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Urban gardens as a means of preserving urban open spaces:

'A Productive Public Park in Yedikule'

Case study: Threats to Bostans in Yedikule Mahallesi, Istanbul

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von

BSc. Elis MEHMED, Landscape Architect
0826689

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von

O. Univ. Prof. Dipl.-Ing. STILES, Richard
Vorstand des Instituts für Städtebau, Landschaftsarchitektur und Entwerfen an der TU Wien

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ABSTRACT

The study aims to investigate the role of urban gardens (known as 'bostans' in Turkish) as a means of preserving urban open spaces by considering them as a legitimate use of public open space. It uses the historic urban context of the historic Yedikule district of Istanbul as a case study, where the historic Yedikule bostans are located at the ancient city walls. There, urban bostan activities have traditionally been pursued by gardeners with the purpose of food production, but they also help to conserve an urban landscape with cultural value.

At the site of the ancient city walls, the local authority is currently proposing to construct a public recreational park project which will also require the destruction of some sections of the historic Yedikule bostans. This will have the aim of, preserving the existing open space, but only in the form of a public recreation park fulfilling only the purpose of recreation and leisure. It is also being proposed at a time when the subject of urban agriculture is being taken increasingly seriously. As a result, preserving urban open spaces ought to have much wider goals than just providing for recreation and leisure. The potential of the historic Yedikule bostans to be part of a wider strategy for preserving urban open spaces to make a legitimate use of public open spaces is explored in this study.

Taking into consideration all possible functions of urban open spaces helps to find **a legitimate use of public open spaces** and should involve balancing the demands of different land users/actors in an appropriate level of use of space through an active public participation in policy making process from the beginning. This public participation creates a sense of ownership. Therefore, a good public park in the area of the Yedikule bostans should also respects local cultural landscape values, and should be planned from bottom up in an attempt to balance the demands of different stakeholders, the interests of food production, conservation of the historic cultural landscape, recreation and leisure. Integrating Yedikule bostans into public park project to promote recreation and leisure, food production with respect to conservation of historic cultural landscape value can represent the best strategy to preserve urban open space in historic Yedikule neighborhood. This integration identifies '***a productive public park in Yedikule***'.

Main challenges of urban bostans in the case of Yedikule are as follows:

1. Its non recognition by the local municipality, although the historic Yedikule bostans are under the protection of national laws;
2. The non-consideration of the guide of conservation plans, despite the indicated Yedikule Bostans in conservation plans;
3. The lack of effective control mechanisms to examine the implementation projects in conservation areas;
4. The requirements of the European Landscape Convention, which are not taken sufficiently in to account, although ELC has been signed and ratified by Turkey; and
5. The intent of the local authorities to make a 'modern' image in Yedikule.

The issue is increasing the awareness of the ***multi-functional use*** of urban bostans as the best preservation strategy of urban open spaces and integrating urban bostans into the local open space planning policies, which are largely dominated by a centralized open space planning mechanism.

Key words: *Urban bostans, preserving urban open spaces, a legitimate use of open spaces, multi-functional use, planning paradigms, recreational public park, historic cultural landscape, Yedikule*

ZUSAMMENFASSUNG

Ziel der Studie ist es, die Rolle der urbanen Gärten (auf Türkisch als 'bostans' bekannt) zu untersuchen, städtische Freiräume als legitime Nutzung der öffentlichen Freiflächen in einem historischen städtischen Kontext Yedikule, Istanbul zu erhalten. Es wird durch eine Fallstudie im historischen Viertel an der alten Stadtmauer in Yedikule untersucht. Städtische Bostan-Aktivitäten von Gärtnern dienen in erster Linie zur Lebensmittelherstellung; auf die Erhaltung der Kulturlandschaft wird Wert gelegt.

Ein Erholungspark Projekt wird derzeit von der Politik an der alten Stadtmauer geplant. Ziel ist es, einen offenen Raum für Erholung und Freizeit zu kreieren, u.a. mittels Zerstörung einiger Abschnitte der Yedikule historischen Bostans. Aber die Erhaltung städtischer Freiräume sollte viel mehr als nur der Erholung und Freizeit dienen. Das ganze Thema erfolgt noch dazu in einer Zeit, wo urbane Gärten stark an Popularität gewinnen. Erforscht wird dabei das Potential der Yedikule historischen Bostans um eine erweiterte Strategie für die Erhaltung städtischer Freiräume, bzw. um eine rechtmäßige Verwendung der öffentlichen Freiflächen zu finden.

Betrachtet man alle möglichen Funktionen des urbanen Freiflächen, hilft eine legitime Nutzung der öffentlichen Freiflächen mit Ausgleich der Anforderungen der verschiedenen Landnutzern / Akteure in einer angemessenen Raumnutzung durch eine aktive Beteiligung der Öffentlichkeit bei politischen Entscheidungsprozessen von Anfang an zu finden. Diese Beteiligung der Öffentlichkeit schafft ein Gefühl der Eigenverantwortung. Daher soll ein guter Park im Ort von Yedikule Bostans in Bezug auf Kulturlandschaftswert von unten nach oben mit dem Ausgleich der Forderungen der folgenden verschiedenen Beteiligten planen: die Interessen der Lebensmittelherstellung, Erhaltung der historischen Kulturlandschaft, Erholung und Freizeit. Die Integration von Yedikule Bostans in das öffentliche Parkprojekt zur Erholung und Freizeit, Nahrungsmittelproduktion in Bezug auf die Erhaltung der historischen Kulturlandschaftswert zu fördern, kann die beste Strategie werden, um die städtischen Freiflächen im historischen Viertel Yedikule zu erhalten. Diese Integration identifiziert "eine produktive öffentliche Park in Yedikule".

Die wichtigsten Herausforderungen der städtischen Bostans im Fall von Yedikule sind wie folgt:

1. Nichtanerkennung von der lokalen Gemeinde, obwohl die Yedikule historischen Bostans unter dem Schutz der nationalen Gesetze sind;
2. Nichtberücksichtigung des Leitfadens der Schutzpläne trotz angegeben in Yedikule Bostans;
3. Fehlen eines effektiven Kontrollmechanismus, um die Implementierungsprojekte in Schutzgebieten zu untersuchen;
4. Anforderungen der Europäischen Landschaftskonvention, die nicht ausreichend, berücksichtigt werden, obwohl ELC von der Türkei unterzeichnet und ratifiziert wurde;
5. Absichten der lokalen Behörden eine "moderne" Bild in Yedikule zu schaffen.

Das Problem ist die Erhöhung der Bekanntheit der multifunktionalen Nutzung des städtischen Bostans als die beste Erhaltungsstrategie der städtischen Freiflächen und die Integration von urbanen Bostans in den lokalen Freiraumplanungspolitik, die vor allem durch eine zentrale Freiraumplanungs-mechanismus dominiert wird.

Schlüsselwörter: *Urbane Garten, die Erhaltung städtischer Freiräume, eine legitime Nutzung von Freiflächen, multifunktionale Nutzung, Planungsparadigmen, öffentlicher Erholungspark, historische Kulturlandschaftswert, Yedikule*

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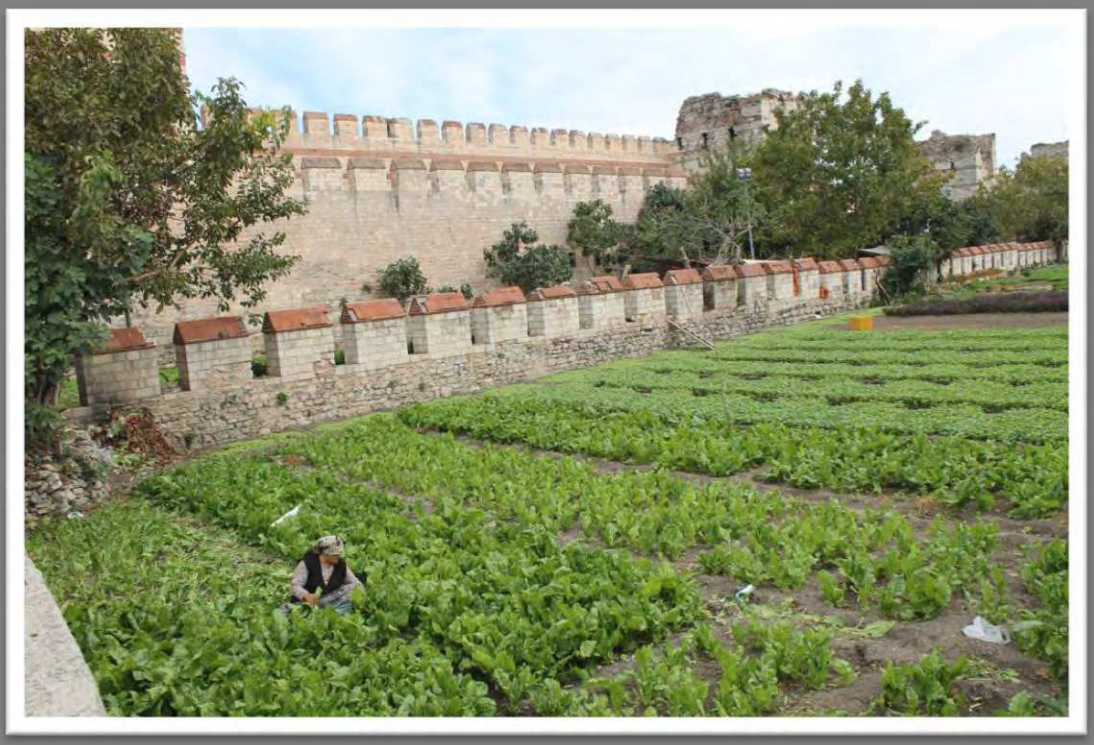
URBAN GARDENS | BOSTAN

YEDIKULE HISTORIC VEGETABLE GARDENS



An historic bostan at the 1600 years old City Walls of Istanbul

in the neighborhood Yedikule.

(Photograph by Elis Mehmed, September, 2013)

“The fascinating thing about the garden is
its mixture of imagination and reality.
It is able to compensate
for the deficits between an ideal world and the reality
we face in our everyday environment.
The garden represents a type of nature
that is influenced, without contempt,
by humans according to their ideas.”
by Kaspar Klaffke.

Louafi K., (Eds.) (2011): Landscape Interventions City Paradises, p. 49. Publisher: Jovis Verlag GmbH.

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PART 1: INTRODUCTION & METHODOLOGY

1 INTRODUCTION

In rapidly urbanizing world, urban garden is rising as a widespread activity for recreation and leisure use; it is also becoming an important subject for ***preserving urban open spaces***. This thesis questions the role of *urban gardens* as the **open space preservation strategy** in an historic urban context. Urban gardens have a long history in Istanbul, turkish traditional market gardens, known as ***bostans*** (Kaldjian, 2004), in direct closeness to the urban zone, integrated into daily life and satisfying fresh food needs of the neighborhoods. 'Bostancılık'[1] means gardening culture, 'gardening actions' in these food production zones rely on the Ottoman Istanbul, and the managers and workers of gardens are named 'Bostancı'. They represent 'urban kitchen gardens', and act as 'commercial gardens'. There are water wells, water pools, barns, porches at the historic urban bostans; vegetable growing is continued at the same food production zones, inside and outside the Land Walls today. Mostly, vegetables are produced on the bostans in general, but some bostans have fruit trees, farming animals. Today, the typical size of bostan in Istanbul is around 1-1.2 hectares as individual garden-*one family garden*- (Kaldjian, 2004). The bostans in Yedikule are one of them, located at the ancient city walls.

I am more interested in relative benefits of productive and reproductive urban gardens. Reproductive urban gardens have the real potential to shape our cities, to be a part of urban open space system and urban life. They help to extend **'productive urban open spaces'**. Urban gardens recently became land use elements of the open spaces such as parks, learning areas. In this interest, I investigate the study site. On the one hand, there is a bostan tradition, which is still ongoing at the bostans in Yedikule, representing productive urban gardens. On the other hand, contemporary approaches are trying to integrate urban agriculture into the social, environmental, economical dimensions that drive daily life in the cities. The multi functional practices[2] of urban gardens that touch social inclusion, recreation, leisure, education, conservation, urban food security, public health, as a resource to ***building communities***, represent reproductive functions of urban gardens. Compared to contemporary approaches, historic productive urban gardens in Yedikule have the potential to establish ecologic, cultural network to produce real urban communities. Traditional bostans in Yedikule have opportunity to adapt new urban garden models to manage the changes and challenges, to meet the demands of city dwellers.

This multi functionality is lighted by urban gardens as a "*resource used to build community, foster social and environmental justice, eliminate hunger, empower communities, break down*

[1]Bilgin A., 2010, "Osmanlı Dönemi Istanbul Bostanları (bir giris denemesi)" [Market Gardens of Istanbul in the Ottoman Times], Yemek ve Kültür Vol. 20, Çiya Yayınları, Istanbul, pp. 86-97.

[2]Van Veenhuizen, RUAF Magazine, 2007, "Building Communities through Urban Agriculture", accessed November, 2014, http://www.ruaf.org/sites/default/files/UAM_18.pdf, p.1-48., p.1.

racial ethnic barriers, provide adequate health and nutrition, reduce crime, improve housing, promote and enhance education, and otherwise create sustainable communities" (ASLA, 2006 quoted from UA-Magazine, 2007, p.2).

Urban bostans have been pushed away from the city centers due to the massive population growth, housing development, political corruption (Keyder, 1999 quoted in Xia et al., 2010, p.6), in densely built up areas, in growing cities, specifically in Istanbul, after 1980s.

In the 21st century, planning approaches put forward that farming activities are ***an integral part of cities.*** Before farming activities had been pushed away from cities through zoning and dividing into urban and rural activities. Today, **the new urban garden approach** is in contrast to the separation of activities into rural and urban, they are integrated as a part of the city. In this context, urban gardening is

"…new forms of sociality and collectivity: Urban Gardening is usually social gardening, it is participatory and community-oriented; The garden is staged as ***a learning and meeting place*** *and the neighborhood is included in the design of outdoor social space"* (Müller, 2011, p. 19).

An increasing variety of activities take place at the new urban gardens, it indicates new perspectives on the habitat of a city, making outdoor social spaces to promote learning and meeting, space for recreation and leisure, bringing people together as keepers of communal open spaces; it reinforces neighborhood life.

Until recently, vegetable gardens in big cities seemed to be anachronistic relic of bygone days (Müller, 2011). In developing countries, there is still lack of contribution of urban gardens for recreation and leisure and to promote social spaces for learning and meeting. The biggest difference between the traditional allotment gardens and the new urban gardens is not the sparse set of rules or the increased focus on local food production of "Youngster". The new urban garden perspective focuses on much more than intensive food production,

"…the new garden is made consciously in relation to the city, enters into a dialogue with the city and wants to be perceived as a genuine part of urbanity, not as an alternative to it - and lastly as a place where you want to relax from the city" (Müller, 2011, p. 20).

As a result, urban bostans are becoming an important subject to make a good plan in ***urban open spaces***. Urban bostans provide much more than intensive food production, recreation and leisure for citizens.

This study shows the relation between urban bostans and preserving urban open spaces. Firstly, urban open space planning approaches on the importance of keeping urban open spaces are being explained, and then the pressure on keeping land and changing land uses, urban agriculture as a response to the pressure of changing land uses are explained. Urban gardens are handled as a special issue of urban open space planning. Urban garden typologies and all possible functions of urban gardens are explained for food production, recreation and leisure. Furthermore, the trends on converting urban open spaces into urban bostans are widely explained with the worldwide examples. The planning policy context from bottom up

concerning the role of urban bostans for preserving urban open spaces is widely explained with the '*multi stakeholder approach'* and *'functional approach of open spaces'* to make a legitimate use of public open spaces. ***Finding the best strategy for preserving urban open spaces*** is described with *consideration of all possible functions of open spaces*, to balance different rights of different users of open space, to balance the demands of different city actors, to find an appropriate level of use of space through an active public participation in policy making process from the beginning; it creates a sense of ownership, frequently usage, and lovely spaces. It may help to find the best strategy for preserving urban open spaces to make a legitimate use of public open space.

This study investigates the role of *urban gardens* for preserving urban **open spaces** in an historic neighborhood of Yedikule, in order to make a legitimate use of public open spaces. It is inquired through the bostans in Yedikule.

In this research, I will look into the potentials and challenges of the bostans in Yedikule to find the best preservation strategy of urban open spaces. I will try to discover suitable land use concerning the wishes of different actors. The bostans in Yedikule are located at the ancient city walls, at the conservation site. Intensive food production is still going to make a profit by gardeners. Presently, Yedikule bostans challenge a municipal public park project, which promotes the demolition of some section of the historic Yedikule bostans to meet the recreation needs. There are different demands from different city actors, such as the demands of food production, conservation, recreation and leisure. Does the proposed municipal park project satisfy the demands of city actors, if it attends to demolish historic bostans in Yedikule? How can the demands of users and the local authority be met to find the best way to protect urban open spaces? What would be the best way to balance the demands of different city actors? Concerning contemporary adaptive approaches, I am going to explore the potential of the bostans in Yedikule in order to find their contributions to urban open spaces, their potential to meet the recreation needs, in this way keeping and developing historic bostans may help to find the best strategy to protect urban open spaces.

