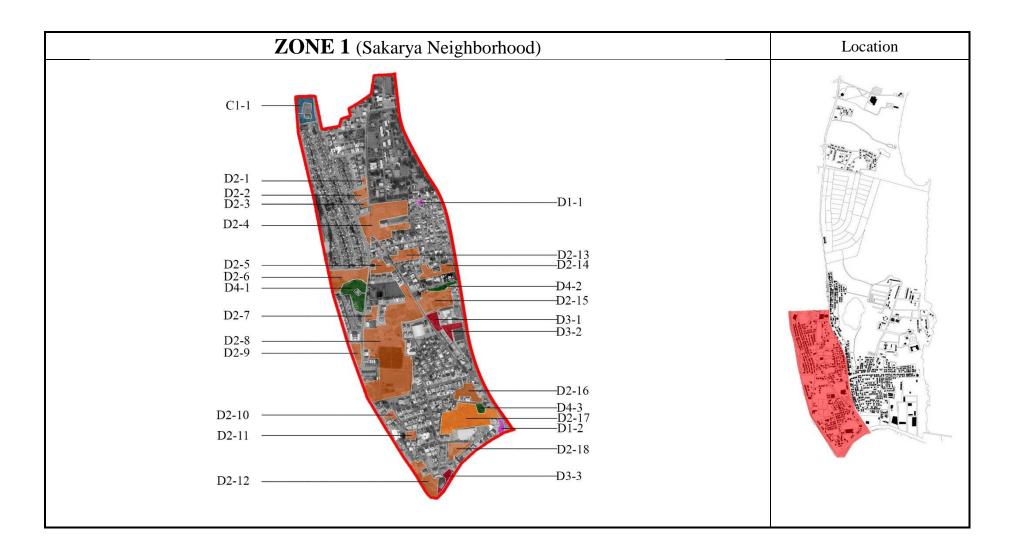
Summers, J. (2014). Brown field site aerial. Retrieved 3.4.1014, 2.14

- Tammaro, F., Ingold, L., & Lafranchi, G. (2010). *HighwayIng: Lukas Ingold & Fabio Tammaro*: Springer.
- Taylor, M. C. (2003). The Moment of Complexity: Emerging Network Culture: University of Chicago Press.
- Tibbalds, F. (2002). Making People-Friendly Towns: Improving the Public Environment in Towns and Cities: Taylor & Francis.

Tiesdell, S., & Carmona, M. (2012). Urban Design Reader: Taylor & Francis.

- Torre, S. (2000). Climing the Public Space: The Mothers of Plazza de Mayo. In J.Rendell, B. Penner & I. Borden (Eds.), *Gender Space Architecture: An Interdisciplinary Introduction* (pp. 140). London: Routledge.
- Trancik, R. (1986). *Finding Lost Space: Theories of Urban Design*. United States of America: Van Nostrand Reinhold.
- Wikström, T. (2005). Residual space and transgressive spatial practices the uses and meanings of un- formed space. *Nordisk Arkitekturforskning*, *1*.

APPENDIX



Zone1: Sakarya District Code: 1:C1-1			Code: 1: C1-1	Area (Hectare): 0.68	Currently Function: Area around the Electric Power Station
Location on map					
	Similarities with Residual Spaces				
	А	1 🗌 Leftover Spaces		 Located on the south of the EMU The area used as safety zone for electric power station Surrounded by fence Approximate area is about 0.68 ha The area covered with weed and mud 	TALL IN CASE AND
	Inter Zones	2 🛛 Residual Green Sp	aces		etric b a teleficit a la constante de la constant
		1 🗆 Leftover Spaces			
ces	B Fringe Areas	2			
Spa	Fringe Areas	3 🗌 Residual Green Sp	aces		
lost	С	1 Non-Spaces			
Types of Lost Spaces	Infrastructural Border Zones	2			
		3	aces		
	D Expansion Areas	1 Dual-use Spaces			
		2			
		3 🗆 Leftover Spaces			The second dates
		4 🛛 Residual Green Sp	aces		
	Geographical Voi				
	Phenomenological	Void			
	Functional Void				

Zone	1: Sakarya Dist	rict		Code: 1:D2-1,2,3	Area	(Hectare): 0.5	Cu	Irrently Function: Empty and Unused
			Location on ma)		- relation	att and the	
	Similarities with Residual Spaces					• Located on the South of	the UN camp	
	А	1	□ Leftover Spaces			 Surrounded by streets 	the Ory camp	
	Inter Zones	2	□ Residual Green Sp	aces		 All three areas covered with mud, dirt an in some parts weeds. They were expansion areas which now as unused and empty They emerged because of lack planning okept for future developments 	d	
		1	□ Leftover Spaces					
ces	B	2	Empty Spaces				eas which now ar	are
Spaces	Fringe Areas	3	Residual Green Sp	aces			£ 11	
ost	С	1	□ Non-Spaces					ing or
of Lost	Infrastructural	2	Empty Spaces			kept for future developin	lents	
Types	Border Zones	3	Residual Green Sp	aces				
$\mathbf{T}_{\mathbf{y}}$		1	Dual-use Spaces					
	D	2	Empty Spaces					
	Expansion Areas	3	□ Leftover Spaces					
	Theus	4	🛛 Residual Green Sp	aces				
	Geographical Voi							
	Phenomenological	Vo	id					
	Functional Void							

Zone	1: Sakarya Dist	rict	Code: 1:D2-4	Area (Hectare): 2.7	Currently Function: Empty and Unused			
		Location on m	ap					
*								
		Similarities with Resid	lual Spaces	Located on the South of t	the UN camp			
	A Inter Zones	1 □ Leftover Spaces 2 □ Residual Green S	paces	 With an area about 2.7 ha Currently unused 				
		1 🗌 Leftover Spaces	•	Covered with mud, dirt, i				
Spaces	B Fringe Areas	2		weeds and construction le				
t Spi	T Thige Theus	3 🗆 Residual Green S	Spaces	People use this area as a s the other side	shortcut to reach			
Lost	С	1 🗆 Non-Spaces		Lack of lightings and sect	curity during the			
of	Infrastructural	2		nigh				
Types	Border Zones	3 🗆 Residual Green S	paces	Lack of proper road or st				
Ĥ	D	1		Lack of accessibility to th	he center part of			
	Expansion	2 Empty Spaces		areaEmerged due to lack of place	lanning or kept for			
	Areas	3 □ Leftover Spaces 4 □ Residual Green S	naces	future developments.	Maining of Kept for			
	Geographical Voi		ppaces					
	henomenological							
	Functional Void			-11				

	Location on map		
		A Constant of the second secon	
A 1 Inter Zones 2 B 2 Fringe Areas 3 C 1 Fringe Areas 3 C 1 Infrastructural 2 Border Zones 3 D 2 Border Zones 3 Areas 4 C 1 D 2 Expansion 3 4 D 2 Expansion 3 4 D 2 D 2 D 2 Sold 1 D 2 Expansion 3 4 D 2 D 2 D 2 D 2 D 2 D 2 D 2 D 2 D 2 D 2	 □ Leftover Spaces □ Empty Spaces □ Residual Green Spaces □ Non-Spaces □ Empty Spaces □ Empty Spaces □ Dual-use Spaces □ Dual-use Spaces □ Empty Spaces □ Leftover Spaces □ Residual Green Spaces □ Leftover Spaces □ Residual Green Spaces 	 Located between three streets There is no access to center of the are Covered with mud, dirt and in some p with weeds Emerged due to lack of planning or k future developments. 	arts

Zone	1: Sakarya Dis	trict	Code: 1:D2-6	Area (Hectare): 1.29	Currently Function: Empty and Unused
ł		Location on n	hap		
	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Voi Phenomenological Functional Void		Spaces Spaces Spaces	 Expansion area without Approximate area is about Covered with dirt, mud, construction leftovers Have access to main roat Emerged due to lack of future developments. 	out 1.20 ha , weeds and ad

a District Code: 1:D4-1	Area (Hectare): 1	Currently Function: Residual Green Space
Location on map		
Similarities with Residual Spaces1 Leftover Spaces 2 Residual Green Spaces 1 Leftover Spaces 2 Empty Spaces 3 Residual Green Spaces 1 Non-Spaces 1 Non-Spaces 2 Empty Spaces 3 Residual Green Spaces 2 Empty Spaces 3 Residual Green Spaces 3 Residual Green Spaces 2 Empty Spaces 3 Leftover Spaces 3 Leftover Spaces 4 Residual Green Spaces al Void	 Located behind the Nor residential complex Approximate area is abo Covered with trees, selfweeds Lack of plan for green p Lack of proper accessibilities Emerged over time and b planning 	eut 1 ha egrow plants and arts ility to center of
2 □ Empty Spaces 3 □ Leftover Spaces 4 ⊠ Residual Green Spaces		

Zone	1: Sakarya Dis	trict	Code: 1:D2-7	Area (Hectare): 0.26	Currently Function: Unused and empty
	R.	Location on ma			
*					
		Similarities with Residu	al Spaces	• Located behind the Northern Land	
	A Inter Zones	1 □ Leftover Spaces 2 □ Residual Green Sp	2025	residential complexApproximate area is about 0.26 ha	
		$\begin{array}{c c} 2 & \square & \text{Residual Oreen Sp} \\ \hline 1 & \square & \text{Leftover Spaces} \end{array}$		 Approximate area is about 0.20 ha Having access to streets from North 	and
ces	В	2 □ Empty Spaces		West side	
Types of Lost Spaces	Fringe Areas	3	aces	Covered with mud and dirt	
lost	С	1		Currently unused and vacantLack of accessibility to center part	
ofI	Infrastructural	2		 Emerged due to lack of planning or l 	kept for
'pes	Border Zones	3	aces	future developments.	
Ty		1 Dual-use Spaces			
	D Expansion	2 Empty Spaces			
	Areas	3 🗆 Leftover Spaces			C. Mar . al
		4 🛛 Residual Green Sp	aces		
	Geographical Voi				
	henomenological	Void			
	Functional Void				

Zone	• 1: Sakarya Dis	trict	Code: 1:D2-8	Area (Hectare): 7.65	Currently Function: Unused and empty			
4		Location on ma	ap					
	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Voi		paces	 Located behind Magusa Arena Approximate area is about 7.65 Covered with mud, construction and weeds Lack of accessibility to center of vehicles Currently is empty and unprotect Emerged because weak linkage thus remained without construct as lack of planning or kept for f developments People use this area as a shortcut 	n leftovers of area for cted to roads, tion as well uture			
	Phenomenological Functional Void	l Void			APPlanter 20 10 10 10			

Zone	e 1: Sakarya Di	stri	ct	Code: 1:D2-9	Area (Hectare): 0.32	Curren	tly Function: Unused and empty		
			Location on map)						
	Similarities with Residual Spaces					Located in front of Kaliland district				
	A Inter Zones	1	□ Leftover Spaces		•	Approximate area is about 0.32 ha				
		2	□ Residual Green Spaces		•	Currently unused and emptyCovered with dirt and mud				
		1	□ Leftover Spaces		•			28		
ses	B Fringe Areas	2	□ Empty Spaces		•	Have access to public roads from for				
Spac	Finge Areas	3	□ Residual Green Spaces		•	Emerged because of lack of plannin	ig or			
lost	6	1				kept for future developments				
l jo :	C Infrastructural	2	Empty Spaces					the state of the s		
Types of Lost Spaces	Border Zones	3	Residual Green Spaces							
Ţ		1	Dual-use Spaces							
	D	2	Empty Spaces							
	Expansion Areas	3	□ Leftover Spaces							
		4	Residual Green Spaces							
	Geographical Void									
	Phenomenological	Voic	1							
	Functional Void									

Zone	e 1: Sakarya D	istri	ict	Code: 1:D2-10,11		Area (Hectare): 0.17, 0.19Currently Function: Unused and empty
	× V		Location on maj	p		
	A Inter Zones	1	Similarities with Residual	I Spaces		These areas located in Hurriyet St. and Turnalar St.
Spaces	B Fringe Areas	2 1 2 3	 Residual Green Spaces Leftover Spaces Empty Spaces Residual Green Spaces 			 Approximate area of these spaces are 0.17, 0.19 ha Both areas covered with mud and dirt Both of them are unused and remain empty
Types of Lost Spaces	C Infrastructural Border Zones	1 2 3	□ Non-Spaces			They emerged because of lack of planning for construction or kept for future developments
	D 1 □ Dual-use Spaces 2 Image: Empty Spaces 2 3 □ Leftover Spaces 4 □ Residual Green Spaces					
	Phenomenological Functional Void	Voi	d			

Zone	e 1: Sakarya Di	stri	ct	Code: 1:D2-12		Area (Hectare): 1		Currently Function: Unused and empty		
			Location on maj	2						
	Similarities with Residual Spaces			Spaces	1	• Located on intersection of	Topoular			
	A Inter Zones	1	□ Leftover Spaces			Boulevard. and Gazi Musta				
		2	□ Residual Green Spaces			Boulevard.				
		1	□ Leftover Spaces			• Approximate area is about				
ses	B	2	Empty Spaces			• Covered with mud, dirt, weeds and construction leftovers	eeds and			
Spac	Fringe Areas	3	Residual Green Spaces							
lost		1	□ Non-Spaces			 Have good access to public Mustafa Kemal Blvd.) 	c road (Ga			
t of I	C Infrastructural	2	Empty Spaces		ĺ	 Currently remain empty du 	ie to lack o	of		
Types of Lost Spaces	Border Zones	3	Residual Green Spaces		1	planning or just kept for fu				
T		1	Dual-use Spaces			developments				
	D .	2	Empty Spaces		1					
	Expansion Areas	3	□ Leftover Spaces							
	Aicas	4	□ Residual Green Spaces		1					
	Geographical Voic	l								
\Box F	Phenomenological	Voi	d							
	Functional Void									

Zone	e 1: Sakarya Di	stri	ct	Code: 1:D1-1	Area (Hectare): 1	Currently Function: Unused and empty
*			Location on map			T TASIMA ABAR
aces	Similarities with Residual Sp A 1 Inter Zones Inter Zones 2 Residual Green Spaces 1 Inter Zones Inter Zones 2 Residual Green Spaces 1 Inter Zones Inter Zones 2 Residual Green Spaces 1 Inter Zones Inter Zones 2 Empty Spaces		al Spaces	area as a parkingCovered with much	a is about 0.1 ha ty but local people use this	
Types of Lost Spaces	C Infrastructural Border Zones D Expansion Areas	3 1 2 3 1 2 3 4	 Non-Spaces Empty Spaces Residual Green Spaces Dual-use Spaces Empty Spaces Empty Spaces 			e of keeping for future
	I Geographical Voic Phenomenological Functional Void					

Zone	e 1: Sakarya Di	stri	ct	Code: 1:D2-13	Area	(Hectare): 0.6		Currently Fund	ction: Unused and empty	
			Location on map)						
			Similarities with Residual	Spaces	+	Located between Mehr	atoik Street	and Sair		
	A Inter Zones	1	Leftover Spaces			 Located between Mehmetçik Street and Şair Nedim Street Approximete area is shout 0.6 hs 				
	Inter Zones	2	Residual Green SpacesLeftover Spaces		41 :	 Approximate area is about 0.6 ha The area bounded with houses Have access to public road Emerged because lack of accessibility for 		and the second		
S	В	2	Empty Spaces		•					
pace	Fringe Areas	2	Residual Green Spaces		•					
ost S		3				vehicles and planning o		ure		
of La	С	1	Non-Spaces			development				
Types of Lost Spaces	Infrastructural Border Zones	2	Empty Spaces Described Crear Success		•	Currently is empty and as a shortcut path	people use th	is area	KARSO A	
Ty_{j}		5	Residual Green Spaces			as a shortcut paul		Stor.	1 1 1 1 1	
	D	1	 Dual-use Spaces Empty Spaces 					1		
	Expansion	2	Empty Spaces Leftover Spaces							
	Areas	4	Residual Green Spaces							
	Geographical Void								and the second second	
	Phenomenological		1					200		
	Functional Void									

Zone	e 1: Sakarya Di	stri	ct Code: 1:D2-14	Area (Hectare): 0.65	Currently Function: Unused and empty
			Location on map		
			Similarities with Residual Spaces	Located next to the Ca	aliforian Gold
	А	1	□ Leftover Spaces	Restaurant	
	Inter Zones	2	Residual Green Spaces	Approximate area is a	bout 0.65 ha
		1	□ Leftover Spaces	• Currently is empty	The state of the s
ses	B Fringe Areas	2	Empty Spaces	Covered with mud, div	
Spac	Filige Areas	3	Residual Green Spaces	Have access to public	
Types of Lost Spaces	C	1		Emerged because of la accessibility for vehicle accessibility for	
t of I	C Infrastructural	2	Empty Spaces	kept for future develop	
ypes	Border Zones	3	Residual Green Spaces		
T		1	Dual-use Spaces		
	D	2	Empty Spaces		
	Expansion Areas	3	□ Leftover Spaces		
	7 11043	4	Residual Green Spaces		
	Geographical Voic	l			
ΠF	Phenomenological	Voic	1		
	Functional Void				

Zone	1: Sakarya Dis	trict		Code: 1:D4-2	Area	a (Hectare): 0.26	Curren	ntly Function: Residual Green Space
Ŷ		21 Julie	Location on ma	p				
	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas eographical Void enomenological V	1 2 3 1 2 3 1 2 3 1 2 3 4	Similarities with Resi Leftover Spaces Residual Green Spaces Empty Spaces Residual Green Spaces Non-Spaces Empty Spaces Residual Green Spaces Empty Spaces Dual-use Spaces Empty Spaces Leftover Spaces Residual Green Spaces Residual Green Spaces Residual Green Spaces Residual Green Spaces	s s s		 Located in front of Güls Approximate area is about the covered with variety of These is no design and provide the covered due to lack of 	out 0.26 ha trees plan for trees	
-	Inctional Void	-14						

Zone	e 1: Sakarya D	istri	ct	Code: 1:D2-15	Area (He	ctare): 1.35	Curre	ntly Function: Unused and empty
			Location on map)				
					and the second sec			
			Similarities with Residua	l Spaces		Located in front of Gülseren St	root	
	А	1	□ Leftover Spaces			Approximate area is about 1.35		
	Inter Zones	2	□ Residual Green Spaces			Currently is unused and empty		
		1	□ Leftover Spaces			The area covered with mud, dir	t, weeds and	
ses	B Fringe Areas	2	□ Empty Spaces			construction leftovers		
Spac	Filinge Areas	3	Residual Green Spaces			Have access to public road		
lost		1				Emerged because of lack of acc center of area for vehicles as w		
s of I	C Infrastructural	2	Empty Spaces			blanning or jest kept for future		
Types of Lost Spaces	Border Zones	3	Residual Green Spaces		1			
Т		1	Dual-use Spaces		1			
	D	2	Empty Spaces					
	Expansion Areas	3	□ Leftover Spaces					
		4	Residual Green Spaces					
Geographical Void							To Dista	
Phenomenological Void								
	Functional Void							

Zone	e 1: Sakarya Di	istri	ct	Code: 1:D2-16	Area (Hectare): 0.58	Currer	tly Function: Unused and empty	
4			Location on map						
			Similarities with Residua	al Spaces		Located between Savash Street and	Kardesh		
	А	1	□ Leftover Spaces			Street.	ixaruesh	A BAR A BAR	
	Inter Zones	2	□ Residual Green Spaces		•	Approximate area is about 0.58 ha		A REAL PROPERTY AND	
		1	□ Leftover Spaces		•	Covered with mud, dirt and weeds			
ses	B	2	Empty Spaces		•	Bounded with buildings			
Types of Lost Spaces	Fringe Areas	3	Residual Green Spaces		•	Have access to street			
lost	~	1	□ Non-Spaces		•	Emerged because of lack accessibilities center of area and proper planning of			
t of I	C Infrastructural	2	Empty Spaces			for future developments	л кері		
ypes	Border Zones	3	Residual Green Spaces					CALL SER THE	
T		1	□ Dual-use Spaces						
	D	2	Empty Spaces					Carla An Antonio	
	Expansion Areas	3	□ Leftover Spaces						
	7 11043	4	□ Residual Green Spaces						
	□ Geographical Void								
	Phenomenological Void								
	Functional Void								

Zon	e 1: Sakarya Di	stri	ct Co	ode: 1:D4-3	Area (Hectare):	0.17	Currently Function: Residual Gree	en Space
4		2	Location on map					
	А	1	Similarities with Residual Sp	aces		in the end of the Kardesh St	reet.	
	Inter Zones	2	Residual Green Spaces			mate area is about 0.17 ha y is residual green space		- les
		1	□ Leftover Spaces			with variety of trees		
ces	B Fringe Areas	2	□ Empty Spaces			over time without planning	and	11
Spa	Tinge Theas	3	Residual Green Spaces		designin	g		
Lost	С	1	□ Non-Spaces				TEE	the last
s of	Infrastructural	2	Empty Spaces					T B
Types of Lost Spaces	Border Zones	3	Residual Green Spaces					
	_	1	□ Dual-use Spaces					CAN'S
	D Expansion	2	Empty Spaces					Prin "
	Areas	3	□ Leftover Spaces				in the second	KNO.
		4	Residual Green Spaces					A starter
	Geographical Void							11
	Phenomenological Void							to Mailer
	Functional Void							