In the following sections firstly the importance of urban bostan (UB) for preserving open spaces in growing and shrinking cities will be highlighted; secondly, the reasons and current problems of studying Yedikule area will be explained; thirdly, the delimitations of my study, and then, my aim and research question raised in the study will be proposed; lastly, how to research this issue, the used methodologies will be explained at the methodological context.

1.1 Background

In 20th century world population increased rapidly, between 1950s and 2000s, from 2.5 billion to 6 billion people. (UNDP, 2014) The estimation of rapid world urbanization and increasing world population, migration from rural to urban areas, migration from smaller cities to growing cities, and shrinking cities, show interesting results in upcoming decades. According to recent demographic trends of United Nations (UN), world population is expected to reach 8.1 billion in 2025, 9.6 billion in 2050, from 7.2 billion in 2013. (UN, 2013) Currently growing population in growing cities seems to be under the pressure of urbanization. In 1950, 18 percent of people in developing countries lived in cities. In 2000, the proportion was 40 percent, and by 2030 people in developing countries are estimated to reach 56 percent in urban centers (UNDP, 2014).

Nowadays, the variety of urban bostans have been practiced in growing (Vienna, New York, Istanbul), and shrinking cities (Dessau, and Detroit). What kinds of practices are dominant in growing and shrinking cities? What can we learn from different approaches on urban bostan for my local practice in Yedikule- regard to urban bostans as open space preservation strategy, in context of growing and shrinking cities?

In rapid urbanization, growing cities are facing with the consumption of resources, growing food needs, caused by supply food crises, the majority of population lives in cities. Urban open spaces are challenging urbanization, density, the population growth, increasing land values in growing cities. Bostans with food production can feed dense urban settlements, and newcomers from rural areas, they have potential to be a part of urban food network; urban bostans provide also resources for living, working, playing and learning activities. Converting vacant and underused urban open spaces into urban bostans can support the urbanization especially for lower income groups and immigrants, who move from rural areas into cities, provide living and working resources through job opportunities; therefore urban bostans contribute decreasing the urban poverty in growing cities. Urban bostans contribute recreation and leisure with complementary activities. They provide resources for playing and learning, such as using recycled materials-PET-bottles to collecting rainwater for harvesting, organizing events, meetings to increasing awareness of environmental, healthy nutrition issues.

The importance of agriculture and its functions in city development meet with different changes, and reflect different socioeconomic demands. Urban gardening and city-near agriculture were the immediate resource for keeping up the food supply of city dwellers in war and crisis times. Pre-industrial cities structured self-sufficient food supply for city dwellers. Until the industrial revolution in Anatolia, agriculture was *livelihood* support for 80 percent of population (Baser etc., 2013, p.82). Forman remarked that peri-urban farmlands provide many values for their community, he pays attention on *cultural landscape* and he also criticizes the potential of open spaces to gardening activities, which is covered with hard surfaces or imitations of nature in the city as happening in the case study Yedikule. (Forman, 2008 quoted in Baser etc., 2010, p.108). At the end of 19th century, urban bostans have ***gained additional importance with the rapid growth of cities*** with food production, to fulfill *food*

security and *livelihood,* support against poverty, and also to fulfill ***recreation and leisure*** needs like providing educational opportunities, connecting residents to nature, organizing cooking and nutrition classes, improving job readiness, lots of benefits on economic, social, ecologic, and health dimensions. Besides of that, the evaluation of research reports and statistics in 1999s, the contribution of urban bostans to urban food supply, household, urban food security, employment and income security are remarked (Mougeot, 2005: 5-6).

In Germany, there are growing and shrinking cities. Although the land consumption is still going on, the overall urban development in many places is no longer influenced by the population growth. The ***shrinking cities*** are characterized by the population decline and deindustrialization, ***urban bostans*** with multi functional uses are gaining in importance ***as a structure component of urban development and urban restructuring.*** Urban bostans could fill on small scale vacant lands to provide opportunities such as '***temporary use***'[3] and ***'subsequent use'***[4] of vacant, underused, uncultivated, demolished lands. Dealing with potential areas of urban structural change involves a "***dual inner development***". It brings landscape and new uses equally in the city (DIU, 2013:25; Selle 2005:205). Urban bostans also play an important role for *repairing damaged lands, cleaning up* and providing access cultivation. As a result, urban bostans as ***a structural component of sustainable urban development and urban restructuring*** make important contribution to preserve vacant and underused urban open spaces.

Temporary use of urban bostans contribute preserving urban open spaces: new design and new usage forms on uncultivated, vacant lands, which has no change in ownership and leaves *open* the change of planning policies for the future development. Urban bostans as preserving open spaces contribute to **reduce** in shorter or longer period **a serious deficit of urban planning**. For example bostan adapted temporary use in Berlin: "Lichtenberger Sonnenlabyrinth"- a sunflower garden is created on the demolished land in the large settlement (DIR, 2013:44; BBR, 2004: 4), (Image 1-1). Dessau in Germany is another example of shrinking cities in relation to urban gardening approach (Image 1-2), reinforcing neighborhood life, contribute to built sustainable communities.

[3] **Temporary use–*zwischennutzung*-:** the conditions of buildings or lands on the task or loss of the original use to implementation or the beginning if the planned or desired reuse. The demand for space is less than the space available to an important tool of urban development. Because during the so-called transition phase between the old use and intended new use can these interim uses to resolve an urban maladministration and new quality activities in the public or semi-public space to create. (Zwischennutzungen: Temporäre Nutzungen als Instrument der Stadtentwicklung, p.11, accessed on August, 2014, from http://www.stadtumbaunrw.de/pdf/dokumente/zwischennutzungen.pdf).

[4] **Subsequent use-*nachnutzung*-**: According to duden dictionary, "the use of a building, land, whose original use is completed, accessed on August, from http://www.duden.de/suchen/dudenonline/nachnutzung.

Image 1-1: Lichtenberger Sonnenlabyrinth, (Source:http://www.planergemeinschaft.de/sul/projekte/sul-projekte-003g-laby.htm, accessed on 17th August, 2014)

Image 1-2: Shrinking city is Dessau in East Germany. Vacant land have used as shared plots by citizens in Dessau: About a third of its population will have lost by 2020 the town. (Source: IBA Stadtumbau 2010, http://www.spiegel.de/fotostrecke/iba-2010-einfach-nur-dichtmachen-geht-nicht fotostrecke-53587-2.html)

In recent years, growing cities that featured increasing population with high densely built up areas, compact and multifunctional cities have been restructuring processes to reuse intra-urban development potentials. The ***main goals of open spaces are to consider possible functional mixed structures, creating publicly accessible, compatible with ecology, and added value in spaces (In-Wert Setzung)*** (DIU, 2013). "*Public open spaces are a necessity for urban quality of life"* (Licka, 2007, p.241). Susanna Hauser mentions the necessity to provide open spaces in densely built up areas by the motive of compensation (HAUSER 2006, quoted in Licka 2007, p.243). Licka in 2007 highlights *"compensational uses such as motion …, climatic compensation, and compensation of built density are provided by open spaces. Sustainability of the Quality of life depends on the timely provision and securing of accessible open spaces in these densifying areas*" (Licka 2007, p.243). Growing cities suffer from suburbanization problem. As a result of urbanization and suburbanization as stated by Thomas Sieverts **'***between cities'* that describes a settlement structure which can be assigned to neither a city nor the rural area[5]. "Between cities" is replaced by "between countries" as Licka on the basis of landscape approach claimed in 2006 *"settlements are situated between part of landscape and therefore become part of it"* (Licka 2007, p.243). Open spaces have been shaping with the similar public space forms by city authorities: public open spaces are structured with similar outside requirements, with similar modern artificial elements to recreational use: parks, squares… and also similar built objects and forms: supermarkets, shopping malls, business areas.., even in very different regions or countries. ***There is a lack of identity and characteristics of existing open space qualities***, it is mostly the focus on just properties of buildings. Sieverts claims that differentiation can be achieved through *examination of existing qualities* and Licka underlines to focus on the characteristics of the

[5] "Zwischenstadt Andernorts", research report in 2000-2003, Accessed on 21st August, 2014, from http://archive.today/ZqUO, (Zwischenstadt Andernorts).

"spaces in between" (open spaces) rather than the peculiarities of the buildings (Licka 2007, p.242).

The economic priority changes bring out migration from smaller cities to larger cities. This change is defined as *shrinking city*. This occurs in the US with the rust belt, where the people have lost their industrial jobs since 1970s-like in Detroit, Cleveland and others (UNDP, 2014:28). In short, there are lost population and increasing presence of vacant and abandoned properties in America's older industrial communities; the shift in manufacturing employment and output from so called "Rust Belt"[6] (Crandall, 1993: Manufacturing on the Move: p.1, Brookings Institution Press). These **shrinking cities** with an abundance of vacant lands provide fertile ground; converting vacant lands into urban bostans with complementary activities contribute to social, economic, health, environmental benefits in neighborhood and citywide scale. ***Using vacant lands for urban bostan and urban gardening activities*** could revitalize environment and ecological conditions, empower community residents, creating job opportunities, decreasing employment, subsistence security, **self-help** to empower community inhabitants by community initiative of unemployed organizations, community kitchens, sharing food together, providing cooking and eating together, providing spaces to meeting, getting contact with each others, connecting residents to nature, providing physical and mental well-being. This kind of vacant lands could be collaborative acquired and cultivated. But often there is **no secure land title, and no security in longer continuous gardening**. Informal individual activities are not secured (DIU, 2013:49).

In growing cities, feeding the citizens mostly play role the large-scale agro operations with long food miles for urban food security. The population growth imposes special requirements on the food security, the industrialization of production, globalization of food markets. These factors cause increased food prices due to increased oil prices, production costs and long food miles which causes increased CO_2 in turn and accelerate the global warming. In this context, urban bostans with short food miles gain in importance and contribute decreasing food prices, CO_2.

Huhn et al. (2002) refers to urban bostan with high rate of organic farms, well established market gardens, orchards and vineyards, high quality fresh food, improvement local life quality, environmental friendly gardening that does not cause long food miles. Leinfelder's perspective seems In-Wert-Setzung: creating new functions and activities to survive garden strategy. The educational and cultural contribution of urban bostans is strongly underlined, for example in Vienna, "educational farms-"Children's Educational Farm" was established in four hectares of land by the City of Vienna Forest Department in cooperation with an organic farmer and a baker-, pick your own operations (lots of lands for vegetables, fruit and flowers throughout the city Vienna), "agritainment offers" (farmyard parties in Vienna..)", (Meyer-Chech & Seher, 2013).

[6] **Rust belt:** it has generally come to mean the heavy manufacturing zone near the Great Lakes that includes cities such as Detroit, Cleveland and Pittsburgh. (Definition from the article named "The Decline of the US, Rust Belt", 2012)

In Vienna there is also community supported agriculture (CSA), that exists in 6 ha farm lands for producing various of vegetables, and it "consists of a community of individuals who support a farming operation and where the consumers and growers share the risks and benefits of food production" (Meyer-Chech & Seher, 2013). This kind of community gardens contribute to supply fresh vegetables, sharing experience of food production and empower the community, reducing unemployment. Community gardens are generally intended to be non-profit; they are based on more recreation and leisure use, and social contributions.

Currently in Vienna, the housing development projects are going in urban development area in Wiesen, 23rd district Liesing. There are commercial gardens, glass houses, nurseries. A little urban gardening is going together with the housing development projects from the beginning of the project; commercial gardens in Wiesen are also converting into urban development projects in Vienna. The housing development projects offer gardening opportunities such as roof-gardening, community gardening and do-it-yourself in beds or glass houses.

Urban gardens are not only a structure element to fulfill the food needs, and also social and ecologic part of urban systems. Urban bostan provides much more than food production to feed urban citizens in arable lands, also recreation and leisure. Temporary use of vacant and underused open spaces-*like converting vacant lands into urban bostans in short and long term* and promoting urban gardens as urban open space preservation strategy on ***public or private ownership lands with the permission and support of state,*** all these contribute to social, economic, environmental dimensions, and urban sustainability in growing and shrinking cities, as above widely explained. Urban bostans contribute, as ***a structural component of sustainable urban development and urban restructuring,*** to reducing in shorter or longer period ***a serious deficit of the field of urban planning***. Urban bostans as open space preservation strategy, *have potential the overage vacant, demolished, underused lands to turn into urban bostans with complementary activities, provide productive landscapes, and sustainability,-reduce the unemployment, decrease the food expenses, reinforce the social solidarity with public kitchens to share food, cooking and eating together, various social, cultural activities, social gathering spaces, meeting spaces for elderly…etc,* ***in shrinking cities.*** In growing cities, urban bostans support the urbanization especially for lower income groups, new incomers, who move from rural areas into cities, provide living and working resources through job opportunities, providing income, employment; and therefore urban bostan contributes decreasing the urban poverty in growing cities. Besides food production issue to support low income groups in growing cities, urban bostans provide recreation and leisure in growing and shrinking cities, with multi functional usage of urban gardens, community gardens, institutional gardens, community farms; various activities can take place at urban bostans.

Consequently, urban gardens have been handled as *an open space preservation strategy* in growing and shrinking cities. The contributions of urban gardens as above has been referred: converting vacant and underused open spaces into urban bostans with complementary activities provide health, economic, environmental, social benefits, and food security, such as rainwater management, soil improvement, awareness of food systems ecology, biodiversity

and habitat improvements, access to healthy food, job opportunities…etc. As seen, urban bostans provide much more than food production to meet the food needs; they provide recreation and leisure with different activities such as education opportunities, increasing the awareness on environmental issues, access to health food, public kitchens, cooking and nutrition classes, food justice & social justice education, intergenerational interaction, clearing and transforming vacant lands. The contribution of urban gardens proves that they are necessity for sustainable urban development. Concerning the Yedikule case, there is a lack of consideration of urban gardens for recreation and leisure use by city authorities. In the following sections Istanbul will be reviewed, in particular Yedikule neighborhood, to clarify potentials and challenges of urban gardens as a means of preserving urban open spaces.

1.2 Problem Formulation

This study area examination is based on the role of urban bostans in open space planning approaches. It questions *urban gardens* as a means of preserving urban open spaces. It focuses on balancing the different rights of different users in order to make a legitimate use of public open spaces and find the best open space preservation strategy; considering the extent of legitimate use of urban gardens as public open spaces in an historic urban context. (Legitimate usage in my case means suitable/right use.)

There is intention of local municipality to make an open space plan for the process of urban development through urban renewals on the case of historic neighborhood of Yedikule: Transforming from a place of urban gardening into Public Park, to fill recreational leisure needs. At this point *three seemingly different demands of target groups* on open space planning meet: One, concerning a local municipal planning strategy, aims to develop a *Public Park* to fill ***the need for recreation and leisure***, with demolition of bostans in the process; it intends to cut all the links of local people and of the gardeners with the Bostans and to make a public park with ***artificial designs (*Image 1-4*)***, as a stereotype park; and local municipality intends to hygienize the area for upper classes; local municipality intends to increase land rent in the area and make it easier to change the image of properties and sell them much easier at higher prices. But ***this way of preserving urban open space to make a legitimate use of public open space*** is not a good plan, as proposed by the municipal public park project; the reason for that are ***lack of conservation of historic cultural landscape value and food production***; and lack of an active public participation in policy making, it is an imposed municipal public park project from top down planning policies.

The second demand of ***Conservation*** is triggered by Istanbul's activists**,** who seek to preserve agrarian culture at the ancient city walls, intending to design with respect to all the physical remains and living practices, empower local dwellers, and experience space with its cultural traces in everyday life and in the future. Actually the conservation group intends to

support ongoing food production process, and the interests of food production (gardeners) in case study.

The third is triggered by urban gardeners-*Bostan Keepers,* who are the living heritage practicing on over the thousand years gardening almost in the same patterns; they are keeping the traditional gardens and experiencing gardening culture with continuing ***food production*** in daily life. The demands of food production provide also conservation of cultural landscape value; but besides filling the demands of food production and conservation as in existing situation, considering ***all possible functions of bostans*** could also satisfy the demands of recreation and leisure. Various activities-*educational opportunities*- could take place at Yedikule Bostans, therefore ***'a productive open space'*** would be created, filling the demands of all three groups help to find the best way of preserving urban open spaces and making a legitimate use of public open spaces. Making a legitimate use of public open spaces is necessary to balance different rights of different users, in an appropriate level of use of space with an active public participation in policy making, and to understand the demands of target groups. How to balance the interests of different target groups, the demands of food production, recreation and leisure and conservation of cultural landscape value in order to find the best strategy to preserving urban open spaces (Image 1-3).