Zone	e 1: Sakarya Di	stri	ct	Code: 1:D2-17	Area	a (Hectare): 2.1	Curr	ently Function: Unused and empty
			Location on map)				
the second se								
Τ			Similarities with Residua	al Spaces		 located near the Cami Çer 	nberi (Mosque	
	A Inter Zones	1	□ Leftover Spaces			Square)	inosque	
	Inter Zones	2	□ Residual Green Spaces			• approximate area is about		
		1	□ Leftover Spaces			• covered with mud, dirt, we	eed and	
ses	B Fringe Areas	2	□ Empty Spaces			construction leftovers		AT I TE
Spac	Filinge Areas	3	□ Residual Green Spaces			• currently is unused and un		
Lost	G	1				 emerged due to lack of pro for vehicles and road netw 		E E
of I	C Infrastructural	2	Empty Spaces			lack of planning or kept for		
Types of Lost Spaces	Border Zones	3	Residual Green Spaces			development		
Ţ		1	Dual-use Spaces					
	D	2	Empty Spaces					AREA SATE AR
	Expansion Areas	3	□ Leftover Spaces					
		4	Residual Green Spaces					ALLA DA
Geographical Void								
Phenomenological Void								
	Functional Void							

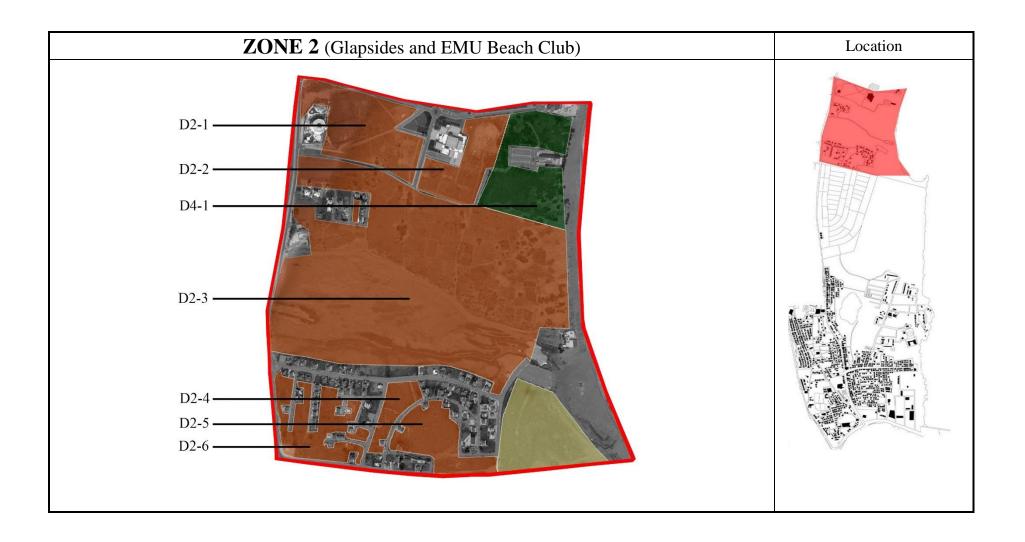
Zone	e 1: Sakarya D	stri	ct	Code: 1:D1-2	Area (Hectare): 0.23	Curre	ntly Function: Dual-use Space
4		2144	Location on map				
			Similarities with Residua	l Spaces	 located near the Cami Çer 	nberi (Mosque	
	А	1	□ Leftover Spaces		Square	noen (mosque	
	Inter Zones	2	Residual Green Spaces		• covered with mud and dir	t	A BENER
		1	□ Leftover Spaces		 approximate area is about 		
ses	B	2	Empty Spaces		• currently is used as a park		
Spac	Fringe Areas	3	Residual Green Spaces		• emerged because of lack of	of planning or kept	
Lost	C	1			for future development		
of I	C Infrastructural	2	Empty Spaces				
Types of Lost Spaces	Border Zones	3	Residual Green Spaces				and a series of the
T		1	Dual-use Spaces				A SALE OF SALE OF
	D	2	Empty Spaces				
1	Expansion Areas	3	□ Leftover Spaces				AN TRANS
	7 nous	4	Residual Green Spaces				
	Geographical Void						A A A A A A A A A A A A A A A A A A A
Phenomenological Void							
	Functional Void						

Zon	e 1: Sakarya D	istri	ct	Code: 1:D2-18	Area	(Hectare): 0.55	Current	tly Function: Unused and empty
*			Location on map	p	-			
aces	A Inter Zones B Fringe Areas	1 2 1 2	Similarities with Residua Leftover Spaces Residual Green Spaces Leftover Spaces Empty Spaces	al Spaces		located in front of the Tip Merkezi approximate area is about .55 ha currently is unused and empty covered with concrete and weed, m dirt the area was a foundation of building	ud and	
Types of Lost Spaces	C Infrastructural Border Zones D Expansion	3 1 2 3 1 2	 Residual Green Spaces Non-Spaces Empty Spaces Residual Green Spaces Dual-use Spaces Empty Spaces 		•	now it is abandoned emerged probably due to lack of bu continuing the construction	-	
	Areas 3 Leftover Spaces Areas 4 Residual Green Spaces Geographical Void Phenomenological Void Functional Void							

Zone 1: Saka	arya District			Code: 1:D3-3	Are	ea (I	Hectare): 0.48	Curren	tly Function: Unused and empty	
		I	Location on map							
		Similarities with		Residual Spaces			located close to Tip Merkezi Hospita	1		
	A Inter Zones		Leftover Spaces Residual Green Sp	Daces		•	approximate area is about 0.48 ha covered with mud, dirt, weeds and			
		1	□ Leftover Spaces				construction leftovers			
s	B Fringe Areas	2	□ Empty Spaces			٠	area bounded with fence and barriers			
Types of Lost Spaces	Filige Aleas	3	□ Residual Green Sp	paces		•	emerged due to some construction pr	oblem		
Lost	С	1	□ Non-Spaces							
I of	nfrastructural	2	□ Empty Spaces							
I Iype	Border Zones	3	Residual Green Sp	paces					A A A A A A A A A A A A A A A A A A A	
			Dual-use Spaces							
	D Expansion	2	Empty Spaces						No China Participation of the	
	Areas 3 🛛 Leftover Spaces						and the second second			
	4 C Residual Green Spaces							1 1 1 1 1 1 1 m		
	Geographical Void									
	Phenomenological Void Functional Void									
runcuona	i volu									

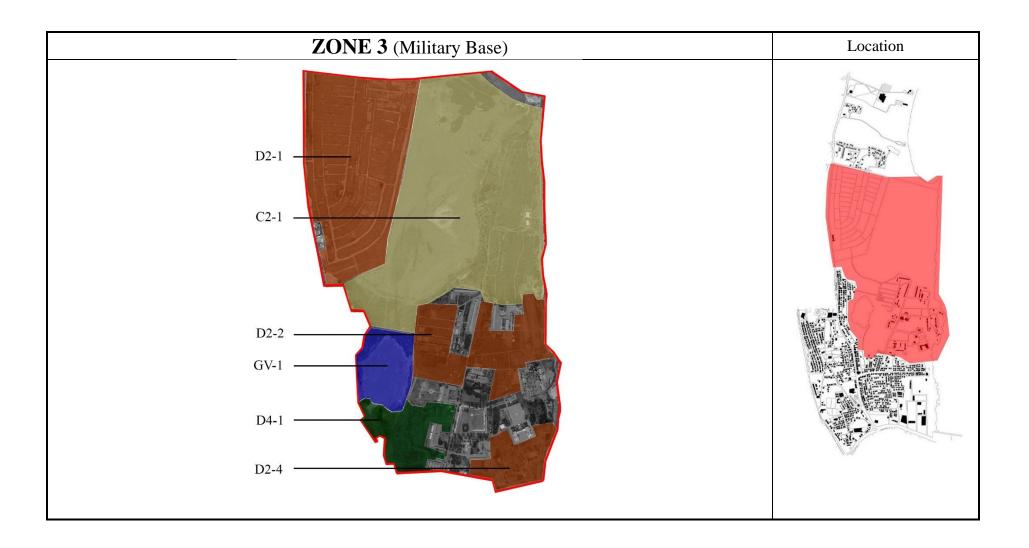
Zone	e 1: Sakarya Di	stri	ct Code: 1:D3-1	Are	a (Hectare): 0.29	Curre	ently Function: Unused and empty
*			Location on map				
			Similarities with Residual Spaces		• located behind the Lemar complex		
	A		1 Leftover Spaces		 approximate area is about 0.29 ha 		
	Inter Zones	2	Residual Green Spaces		• covered with mud, dirt and weeds		
		1	Leftover Spaces		have access to street		
ces	B Fringe Areas	2	Empty Spaces		• the area is empty and unused		
Spa	ringe rueds	3	Residual Green Spaces		 emerged due to making contrast and dominate the Lamar complex or least 		
of Lost Spaces	С	1	□ Non-Spaces		dominate the Lemar complex or kept future development	101	
s of	Infrastructural	2					
Types	Border Zones	3	Residual Green Spaces				
Γ		1	□ Dual-use Spaces				A A A A A A A A A A A A A A A A A A A
	D Expansion	2	Empty Spaces				
	Areas	3	☑ Leftover Spaces				
		4	Residual Green Spaces				
	Geographical Void						
-	Phenomenological Void						
	Functional Void						

Zone	e 1: Sakarya Di	stri	ct	Code: 1:D3-2	Area	(Hectare): 0.53	Curre	ently Function: Unused and empty
÷			Location on maj					
			Similarities with Residua	al Spaces		located near the Lemar complex		
	А	1	□ Leftover Spaces		•	approximate area is about 0.53 ha		
	Inter Zones	2	□ Residual Green Spaces		•	covered with mud and weeds		
		1	□ Leftover Spaces		•	have access to street		
ses	B Fringe Areas	2	□ Empty Spaces		•	the area is empty and unused		
Spae	Tringe Areas	3	□ Residual Green Spaces		•	The area is leftover part of designin	g the	
Lost	С	1	□ Non-Spaces			sport complex. Emerged due to poor planning		Son X () O
s of]	C Infrastructural	2	Empty Spaces		•	Emerged due to poor planning		
Types of Lost Spaces	Border Zones	3	Residual Green Spaces					and the second second
Γ		1	□ Dual-use Spaces					
	D	2	Empty Spaces					all about the side
1	Expansion Areas	3	Leftover Spaces					
		4	□ Residual Green Spaces					and the second sec
	Geographical Void							A CAR A COM
	Phenomenological Void							and the state of the
	Functional Void							and the second sec



Zone	2: Glapsides & I	EMU Beach Club	Code: 2:D2-1,2,3	Area (Hectare): 56.6	Currently Function: Empty and Unused
		Location on ma	р		
×.					
		Similarities with Residu	al Spaces	• Located in the north of the study	varea
	А	1			
	Inter Zones	2 🗆 Residual Green Spa	ces	• Approximate area are 56.6 ha	and the second
		1 🗆 Leftover Spaces		• Currently they are unused and e	empty
ces	B Fringe Areas	2		Have access to public road from	n west side
Spa	1 mge 1 meus	3 🗆 Residual Green Spa	ces	• Covered with mud, dirt, and we	eds and the second s
Types of Lost Spaces	С	1 🗆 Non-Spaces			
s of	Infrastructural	2			
Type	Border Zones	3 🗆 Residual Green Spa	ces	witch were ignored in the city p	lanning
È		1 Dual-use Spaces]]	The second se
	D	2 Empty Spaces			
	Expansion Areas	3 \Box Leftover Spaces			
	Geographical Void	4 🗌 Residual Green Spa	ces		
	henomenological Voi	d			
	Functional Void				
				1	

Zone 2: Glapsides & EMU Beach ClubCode: 2:D2-4,5,6						Hectare): 4.65, 1.65, 4	Curren	tly Function: Empty and Unused
Location on map								
st Spaces	A Inter Zones A Inter Zones A A Inter Zones A A I I I I I I I I I I I I I				•	Located in the north of the study are (Glapsides district) Approximate areas are 10.3 ha Currently they are unused and empty They covered with mud, dirt and we	y	
Types of Lo			 Empty Spaces Residual Green Space Dual-use Spaces Empty Spaces Leftover Spaces 		 in some parts covered with constru leftovers They emerged because of lack of construction, or they were kept for doublopment 			
🗆 Pl	Geographical Void Phenomenological Void Functional Void				development			

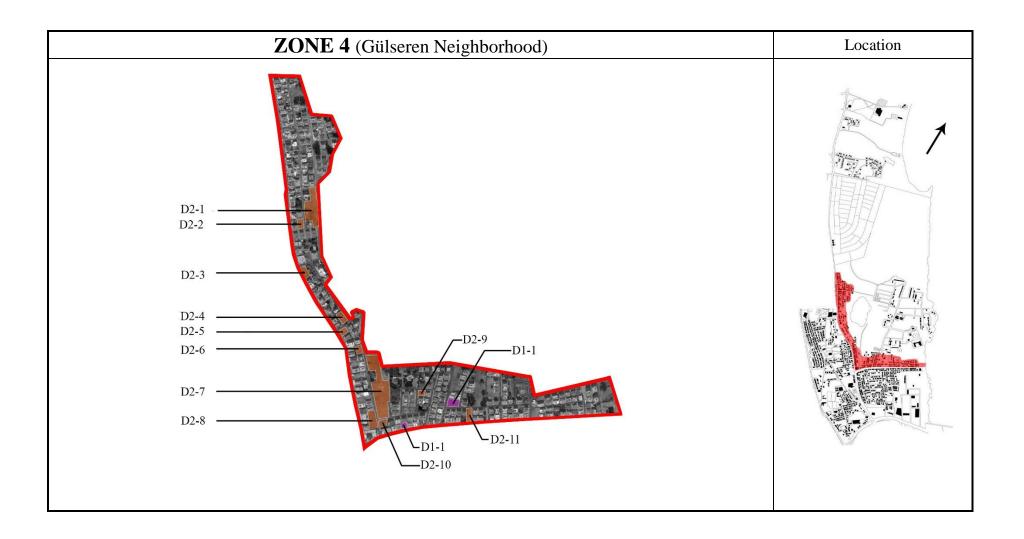


Zone 3: Military Base Code: 3:D2-1				Code: 3:D2-1	Area	(Hectare): 67.5	Curre	ntly Function: Empty and Unused
Location on map							Vasak bölge jorgination forbidden zone zone interdite Verbotene zone Natorevien interdote Matorevien interdote	
	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Void Phenomenological V	1 2 3 1 2 3 1 2 3 4	Similarities with Residual S Leftover Spaces Leftover Spaces Residual Green Spaces Residual Green Spaces Residual Green Spaces Residual Green Spaces Leftover Spaces Leftover Spaces Residual Green Spaces Residual Green Spaces Residual Green Spaces Residual Green Spaces		•	Approximate area is about 6' Have access to public road Currently is unused and emp Covered with mud and weed Bounded with fence	ty s s this area was	

Zone	Zone 3: Military BaseCode: 4:C2-1				Area	Hectare): 129	Curre	ntly Function: Empty and Unused
Location on map					Photo is not available			
	Suppose Similarities with Residual Spaces A 1 Leftover Spaces Inter Zones 2 Residual Green Spaces B 1 Leftover Spaces B 1 Leftover Spaces B 2 Empty Spaces 3 Residual Green Spaces C Infrastructural Border Zones 1 2 Empty Spaces 3 Residual Green Spaces 1 Non-Spaces Infrastructural 2 Border Zones 3 1 Dual-use Spaces 3 Residual Green Spaces 3 Leftover Spaces 3 Leftover Spaces 3 Leftover Spaces 4 Dual-use Spaces 4 Residual Green Spaces 4 Residual Green Spaces 4 Residual Green Spaces 1 Residual Green Spaces 2 Empty Spaces 3 Leftover Spaces 3 Leftover Spaces 4 Residual Green Spaces <			•	Located on the military area It was a lake or part of the Sea dry Covered with sand, weeds and Currently unused and empty There is expansion area on the Surrounded by fence on the m south-west side	mud left side		

Zone 3: Military Base Code: 3:GV-1				Area (Hectare): 14.5	Currently Function: Lake
4		Location on ma	p		
□P	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Voi Phenomenological		aces	 Located in the military area Approximate area is about 78.7 ha Have access to public road Dry in warm seasons 	
□P					

Zone 3: Military BaseCode: 3:D4-1				Area (Hectare): 15.9	Currently Function: Empty and Unused
*		Location on ma	p		
paces	A Inter Zones B Fringe Areas	Similarities with Residua 1	28	 Located near lake in the military at Approximate area is about 16 ha Covered with self-grow plant and Have access to public road in west 	ha and trees
Types of Lost Spaces	C Infrastructural Border Zones D Expansion Areas	3 □ Residual Green Space 1 □ Non-Spaces 2 □ Empty Spaces 3 □ Residual Green Space 1 □ Dual-use Spaces 2 □ Empty Spaces 3 □ Leftover Spaces 3 □ Leftover Spaces	28	• Emerged due to water of lake	
$\square P$	Ceographical Void henomenological V Functional Void	4 ⊠ Residual Green Space ′oid	25		



Zone 4: Gülseren NeighborhoodCode: 4:D2-1, 2					Area (Hectare): 0.6	Curren	tly Function: Empty and Unused
Location on map							
Types of Lost Spaces	A 1 □ Leftover Spaces Inter Zones 2 □ Residual Green S 1 □ Leftover Spaces		 Residual Green Spaces Leftover Spaces Empty Spaces Residual Green Spaces Non-Spaces 		 Located in front of the lake They have access to public road Approximate area are about 0.6 ha They emerged due to lack of plannir kept for future developments 	ng or	
$\square P$	D 2 Empty Spaces Expansion 3 Leftover Spaces Areas 4 Residual Green Spaces						

Zone 4: Gülseren Neighborhood Code: 4:D2-3				Area (Hectare): 0.1	Currently Function: Empty and Unused
ł		Location on ma	p		
Non-Spaces A 1 □ Leftover Spaces Inter Zones 2 □ Residual Green Spaces B 1 □ Leftover Spaces B 2 □ Empty Spaces 3 □ Residual Green Spaces C 1 □ Non-Spaces C 1 □ Non-Spaces Border Zones 3 □ Residual Green Spaces D Expansion Areas 1 □ Dual-use Spaces 2 □ Empty Spaces 2 □ 0 Geographical Void □ I □				 Located in south of the lake and in the UN camp Covered with mud and dirt Have access to public road Approximate area are about 0.6 ha Emerged due to lack of planning of future developments 	
□ P	Phenomenological Functional Void				

Zone 4: Gülseren Neighborhood Code: 4:D2-4				Code: 4:D2-4	Area (Hectare): 0.11	Currer	ntly Function: Empty and Unused
Location on map							
	A 1 Image: Leftover Spaces Inter Zones 2 Image: Residual Green Space			Spaces	Located in south of theApproximate area is about		
Spaces	B Fringe Areas	1 □ L 2 □ E	eftover Spaces Empty Spaces Residual Green Spaces		Covered with mud and aHave access to street		pt for
Types of Lost Spaces	C Infrastructural Border Zones	1 □ N 2 □ E	Ion-Spaces Empty Spaces Residual Green Spaces		Emerged due to lack of future development	planning or kept for	
Ţ	D Expansion Areas	1 □ D 2 ⊠ E 3 □ L	Dual-use Spaces Empty Spaces eftover Spaces Residual Green Spaces				
□P	Geographical Void Phenomenological V Functional Void						

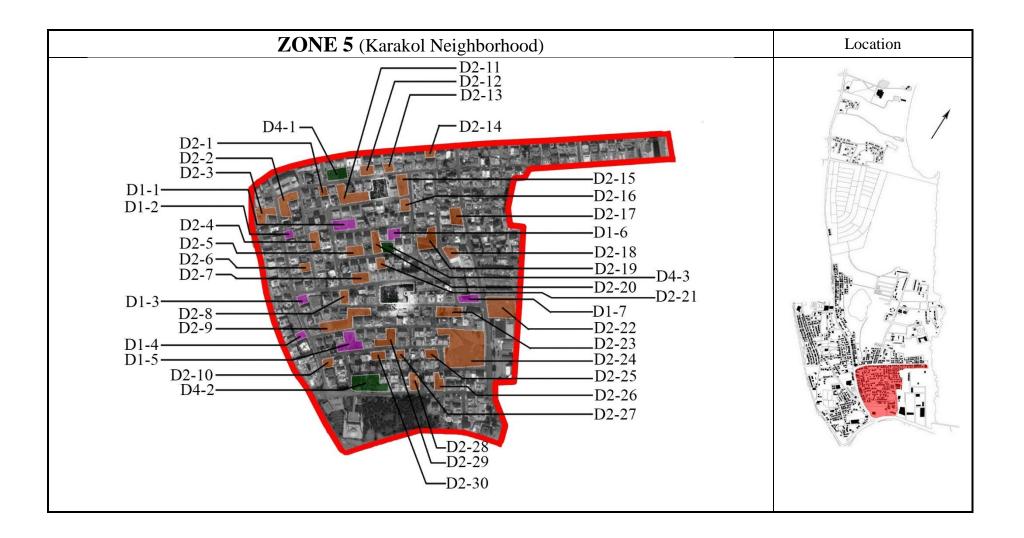
Zone 4: Gülseren Neighborhood Code: 4:D2-5				Code: 4:D2-5	Are	a (Hectare): 0.1	Curre	ently Function: Empty and Unused
Location on map								
	D 2 Image: Empty Spaces Expansion 3 Image: Empty Spaces 3 Image: Leftover Spaces 4 Image: Residual Green Spaces				 Located in south of the lake Approximate area is about 0.1 Covered with mud and dirt Have access to street Emerged due to lack of plannin future development 			
-	Phenomenological Void Functional Void						The second s	