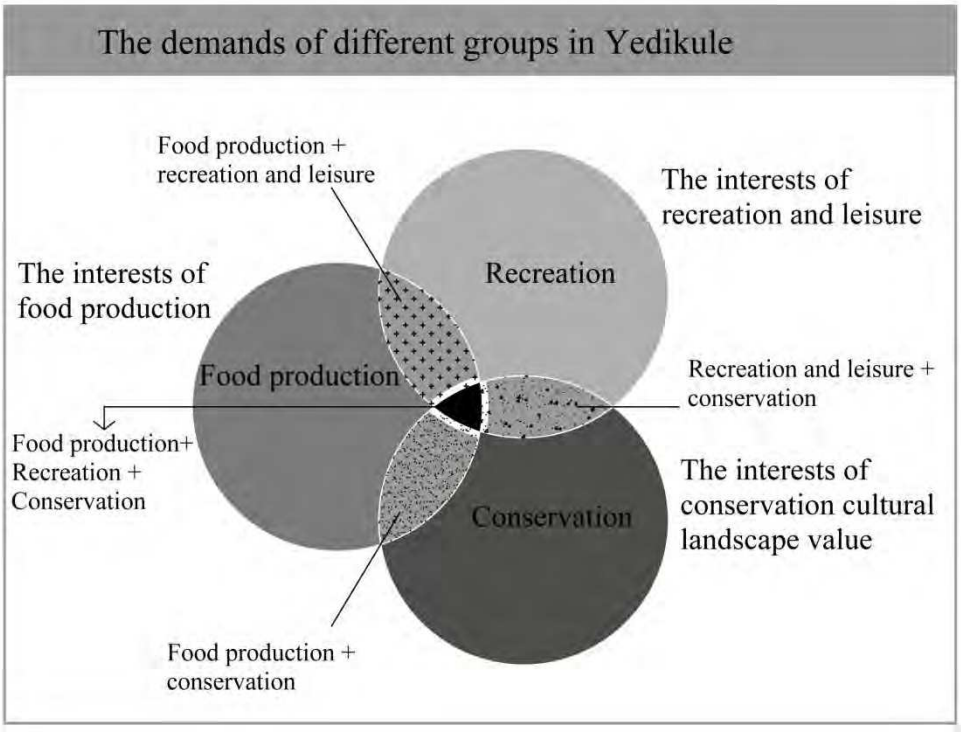


Image 1-3: The demands of food production, recreation and leisure, and conservation of cultural landscape value, self drawing

Interests of different users on Yedikule case: **food production** with urban agricultural purposes to preserve urban open spaces, **recreation and leisure** purposes to preserve open spaces -e.g. creating public parks-, and **conservation** of historic cultural landscape value, agrarian culture and its spatial traces. Current situation provides food production and

conservation issues; it is a **semi-public open space**, and gardeners can only access to lands for food production purposes, it does ***not*** have ***an open access for public***. It ***lacks directly publicly accessible*** outdoor for recreation and leisure. How should be the demands of recreation and leisure satisfied and how to make a legitimate use of public open spaces? There are different rights for different users to access land; ***how should be different rights for different users in an appropriate level of use of open space balanced? What is the best strategy to preserve urban open space in Yedikule historic neighborhood:*** providing the demands on **food production + recreation and leisure** to make a legitimate use of public open space, or providing the demands on **food production + conservation** (***status quo***), or providing the demands on **recreation and leisure + conservation**? ***Or integrating all three demands, food production + conservation + recreation, in the urban open space and make a legitimate use of public open spaces? Would that be the best way to preserve urban open space in the historic neighborhood of Yedikule?***

Being a planner and landscape architect, interested in the role of urban bostans to preserve public open spaces. Taking into considering all possible functions of open space helps to make a legitimate use of public open spaces. An active public participation, involvement of all potential target groups in policy making process from the beginning, involvement of local neighborhoods will endure as a functioning team with a sense of 'ownership'. These steps help to understand the demands of different target groups; accurate information of public on decision makers' side, and in this way, different demands would be balanced in an appropriate level of use of space. An appropriate level of use of space reduces the risk of crime, creates a sense of safety and frequently usable, lovely spaces. These spaces increase the responsibility of local neighborhoods to improve maintenance and cleanliness of the space. *How should be the interests of different users balanced in order to find the best way of preserving urban open spaces, and make a legitimate use of public open spaces?*-the interests of food production, recreation and leisure, conservation of cultural landscape value?

Making legitimate use of public open spaces depends on consideration of all possible functions of open spaces, balance of *different rights for different users and balance of different demands in an appropriate level of use.*

This study focuses on threats to Bostans-*vegetable gardens*- and the case of Yedikule Neighborhood which is situated in an historical area within City Walls. Yedikule-*seven Towers*- is a neighborhood of Fatih municipality in Istanbul, Turkey. Yedikule Fortress, which is near the neighborhood, is named after the seven towers [7]**.** Yedikule is located in the historical peninsula and distinguishes with Yedikule Fortress and *City Walls*. Fortress was built in 1458 by adding new towers to the Walls of Constantinople. In Byzantine time it was used as a gate function, 'Golden Gate', afterwards it lost its gate function and in Ottoman era it was mostly used as a treasury, dungeons, archive and state prison[8]**.**

[7] http://www.yedikule.org/yedikule/yedikule-tarihi

[8] Meyer-Plath & Schneider, 1978: "Die Landmauer von Konstantinopel: Teil 2", Walter de Gruyter

Bostans in Yedikule, are located inside and outside the City Walls. Shopov and Han claimed in 2013 use and transformation of urban agricultural lands in Ottoman Istanbul; "***In 1735 vouch book shows inside the Land Walls, there were 344 Bostans and 1381 Bostancı-bostan keepers"[9].*** Agricultural areas inside the Land Walls have been registered in this book and Byzantine sources indicate existence of efficient agricultural areas. As we see, *Gardens* inside the Land Walls, carry in connection with Byzantine, Ottoman and Republican Period 'agrarian culture traces' on space and the perception of local residents.

In 2005, Law No. 5366[10] has threatened the safeguarding of Bostans, *"authorizes the local authorities to execute and implement* ***'renewal projects'*** *in the renewal areas to be declared independent from the conservation plans"*[11]. But The Conservation Plan indicates *"The Bostan areas which are marked in the historic maps until 1875 and which are still surviving shall be protected."* [12] It can be seen in Conservation Plans that Bostans have been preserved as Istanbul Land Walls World Heritage Site. But it is going to be demolished by the authorized local municipality. Public policies shape the public and privately owned open spaces. The other point here to consider is that historic vegetable gardens are under protection of the ***national law***. Although the Yedikule Bostans are under the protection of national law, they are going to be demolished by local municipality interventions. ***What about the control mechanisms and its job to consider the possibility of wrong implementation acts of the municipal public park project, why the acts of local municipality were not stopped?*** There is lack of action of the control mechanism-*Renewal Areas Conservation Council No.2*-.should a revision of the proposed public park project be wanted from local municipality. But the Control Council already gave green light to the municipal park project. As a result, the proposed municipal public park project was approved with the existing factors, which means destruction of bostans and their relations to historic and cultural heritage.

The problems will be studied in three approaches: "Conservation", "Recreation", and "Food Production".

1.2.1 Conservation:

2006, the bostans in Yedikule were declared as a "renewal zone," [13] which are located inside City Walls, and local municipality of Fatih aimed to develop a public park by destruction of bostans; it means transforming from garden into a public park. City Walls (monuments) belong to the World Heritage Site, they are carriers of historic heritage, but Yedikule Bostans

[9] Shopov and Han, „Osmanli Istanbul'unda Kent Ici Tarimsal Toprak Kullanimi ve Dönüsümleri: Yedikule Bostanlari", 2013, Toplumsal Tarih No: 236, p: 35.
[10] Law No. 5366 Law on Preservation by Renovationand Utilization by Revitalization of Deteriorated Historical and Cultural Properties
[11] Istanbul Historic Peninsula Site Management Plan, 65; from A Report of Concern of the Conservation Issues of the Istanbul Land Walls World Heritage Site, 2014, p: 6.
[12] A Report of Concern of the Conservation Issues of the Istanbul Land Walls World Heritage Site, 2014, p: 7.
[13] Declared "renewal area's in 13.09.2006 by decision numbered 2006/10961 13.10.2006-26318 26318 (Istanbul Historic Peninsula Site Management Plan, 65)

(its surrounding landscapes) are excluded from that by local authorities: Why do local authorities pay attention to preservation of monuments but they don't take into account its surrounding landscapes? Why wouldn't Land Walls and its surrounding landscape be considered as ***an interpenetrated unit***, and ***reflect each other as a historic cultural heritage***? In the municipal public park, there is lack on ***design with respect to (bostan) its oldest style in use, in its original function as a whole-***Land Walls and its surrounding landscape. There is **lack on** consideration of identity and characteristics of Land Walls and its surrounding landscape as a whole; only focus in the case of Yedikule is on building new artificial objects and forms within surrounding landscape of Land Walls, ignoring its surrounding landscape as a carrier of historic heritage. Agrarian culture traces are still being carried in Yedikule Bostans. Yedikule Bostans-*vegetable gardens*- seemed ***immaterial as its potential for remodeling or improvement***.

The project let some parts of the historic gardens to be bulldozed, in July, 2013. The following bulldozing action will also damage the historic water irrigation system (water wells, water pools) in the bostans, and the image and significance of Land Walls and its surrounding landscape (meaning) as a whole (bostans, water irrigation system and others) will be damaged. Yedikule Bostans represent ***cultural landscape*** of Byzantine, Ottoman and Republican Period of the historic peninsula that constitute a significant component of topography of historic peninsula[14]. The connection of agriculturally used open space and its agrarian culture traces three periods, and the links of local people and of the gardeners with the Bostans characterize Land Walls and its surrounding landscape as a whole. The physical remains and living practices have been threatened. The safeguarding of cultural landscape values of the space has been threatened by the ratified a recreational public park project under jurisdiction of the local municipality of Fatih. With the new public park project than includes the destruction of Yedikule Bostans ***the symbol of historic vegetable gardening at the Land Walls will be lost.*** As in Sharma's article[15] (2007) mentioned *on the transformation of Delhi's tomb complex from a funerary garden into Public Park, "The garden's new identity as public park caused funerary symbolism to be lost. Its historic value was reduced…*" From historical point of view, the Bostans are part of Istanbul's identity: "*different neighborhoods were known for the specialty crops of their gardens"* [16] and "*the experience of their gardeners and cultural context in which they struggle to produce"* [17]. It highlights daily life in Bostans and contributions to the citizen's daily practices and citizens' connection with nature, and therefore it highlights historic cultural landscape.

[14]Shopov and Han, 2013, „Osmanli Istanbul'unda Kent Ici Tarimsal Toprak Kullanimi ve Dönüsümleri: Yedikule Bostanlari".

[15]Sharma, "The British Treatment of Historic Gardens in the Indian Subcontinent: The transformation of Delhi's Nawab Safdarjung's Tomb Complex from a funerary garden into a public park; Garden History, Vol. 35, No. 2 (Winter, 2007), pp. 210-228, p.225.

[16]Kaldjian, 2004, "Istanbul's Bostans: A Millenium of Market Gardens"; p.285

[17]Ibid.

Urban park project was approved by local municipality and Istanbul Metropolitan Municipality in 2013, although the project covers the area within the Lands Walls World Heritage Site, which was identified 'the Land Walls and its surrounding area' by the inscription of UNESCO in 1985[18]. *The Land Walls World Heritage Site* holds monuments from Byzantine and Ottoman Period such as traditional settlements, cemeteries, gardener's cottages, barns, water wells ***and historic vegetable gardens***. All of these were formed in relation to the monument of Land Walls. ***Land Walls and its surrounding landscapes form a unit***, and reflect each other.

As a result, referring to public park project, it seems that Istanbul Land Walls WHS have been included into conservation, but historic vegetable gardens have been excluded from conservation. It seems that historic monuments such as Land Walls were considered to be a conservation issue, but historic vegetable gardens as cultural landscape haven't been considered to be a conservation issue by the authorities of local municipality of Fatih and Istanbul Metropolitan Municipality. Perhaps there is a lack of acknowledgment of cultural landscape of responsible authorities; although Istanbul Land Walls WHS was identified by the inscription in UNESCO in 1985[19]. Referring to the inscription in UNESCO's list the authorities of local municipality of Fatih and the authorities of Istanbul Metropolitan Municipality should consider Yedikule Bostans-*historic vegetable gardens*- as conservation issue. As in Sharma's article mentioned[20] *"**a funerary garden seemed immaterial as its potential for remodeling…., even as the garden came to be recognized as an historic site, the rather constricted understanding of notion of built heritage focused attention only on the conservation its monuments…***". Relating Yedikule case, Yedikule Bostans seem to be ***immaterial as its potential*** for remodeling or improvement. Even the vegetable gardens at the Land Walls got recognized as ***an historic site,*** but with rather ***constricted understanding of notion of built heritage*** focusing only on the conservation of its monuments such as Land Walls.

[18]UNESCO World Heritage List, Historic Areas of Istanbul, accessed on February, 2015, from http://whc.unesco.org/en/list/356.

[19]Ibid.

[20]Sharma, "The British Treatment of Historic Gardens in the Indian Subcontinent: The transformation of Delhi's Nawab Safdarjung's Tomb Complex from a funerary garden into a public park, pp. 210-228, p.225.

1.2.2 Recreation against Food Production

Yedikule is facing the problem of rapidly urbanization and internal migration from other cities. Growing population in Yedikule brings growing food and employment needs for all stakeholders in an urban context. Inner cities with densely built up areas are faced with the problem of clearly reduced green open spaces per capita, and the problem of increased need of direct publicly accessible outdoors/green areas.

By zooming into neighborhood level, going from country level to (Istanbul) city level: on the country level, by Marshal Plan, after 1950s, *agricultural lands* expanded 60% for food production and agricultural mechanization in Turkey increased , as an example: amount of tractors has roughly tripled in the county. After the World War II, food crisis affected the country, although Turkey didn't participate in the war. Global economy changes influenced the entire world. Industrialization has affected mechanization in agricultural lands and changed employments clearly. Consequently, -*agricultural*- food production productivity has increased; mechanization in agricultural lands caused labor redundancy and in rural areas need of human labor in food production has been decreased. So the city population began to increase rapidly and cities got economic security to meet job needs. Istanbul's population began to increase rapidly and the consequence of that ***was pressure on land use changes***. New urban development approaches caused "functional transformation of the existing urban structure" (Dökmeci & Ozus &Sence Turk, 2011; Dokmeci & Ciraci, 2009).

On the city level, after 1980s, Istanbul played a very important role in internal migrations and it is the most industrialized city in Turkey. Currently, Istanbul with its populations exceeding 14 million[21] is growing with a constant pattern of urban sprawl and densely built up areas in inner city. It caused public open space changes in the city and the transformation of agricultural lands into other types of land (housing, industrial, commercial area) started. It brings pressure on the need of publicly accessible open spaces in Istanbul.

What is the cause of lack of the direct publicly accessible open spaces/outdoors/green areas in Yedikule? Growing population and densely built up areas; lifestyle changes bring recreation needs. Existing bostans are ***semi-public open spaces***, ***not directly open to public access***; only gardeners are allowed to use bostans for food production. Considering relation between population and area of open spaces in the local district of Fatih: there are ***7 square meters of open space per person***, and its ***3.7 square meters*** consists of ***publicly accessible outdoors and green areas; and the rest 3.3 square meters*** *are* ***not directly open to public access*** *at existing situation* (see the significance of making public park chapter). It means there is ***a gap in satisfying city's needs of public open spaces***. Converting bostans into multi functional use, and integrating them into the public park as a whole, may fill *needs for publicly accessible outdoors* in right way. The core point here is, as Licka remarked before, *"sustaining the quality of life depends on the timely provide and securing accessible spaces"* in historic Yedikule urban context (Licka 2007, p.243). Making a legitimate use of public open spaces,

[21] TurkStat., Address Based Population Registration System Results, 2013; Istanbul population: 14.160. 467; accessed on June, 2014, from http://www.turkstat.gov.tr/PreHaberBultenleri.do?id=15974).

adding value *(In-Wert-Setzung)* in open space, *finding coherence between different rights of different users to access bostans in an appropriate level of use* in order to make publicly accessible open spaces, and balancing the demands of different target groups, would fill demands of recreation and leisure. It may be the best strategy for preserving urban open spaces in Yedikule.

Public policies impact both publicly and privately owned open *spaces,* concerning conservation issues in Yedikule case. The bostans in Yedikule neighborhood were declared as a "renewal zone" on September 13th, 2006[22]. In 2010, firstly luxury Yedikule Villas with new four-story residences were built, replacing ***the bostans***[23].The intention was to increase the land value in Yedikule neighborhood.

In 2013, the local municipality of Fatih ratified a recreational public park project near Yedikule Villas. The ratified public park project intends to demolish some section of the historic Yedikule Bostans inside the Land Walls in order to fill ***needs of recreation and leisure.*** It intends to cut all the links of local people and of the gardeners with the Bostans and to make a public park with ***artificial design*** as a stereotype park ***(Picture 4)***. *Does the proposed municipal public park project provide a legitimate usage of public open space, turning historic bostans into artificial designed public park project to meet only the demands of recreation and leisure, and to make publicly accessible open space?* Is it a good strategy to preserve urban open spaces to make a legitimate use of public open space with ***the lack of other two demands, food production and conservation of historic cultural landscape value***?

The municipality public park project is placed in front of the luxury Yedikule Villas, it looks like the frontage of Yedikule Villas, as a kind of backyard of the envisioned housing development. The local municipality intends to hygienize the area for upper classes; the municipal public park with artificial designs seems to be promoting itself for new high income residents to access the recreational park for recreation and leisure. The aim of municipality acts is to homogenize the area for upper classes, to increase the land rents in Yedikule neighborhood, to change the image of the neighborhood, and sell the properties much easier at higher prices/values.

The municipal public park project is ***missing the consideration of Yedikule Bostans for recreation and leisure***. It ***lacks*** *the potential of Yedikule Bostans with* ***functional approach*** to provide recreation and leisure, and to make a legitimate use of public park. Is it not possible to consider all possible functions of existing open space in Yedikule, and to explore its existing quality? Considering the role of Yedikule Bostans with its complementary activities-in education, culture, social opportunities-, and *integrating bostans into public park project as a whole to provide recreation and leisure, food production with respect to conservation of historic cultural landscape value* may *add value* in Yedikule Neighborhood and *increase the*

[22]Historic Peninsula Site Management Plan, 2011, p. 65. [Accessed on January, from http://www.alanbaskanligi.gov.tr/files/Management_Plan_090312_TUM.pdf].

[23]Koca, Asun, "Güncel Dosya: Bostanlar", Yapi 386, pp.58-63, p.53, accessed on February, 2015, from https://bogachandundaralp.files.wordpress.com/2014/01/guncel_dosya.pdf.

land values; it also creates attractive, lovely spaces filling the demands of three target groups. It may attract tourists to visit ***'a Productive Yedikule Public Park'*** to look at Yedikule bostans and its unique symbol, and explore its history; also various activities that take place at Yedikule Bostans would attract tourists and residents to access the public park.

Exploring the existing qualities in Yedikule case, and preserving urban open space is necessary to balance different rights of different groups, the demands of food production, recreation and conservation, and to make a legitimate use of the public park in Yedikule. Converting the open space into multifunctional land use, with consideration of ***multifunctional use of Yedikule bostans***, will fill the demands of recreation, food production, and conservation. In this way, preserving urban open spaces will ***add value*** in the Yedikule neighborhood, as well as the consideration of structural and symbolic functions of Yedikule Bostans will help to explore its identity, meanings and values.

The way of making a public park by local municipality ***lacks an active public participation*** in decision making, plan making process, in order to understand wishes and demands of different stakeholders/city actors in Yedikule. The local municipality authorities didn't take into account demands of local residents, demands of food production and conservation. It fills only the demands for recreation. The proposed public park project is an imposed municipal project ***from top down planning policies.***

An active public participation in policy making from the beginning will help to understand demands of target groups of a society and to find an appropriate level of using bostans for recreation and leisure.

The proposed public park project lacks design with *respect to structural and symbolic functions of open space*; it lacks design with consideration of the potential of *the environmental and ecological functions of open space*, it lacks design with *respect to social and societal functions of open space*. As a result, it is necessary to consider all possible functions of public open spaces to make a legitimate use of public open space, and to fill demands of different target groups, demands for food production, recreation and conservation. *What is the best urban open spaces preservation strategy to make a legitimate use of public open spaces?* In the municipal public park project existing qualities of open space and the role of Yedikule Bostans with multifunctional use, to provide recreation and leisure as well, are not recognized.

Is it not possible to recognize ***sophisticated*** identity of existing lands, multifunctional use of open spaces and consider all possible functions of open space to make a legitimate use of public open spaces? – As Sieverts claimed before, through consideration of existing qualities (own characteristic value), "space differentiation" can be achieved by shaping public open spaces into variety of spaces for everyday living, education and consumption. Why **did not** local municipality authorities in Yedikule recognize the potential of ***recreational experience of urban gardens***? (Access to the experience of urban gardens with the purpose of recreation) They didn't take into account discovery of experiencing ***multi functionality*** in land use. Ignoring 'food production' and 'conservation' means also neglecting 'the demands of garden users/gardeners, and conservation"; how can a legitimate usage of public open space be accomplished if demands of some target groups in an urban context are being neglected?

Image 1-4: Project imaginations-simulations: Recreation Implementation Project for Yedikule between the gates of Yedikule and Belgrad. Source: http://www.fatih.bel.tr/icerik/4137/yedikule-kapi-ile-belgrad-kapi-arasinda-kara-surlari-ic-koruma-rekreasyon-projesi/, accessed on April, 2014)

The Public Park project is proposed by municipality on renewal area near the Land Land Walls on Image 1-4 with modern artificial design approaches.

BOX 1. *Urban renewal Project in Yedikule*

Yedikule Neighborhood is undergoing an urban renewal project with the collaboration of Istanbul Metropolitan Municipality and Fatih District Municipality. The project aims for recreational leisure use of urban open spaces. Shortly it is designed to meet the recreation needs of intensive residential and commercial users. (Report from Kutup Planlama to Fatih Municipality, 2013)The project addressed not only neighborhood users with Yedikule population 17.476[*], also district users with Fatih population 425.875[**]. Fatih Municipality is named the project with "Recreation Implementation Project for Yedikule" between the gates of Yedikule and Belgrad. ***The project area is 8.5 hectare on open space****, and* ***its 6 ha is presently used for urban gardening*** *(vegetable farming). This agricultural used open space is based on Istanbul's historic urban gardens. The project has been already started on 5th July, 2013: 2.7 ha of historic vegetable gardens - Bostans- have been destroyed. (From a Report of Concern of the Conservation Issues of the Istanbul Land Walls World Heritage Site, 2014, p: 11.)*

[*] According to population census in 2010 there are 17.476 people live in Yedikule Neighborhood, Report from Kutup Planlama to Fatih Municipality.

[**] TurkStat. Address Based Population Registration System Results, 2013; accessed on June, 2014. (Source: 2014 www.tuik.gov.tr)

The situation is explained in more detail in Box 1. The municipal recreation project is designed to revitalize Yedikule physically with top-down planning approaches with an emphasis on its historical structures. and Image 1-5 are Image 1-6 showing view of urban gardens-*Bostans*- from Yedikule city walls from 1875s; those farms are especially known for their lettuce; and their destruction by Fatih Local Municipality in order to make a *Public Park is* concerning.

Image 1-5: A view from 1875, by Guillaume Berggren, Istanbul's Urban Farms in Peril, accessed from http://modernfarmer.com/2013/08/istanbuls-disappearing-urban-farms/, on September, 2014).

Image 1-6: Traditional Yedikule Bostans are destroyed under the control of local municipality of Fatih at the ancient city walls, accessed from http://www.kuzeyormanlari.org/2014/04/28/yedikule-bostanlari-bizim-istanbul-bizim/, on September, 2014).

Since the Implementation of Public Park Project, there have been physical and demographical changes which are impacting urban gardens-*Bostans*- activities; Bostan workers are losing their gardening jobs and have to move out from Yedikule Bostans to find new jobs or continue gardening somewhere else in the outskirts of Istanbul. The project form is an essential component for analyzing planning policies. In order to understand the significance of keeping Yedikule Bostans, the necessity of urban gardens in the public park project will be widely discussed in research part.

1.2.3 Bostans resistance against Public Park pressure

These interventions on Yedikule Bostans indicate the power of local decision-makers, from top-down planning policies in an urban context. The **lack** of an active public participation in policy making, not paying attention on demands of target groups, specifically Yedikule gardeners-*Bostan Keepers-,* who are living heritage practicing over *1600 years old* gardening almost in the same patterns. They are keeping bostans produce, traditional practicing techniques, such as traditional irrigation techniques, using historic water wells and water pool for watering bostans. They access bostans to experience gardening culture with continuing ***food production*** in daily life. The primary goal of the gardeners is to keep bostans profit making. They provide indirectly the conservation of historic cultural landscape by keeping bostan in production. Their primary goal is not historic and cultural heritage preservation. The gardeners don't contribute educationally; they are not exploring historical and cultural heritage to share its history with residents and visitors.

Existing situation fills demands of food production and conservation by keeping bostans vegetable produce ongoing. Yedikule Bostans are ***semi-public*** open spaces; and the bostan lands are both privately and publicly owned. **Public policies impact publicly and privately owned open *spaces*, as seen in Yedikule case**; although some parts of bostans are private properties, the municipal public park project intends to demolish them. Gardeners are allowed to ***access the lands only*** with the purpose of food production; bostans are ***not directly open to public***. It is also not permitted local residents to ***access bostans directly for recreation and leisure purposes.***

Converting bostans into multifunctional use of space, and integrating them into a public park project as ***a unit*** may fill needs for publicly accessible outdoors in the right way. Perhaps, an appropriate level of use of bostans will let residents/visitors access bostans at certain times to join various activities that take place at Yedikule Bostans. It may let residents access bostans at any time for walking or running. Making ***an active public participation*** in policy and decision making process is very important to create public open spaces in the right way. Thus it helps to understand the different rights of different users to access bostans, to understand the demands of food production, recreation and conservation from decision makers' point of view; all this helps to find an appropriate level of use of bostans, to integrate them into the public park as a whole and make a legitimate use of public open space. Bottom-up planning policies help to understand city dwellers' voices and empower them. Perhaps, keeping Yedikule Bostans to make a public park is the best strategy to preserve urban open space.

Considering all possible functions of Yedikule Bostans and satisfying demands for food production and conservation in an appropriate level of use would provide recreation and leisure, too. The complementary activities such as educational opportunities*,-increasing the awareness of public on environmental issues, capturing rainwater or collecting food waste for harvesting-*, organizing events, meetings, concerts would ***add value*** to the space. Therefore, it helps to create a productive open space. Finding coherence between different rights of different users to access bostans will help finding the right way to access bostans. It provides legitimate use of public open space and balance demands of different target groups.

An active public participation from the beginning creates 'a sense of ownership', and it provides high level of security in the space; because it creates frequently used, lovely spaces, it provides increase of the responsibility of neighborhoods for maintaining and cleaning. Therefore, it helps to solve the security problem in Yedikule.

Yedikule Bostans provide the reduction of long distance food miles, energy consumption and labor to access food (city's ecological footprint is being reduced). Urban gardens respond to the crisis of food safety, which began to occur in growing cities, by feeding the low income residents such as inland migrants, providing jobs for them and access to health food. Urban gardens create strong connections among participants like Yedikule gardeners. Urban bostans contribute from community food security to urban food security, from neighborhood level into city-wide level.

The municipal public park project promotes its artificial designs while demolishing of Yedikule Bostans, and creates a landscape that doesn't contribute to production. It intends to create a sterile design concept with lack of originality. The local authorities didn't pay attention to nature and didn't create near-natural open spaces. As a result, there is increasing necessity of using chemical sprays, consumption of water and energy. It is necessary to consider using suitable species for local cultivation conditions to reduce the maintenance costs.

Converting Yedikule bostans into multifunctional land use with complementary activities in productive way has many benefits; ***different ecological cycles support each other mutually in the processes of ecosystem chains***, such as hydrological cycle,-*using rainwater for harvesting*-; bostans are habitat of animals and plant species; also local residents benefit from bostans that are integrated into different cycles, and into complementary activities. The complementary activities take place at urban bostans with the purpose social, economic, ecological and health outcomes for local residents. Consequently, the ***local residents are integrated into different cycles and activities.*** Considering ***'functional approach'*** of open space planning will provide the best way to preserve urban open space in Yedikule.

1.2.4 Conclusion

The municipal public park meets the recreational needs, and it permits all citizens to access the area for recreational and leisure purposes; but it excludes other demands. If it doesn't fill all demands of different target groups, how can it provide a legitimate use of public open spaces? Is this a good strategy to preserve urban open space: demolition of Yedikule bostans, lack of filling demands of food production and conservation, neglecting some target groups?

On the other hand Yedikule bostans provide access only *Bostan Keepers* (*vegetable gardeners*), who are a small group of people, with the purpose of food production and making profit. Bostans are not directly open to public. It lacks publicly accessible outdoor for recreation and leisure. Yedikule Bostans are **a type of commercial farms** in neighborhood level.

Yedikule Bostans are carrier of identity, meanings, and values. They are carrier of historic and cultural heritage. It is necessary to design with respect to its structural and symbolic functions of open spaces. The Lands Walls World Heritage Site, which was identified ***'the Land Walls and its surrounding landscape'*** by UNESCO in 1985[24]. Yedikule Bostans are situated inside historic ***heritage side***, and represent ***a cultural landscape*** of Byzantine, Ottoman and Republican Period of the historic peninsula that constitutes a significant component of topography of historic peninsula[25]. The municipal park project intends to demolish bostans. Why couldn't Land Walls and its surrounding landscape be considered as ***a unit,*** and ***reflect***

[24]UNESCO World Heritage List, Historic Areas of Istanbul.

[25]Shopov and Han, 2013, „Osmanli Istanbul'unda Kent Ici Tarimsal Toprak Kullanimi ve Dönüsümleri: Yedikule Bostanlari".

each other, as a historic cultural heritage? There is a **lack of** consideration of identity of Land Walls and its surrounding landscape as a whole; focus is just on building objects and forms, its surrounding landscape has been ignored. Yedikule vegetable gardens-*Bostans*- have seemed ***immaterial as its potential for remodeling or improving***. Although the vegetable gardens at the Land Walls are recognized as ***an historic site, constricted understanding of notion of built heritage is*** focused only on the conservation of its monuments such as Land Walls in Yedikule case.

The demolition of Yedikule Bostans ***let the symbol of historic vegetable gardening at the Land Walls be lost.*** As told in Sharma's article[26], *the transformation of Delhi's tomb complex from a funerary garden into Public Park, "The garden's new identity as public park caused funerary symbolism to be lost. Its historic value was reduced…"*[27] (Sharma, 2007, p.255)**.** In Yedikule case, the demolition of bostans will cause loss of historic symbol of vegetable gardening.

As a result, the significance of Yedikule bostans is being shown; they should be preserved as carriers of historical cultural landscape. Then, ***how should different rights of different users in an appropriate level of use of open space be balanced? How should the demands of food production, recreation and conservation be balanced? What is the best strategy to preserve urban open space in Yedikule historical context:*** filling demands for food production + conservation (***status quo***), or filling demands for recreation and leisure? Both approaches preserve urban open space, but what is the best strategy to preserve urban open space, to make a legitimate use of public open spaces? What is the role of Yedikule bostans in preserving urban open spaces? ***Or integrating all three demands of food production + conservation + recreation in the urban open space and make a legitimate use of public open spaces, is it the best way to preserve urban open space in the historic neighborhood of Yedikule?***

Sustainable open spaces can be achieved through an active public participation in policy making process from the beginning; this creates a sense of ownership, frequently used spaces, increases the responsibility in neighborhoods; then safe spaces will be created. In the public participation in policy making process ***'sophisticated'*** and ***'complex methods'*** are **needed** to recognize **multifunctional land use** approaches and in this way **the *consensus of the interests of different users*** and ***legitimate (suitable) usages of public open spaces*** in Yedikule context can be realized (Helming K. & Wiggering H., 2003, p.3).

1.3 Delimitation

This study is focused on urban gardens as a means of preserving public open spaces. It does not touch upon the subject of housing settlement planning approaches in formal or informal

[26]Sharma, "The British Treatment of Historic Gardens in the Indian Subcontinent: The transformation of Delhi's Nawab Safdarjung's Tomb Complex from a funerary garden into a public park; Garden History, Vol. 35, No. 2 (Winter, 2007), pp. 210-228, p.225.

[27]Sharma, 2007: *The transformation of Delhi's tomb complex from a funerary garden into Public Park, p.225*

settlements. It focuses on how to balance "pressure of land use" and "pressure on the change" in a participative planning process. Paradigms of new approaches are planned on integrating urban gardens with the recognition of multifunctional land use approaches and reveal the existing qualities of space to ensure the continuation of daily life and to experience space with its cultural traces.

1.4 Aim and research questions

The main topic of the thesis is to investigate the role of urban bostans for preserving urban open spaces to make a legitimate use of public open space in an historic neighborhood of Yedikule, Istanbul. It is inquired with a case study *'threats to the Yedikule historic bostans'*, at the ancient city walls. Urban bostan activities have pursued to the purpose of food production by gardeners, keeping ongoing gardening activities and providing as well the conservation of historic cultural landscape value of the space. A recreational public park project is undergoing by policy makers, local authorities at the ancient city walls including the demolition of some section of the Yedikule historic bostans. It promotes preserving open space with a recreational public park to the purpose of only recreation and leisure. But preserving urban open spaces should be much more than recreation and leisure. Both are preserving urban open spaces, but they are missing the demands of some target groups, as well as the way of making open space, in that case ***what is the best strategy for preserving urban open spaces to make a legitimate use of public open space?*** It aims to discover all possible functions of Yedikule bostans to find the best strategy for preserving urban open spaces to make a legitimate use of public open space.