Zone	4: Gülseren N	eigł	ıborhood	Code: 4:D2-6	Area (Hectare): 0.1	Curre	ntly Function: Empty and Unused	
			Location on map)			Ť.		
ł	Similarities with Residual Spaces								
	Similarities with Residual Spaces				Located in south of the lake				
	А	1	□ Leftover Spaces			 Approximate area is about 0.1 ha Covered with mud and dirt Have access to street Emerged due to lack of planning or kept for 	1 ha	and the second second	
	Inter Zones	2	□ Residual Green Spaces		· ·		1 11a		
		1	□ Leftover Spaces		•		A MARINE MARINE		
ces	B Fringe Areas	2	□ Empty Spaces		•				
Spa	ringe rueas	3	Residual Green Spaces		•				
of Lost Spaces	С	1	□ Non-Spaces		· ·		ing of kept for	r htt	
s of	Infrastructural	2	Empty Spaces			future development			
Types of	Border Zones	3	□ Residual Green Spaces					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Ľ	-	1	Dual-use Spaces					A	
	D Expansion	2	Empty Spaces					E CALL ON EN.	
	Areas	3	□ Leftover Spaces						
	4 🗆 Residual Green Spaces							and the second	
	Geographical Void								
	henomenological	√oid							
	Functional Void								

Zone	e 4: Gülseren Ne	ighborhood	Code: 4:D2-7	Area (Hectare): 1.22	Currently Function: Empty and Unused	
		Location on ma	p			
	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Voi Phenomenological Functional Void		paces	 Located in south of the lake Approximate area is about 1.22 ha Covered with mud, dirt and construent leftovers Have access to street Emerged due to lack of planning of future development 	ruction	

Zone	e 4: Gülseren N	eighborhood	Code: 4:D2-8,10	Area (Hectare): 0.22, 0.1	Currently Function: Empty and Unused	
ŧ		Location on ma	p			
\Box F	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Void Phenomenological Y Functional Void		5 5	 Located in south of the lake Approximate area is about 0.321 Covered with mud and dirt Have access to street Emerged due to lack of planning future development 		

	Location on map		A Alex	HE STR	
AN RE					
Sort C A A A A A A A A A A A A A A A A A A	 Incisidual Oreen Spaces Leftover Spaces Empty Spaces Residual Green Spaces Non-Spaces Empty Spaces Empty Spaces Residual Green Spaces Dual-use Spaces Dual-use Spaces Empty Spaces Leftover Spaces Residual Green Spaces Residual Green Spaces Residual Green Spaces 	Spaces	 Located in south of military base Approximate area is about 0.1 ha Covered with mud and dirt Have access to public road Emerged due to lack of planning for future development 		



Zone	5: Karakol Ne	ighl	borhood	Code: 5:D4-1	Area (Hectare): 0.13	Currently Function: Residual Green Space
~ 4		27	Location on map			
	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Void	Inter Zones2Residual Green SpacesB Fringe Areas1Leftover Spaces2Empty Spaces33Residual Green Spaces1Non-Spaces1Non-Spaces2Empty Spaces3Residual Green Spaces3Residual Green Spaces3Residual Green Spaces3Residual Green Spaces2Empty Spaces2Empty Spaces3Residual Green Spaces3Leftover Spaces3Leftover Spaces4Residual Green Spaces		 Approximate area is about 0.13 ha Covered with weeds and trees Have access to public road Emerged due to lack of planning or of designed green space 	lack	
	Phenomenological V Functional Void	√oid				

Zone 5	: Karakol Neig	ghborhood	Code: 5:D2-1	1	Area (Square Meter): 450	Current	ly Function: Empty and Unused
		Locati	on on map				
Types of Lost Sr	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas eographical Void	1 □ Lefto 2 □ Resid 1 □ Lefto 2 □ Empt 3 □ Resid 1 □ Non-5 2 □ Empt 3 □ Resid 1 □ Dual- 2 ⊠ Empt 3 □ Lefto 4 □ Resid d □ Non-5	ual Green Spaces		 Approximate area is about 450 m Covered with mud and dirt Have access to public road Emerged due to lack of planning future development 		

Zone	e 5: Karakol Nei	ghborhood	Code: 5:D2-2	Area (Hectare): 0.17	Currently Function: Empty and Unused
ł		Location on ma	p		
	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Voi Phenomenological Functional Void		vaces	 Located in Zorbalar Street parallel to Salamis road Approximate area is about 0.17 ha Covered with mud and dirt Have 2way access to public roads Emerged due to lack of planning or future development 	

Zone	5: Karakol Ne	ighl	oorhood	Code: 5:D2-3	Area	Hectare): 0.14	Curre	ntly Function: Empty and Unused
	Location on map							
	A Inter Zones	Similarities with Residual Spaces 1 □ Leftover Spaces 2 □ Residual Green Spaces 1 □ Leftover Spaces			•	Located near Salamis Road Approximate area is about 0.14 Covered with mud and dirt	ha	
t Spaces	B Fringe Areas	2	Empty SpacesResidual Green Spaces		•		g or kept for	
Types of Lost Spaces	C Infrastructural Border Zones	1 2 3	 Non-Spaces Empty Spaces Residual Green Spaces 			future development		
Ţ	D 1 □ Dual-use Spaces Expansion 2 ⊠ Empty Spaces Areas 3 □ Leftover Spaces 4 □ Residual Green Spaces							
	Geographical Void Phenomenological Void Functional Void							

Zone	e 5: Karakol Ne	ight	orhood	Code: 5:D1-1	Area (Hectare): 0.14	Curre	ntly Function: Dual use space
*		27	Location on ma	ap			
	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Void Phenomenological Functional Void		Similarities with Residu Leftover Spaces Enception Spaces Senidual Green Spaces Residual Green Spaces Non-Spaces Empty Spaces Residual Green Spaces Dual-use Spaces Empty Spaces Leftover Spaces Residual Green Spaces	28	 Located approximately in neighborhood Approximate area is about Covered with mud and dir parts weeds Currently used as parking citizens Emerged due to lack plant future development 	t 0.14 ha rt and in some lot by local	

Zone	e 5: Karakol Ne	igh	borhood	Code: 5:D1-2	Area (Square meter): 430	Currently Function: Empty and Unused	
ł	Location on map							
Types of Lost Spaces	A Inter Zones B Fringe Areas C Infrastructural	1 2 1 2 3 1 2	Similarities with Residua Leftover Spaces Residual Green Spaces Empty Spaces Residual Green Spaces Non-Spaces Empty Spaces	5	•	Located near Zorbalar Street Approximate area is about 430 m ² Covered with mud and dirt and in so parts weeds Currently used as parking lot by loca citizens		
Imfrastructural Border Zones 2 Empty Spaces Border Zones 3 Residual Green Spaces D Expansion Areas 1 Dual-use Spaces 2 Empty Spaces 3 Leftover Spaces 4 Residual Green Spaces 9 Henomenological Void 9 Functional Void		Emerged due to lack planning or kept for future development		ot for				

Zone 5: Karakol N	leighborho	ood Code: 5:D2	2-4 Area (Hectare): 0.1	Currently Function: Empty and Unused
	I	Location on map		
A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas	1 1 2 1 1 1 2 1 3 1 1 1 2 1 3 1 1 1 2 1 3 1 1 1 2 1 3 1 4 1 id	milarities with Residual Spaces Leftover Spaces Residual Green Spaces Empty Spaces Residual Green Spaces Non-Spaces Empty Spaces Empty Spaces Cual-use Spaces Empty Spaces Empty Spaces Empty Spaces Empty Spaces Residual Green Spaces Residual Green Spaces	Approximate area is Covered with mud a Have access to publ Emerged due to lach future development	and dirt lic road k of planning or kept for

Zone	e 5: Karakol Ne	eighborhood	Code: 5:D2-5	Area (Hectare): 0.1	Currently Function: Empty and Unused
4		Location on ma	np		
Types of Lost Spaces	A Inter Zones B Fringe Areas C Infrastructural Border Zones	Similarities with Residu 1 Leftover Spaces 2 Residual Green Spaces 1 Leftover Spaces 2 Empty Spaces 3 Residual Green Spaces 1 Non-Spaces 2 Empty Spaces 3 Residual Green Spaces 2 Empty Spaces 3 Residual Green Spaces 3 Residual Green Spaces 3 Residual Green Spaces		 Approximate area is about 0.1 ha Covered with mud and dirt Have access to public road Emerged due to lack of planning of future development 	
(P	D Expansion Areas Geographical Void Phenomenological V Functional Void	1 □ Dual-use Spaces 2 ☑ Empty Spaces 3 □ Leftover Spaces 4 □ Residual Green Spaces			Limage (# 2014 DrigitalGlobe

Zone	5: Karakol Ne	ighl	oorhood	Code: 5:D2-6	Area (Hectare):		Current	ly Function: Empty and Unused
			Location on maj	p	to 1			12 C
Ą								
			Similarities with Residua	1 Spaces	Approx	mate area is about 0.1 ha		
	А	1	□ Leftover Spaces				A THE PART OF THE	
	Inter Zones	2	□ Residual Green Spaces					and the second
		1	□ Leftover Spaces		Have ac	cess to public road		
ces	B Fringe Areas	2	□ Empty Spaces		Emerged due to lack of planning or kept for			
Spa	Tinge Theas	3	□ Residual Green Spaces			evelopment	1	
Types of Lost Spaces	С	1	□ Non-Spaces		Tuture u	evelopment		
s of	Infrastructural	2	Empty Spaces					1. 60.06 20
ype	Border Zones	3	□ Residual Green Spaces					
		1	Dual-use Spaces					
	D	2	Empty Spaces					
	Expansion Areas	3	□ Leftover Spaces				and the second second	
		4	Residual Green Spaces		A State of the second sec			
	Geographical Void							and the total and
	henomenological V	/oid						
	Functional Void							

Zone	e 5: Karakol Ne	ighb	oorhood	Code: 5:D2-7	Area (Hectare): 0.11	Currently Function: Empty and Unused
ł	Location on map						
ΠF	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Void Phenomenological V		Similarities with Residua Leftover Spaces Residual Green Spaces Empty Spaces Residual Green Spaces Non-Spaces Residual Green Spaces Empty Spaces Empty Spaces Empty Spaces Empty Spaces Residual Green Spaces Residual Green Spaces		•	Approximate area is about 0.11 ha Covered with mud and dirt Have access to public road Emerged due to lack of planning or h future development	cept for Image (0) 2014 Digital Globe

Zone	e 5: Karakol Ne	ighborhood	Code: 5:D1-3	Area (Hectare): 0.1	Currently Function: Dual use space	
ł		Location on ma	p			
	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Void		s s s	 Located in the Başbuğ Street Approximate area is about 0.1 ha Covered with mud and dirt and in parts weeds Currently used as parking lot by 1 citizens Emerged due to lack planning or for future development 	n some local	
	Geographical Void Phenomenological Void Functional Void				image © 2014 DigitalBlobe	

			Area (Hectare): 0.1	Currently Function: Empty and Unused
	Location on ma	p		
A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Void Phenomenological Functional Void			 Located in the Çalli Ibrahim Street Approximate area is about 0.1 ha Covered with mud and dirt Have access to public road Emerged due to lack of planning or future development 	

			Area (Hectare): 0.31	Curren	tly Function: Empty and Unused
	Location on m	ap			
A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas		es es	 Located between the Fadil ismail Street Approximate area is about Covered with mud and dirt Have access to public road Emerged due to lack of pla future development 	0.31 ha	