Considering all possible functions of open space helps to make a legitimate use of public open spaces with balancing the demands of different land users/city actors, with an active public participation in policy making process from the beginning; this ways help to create a sense of ownership, provides a bottom up planning process, it also means that converting Yedikule bostans with food production and conservation purposes into **multi-functional land uses**, it may Yedikule bostans the purpose of recreation and leisure, too. The arguments for keeping bostans to make a public park, the arguments against the bostans to make a public park (with the destruction of bostans), and as well as the arguments for consideration of existing potential of Yedikule Bostans are investigated in various research questions to find the best strategy for preserving urban open spaces, and making a legitimate use of open spaces.

Yedikule Bostans are semi-public open spaces where a specific group of people-*gardeners*-have rights to access bostans and to use the purpose of food production; but converting Yedikule bostans into multi functional land uses, and integrating into the recreational public park would provide access and use for all citizens. But if converting semi-public open space into public open space with multi-functional approach, then how should it be designed, the way of making a legitimate use of open spaces?

A good public park with involving Yedikule bostans with respect to historic cultural landscape value may be the best strategy for preserving urban open spaces to meet the demands of different actors (food production, conservation, recreation and leisure) in an appropriate level of use.

The study questions *urban gardens* as a means of preserving urban open spaces and their integration into open space plans with the purpose of recreation and leisure. Research questions are formed in reference to issues such as the characteristics, potentials, the significance, benefits, advantages/disadvantages, and challenges related to comparing both open spaces, status quo of Yedikule bostans and the proposed municipal public park project with the demolition of historic bostans in Yedikule and their utilization as **open space preservation strategy,** in relating to find the best strategy for preserving open spaces to make a legitimate use of open space.

Therefore, it aims to make a legitimate use of open spaces; how to solve the conflict in between three groups on the demands of different users/actors in Yedikule case: the demands on **food production, recreation** and leisure, as creating a public park, and **conservation** of historic cultural landscape value of space, which presently existed in historic gardens, agrarian culture and its spatial traces and perception by local dwellers.

In regards to that the questions arises: ***How to balance the different rights of different users for preserving urban open spaces?*** And, ***to what extent are urban gardens a legitimate use of public open space in an historic urban context?*** (Legitimate usage in my case means suitable land use.) The research **aim** is: **Balancing the interests of food production, recreation and leisure use and conservation of the historic cultural landscape in an historic urban context.**

In Regards to them the main research question asks:

How to balance the interests of food production, recreation leisure use and conservation of the historic cultural landscape in an historic urban context related to Yedikule? ***From bottom-up: how to solve these complex issues?*** Case Study is "***Threats to Bostans in Yedikule Neighborhood, Istanbul*".**

The following questions are the main concerns of this research: to explore the **both urban open space** preservation issues (Urban Bostans & Public Park):

Urban gardening | **Bostans** | vegetable gardens (Status quo): for food production use, it provides conservation demands as well.

- Why is it important to keep Bostan?
- Who benefits of it keeping as bostan?
- What are the advantages and disadvantages of keeping bostans?
- What is the potential of bostan users?

Public Park (the proposed municipal recreational public park with the demolition of bostans): for recreation and leisure

- Why is it important to make a public park for recreational leisure use?
- Who benefits of making a public park?
- What are the advantages and disadvantages of making a public park?
- What is the potential of the Public Park users?

And other sub-questions:

- How is urban gardens perceived in terms of paradigm by gardeners, inhabitants, planners and city politicians in Yedikule?

According to comparison of both open space issues with the questions above, relating to arguments for and against, I will try to find the best strategy for preserving open spaces and to make a legitimate use of open space with these questions:

- Should it be designed with the demolition of the Yedikule historic bostans to make a public park with modern, artificial designs?

Or

How should the Yedikule historic bostans be kept in the recreational public park?
Is it better to design with integrating urban bostans into the public park with respect to historic cultural landscape value?

- If it should be integrating, what kind of complementary activities should take place in the public park? Will it provide educational, cultural, health, social activities; temporary activities?
- If it should be integrating Yedikule bostans into public park project to promote recreation and leisure, food production with respect to conservation of historic cultural landscape value, is it the best strategy to preserving urban open spaces to make a legitimate use of public open space?
- Has urban bostan been included in planning policies to promote recreation and leisure, has bostans been influenced by public policies to promote recreation and leisure, what is the best way to consider all possible functions of urban open space to preserve urban open spaces with balancing the demands of different stakeholders to make a productive public park in Yedikule?
- How should it be Bostans and Public Park integrated in land use planning?

- How should it be designed? Bostans could be integrated into Public Park.

This study will try to find answers these questions. The study will utilize written sources; literatures based on studies the importance of *urban gardens* as a means of preserving urban open spaces in the context of growing cities through strategies: “food production”-urban gardens, “recreation”-creation of Public Parks and conservation of historic cultural landscape value of space in Yedikule as the specific case for. The research is based on reports and plans from local authorities and also oral resources based on a two week field trip. The interviews are held with urban gardeners, non-farmer citizens, city planners to open up their perceptions towards urban gardens-*Bostans* and towards Public Park.

2 METHODOLOGICAL CONTEXT

The methodology of this study aims to highlight the research of urban gardens as a means of preserving urban open space in qualitative terms. It is based on a local practice in an historic urban context and deeply from local practice to find out the internal factors shaping that practice in particular case of Yedikule.

Mayring underlines qualitative methods for scientific understanding: 'understanding meanings', 'complexity' and 'in particular case' (Mayring 1997, pp. 16-23, quoted in A. Hamadinger, 2013, Methodologie der empirischen Raumforschung lecture). Linking it with this research follows understanding of the social reality in the wholeness, understanding the meanings, the complex issues from bottom up, dynamic networks of interactions between local and city level institutions, between the interests of different city actors in particular Yedikule case. This study used qualitative research question, '*to what extent are urban gardens a legitimate use of public open spaces in an historic urban context*'. It aims to balance the demands of different actors in an appropriate level of use of open space, to create space for All. It investigates how to balance the different demands of stakeholders to find the best way to protect urban open spaces; concerning Yedikule case, how to balance the demands of food production, recreation and leisure, and conservation of historic cultural landscape.

The methodology of this study was based on field trips, interviews in different months in 2013 and 2014, as well as literature analysis and review of various documents, and reports from experts. For the methodology of this study, different methods have been combined in order to get data on the issue from different perspectives. For the data collection are mostly used qualitative collections methods as the following:

- Field trips in Yedikule Bostans, ancient city walls, and their surrounding area, walking around Yedikule neighborhood, talking with local people, local artisans, such as grocery workers, restaurant workers.
- Semi-structured interviews (focused, problem-centered interviews, expert interviews)
- Open interviews (narrative, biographical interviews)
- Observations and photographs in 2013, (cultivated lands in 2013, after the demolition of bostans in 2014, non-cultivated lands.)
- Review of reports of public meeting in Yedikule Neighborhood, that was organized by the academicians of the Yedikule Historic Vegetable Gardens Preservation Initiatives,
- Review of documents by the Yedikule Historic Vegetable Gardens Preservation Initiatives
- Review documents from local municipality of Fatih, the proposed recreational public park project with AutoCAD drawings, as well as the proposed public park project report, official statistics,
- Semi-structured interview with the reeve of Yedikule Neighborhood
- Interview with the experts, landscape architects, at the Department of Parks and Gardens of Fatih Municipality

- Review of newspaper articles concerning the interview with the Mayor of the local municipality of Fatih, as well as the Mayor of Metropolitan Municipality of Istanbul,
- Review of newspaper articles
- Review of literature concerning the Yedikule case, as well as collecting data for theoretical context to find out existing potential of Yedikule, considering ***'functional approach'*** to highlight all possible functions of Yedikule Bostan area,
- Investigating aerial photographs -Google earth photos- of the study area

The practice oriented fields are important for the research to generalizing the findings with the exploration of the complexity in a specific case, in a bounded time and space (Johansson, 2005). This study firstly tries to explore the potential of existing Yedikule Bostans, the quality of spaces with considering all possible functions of the open space to find the best way to protect open spaces. I made the interviews with Yedikule gardeners, and tried to understand their demands, the perception of bostans, the way of using bostans, and why are the bostans important for a specific group, advantages and disadvantages, the significance of keeping bostans, as well as demand for keeping food production on bostans, and demand for conservation of land as bostan. In this research are used **the historic maps** in different eras indicating bostans and their farming practices in the societies (18^{th} century, 19^{th} century maps, Ottoman maps) to explore their historic cultural heritage.

The interviews with officials, city councils, the responsible local institutions such as the reeve, the mayor of Fatih municipality and other responsible authorities are helping to understanding their perceptions of Yedikule bostans and how their perceptions are affecting the **planning policies** and **the vision of city**; as well as the informal interviews with local neighborhoods' workers at the groceries, sellers at the roadsides, children on the ways, old women, talking with local dwellers are helping to understand the daily life and their perception of the bostans. Trying to understand the demands of recreation and leisure of local residents in Yedikule, and fill the recreation needs with the proposed public park project, but the problematic situation is here, the municipal park project is missing the demands of gardeners, and conservation groups. Concerning this conflict between the demands of different groups, balancing the different demands in an appropriate level of use, and finding the best way to protect open space, I investigate the demands of recreations, too. Because both (existing Yedikule bostans and proposed Public Park with the demolition of bostans) provide open space, but if we keep space as open space, then what should be the best strategy to protect open space in Yedikule case?

I investigated the proposed public park project, I got the drawings and the report about the municipal project, as well as the official statistics such as demographics, the amount of open spaces/publicly directly accessible outdoors/green areas per citizen in local district Fatih, as well as in Yedikule neighborhood, then I evaluated this results, and found out that in Yedikule is necessary to provide publicly accessible open space for recreation by the calculations of the amount of publicly accessible outdoors, regarding enhancement of the quality of life; but the demolition of bostans to make a recreational public park was not a good plan to protect open space in Yedikule. I explore the considering functional approach, recognizing all possible

functions of open space to find the best strategy to protect open space. The indicators of possible functions in Yedikule area are analyzed for the proposing an open space design with the best strategy to protect open spaces in Yedikule.

I investigate as well the considerations of urban gardens in different growing cities to explore the idea that urban gardens could provide recreation and leisure too; nevertheless should open space provide much more than just recreation and leisure.

As a result, I investigated the European Landscape Convention as a guide to consider landscapes in the public policies, and the importance of public policies on shaping urban open spaces to protect open spaces with best strategies to solve the conflict issues from bottom up in the case of Yedikule.

PART 2:
HISTORIC BACKGROUND TO URBAN AGRICULTURE

Open Space Planning Approaches

3 HISTORIC BACKGROUND TO URBAN AGRICULTURE

3.1 Open space planning approaches

3.1.1 Defining Open Spaces

In land use planning, open space is commonly understood as left-over spaces from all built up areas, including various types of open space such as 'green areas', 'outdoor recreations', 'parks' and also it can be described as "land and/or water area with its surface open to the sky, consciously acquired or publicly regulated to serve conservation and urban shaping function in addition to providing recreational opportunities"[28]. From a broader perspective open spaces have been described as wide open areas such as 'fluid' through flowing around and between the structures in and around the cities with connecting surrounding landscape (Cranz, 1982 quoted in Woolley H., 2003). From the user's point of view, open spaces have been described as *individual space*, that provides different type of activities encompassing necessary, social, optional activities (Gehl, 1987). Open spaces can be better defined by open space system through connectivity and hierarchies as follow:

Open space system: Connectivity and Hierarchies

The importance of individual open space is necessary to consider, as well as they have been seen as lying within the continuous matrix of all un-built land which flows between the buildings and structures of all towns and cities; if we consider individual open spaces as nodes in a network form of inter-connected spaces; it consists a wider open space system.

Connectivity: Green infrastructure + non green corridors

Open spaces are being increasingly seen as a part of infrastructure system of the cities. ***Green infrastructure is being used as a term such as whole open spaces resources*** to describe, in particularly where the vegetation located. The connection of open space resources which makes green infrastructure into a connected system that includes parks, gardens, green wedges; green corridors which might be consist around *the different historic layers* of the city, or might be gardens radiating green wedges connecting the inner city or green corridor networks or green ways as being natural features such as river, topographic characteristic as hillside, and the combination of these; and also non green open spaces play an important role on open space system. Streets, pedestrian zones form urban open spaces. They have a vital function through providing connectivity and linking together between different open spaces[29].

[28] Marilyn. "Decision Making in Allocating Metropolitan Open Space: State of the Art." Transactions of the Kansas Academy of Science 1975. pp 149–153.

[29] Stiles, R., 2013: "A Guideline for making space, joint strategy activity 3.3, is part of the project "UrbSpace", from http://www.le-notre.org/urban-spaces/urban-spaces.php?encyclopedia_id=256, accessed on October, 2014.

Hierarchies: Catchment of open spaces

The integration of individual open spaces into open system depends where they are located in relation to each other. They fulfill the different functions. Hierarchy concept of open spaces is connected to the catchment of open spaces; that depends on the ***size of an open space*** **and the** ***facilities*** it provides, the willingness of various people makes them to travel different distance to visit[30].

3.1.2 Defining Urban Open Spaces

From an individual-*user* perspective of view, open spaces in urban area commonly have been seen as 'individual site' such as various forms that includes main types and categories of urban open spaces that encompassing necessary, social, optional activities (Gehl, 1987). In a broader sense, open space can be also considered as the continuous matrix of all un-built land in urban areas such as parks, private gardens, streets, squares. The links in both aspects gives a broader perception of *urban open spaces*; individual spaces and the network as continuous of around and between all building and structure, forms the context and surrounds of each one with connecting inner city and surrounding landscape. Its strategic planning and management for land use plans is necessary to consider as ***undivided resource***. It is important considering open spaces to differentiate into its component parts, including ownership, management, responsibility, accessibility, structure and use. **Public policies** shape ***not only publicly owned*** open spaces as well as influence ***private owned open spaces.*** It involves planning regulations, conditions in concerning granting of building permits, the use of public funds made to owners under the conditions of the definition of the implementation measures by the public policy objective, and to private land owners providing public information and recommendations about open space practices[31].

In consideration of the influences of public policies**,** there are many issues that the ownership is insignificant **Public acces**s and **use rights** can be granted over the private open spaces; also private open spaces can play an important role to provide habitats, to improve the urban climate. As a result, designing urban open spaces is ***irrespective to open spaces' current ownership status*** [32].

3.1.3 The policy context on urban open spaces

Urban open spaces can be identified by their legal ownership and boundaries on inclusion and exclusion of citizens related to use, open spaces are categorized public, semi-public and private open spaces (Newman, 1972, quoted in Woolley H., 2003, p.2). Private open spaces are such as individual gardens with limited access and use, public open spaces includes public parks, squares, plazas that is accessible and is used by all citizens; and semi-public open

[30] Ibid.

[31] From http://www.le-notre.org/urban-spaces/urban-spaces.php?encyclopedia_id=255; accessed in October, 2014.

[32] Ibid.

spaces such as communal gardens, play spaces include that where a limited number of people use the space, but in generally the ordinary public would not be welcome and might be limited opening times for public such as school play grounds or gardens which have historic value, that is accessible by paying in limited open times, or in generally used by particular groups of society (Woolley H., 2003, p.3). The importance in open space planning context, public policy shape public and private open spaces, and the ***ownership status of open spaces are irrespective.***

Attractive open spaces contribute increasing the quality of life in urban areas. It promotes investments on open spaces and creating job opportunities, as well as it persuades residents to recreation and leisure. Recently, urban open spaces become the subject of policy at national and European levels in concerning to the changes of the environmental and social conditions. It means that urban open spaces are becoming more important in coming years. The recently trends that demographic effects and the impact of climate change will grow in importance, and the needs to answer these challenges will be necessary in coming open spaces issues.

Public policy is increasingly recognized the importance on shaping urban open spaces. The role of open spaces is involved into policy instruments, perhaps firstly by **ELC. *The European Landscape Convention*** takes into account the early green spaces as a planning tool from distinguished activities to an understanding as a whole human and natural process that shapes our landscape. It defines landscape as "an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors" (Council of Europe) [33]. It recognizes firstly urban and peri-urban landscape, and urban open space is a central component of urban landscape. European Landscape Convention came into force in 2004 and plays an important role about the recognition of landscape, its planning approaches as a guide to the legislations by member of states. ELC[34] provide innovative development approaches about the recognition landscape, as well as enhancing the awareness and quality of the urban environment about population live conditions. ELC promotes a strategic approach as one of the main goal, involving *landscape protection, management, and planning*- and provides a guidance on how to achieve these goals (ELC, 2000, Article 3-Aims). It defines landscape protection as "actions to conserve and maintain the significant or characteristic features of a landscape, justified by its heritage value derived from its natural configuration and/or from human activity" [35]. As a result, urban open spaces are strategic issues for landscape planning and management. Current urban open space interventions are faced the protection of green open space problems; some authorities couldn't consider in specifically consisting characteristic features from human activities that are gained ***heritage value*** on the space, in some cases as in this research. Gardens are as green open spaces that provide protection of open spaces and enhancing the quality of

[33] Council of Europe, European Landscape Convention, 2000, in Florence, from http://conventions.coe.int/Treaty/en/Treaties/html/176.htm, accessed October, 2014.

[34] European Landscape Convention, 2000, in Florence, from http://conventions.coe.int/Treaty/en/Treaties/html/176.htm, accessed October, 2014.

[35] Council of Europe, European Landscape Convention, 2000, in Florence, from http://conventions.coe.int/Treaty/en/Treaties/html/176.htm, accessed October, 2014.

urban environment about life conditions. Gardens or parks are both green open spaces that protect urban open spaces from hard surfaced interventions, and preserve the ecological diversity. The integration of the landscape into all the relevant policies that ELC promotes, on integrating cultural, economic, social policies, that makes the awareness on the systems. It leads the way about **how to preserve open spaces in a right way**, to handle in a harmony with the changes which are brought out from social, economic and environmental processes that defines 'landscape management' from sustainable development perspective through ensuring regular keeping space. The another one is 'planning' which means forward-looking on ***preserving, restoring, creating landscapes in a right way***, such as ***considering all possible functions like establishing a sense into space*** to recognize and avoid it which is may threatening, in specifically ***heritage*** possessed open spaces as Yedikule case. So ELC plays an important role on implementing as putting landscape into effect, which ones undertakes from local, regional to national level, from bottom up as well from top down in a coordination to introduce instruments aimed at protecting, managing and/or planning the landscape.

3.1.4 The importance of urban open space

Open space and its importance are identified by European Council in 1986[36]:

"*Open space is **an essential part of urban heritage** , a strong element of architectural and aesthetic form of a town, plays an important educational role, is ecological significant, is important for social interaction and in fostering community development and is supportive of economic objectives and activities"*(European Council, 1986, p.3), especially it helps reduce inherent tension and conflict deprived parts of urban areas in Europe; it has an important role for the providing recreational and leisure needs of a community and it has an economic value in that of environmental enhancement.

Open space forms fundamental part of the urban environment and the historic heritage of a city. It provides 'image' of a city. It covers public and private areas including public parks as well as private gardens in historic cities and new communities; and provides various activities. (European Council, 1986)

Urban open space has educational important role, it helps an understanding of and the identification with the city; ecological significance is not only about keeping or bringing nature in the city, and also encouraging the understanding of nature and wild life; its importance for social interaction about the well-being of individuals, it significantly plays role in the development of community and in creating community pride.

Open space enjoyment contributes to legitimate aspirations of urban citizens for improve their life quality, as well as increasing social cohesion through feeling security and supporting the protection of rights of man in his built environment. The provision and use of open spaces depend in significantly sustaining these rights. The open spaces are currently reflected the social patterns and planning practices. The *policies* play an important role of understanding open spaces and their value. The urban citizens are more concerned the value and quality of their environment and their surroundings. Open space represents the character of a city; and well-defined open space attract people and provide a meeting place; and it shows the collective life of a city, it acts as an element of social cohesion.

[36]Accessed on January, 2015, from https://wcd.coe.int/com.instranet.InstraServlet?command=com.instranet.CmdBlobGet&InstranetImage=551137&SecMode=1&DocId=74010&Usage=2.

Therefore The Council of Europe depicts opens space as '***a sort of public living room for local'*** (Council of Europe, 1986, p.4).

Despite of the recognition of the contributions of open space, there are still threats to open spaces through ***the unresolved conflicts*** about the use***, the mistakes in planning, and the lack of co-ordination between the interests of different urban inhabitants-users and with authorities.*** Such as problematic case on conservation open spaces for inappropriate uses. The ***conflicts are often in the use of spaces between local needs and community***. Not always transformation of private areas into public spaces ensures suitable public use and accessibility because of inappropriate and inordinate regulations. Thus there is often ***a gap between proposed use and realty***, due to false assumption based on open space uses instead of observation of citizens' behaviors.

3.1.5 Pressure on keeping land | Pressure on changing land uses

Pressure on changing land uses in contemporary cities is particularly caused from rapid urbanization, the growth population, city renewal, densely built up areas, changing life styles. They are caused decreasing the amounts of urban open spaces-*green areas, publicly accessible outdoors*-.This situation threats ecological conditions of city. Citizens bring new demands such as spending time for leisure and recreation.

According to Vestbro, urbanization refers "the increase in a country's population living in settlements classified as urban" and 'level of urbanization' denotes "the proportion of total population that live in urban areas" (Vestbro, 2011, p.19). The other term here is significant to define 'rate of urbanization', that means the growth of the population in comparing between the years and commonly measured in percent.

According to UN, today in 2014, 54% of world's population lives in urban, and it is estimated in 2050 to reach 67%[37]. The population growth rapidly seems in most developing countries. The most urbanized region in developing world is Latin America, and its more than 75% people live in urban areas (UN-Habitat, 2004, http://unhabitat.org/).The growing cities are due to growing urban population, and to the migration from other cities and rural areas. The population growth in growing cities is faced with the challenges for livelihoods of people in urban areas. Region's poor is increasing to live in urban areas. Growth population needs spaces in urban. The shifting land uses from decreasing open spaces to increasing built-up areas.

Many cities can not deal with massive population in growing cities, city authorities face the challenges such as to create enough employment, to provide basic services like drinking water, education, basic health services, specifically *in a right way and in the right place to plan and preserve of green spaces and to consider various uses of open spaces* that can be reach ***all stakeholders' wishes***, in ***decentralization process*** to create efficient local autonomy.

The second pressure on changing land uses is *'increasing urban poverty and food insecurity'*, and malnutrition. It's becoming more difficult to access food for urban poor. Urban poor spends 60-80 percent of their households for food, and the lack of cash incomes that can be translated directly into food shortages and malnutrition (Mougeot, 2005 cited in Van Veenhuizen, 2006). By ***the right***

[37] From http://www.un.org/en/development/desa/news/population/world-urbanization-prospects-2014.html, accessed on 21st October 2014.

planning strategies and interventions would being manage with hunger and poverty, improve livelihoods and the right innovative ways may encourage local economy with enhancing food security and nutrition. Urban agriculture is an important tool for ***enhancing food security and nutrition*** in urban areas.

The third one is **'urban *sprawl'***. The press of rapid urbanization leads urban sprawl defined as "expansion of urban areas without efficient land use" (Vestbro, 2011, p.25). The peri-urban interface is described by rapid land use changes and changing livelihoods (Brook and Davila, 2000). To keep land for food production has became difficult by urban newcomers due to looking for buy lands, and consequently, increased land prices and costs of infrastructure in urban areas, and of course they causes other outcomes such as longer commuting times-*long way distance between home and job,* and expensive travel costs (Vestbro, 2011; Van Veenhuizen, 2006).

Today urban gardens are gained the impotence for direct marketing, using of urban wastes, organic, fresh foods, organizing variety of activities, short food miles, and educational opportunities. Urban gardens are sources for recreation and leisure. This is directly dealing with my case study. High level of densities could be reason; ***no space is left for gardening activities***. Urban sprawl tends let to absorb arable lands due to desired proximity to a productive food resource (Redwood, 2009).

City renewal is caused by getting built up of existing open spaces; formal and informal users of existing open spaces are removed such as urban gardeners are forced to find new location or give up gardening as a case happening in Yedikule gardens. Due to demolishing of degenerated residential, industrial areas are creating open spaces which ***stay vacant for a long time, and could be used for gardening until a new purpose*** and investments are found and also new roads create new vacant open space as reservations. Newly created open spaces are often occupied by urban producers such as temporary or informally lease. Therefore UA is characterized as 'shifting cultivation' forms due to its location vary over time.

Other dynamics which directly influenced UA are where and how it is practiced such as negative impacts of urban traffic and industry on the quality of soils and irrigation water, ***new demands to needs for recreation spaces***, changes on urban land uses and regulations.

These kinds of pressures on land use changes are brought out being global, and at the same time, seeking more local focus decentralization and maintenance of local socio-cultural identity (Baud, 2000, quoted in Veenhuizen, 2006, p.9). The tendency on changing consumer preferences are such as new products from super markets and local focus tendencies provide to preferences for local grown fresh foods and direct producer-consumer relations (Van Veenhuizen, 2006).

3.1.5.1 UA as a response to the pressure of changing land uses

According to van Veenhuizen, UA is responding in ***three ways*** for the pressure (Van Veenhuizen, 2006, p.9-10):

The first one is to response urban poor and unemployed to urban poverty, food insecurity/malnutrition. Trends have been shown the role of UA for social security net of poor and disadvantaged urban households. The second is opportunities for urban poor and disadvantaged groups: direct access to urban consumers and markets, access to cheap inputs such as urban organic wastes and wastewater, closeness to institutions that provide credit and technical advice, market information etc…(Van Veenhuizen, 2006, p.9-10).

The third one is about direct conducive urban gardeners through ***urban policies and programmes***; and enabling UA to fulfill certain functions for sustainable development: local economic development and food supply as well as recycling of wastes, urban greening, maintaining open green buffer zones, ***provision of recreational services***, social inclusion of disadvantaged groups etc…(Van Veenhuizen, 2006, p.9-10).

Legitimate usage of urban open spaces is related **to multi-functionality**. The integration of urban gardens with city develops according to wishes of stakeholders who represent the diverse functions, to seek synergies and consensus of multiple stakeholders is necessary new forms of governance, policies, and institutions (van Berg and van Veenhuizen, 2005; van Veenhuizen, 2006).

Nature and City and Citizens

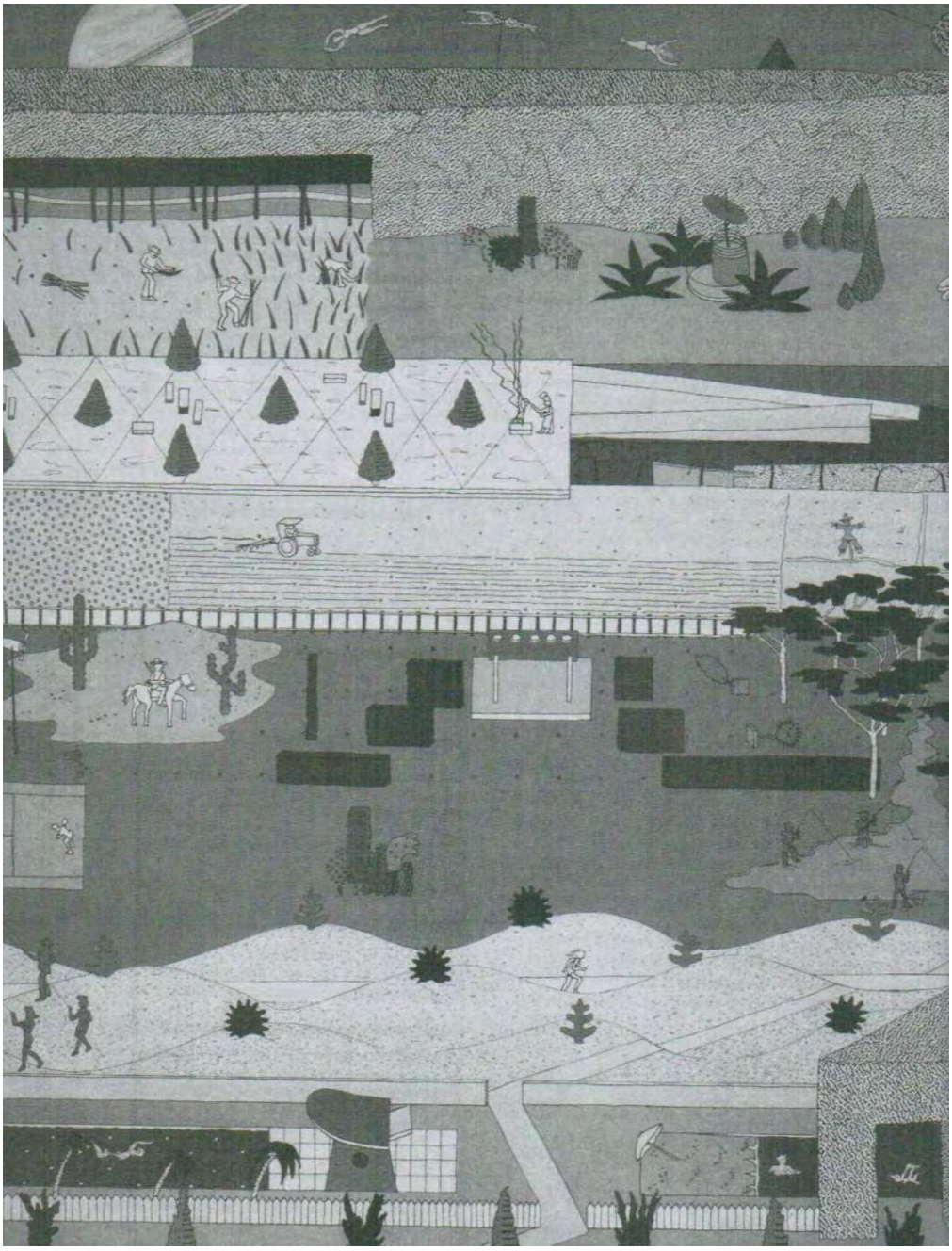


Image 3-1: Rem Koolhaas/OMA, Parc de la Villette Competition, 1982; cartoon of programs. From Waldheim C., "Landscape as Urbanism", In: The Landscape Urbanism Reader, edited by Waldheim C., Princeton Architectural Press, New York, 2006, pp.35-53., p.36

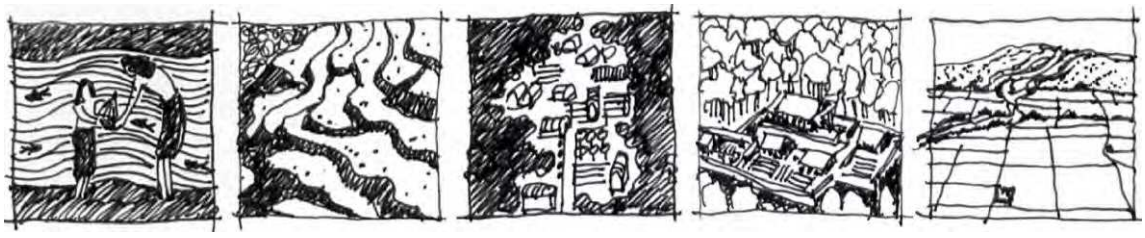


Image 3-2: As agricultural practices have evolved by the time, the relationship between society and nature has been changed, and their interactions have shaped the cities. (Source: Philips, 2013:7).

3.2 Historic Background of Open Space Planning

3.2.1 Nature and City

Living in harmony with the city is conceptualized today related with increasing disconnection of people's food resources, the continuous overdevelopment of cities about rising food prices, food miles, and increasing the destruction of local, regional and global natural resources[38]. As a whole reaching better living conditions are brought out to live in harmony with *nature* in the city. How much nature is needed in a city to become a more integral on city identity and city pattern?

The evaluation of urbanization is introduced in intellectual and cultural renewal in regarding increased awareness on complex natural environmental issues. The relationship between nature, city and citizens have been changed in time, (Image 3-1) nature was wild, then aesthetic tool like parks, sports and plays were needed to bring well-kept nature in the city, and then in twentieth century, it generates a new paradigm on city planning perspectives as Lohrberg[39], 2001 underlines, that bring back productive nature to city as creating communal -*public* open spaces by gardening, urban gardens: "*replacing decorative green through productive open spaces"*, reducing aesthetic duty of green open spaces with non-productivity, and discover *edible* potential of open spaces and consideration of urban gardens as creating communal, *public* open spaces.

3.2.2 Romanticism of Agriculture and City

The roots of agricultural society and the invention of farming were based on the growth of wheat, rice, maize crops, though gatherers were around at least thirty-five thousand years ago before the expanding farming culture changed the civilization (Standage, 2010 cited in Phillips A., 2013). Ten thousand years ago the civilization in Egypt, China and India illustrated farming as a part of the daily lifestyle in the ruins. In the early times, the various societies in the world, urban agriculture became *manifest as contained and controlled zone* within the cities by thick, sturdy walls to keep cities from the untamed wilderness located outside the city walls, (Image 3-2) and then to keep and protect the cities against the wars. *Nature* was wild and it was not within city, it was outside the city[40].

[38]Phillips A., 2013: *"Designing Urban Agriculture: A complete guide to the planning, design, construction, maintenance, and management of edible landscapes"*, pp. 1-48., published by John Wiley and Sons, Inc., Hoboken, New Jersey.

[39]Lohrberg F., 2001: "*Stadtnahe Landwirtschaft in der Stadt- und Freiraumplanung "*, Books on Demand, pp.17-25, p.18-19.

[40]Ibid., p. 7

3.2.3 The First Green Network -to bring nature in the city

The first plan *to bring nature in the cities* in significantly fast growing cities was the Olmsted and Vaux's plan for Central Park in New York in 1858; they provided passive and active outdoor recreations for urban citizens, landscape was more about aesthetic consideration object. According to Lohrberg, Eliot's park system for Boston is an important case for green network. Eliot created *green way* and *green space* network through connecting rivers and open spaces (green spaces: meadows, forests) on the outskirts and it is also important through reclaiming beach from private to public use, and protecting islands; and proposed to bring small squares, play grounds and parks in the densely populated areas[41]. But agriculture was not integrated in the open space plans. Dohna-Poninska's *Green ring*[42] aims to improve settlement conditions through providing open spaces as green connection from inner city to outside. She claims in 1874 that green corridors regard to recreation function are gained importance in open space plans to improve life conditions in cities. But she highlighted non-productive functions of *agriculture* in providing recreation uses as a tool on shaping open spaces; she couldn't consider productive functions of agriculture in open space plans. It was more about aesthetic consideration object of agriculture with non-productivity. As a case: Green ring in Vienna, the idea was forests and meadow rings surrounding the city.