Location on map				
-				
Similarities with Residual Leftover Spaces Residual Green Spaces Empty Spaces Residual Green Spaces Non-Spaces Residual Green Spaces Dual-use Spaces Leftover Spaces Residual Green Spaces	Spaces	 Approximate area Covered with much parts weeds Currently used as citizens Emerged due to la 	is about 0.1 ha h and dirt and in some parking lot by local ck planning or kept for	
	 Leftover Spaces Residual Green Spaces Leftover Spaces Empty Spaces Residual Green Spaces Non-Spaces Empty Spaces Empty Spaces Residual Green Spaces Dual-use Spaces Empty Spaces Leftover Spaces Leftover Spaces 	Residual Green Spaces Leftover Spaces Empty Spaces Residual Green Spaces Non-Spaces Empty Spaces Residual Green Spaces Dual-use Spaces Empty Spaces Empty Spaces Leftover Spaces Leftover Spaces Leftover Spaces Leftover Spaces	Leftover Spaces Approximate area Residual Green Spaces Covered with much Empty Spaces parts weeds Non-Spaces Currently used as Empty Spaces citizens Empty Spaces Emerged due to la Dual-use Spaces future development Leftover Spaces Leftover Spaces	

Zone	5: Karakol Ne	ighl	borhood	Code: 5:D1-5	Area (Hectare): 0.2	Currently Function: Dual use space
and the second sec			Location on map			
$\square P$	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Void henomenological V	1 2 3 1 2 3 1 2 3 4 7/0id	Similarities with Residual Leftover Spaces Residual Green Spaces Leftover Spaces Residual Green Spaces	5 5 5 5	 Located between the Den Şaziye ismail Streets Approximate area is abou Covered with mud and di some parts weeds Currently used as parking citizens Emerged due to lack plan for future development 	t 0.2 ha rt and in g lot by local

Zone	5: Karakol Ne	ighborhood	Code: 5:D2-10	Area (Hectare): 0.1	Currently Function: Empty and Unused		
ł		Location on ma	.p				
Types of Lost Spaces	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Void	Similarities with Residu 1 Leftover Spaces Residual Green Space Leftover Spaces Empty Spaces Residual Green Space Non-Spaces Empty Spaces Residual Green Space Non-Spaces Empty Spaces Residual Green Space Dual-use Spaces Empty Spaces Leftover Spaces Leftover Spaces Residual Green Space 	S S S	 Located in the Baaşbuğ Street Approximate area is about 0.1 ha Covered with mud and dirt Have access to public road Emerged due to lack of planning or future development 	kept for		
□ P	Geographical Void Phenomenological Void Functional Void				Image © 2014 Digital Glippo		

	Location on ma			
		p		
A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Void Phenomenological V	Similarities with Residu 1 Leftover Spaces Residual Green Space Leftover Spaces Empty Spaces Residual Green Space Non-Spaces Empty Spaces Residual Green Space Non-Spaces Empty Spaces Residual Green Space Empty Spaces Empty Spaces Residual Green Space Empty Spaces Residual Green Space Empty Spaces Residual Green Space Empty Spaces Leftover Spaces Residual Green Space Yoid 	S S S	 Located in the M.Abdulla Approximate area is about Covered with weeds and Have access to public roat Emerged due to lack of pt designed green space 	tt 0.31 ha trees d

Zone	• 5: Karakol Ne	igh	borhood	Code: 5:D2-11	Area (Hectare): 0.22	Currently Function: Empty and unused	
Â	Location on map						
			Similarities with Residu	ual Spaces	Located in the Ba	asbuğ Street	
	А	1	□ Leftover Spaces			ea is about 0.22 ha	
	Inter Zones	2	Residual Green Space	es		The state of the s	
	D	1	□ Leftover Spaces		Covered with mu	ad and dirt	
aces	B Fringe Areas	2	Empty Spaces		• Have access to p	ublic road	
Types of Lost Spaces		3	□ Residual Green Space	es	• Emerged due to 1	lack of planning or kept	
Los	С	1	□ Non-Spaces				
s of	Infrastructural	2	Empty Spaces		for future develo	opment	
Гуре	Border Zones	3	□ Residual Green Space	es]		
	D.	1	□ Dual-use Spaces]	A CARLEN CARLEN	
	D Expansion	2	Empty Spaces				
	Areas 3 Lettover Spaces		11				
	4 🗆 Residual Green Spaces			es		1 M LAND	
	Geographical Void						
	henomenological Functional Void	v 010					
	runctional vold						

Zone	e 5: Karakol Ne	ighborhood	Code: 5:D2-12	Area (Hectare): 0.1	Currently Function: Empty and unused	
ł		Location on n	nap			
	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Void		ces ces	 Located in the Başbuğ Street Approximate area is about 0.1 ha Covered with mud and dirt Have access to public road Emerged due to lack of planning or future development 	• kept for	
	Phenomenological Void Functional Void					

Zone	5: Karakol Ne	igh	borhood	Code: 5:D2-13	Area (Hectare): 0.1	Currently Function: Empty and unused
ł		2 Later	Location on ma	.p		
Types of Lost Spaces	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas	1 2 3 1 2 3 1 2 3 1 2 3 4	Similarities with Residu Leftover Spaces Leftover Spaces Empty Spaces Residual Green Space Non-Spaces Empty Spaces Residual Green Space Dual-use Spaces Empty Spaces Leftover Spaces Residual Green Space Residual Green Space	S S S	 Located in the Başbuğ S Approximate area is abo Covered with mud and d Have access to public ro Emerged due to lack of p for future development 	ut 0.1 ha lirt ad
	Geographical Void			<u>.</u>		and the second the
	Phenomenological Void Functional Void					

Zone	e 5: Karakol Ne	eighborhood	Code: 5:D2-14	Area (Hectare): 0.1	Currently Function: Empty and unused
ł		Location on ma	.p		
	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Void		s s s	 Located in the Cahit sitki Taranci (Gülseren) Street Approximate area is about 0.1 ha Covered with mud and dirt Have access to public road Emerged due to lack of planning or I future development 	xept for
	Functional Void				

Zone	5: Karakol Ne	ight	oorhood	Code: 5:D2-15	Area	(Hectare): 0.13	Current	ly Function: Empty and unused
			Location on ma	р				
			Similarities with Residua	al Spaces		• Located in the Ikbal Street		
	А	1	□ Leftover Spaces					
	T / 77	2	□ Residual Green Spaces			• Approximate area is about 0.13 ha		
		1	□ Leftover Spaces		•	• Covered with mud and dirt		
ses	B Fringe Areas	2	□ Empty Spaces			Have access to public road		
Spac	Filige Areas	3	Residual Green Spaces	5		-	and fam	A A A A A A A A A A A A A A A A A A A
Lost	G	1	□ Non-Spaces			• Emerged due to lack of planning or k	lept for	
s of l	C Infrastructural	2	Empty Spaces			future development		
Types of Lost Spaces	Border Zones	3	Residual Green Spaces	3				
L		1	Dual-use Spaces					
	D	2	Empty Spaces					and the second second
	Expansion Areas	3	□ Leftover Spaces					
		4	□ Residual Green Spaces					
	Geographical Void							
	henomenological	Void						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Functional Void							

Zone	5: Karakol Ne	ighł	oorhood	Code: 5:D2-16	Area (Hectare	e): 0.1	Currently Function: Empty and unused	
			Location on ma	р				
			Similarities with Residua	l Spaces	Located in the ikbal Street			
	A Inter Zones	1	□ Leftover Spaces		Approximate area is about 0.1 ha			
		2	□ Residual Green Spaces					
		1	□ Leftover Spaces		• Covered with mud and dirt			
ces	B Fringe Areas	2	□ Empty Spaces		• Have	• Have access to public road	kept	
Spa	Tinge Theas	3	□ Residual Green Spaces			ged due to lack of planning or		
Lost	С	1	□ Non-Spaces					
Types of Lost Spaces	Infrastructural	2	Empty Spaces		for fu	ture development		
ype	Border Zones	3	Residual Green Spaces				3 ALLER O MARTIN	
L		1	Dual-use Spaces				the second second second	
	D	2	Empty Spaces					
	Expansion Areas	3	□ Leftover Spaces				187 60 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	Fileas	4	□ Residual Green Spaces			The second se		
	□ Geographical Void							
	henomenological V	/oid						
	Functional Void							

Zone 5: Karakol N	eighborhood	Code: 5:D2-17	Area (Hectare):	Currently Function: Empty and unused
	Location on ma	np		
A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Void		s s s s	 Located in the Anafartalar Road Approximate area is about 0.12 h Covered with mud and dirt Have access to public road Emerged due to lack of planning future development 	

Zone	e 5: Karakol Ne	eighborhood	Code: 5:D1-6	Area (Hectare): 0.1	Currently Function: Dual-use spaces
	8	Location on ma	p		
ł					
		Similarities with Residua	l Spaces	• Located in the Apartman Street	
	A Inter Zones	1 □ Leftover Spaces 2 □ Residual Green Spaces		 Approximate area is about 0.1 ha 	
		1 Leftover Spaces 		• Covered with mud and dirt and ir	n some
ces	B Fringe Areas	2		parts weeds	
Types of Lost Spaces	T finge Theas	3 🗆 Residual Green Spaces		• Currently used as parking lot by l	local
Los	С	1 🗆 Non-Spaces		citizens	
es of	Infrastructural	2			
Type	Border Zones	3 🛛 Residual Green Spaces		• Emerged due to lack planning or	ot for
	D	1 Dual-use Spaces		future development	
	Expansion	2 Empty Spaces			
	Areas	3 □ Leftover Spaces 4 □ Residual Green Spaces			
Geographical Void					PAR AND STATE
Phenomenological Void					A REAL PROPERTY OF THE PARTY OF
□ Functional Void					

Zone	5: Karakol Ne	ighl	borhood	Code: 5:D2-18	Area (Hectare): 0.1	Curren	ntly Function: Empty and unused
			Location on mag	р			ЛĮ	
			Similarities with Residua	1 Spaces		Located in the Yiğitler Street		
	A 1 🗆 Leftover Spaces			-				
	· · · · ·	2	□ Residual Green Spaces		•	 Approximate area is about 0.1 ha Covered with mud and dirt Have access to public road 		
		1	Leftover Spaces		•			
ses	B Eninge Areas	2	Empty Spaces		•			
Spac	Fringe Areas	3	□ Residual Green Spaces					
Lost		1	□ Non-Spaces		•	Emerged due to lack of planning or k	cept for	
of I	C Infrastructural	2	Empty Spaces			future development		A State And Contract
Types of Lost Spaces	Border Zones	3	Residual Green Spaces					
T		1	Dual-use Spaces					A B TO A STORE
	D	2	Empty Spaces					
	Expansion Areas	3	□ Leftover Spaces					
	Aicas	4	Residual Green Spaces				The second second second	
	Geographical Void							
	henomenological V	Void						
	Functional Void							