3.2.4 Garden cities – to bring agriculture in the city

Sir Ebenezer Howard in 1898 highlighted city to live, within production and consumtion. He proposed garden city model. Garden city has distinctive character by integration agriculture back into the city through agricultural used belts. Urban gardens of Howard's approach have been responded the pressure of land use changes with ***suitable-legitimate use of open spaces through productive use of open spaces***. He means garden city objects:

"*…objects are to be achieved being healthy, natural and economic combination of town and country life and this on land owned by municipality"* (Howard E., 1902, p.22).

He underlines municipality owned lands provide public open spaces through securing healthier surroundings, more regular employment, better employment for the capital, access to standards of health and comfort in a short way for all grade citizens, in particularly who migrate tighter provide open a new market for their produce close to their doors.[43]

His proposal is based on nowadays decentralized city layout scattered with ***productive open spaces*** that included abundance of public parks and pastoral open spaces within orchards and provided a detailed plan in a radial pattern with boulevards and distinguished various land uses[44] (Image 3-3).

[41]Ibid., p.19 and quoted from http://www.umass.edu/greenway/Greenways/2GR-his.html, accessed on 19th September, 2014.

[42]Lohrberg F., 2001: "*Stadtnahe Landwirtschaft in der Stadt- und Freiraumplanung "*, Books on Demand, pp.13-15.

[43]Howard E., 1902: „Garden Cities of To-morrow", Swan Sonnenschein & Co., London, pp.20-27.

[44]Phillips A., 2013: *"Designing Urban Agriculture: A complete guide to the planning, design, construction, maintenance, and management of edible landscapes"*, pp. 1-48., published by John Wiley and Sons, Inc., Hoboken, New Jersey

The radial pattern has been seen *Thünen Rings* (Image 3-4) by Johann Heinrich in 1842, on focused "*the relationship between agriculture and national economy*" (Thünen, 1842 cited in Lohrberg, 2001, p.22). Lohrberg 2001 is talked about that Howard's garden city model is based on obviously the knowledge of Thünen's agricultural economy model, in specifically Chrystal Palace of Howard's model. Garden city model was the respond of dirty and overcrowded cities of the time by a pastoral view of the city through the integration of town and country life. The plan is shown a centralized site of 1,000 acres and in surrounding with agricultural land of 5,000 acres to support a city population of 32,000(Philips A., 2013). Chrystal Palace[45] of Howard's model presently represents *direct-marketing* form with central park at the city centre and surrounded encircling ring-shaped glass halls that included houses and gardens to provide *higher purchase possibilities* and at the same time public open spaces. By surrounding city centre with agricultural lands in regarding Howard's model provide high labor use perarea with productive usage of open spaces with small and large parks, orchards, small dairy farms, cow pastures, fruit farms in short transform routes of food and other types of productive landscape. In larger distance of garden city is located forestation with new forests and large-scale farms. (Lohrberg F., 2001 and Phillips A., 2013)

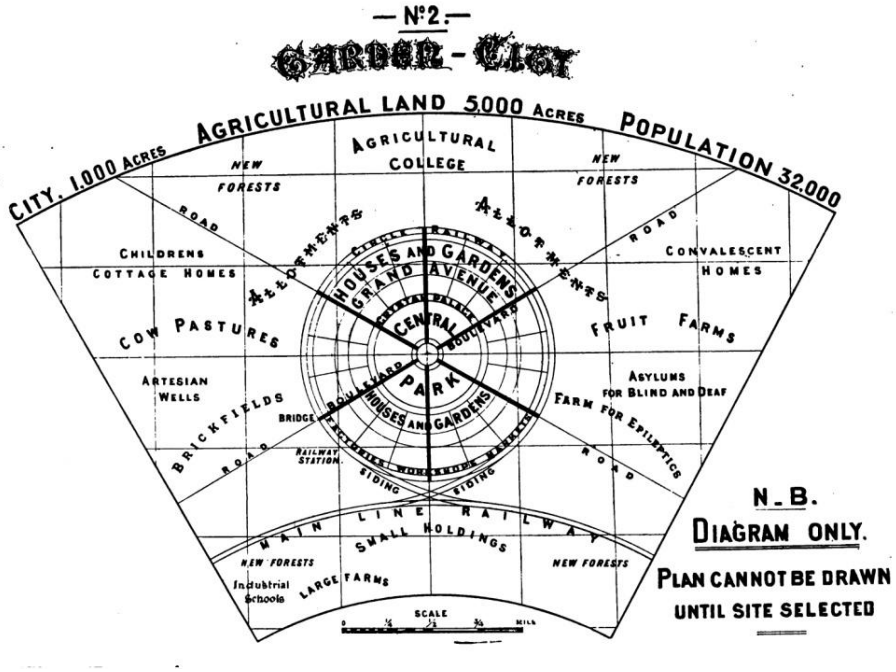


Image 3-3: Garden City: small and large parks, orchards, small dairy farms, houses and gardens, pasture areas in the middle rings. In larger distance: forestation with new forests and large scale farms. The layout is from Ebenezer Howard: „Garden Cities of To-morrow", (Howard E., 1902:22-23).

In addition, agriculture absorbs simultaneously the *waste of the city* [46] that can be made profit as mutual; the city may save expenses from food transportation costs, peri-urban production is reduced the transport costs, and it could be increase the fertility of land. The combination of town and country can provide to be achieved being economic, natural and healthy. (Howard E., 1902)

[45] Lohrberg F., 2001: "*Stadtnahe Landwirtschaft in der Stadt- und Freiraumplanung "*, Books on Demand, pp.19-21.

[46] Ibid., p. 21

Lohrberg is cited Osborn's perspective about Howard's city that it is "*more a city in the garden, so in beautiful surroundings, -than a city in garden."* (1945, in Posener 1968:179 cited in Lohrberg, 2001, p.19) So it is considered a city in the garden, not as a city with the garden. According to Howard ***agriculture is a part of urban culture and gardening is a tool for providing better life conditions.*** [47] Agricultural use of open spaces provides to feed the city with its bounded population. Agricultural production and urban consumption should be reinforced each other (Lohrberg, 2001).

The main sense of garden city is to produce economically independent cities through the preservation of nature and open spaces that both pastoral and productive and integration of agriculture into urban open space structure (Phillips A., 2013).

Image 3-4: Thünen Ring, (Lohrberg F., 2001:22)

The point of view Ebenezer Howards' from "garden cities" approach could be understand "agriculture" as assure short distance food supply for city dwellers and also a crucial structure component to hold city growth. In growing city Vienna, "green belt" plays significant role for responding to the adverse of urban expansion.

In Vienna, it was **allotment movement** which is legally and illegally-encouraged and implemented food self supply by gardening on small plots. The agricultural supply function became more important after World War II, the fields and allotment public open spaces were cultivated to cope with food crisis (Ziegler, 2009 and Meyer-Chech & Seher, 2013).

The relationship between urban life and gardens came into effect Ebenezer Howard's Garden City of To-morrow, the idea of city, and the idea of garden are driven together, the devoted areas for food production not only forms the structure of the city, also becomes as spirit symbol of city (Howard, 1946, quoted in Xia et al., 2010). Wrights remarks ***"architecture as acreage seen together as landscape",*** exudes the *generative potential of productive landscape* (Wright, 1932, quoted in Xia et at., 2010, p.2).

[47] Posener, P, (Ed.): Ebenezer Howard. Gartenstädte von morgens. Das Buch und seine Geschichte, Berlin, Ullstein Verlag, 1968, p.179

3.2.5 Historic development of urban gardening in urban open spaces

Urban agriculture plays an important role in open space planning in different time periods as seen on the Table 1.

Table 1: Urban Design Models- The role of open space planning and peri-urban agriculture

Time period	Urban form- Open space	Role of Agriculture
Historism with hometown style (1870-1920)	Open space as a regulatory element of the city region Urban regeneration through parks in suburbs, green belt and green area systems	Agricultural romanticism Displacement of agriculture ("Park expected land") Agriculture as a backdrop
Garden city movement (from 1900)	City in the agricultural belt (E. Howard)- but practical implementation as "green outskirts"	Supply
1920s: decentralized settlement strategies	Open space to structuring the satellite town	Settlement and allotment garden colonies
Classic modern/functional city	Functional separation	Outline, self-sufficiency
Post-war period: loosened and structured city	outline: **recreation and leisure activity**	partly non agricultural functions of the agricultural area
contemporary: compact**, mixed-use city**, European city	**living environment improvement**, courtyard greening, peri-urban green areas	city reconstruction: **agricultural temporary use** and **subsequent use**
contemporary: between cities / network city	Open space as a connecting link identification, image	maintenance, valorisation (In-Wert-Setzung)

(Source: S. Bock, A. Hinzen, J. Libbe, T. Preuß, A. Simon, D. Zwicker-Schwarm, Urbanes Landmanagement in Stadt und Region, Deutsches Institut für Urbanistik, 2013: 54, translated by the author.)

The production function of peri-urban agricultural land plays-except for overall times of economic crisis (for example, after the First World War) - opposite **reproductive functions of *agricultural land* (leisure, recreation)** in the urban planning idea play a slowly increasing role [48]. Since 1980, peri-urban agriculture serves especially also **an aesthetic in valuation *(in-Wert-setzung)***: recreation of the experience of the urban landscape. Agricultural land is thereby increasingly understood ***as a cultural landscape*[49].**

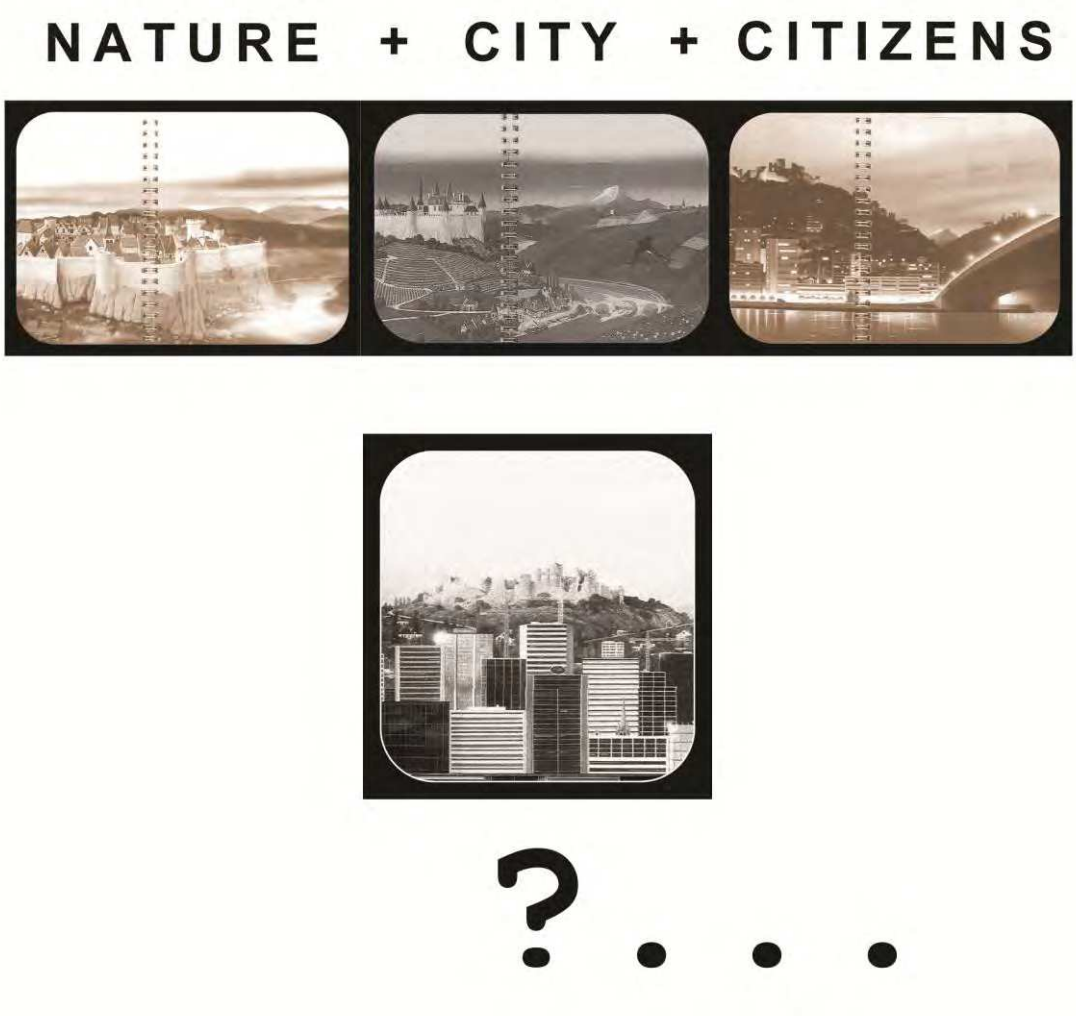
Urban Gardens' primary mission was food production for livelihood in the open spaces as allotment gardens; they were non-commercial. After that 'Schreber gärten' in Germany besides of food production were used recreation and leisure activity. Afterwards, the mission of food production was converted to commercial mission of making profit in the city by maximizing crop performance, and then converted to the mission of recreation and leisure,

[48] Lohrberg, 2001, "Heute wird die ökonomische Bedeutung der Landwirtschaft nur noch im Ausnahmefall als Argument für die Sicherung von stadtnahen Agrargebieten herangezogen", In: Deutsches Institut für Urbanistik, 2013: 54.

[49] Ibid.

creating learning and meeting spaces, like community gardens, educational research gardens, and institutional gardens in the urban open spaces.

Some ***types of urban gardens***: firstly, urban gardens play role as a supplier for food needs in outskirts of cities as peri-urban agriculture, then ***allotments*** are found in United Kingdom, they are used for non-commercial growing food or flowers by a group people together, rented to individuals by local authorities. ***'Schreber gärten'*** are found in Germany, but they were used not only food growing, also as leisure gardens. The aim of food production in allotment gardens was non-commercial. Then the aim of food production is converted into commercial growing food, the aim of food production is for selling to the public, ***urban commercial market gardens***. Food production is converted into recreation and leisure activity with ***community gardens.*** Community gardens are managed and used by local neighborhoods or communities for recreation and education. Sometimes unused, abandoned urban open spaces are converted into urban gardens, or the grounds of public buildings-schoolyards, hospital are converted to urban gardens as institutional garden. ***Urban farms*** are involved animals like chickens, ducks, and sheep. Their contribution is more educational rather than growing food for selling. Related to my thesis, I focus on considering the contribution *of urban gardens to recreation, leisure and education to preserve urban open spaces.*



Source: Scheuvens R., 2010, from the scripts of "Grundlagen und Instrumente der örtlichen Raumplanung" lecture, pp.13-21.

Contemporary issues

4 Contemporary issues

4.1 Productive Urban Landscapes

Productive landscape means

"Green space is not only beautiful but also socially, climatically, and economically productive. Productive Landscape combines agriculture, allotments, and subsistence farming with the Do-it-yourself culture of intermediate users, spatial pioneers, and start-ups. Berlin's (city's) creativity makes its way into the design of public green space: urban inhabitants take responsibility, are invigorated by their involvement, and identify more strongly with the city's greenery. The end result is new space in which to be active and grow" (Senatsverwaltung für Stadtentwicklung und Umwelt, 2012: 7).

Productive urban landscapes, which include ecological agriculture in the city, help to use the resources more efficient and to minimize the impact to the environment. At the same time they increase, at least locally, the quality of life and the prosperity of the city [50]. Urban open spaces are planted and managed in a way to be environmentally and economically productive; for example, besides of food production from urban gardens, increasing biodiversity, absorbing pollution, the cooling effect[51]. The characteristics of productive urban landscape have explained in Box.2.

Urban open spaces should be used as compensation area for disadvantaged groups and should be developed **as social learning spaces.** Urban open spaces should be understood **as cultural and educational space,** and **as resources for culture and learning in public open spaces**[52].

[50] City plants symposium, 2012, p.6.

[51] Viljoen, A. & Bohn K., 2005: "An introductory glossary", In: Viljoen A. ed., Continuous Urban Productive Landscape, Burlington, Architectural Press, p.xviii.

[52] Senatsverwaltung für Stadtentwicklung und Umwelt, 2012: 54.

Continuous Productive Urban Landscape (CPUL); is an urban design/planning conceptual approach to reincorporating ***a productive landscape***, including agriculture, into the human **settlement**[53]. CPUL advocates interlinking productive landscapes into cities as an essential element of sustainable urban infrastructure. The central point of the concept is ***the creation of multi- functional urban open space network***s, including ***urban gardens***, which complement and support the built environment[54]. Urban gardens are an essential element of sustainable urban infrastructure. CPUL is everywhere: if flood plains are producing crops and costly used for housing, then they are productive; roof top urban gardens-*vegetable and fruit production on roof tops*- promote to save heating and cooling costs, reduce air pollution.