Zone	5: Karakol Ne	eighborhood	Code: 5:D2-19	Area (Hectare): 0.19	Currently Function: Empty and unused
+		Location on m	nap		
A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas		Similarities with Resident 1 Leftover Spaces 2 Residual Green Spaces 1 Leftover Spaces 2 Empty Spaces 3 Residual Green Spaces 1 Non-Spaces 2 Empty Spaces 3 Residual Green Spaces 2 Empty Spaces 3 Residual Green Spaces 2 Empty Spaces 3 Residual Green Spaces 2 Empty Spaces 3 Leftover Spaces 4 Residual Green Spaces	ces	 Located in the Yiğitler Street Approximate area is about 0. Covered with mud and dirt Have access to public road Currently used as a shortcut bikbal and Yiğbil streets Emerged due to lack of plann future development 	19 ha for the for the formula of the
Geographical Void Phenomenological Void					
	Functional Void				

Zone 5: Karakol NeighborhoodCode: 5:D4-3				Code: 5:D4-3		Area (Hectare): 0.1	Currently Function: Residual Green Space		
			Location on ma	0					
					A.				
		S	similarities with Residual Spa	aces	Located in the Suğut Street				
	A Inter Zones	1	Leftover Spaces			 Approximate area is about 0.1 ha Covered with weeds and trees Have access to public road 			
	Inter Zones	2	Residual Green Spaces				ack of		
	В	1	Leftover Spaces						
aces	Fringe Areas	2	Empty Spaces						
st Sp		3	□ Residual Green Spaces			• Emerged due to lack of planning or			
Types of Lost Spaces	С	1	□ Non-Spaces			designed green space			
es of	Infrastructural	2	Empty Spaces						
Typ	Border Zones	3	□ Residual Green Spaces				and the second		
	D	1	Dual-use Spaces		-				
	Expansion	2	Empty Spaces						
	Āreas	3	Leftover Spaces						
	4 ☑ Residual Green Spaces								
	Geographical Void Phenomenological Void								
	Functional Void								

Zone	5: Karakol Ne	ighł	oorhood	Code: 5:D2-20	Area (Hectare	e): 0.11	Currently	y Function: Empty and unused
			Location on mag	0				
			Similarities with Residua	1 Spaces	• Locate	ed between Apartman and Suğ	ıt	
	A Inter Zones	1	□ Leftover Spaces			Street		
		2	□ Residual Green Spaces					
		1	□ Leftover Spaces		 Appro 	oximate area is about 0.11 ha		
ces	B Fringe Areas	2	□ Empty Spaces		Cover	• Covered with mud and dirt		
Spa	Tringe Areas	3	□ Residual Green Spaces		• Have	access to public road		
Lost	С	1	□ Non-Spaces			-		
Types of Lost Spaces	Infrastructural	2	Empty Spaces		• Emerg	ged due to lack of planning or h	cept for	ppt for
[ype:	Border Zones	3	Residual Green Spaces		future	development		
	_	1	Dual-use Spaces					
	D Expansion	2	Empty Spaces					
	Areas	3	□ Leftover Spaces					
		4	Residual Green Spaces					
	Geographical Void							
	henomenological V	/oid						
	Functional Void							

Zone	5: Karakol Ne	eighborhood	Code: 5:D2-21	Area (Hectare):	Currently Function: Empty and unused
		Location on map	0	_	
		Similarities with Residua	1 Spaces	 Located in the Suğut Street 	
	А	1 🗆 Leftover Spaces		• Approximate area is about 0.1 ha	and the second sec
	Inter Zones	2 🛛 Residual Green Spaces			
		1 🗆 Leftover Spaces		• Covered with mud and dirt	A CONTRACTOR
ces	B Fringe Areas	2		• Have access to public road	A STREET AND A STREET
Spa	Tinge Theas	3 🗆 Residual Green Spaces		• Emerged due to lack of planning or k	opt for
Lost	С	1 🗆 Non-Spaces			
s of	Infrastructural	2		future development	
Types of Lost Spaces	Border Zones	3 🗆 Residual Green Spaces			the second second
L		1 Dual-use Spaces			
	D Expansion	2 Empty Spaces			
	Areas	3 🗆 Leftover Spaces			
		4 🗌 Residual Green Spaces			
	Geographical Void				
	henomenological	Void			
	Functional Void				

Zone	5: Karakol Ne	ighl	oorhood	Code: 5:D1-7	Area (Hectare): 0.1		Currently Function: Dual use Space
			Location on mag	р			
			Similarities with Residua	1 Spaces	• Located in the Fadil Riza	a Street	
	A Inter Zones	1	□ Leftover Spaces				States and the second
		2	□ Residual Green Spaces		• Approximate area is about		Contraction of the second
		1	□ Leftover Spaces		• Covered with mud and dirt and in so	irt and in sor	e
ces	B Fringe Areas	2	□ Empty Spaces		parts weeds		
Spa	Thige Areas	3	□ Residual Green Spaces		Currently used as parking	g lot by local	Contraction of the second s
Lost	С	1	□ Non-Spaces			g lot by local	5 5
Types of Lost Spaces	Infrastructural	2	Empty Spaces		citizens		E B B Ward of
Type	Border Zones	3	□ Residual Green Spaces		• Emerged due to lack plan	nning or kept	for
		1	☑ Dual-use Spaces		future development		
	D Expansion	2	Empty Spaces				
	Areas	3	□ Leftover Spaces				and a state of the
		4	□ Residual Green Spaces				
	Geographical Void						ALC: A CONTRACTOR
	henomenological	/oid					
	Functional Void						

Zone	5: Karakol Ne	ighl	oorhood	Code: 5:D2-22	Area (Hectare):	Cur	rently Function: Empty and unused		
			Location on map	р					
			Similarities with Residua	1 Spaces	Located in the Anafartalar Road				
	А	1	Leftover Spaces						
	Inter Zones	2	□ Residual Green Spaces		• Approximate area is about 0.35 ha				
		1	□ Leftover Spaces		• Covered with mud and dirt				
ces	B Fringe Areas	2	□ Empty Spaces		• Have access to public road				
Spa	Thige Areas	3	□ Residual Green Spaces						
Lost	G	1	□ Non-Spaces		• Emerged due to lack of planning or	nning or kept ic	ior		
s of 1	C Infrastructural	2	Empty Spaces		future development				
Types of Lost Spaces	Border Zones	3	Residual Green Spaces				a stand of the stand		
H		1	Dual-use Spaces				A TO TO A A		
	D .	2	Empty Spaces				AT COM A BOOM TO BE		
	Expansion Areas	3	□ Leftover Spaces						
	7 Hous	4	□ Residual Green Spaces				The second		
	Geographical Void						A STATE AL PROPERTY		
\square P	henomenological V	/oid							
	Functional Void								

Zone	5: Karakol Ne	ighl	borhood	Code: 5:D2-23	Area (Hectare): 0.15	Currer	ntly Function: Empty and unused	
			Location on map	р					
								A CONTRACTOR OF	
	Similarities with Residual Spaces				Located in the Fadil Riza Street				
	А	1	□ Leftover Spaces		Π				
	T . D	2	□ Residual Green Spaces		•	• Approximate area is about 0.15 ha			
		1	□ Leftover Spaces	es		Covered with mud and dirt			
ces	B Fringe Areas	2	□ Empty Spaces		Π.	Emerged due to lack of planning or kept for			
Spa	Tillige Areas	3	□ Residual Green Spaces						
Lost	С	1	□ Non-Spaces		H ·		kept for		
s of]	Infrastructural	2	Empty Spaces		Ħ	future development	THE PARTY		
Types of Lost Spaces	Border Zones	3	Residual Green Spaces		Ħ				
L L		1	Dual-use Spaces		Ħ				
	D	2	Empty Spaces		Ħ				
	Expansion Areas	3	□ Leftover Spaces		Ħ			ALL CARDEN ALL	
	Thous	4	□ Residual Green Spaces		Π				
	Geographical Void				Π			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	henomenological V	/oid			Ц				
	Functional Void				Ц				

Zone 5	5: Karakol Neig	ghborhood	Code: 5:D2-24	Area (Hectare): 0.87	Currently Fu	Inction: Empty and unused
the second second		Location on ma	np			
	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas	Similarities with Res 1 □ Leftover Spaces 2 □ Residual Green Spa 1 □ Leftover Spaces 2 □ Empty Spaces 3 □ Residual Green Spa 1 □ Non-Spaces 2 □ Empty Spaces 3 □ Residual Green Spa 1 □ Dual-use Spaces 2 ☑ Empty Spaces 3 □ Leftover Spaces 2 ☑ Empty Spaces 3 □ Leftover Spaces 4 □ Residual Green Spa	ces ces	 Located in the Anafartala Approximate area is about Covered with mud, dirt a leftovers Have access to public roate Emerged due to lack of p future development 	t 0.87 ha ad construction	
Phenomenological Void Functional Void						mage 62013 log ng/Gigen

Loc	ation on map		
A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas A I I I I I I I I I I I I I I I I I I	rities with Residual Spaces over Spaces dual Green Spaces over Spaces ty Spaces dual Green Spaces Spaces ty Spaces tu Spaces -use Spaces -use Spaces ty Spaces over Spaces ty Spaces	 Located in the Demir Street Approximate area is about 0. Covered with mud and dirt Have access to public road Emerged due to lack of plann future development 	A THE THE

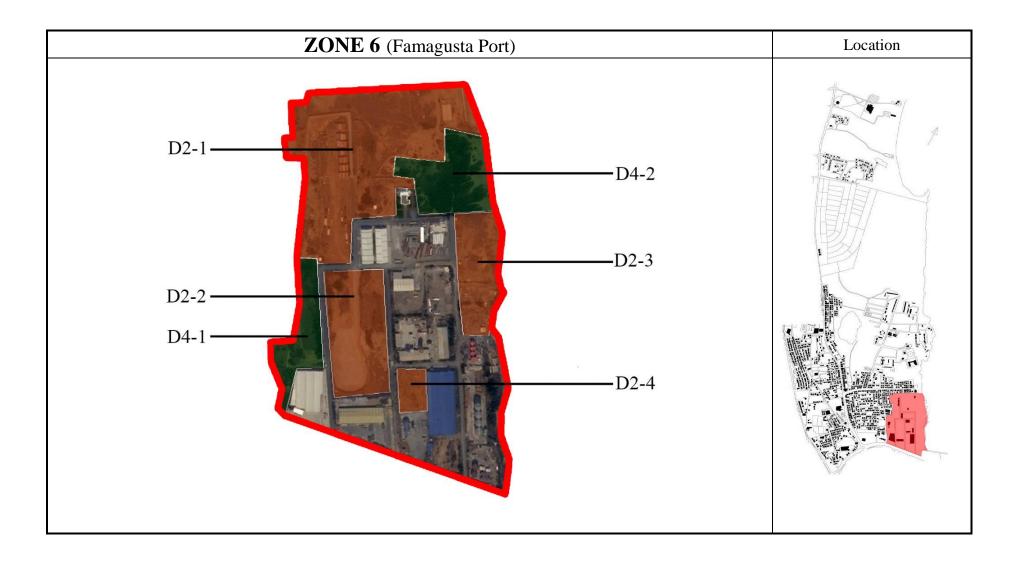
Zone	e 5: Karakol Ne	ighborhood	Code: 5:D2-26	Area (Hectare): 0.1	Currently Function: Empty and unused	
4		Location on	map			
	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Void Phenomenological V		paces	 Located between M.Abdullah streets Approximate area is about 0. Covered with mud and dirt Have access to public road Emerged due to lack of plann future development 	1 ha	

Zone	5: Karakol Ne	ighl	oorhood	Code: 5:D2-27	A	Area (Hectare): 0.1	Curren	ntly Function: Empty and unused	
	R	51	Location on ma		-				
ł									
			Similarities with Residua	l Spaces	Located in the Demir Street				
	A	1	□ Leftover Spaces			• Approximate area is about 0.1 ha			
	Inter Zones	2	Residual Green Spaces			 Covered with mud and dirt Have access to public road Emerged due to lack of planning or kept for 			
	р	1	□ Leftover Spaces				ATT THE PARTY AND THE PARTY		
aces	B Fringe Areas	2	□ Empty Spaces						
t Spi	C	3	Residual Green Spaces				ent for		
Los	С	1	□ Non-Spaces				cept for		
Types of Lost Spaces	Infrastructural	2	□ Empty Spaces			future development			
lype	Border Zones	3	Residual Green Spaces						
	_	1	Dual-use Spaces					A PERSONAL STREET	
	D Expansion	2	Empty Spaces						
	Areas	3	□ Leftover Spaces						
		4	Residual Green Spaces				the second second second		
	Geographical Void							· 人名英格兰斯特尔 医乳浴	
	Phenomenological V	/oid						E A REALISTER OF STREET	
	Functional Void								

Zone	5: Karakol Ne	ighł	borhood	Code: 5:D2-28	Area (Hectare):	Curre	ently Function: Empty and unused
Location on map							
Types of Lost Spaces	A Inter Zones B Fringe Areas C Infrastructural Border Zones D	1 2 3 1 2 3 1 2 3 1 2	Similarities with Residua Leftover Spaces Residual Green Spaces Empty Spaces Residual Green Spaces Non-Spaces Empty Spaces Residual Green Spaces Residual Green Spaces Empty Spaces Empty Spaces	S S	 Located between M.Abd streets Approximate area is abo Covered with mud and d Have access to public ro Emerged due to lack of p future development 	out 0.1 ha lirt vad	
□ P	Expansion Areas 2 Empty spaces 3 I Leftover Spaces 4 Residual Green Spaces Geographical Void Phenomenological Void						

Zone	e 5: Karakol Ne	ighborhood	Code: 5:D2-29	Area (Hectare): 0.15	Currently Function: Empty and unused	
4		Location on ma	p			
□P	A Inter Zones B Fringe Areas C Infrastructural Border Zones D Expansion Areas Geographical Void Phenomenological V		5 5 5	 Located between Şaziye ismail and Streets Approximate area is about 0.15 ha Covered with mud and dirt Have access to public road Emerged due to lack of planning or future development 		

Zone	5: Karakol Ne	igh	borhood	Code: 5:D2-30	Area (Hectare): 0.1	Cur	rently Function: Empty and unused		
	×	2	Location on ma						
+									
	Similarities with Residual Spaces				Located in the Demir Street				
	A	1	□ Leftover Spaces		• Approximate area is	Approximate area is about 0.1 ha	A line was and the state of the state		
	Inter Zones	2	Residual Green Spaces						
	D	1	□ Leftover Spaces		Covered with mud ar	• Covered with mud and dirt			
lces	B Fringe Areas	2	□ Empty Spaces		Have access to public	c road			
t Spa	6.	3	□ Residual Green Spaces		• Emerged due to lack	of planning or kept fo	or a state of the		
Lost	С	1	□ Non-Spaces		-	or plaining of kept it			
s of	Infrastructural	2	Empty Spaces		future development		and the state of the second		
Types of Lost Spaces	Border Zones	3	□ Residual Green Spaces						
L		1	Dual-use Spaces						
	D	2	Empty Spaces						
	Expansion Areas	3	□ Leftover Spaces						
		4	□ Residual Green Spaces						
	Geographical Void								
□ P	henomenological '	Void					Image@2014.DigitalGlobe		
	Functional Void								



Zone	6: Famagusta	Port	- Karakol District	Code: 6:D2-1	Area (Hectare): 8.5	Currently Function: Empty and unused			
			Location on map	р					
					Photo is not available				
			Similarities with Residua	l Spaces	Located in the Famagusta Free-Port				
	A	1	□ Leftover Spaces		• Approximate area is about 8.5 ha				
	Inter Zones	2	Residual Green Spaces						
	P	1	□ Leftover Spaces		• Covered with mud and dirt and unu	sed			
aces	B Fringe Areas	2	□ Empty Spaces		containers				
t Spi	6	3	□ Residual Green Spaces		• Have lack of access to center of are	a			
Los	С	1	□ Non-Spaces						
Types of Lost Spaces	Infrastructural	2	□ Empty Spaces		• Emerged due to lack of planning or	kept for			
Гуре	Border Zones	3	□ Residual Green Spaces		future development				
		1	Dual-use Spaces						
	D Expansion	2	Empty Spaces						
	Areas	3	□ Leftover Spaces						
		4	Residual Green Spaces						
	□ Geographical Void □ Phenomenological Void								
	henomenological View Functional Void	v oid				limage C 2014 DigitalGibbe			

Zone	6: Famagusta	Port	- Karakol District	Code: 6:D2-2	Area (Hectare): 3.1	Currently Function: Empty and unused			
			Location on map	р					
					Photo is not available				
			Similarities with Residua	l Spaces	Located in the Famagusta Free-Port				
	A	1	□ Leftover Spaces		• Approximate area is about 3.1 ha	ALL ALL AND			
	Inter Zones	2	□ Residual Green Spaces			ALL ALL BOOM			
		1	□ Leftover Spaces		Covered with mud and dirt and rema	ains of			
ces	B Fringe Areas	2	□ Empty Spaces		wetland				
: Spa	1 mge 1 meus	3	Residual Green Spaces		• Have access to public road but lack				
Lost	С	1	□ Non-Spaces		-				
s of	Infrastructural	2	□ Empty Spaces		accessibility to center of area				
Types of Lost Spaces	Border Zones	3	□ Residual Green Spaces		• Emerged due to lack of planning, lack	ck of			
Г	_	1	Dual-use Spaces		designed accessibilities or kept for f	uture			
	D Expansion	2	Empty Spaces						
	Areas	3	□ Leftover Spaces		development				
		4	Residual Green Spaces						
	Geographical Void								
	henomenological V	/oid				and the second sec			
	Functional Void								

Zone	6: Famagusta	Por	t- Karakol District	Code: 6:D4-1	Area (Hectare): 1.66	Currently Function: Residual green spaces			
			Location on map	р					
					Photo is not available				
			Similarities with Residua	1 Spaces	Located in the Famagusta Free-Port				
	А								
	Inter Zones	2	Residual Green Spaces		• Approximate area is about 1.66 ha				
		1	□ Leftover Spaces		• Covered with weeds and trees				
ces	B Fringe Areas	2	□ Empty Spaces		• Have access to public road				
Spa	T Thige Theus	3	Residual Green Spaces		• Emerged due to lack of planning or l	ack of			
Lost	С	1	□ Non-Spaces						
s of	Infrastructural	2	Empty Spaces		designed green space				
Types of Lost Spaces	Border Zones	3	□ Residual Green Spaces						
Г		1	Dual-use Spaces						
	D Expansion	2	Empty Spaces			and another the			
	Areas	3	□ Leftover Spaces						
		4	Residual Green Spaces			and the second s			
	□ Geographical Void								
	Phenomenological Void								
□ F	Functional Void								

Zone	6: Famagusta	Por	t- Karakol District	Code: 6:D4-2	Area (Hectare): 2.34	Currently Function: Residual green spaces		
Location on map								
					Photo is not available			
	Similarities with Residual Spaces				Located in the Famagusta Free-Por			
	A Inter Zones	1	□ Leftover Spaces		• Approximate area is about 2.34 ha			
		2	□ Residual Green Spaces		**			
	B Fringe Areas	1	□ Leftover Spaces		 Covered with weeds and trees and segrowth plants Have access to public road on south Emerged because area is close to sear of planning or lack of designed gree space 	f-		
Ices		2	□ Empty Spaces					
t Spe		3	□ Residual Green Spaces			n side		
Lost	C Infrastructural Border Zones	1	□ Non-Spaces			lack		
s of		2	□ Empty Spaces					
Types of Lost Spaces		3	Residual Green Spaces			en la		
	D Expansion Areas	1	Dual-use Spaces					
		2	Empty Spaces					
		3	□ Leftover Spaces					
		4	Residual Green Spaces					
Geographical Void								
Phenomenological Void						Image © 2014 DigitalGlobe		

Zone 6: Famagusta Port- Karakol District Code: 6:D2-3					Area	n (Hectare): 2.11	C	Currently Function: Empty and unused		
Location on map						Photo is not available				
	Similarities with Residual Spaces					 Located in the Famagusta Famagusta 	ree-Port			
	A Inter Zones	1	□ Leftover Spaces			 Approximate area is about 2.11 ha Covered with mud and dirt and garba 				
		2	□ Residual Green Spaces	8						
	B Fringe Areas	1	□ Leftover Spaces			Have access to roadEmerged due to lack of attention to a		and the second second		
ses		2	□ Empty Spaces					ea,		
Spac		3	Residual Green Space	3		lack of planning or kept for future				
Lost	C Infrastructural Border Zones	1	□ Non-Spaces			development				
s of]		2	Empty Spaces							
Types of Lost Spaces		3	Residual Green Spaces	3						
	D Expansion Areas	1	Dual-use Spaces							
		2	Empty Spaces							
		3	□ Leftover Spaces]]			States and the states of the		
		4	□ Residual Green Spaces	3						
Geographical Void							rmace ∞ 2014 GinitalGippe			
Phenomenological Void										
□ Functional Void										

Zone 6: Famagusta Port- Karakol District Code: 6:D2-4						Hectare): 0.53	Currently Function: Empty and unused		
Location on map					Photo is not available				
	Similarities with Residual Spaces				• Located in the Famagusta Free-Port				
	A Inter Zones	1	□ Leftover Spaces		•	Approximate area is about 0.53 ha			
		2	□ Residual Green Spaces		•	• Covered with mud and dirt			
	B Fringe Areas	1	□ Leftover Spaces		•	Have access to public road			
ces		2	□ Empty Spaces		• Emerged due to lack of planning or kept a future development		kept for	ot for	
Types of Lost Spaces		3	Residual Green Spaces						
Lost	C Infrastructural Border Zones	1	□ Non-Spaces						
s of		2	□ Empty Spaces						
ype		3	□ Residual Green Spaces					Nº H Aller	
	D Expansion Areas	1	Dual-use Spaces						
		2	Empty Spaces					FIFT	
		3	□ Leftover Spaces						
		4	Residual Green Spaces						
	Geographical Void								
Phenomenological Void							als is the		
Functional Void							Y A WAY A MARKAN		