The features of the productive park are explained in Box.3.

BOX 2. ***Productive Urban Landscape Features:***

- *Willingness*
- *Dissatisfaction*
- *Battle for open space / minimization through building- the decrease of open spaces*
- *self-organized acting / do it yourself*
- *alternative food fundraising*
- *recreational activities / time factor*
- *repeal of anonymity / strengthen local identity in the environment*
- *wish of an ecological sustainability*
- *health awareness*
- *productive use of open space*
- *change the open space for the common good*
- *ecological motivating lifestyle*
- *necessity of design/use public space / city image / district image also for outsiders / city quality through the quality of the individual districts*
- *rethink the city / multifunctional urban open space*
- *urge to a life outside of apartment*
- *city as the carrier of open spaces / provide*
- *permits / usage contracts*

(Source: S. Rongitsch, 2012: "Urbane Landwirtschaft in Buenos Aires", p.30, translated by the author.)

[53]Jac Smit (AICP), 2005: "An introductory glossary", In: Viljoen A. ed., Continuous Urban Productive Landscape, Burlington, Architectural Press, p.ix.

[54]Accessed on February, 2015, from http://arts.brighton.ac.uk/research/sustainability-network/cpul.

BOX 3. ***The Productive Park Features:***

- ♣ The Productive Park provides space for climate balancing the production of food and energy, as well as for the water balance;
- ♣ opens up space for new and experimental, for unusual and surprising, for the testing of new usage models;
- ♣ changes the urban landscape into a cultural topic;
- ♣ puts the culture of everyday life with its conflicts, break lines and contrasts with its needs, requirements and ideas into the center;
- ♣ combines aspects of the use and care issues of education and the production of knowledge;
- ♣ becomes a platform for the networking of various living and adventure types;
- ♣ Becomes a challenge to economic competence fields that can test new social partnerships as a viable future model in the park.

(Source: R. Scheuvens & M. Taube, 2010: "Der Produktive Park": Denkschrift zum Emscher Landschaftspark, 2010 Essen, Wien, Dorsten, p.100, translated by the author.)

Urban Agriculture

4.2 Urban Agriculture

In this section the relation between agriculture and urban is discussed as well as the possibilities to integration of agricultural areas into urban, and main definitions and concepts about urban agriculture will be explained. In addition, urban agriculture (UA) definition approaches have been brought out answer about why the gardens are a component of urban agriculture. In the past centuries agricultural areas have been pushed to the periphery of the city. Now it is important to bring it back into the city. Trend is to *Agricultural urbanism* about "reinviting food back into the city and reconnecting people with their local and regional food systems…" (April et al., 2013, p.4) The integration of gardens into city has built bridges between the interests of different users, and also between intra-urban and peri-urban communities.

In this part what the *gardens* and *agriculture* provide to the city, both positive and negative impacts of urban agriculture is investigated. What kinds of myths about urban agriculture have constrained *existing urban gardens* in preserving open spaces through understanding a viable industry? Smit et al. view is about urban agriculture "… is a poorly understood industry", and its meaning is often "minimized as… 'kitchen gardening' or marginalized as residue of rural habits", (Smit et al., 2001, p.4). The possible benefits of urban agriculture could be lost behind the myths which are the products of cultural, planning, and policy biases (Smit et al., 2001).

In addition, in which land use forms *gardens* have contributed food production and recreational leisure activities for city users and *agritainment* (Agri-entertainment) phenomenon is examined. The examples are discoursed through different interpretation of urban agriculture.

4.2.1 Definition of Urban Agriculture | Urban Gardens

Different researchers defined and perceived urban agriculture in various ways. Simply urban agriculture can be described as keeping growth of plants and farm animals in the city. As naturally can be understood that agriculture has always been a part of a city in the past and today, and it will be in the future days. Because the food is a basic need of human beings, common dimensions of urban agriculture are identified as following according to Mougeot:

- Types of economic activities,
- Food/non-food categories of products and subcategories,
- Intraurban and periurban character of location,
- Types of areas where it is practiced,
- Types of production systems,
- Product destination and production scale (Mougeot, 2000, p.5).

Luc Mougeot provides a holistic definition about urban agriculture; its meaning is more than "backyard gardening" and based on the division of labor between human and material resources, products and services, and their repetitive circulation in that urban area. Its broad definition by Luc Mougeot:

"*Urban agriculture is an industry located within (intraurban), on the fringe (periurban) of a town, a city or a metropolis, which grows and raises, processes and distributes a diversity of food and non-food products, re (using) largely human and material resources, products and services found in and around that urban areas, and in turn supplying human and material resources, products and services largely to that urban area"* (Mougeot, 2000, p.10).

The definition by Mougeot takes into account two important characteristics of UA practices. Firstly location, urban agriculture is not only about *intra-urban* and tends in growing cities to take place on the fringes as *peri-urban* agriculture (Cabannes, 2012, p.5). He points out, "the tension between growing (expanding) cities eating part of their food base, and new or traditional urban agriculture activities" depends on *"what policies and legal frameworks have to regulate"* (Cabannes, 2012, p.5). The reason of the conflict between the interests of different users lies under political regulations.

Second main character of UA practices is about spatial and land use varieties of intra- and peri urban agriculture. Where urban agriculture industry takes place, takes account of land use varieties of urban agriculture. Land use types of UA are defined as following according to Cabannas:

- Houses, on terraces and balconies,
- Private plots, even if without property title, around the home,
- Along highways, railways, or pathways,
- Public parks and open spaces,

- Non urbanized patches of land within (intra-urban) and on the fringes (peri-urban) of the city,
- Areas where construction should not be taking place, such as along water beds and other risk-prone lands,
- Institutional properties (for instance schools, hospitals or large enterprises) (Cabannes, 2012, p.5).

On conceptual framework urban agriculture is ***commonly perceived*** as ***archaic, temporary, and inappropriate***; agriculture is considered as essential rural activity; and urban agriculture is also referred ***recreational activity*** or as a tool for beautifies the cities according to Smit et al. Various ways to define UA may seem complicated. Smit et al define UA in a multidimensional way through highlighting it as rapidly growing industry, food security of urban residents with its economic, environmental, and health impacts on urban life:

"…an industry that produces processes, and markets food, fuel, and other outputs, largely in response to the daily demand of consumers within a town, city, or metropolis, on many types of privately and publicly held land and water bodies found throughout intra-urban and peri-urban areas. Typically urban agriculture applies intensive production methods, frequently using and reusing natural resources and urban wastes, to yield a diverse array of land-, water-, and air-based fauna and flora, contributing to food security, health, ***livelihood****, and environment of the individual, household, and community"* (Smit et al., 2001, p.1).

Smit et al. focus on the relations between supply-demand, input-output, and producer (farmer)-consumer by urban agriculture, that generates benefits through relations in response to daily life. UA is depicted as an industry underlining its economic perspective in both descriptions. But Smit et al. view on urban agriculture is more about product; although all urban agriculture practices could not possible be 'product'. Van Veenhuizen underlines that agriculture within the cities has various functions, ranging from valued in monetary to aesthetical and sentimental values that involve interests of different users (Van Veenhuzien, 2006). His perspective on multi-functionality of urban agriculture is, ***"urban agriculture adapts and develops along with the city according to the wishes of stakeholders who represent these diverse functions"*** (Veenhuizen, 2006, p.10; van de Berg & van Veenhuizen, 2005) So, new forms of governance, institutions, and policies need to be crafted through the process ***involving multiple stakeholders*** (Veenhuizen, 2006). Such as involving the demands of different users in policy making process, diverse of wishes which represent diverse/multiple land uses of multiple stakeholders, is a reference point in this study. In study area Yedikule, there is a struggle between the demands of different land users, target groups

Van Veenhuizen's definition is:

"Urban agriculture is located within (intra-urban) or on the fringe (peri-urban) of a city and comprises of a variety of production systems, ranging from ***subsistence*** *production and processing at household level to fully commercialized agriculture"* (Van Veenhuizeen, 2006, p.2).

Actually it looks similar with Mougeot's description. He expands Mougeot's definition on another challenge about urban agriculture for policy and legal framework by highlighting the variety of productive systems ranging from *subsistence (livelihoods)* based family farmers at household level, to semi-commercial farmers till fully commercial entrepreneurs that involve different social and economic actors (Van Veenhuizen, 2006, p.2-3).

Different than Mougeot, Smit et al. and Van Veenzuihen mean UA in terms of *subsistence* production, processing at *household* level, *livelihood*, and food security perspectives are more directly and involve the interests of different users, as different social and economic actors more directly. Accordingly, urban agriculture contributes "to the food security, health, livelihood, and environment of the individual, household and community" (Smit et al, 2001) and UA consists "… variety of production systems, ranging from subsistence production and processing at household level to fully commercialized agriculture" (Van Veenhuizen, 2006, p.2). Both descriptions and these perspectives are emphasized directly, and my study focuses on them.

The significant view on Mougeot's definition related to my study, Mougeot underlines the relationship between (re-)using human and material resources in regard to my research the relation between urban gardeners-*Bostan keepers*- and resources used in and interacting with the urban ecosystem. This study seeks to empower embedded local voices and urban *gardens* practices related to everyday life.

Another significant approach from Mougeot is about the most distinctive character of UA which distinguishes it from rural agriculture due to its integration into the urban economic and ecologic system. UA plays as ***complementary*** **role** in local food system instead of replacing rural agriculture. It is *integrated local economic and ecologic system*. It is not about its urban location (intra or peri-urban), but the fact it is embedded in, interacts with urban system, and urban agriculture is ***an integral part of the urban economic, social and ecological system:*** urban agriculture uses urban resources (land, labor, urban organic wastes, water), produces for urban citizens, is strongly influenced by urban conditions (policies, competition for land, urban markets and prices) and impacts the urban system (effects on urban food security and poverty, ecological and health impacts) (Mougeot, 2000; Van Veenhuizen, 2006). From *lesser integration to greater integration of agriculture into urban makes local food system less dependent on rural and foreign food supply systems* (Mougeot, 2000). Accordingly, urban gardeners -*Bostan keepers*- are embedded in and interact with urban ecosystem as urban actors, they are an integral part of urban metabolism and interact with it.

In this study, Mougeot's definition is the reference point, and it covers Veenhuizeen's and Smit et al. approaches, and comments of FAO (Food and Agriculture Organisation of the United Nations) which makes the differences are more marked between intraurban and periurban agriculture: *Intraurban agriculture* concerns to "small areas (e.g. vacant plots, gardens, verges, balconies, containers) within the city for growing crops and raising small livestock or milk cows for own-consumption or sale in neighborhood markets". *Peri-urban agriculture* concerns to "farm units close to town which operate intensive semi- or fully commercial farms to grow vegetables and other horticulture, raise chickens and other

livestock, and produce milk and eggs"[55]. In addition to Mougeot's approach about the differences between urban agriculture and rural agriculture, Lohrberg mentions that rural agriculture distinctiveness is based on natural spatial context relatively strong; on the other hand urban agriculture is too strongly adapted in urban influences. Moreover, urban agricultural surfaces are more scattered and small sized; rural agricultural surfaces are expansive farmlands (Lohrberg, 2011).

This study primarily focuses on the role of urban gardens to preserving urban open spaces, and balancing the demands of different land users in open space plans, considering of all possible functions of open spaces to make a legitimate use of public open spaces. Therefore, one the one hand it investigates the role of urban gardens on household producers based on levels to small scale agro-business enterprises, in which urban poor is more active (urban gardeners / farmers). On the other hand, it tries to explore all possible functions of urban gardens, converting urban bostans into multi functional land use.

Urban gardener denotes not only agriculturist who is occupying land for cultivation and also ***recreations***. Urban agriculture provides much more than intensive food production; *urban garden* ***provides recreation and leisure with complementary activities such educational opportunities, creating jobs, capturing rainwater for harvesting, increasing the awareness of public on environmental and healthy food issues, improving physically and mental well-*** **being**, bring residents together as keepers ***of communal open spaces,*** contributing urban ***waste recycling*** process. Urban agro forestry produces food products such as fruit trees and non-food products such as medicines and insecticides from flowers, and also such as wood to use for furniture and it shapes urban open spaces with greening, which brings environmental benefits to city.

Recognizing the importance of urban agriculture

UA is contributed to **local food security** *by* ***Food-shed*** concept, which defines all the areas in a city that supply its food products (Smit et al, 2011). Smith mentions that resident's food and fuel costs as ***a share of income*** are higher due to less developed transportation systems in poor cities. Addition to that term also is used place-based food system, locally grown, food miles and slow food. ***Food miles*** is a term used to measure the distance from farm to market and to cost for each and every product on the plate. ***Slow food*** is a movement that protects local production, processing, marketing process (Smit et al., 2001).The local food security regarding to UA will be detailed in second chapter.

Usufruct is also important to recognize the contribution of UA. It is concerned as ***"the legal right to use and enjoy something that belongs to another or a form of communal ownership"*** (Smit et al., 2001, p.9). In urban agriculture perspective is a gardener access to the fruits with own labor on public or private land or water body that doesn't belong to

[55] FAO, Urban and Peri Urban Agriculture. In: 4.Characteristics of Urban and Peri-Urban Agriculture, http://www.fao.org/unfao/bodies/coag/coag15/X0076e.htm#P106_11554, accessed on 8th October, 2014.

gardener. Usufruct gives guarantees for gardeners or in returns for maintenance of the good. It may provide ***productive use of urban open spaces*** such as vacant lands, parks, squares etc… ***Rights of way*** used have being accepted by local governments such as Jakarta persuaded public and private land owners through replacing sleeping lands into productive. In New York have been available vacant lands for community groups by municipal agency.

4.2.2 Types of urban agriculture practices

Cabannes[56] determined different types of urban agriculture practices to better understand variety of situations that may be found in the same city or in the same open space, such as variety situations happening in the case study Yedikule Bostans. He underlines two significant differences: a) "between subsistence oriented activities and market-oriented activities, b) between these activities and ***urban agricultural activities as a source of leisure and recreation***" (Edited by Van Veenhuizen in 2006, Cabannes Y., p.89).

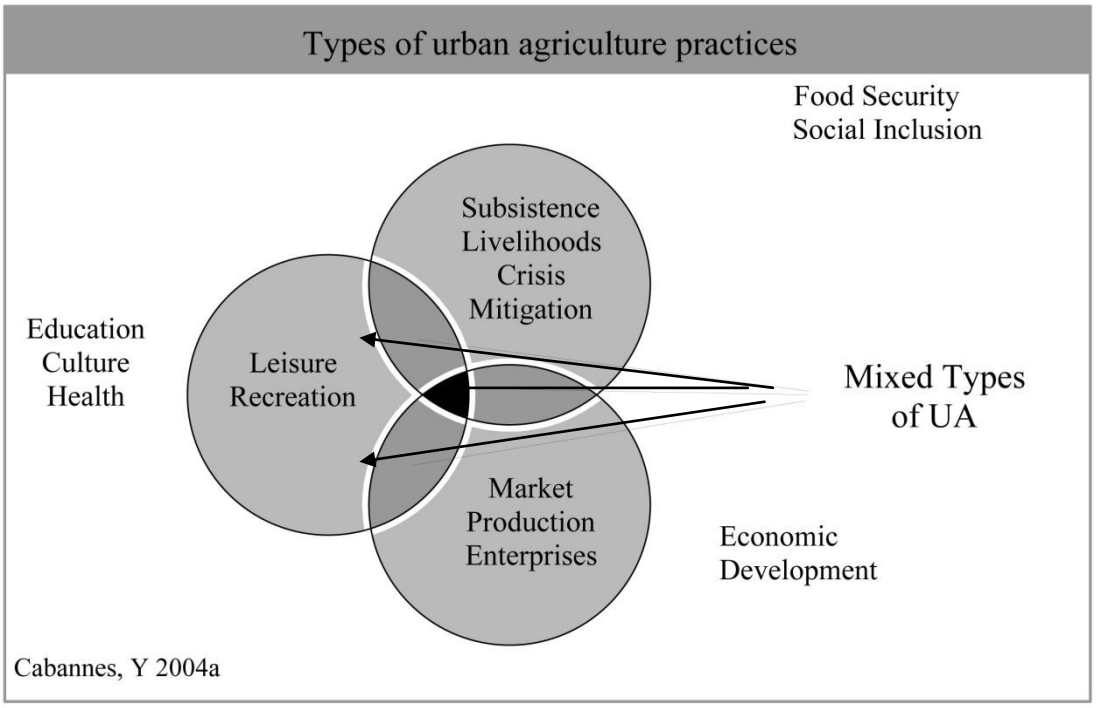


Image 4-1: Various types of urban agriculture practices, (Source: Cabannes, 2012: 8).

Urban agriculture is being practiced for meeting subsistence needs, market-oriented activity, and for recreation and leisure, as well as mixed types of urban agriculture might be find in the same city.

[56] Cabannes Y., Financing and Investment for Urban Agriculture, pp. 87-111, In: Cities Farming for the Future, Urban Agriculture for Green and Productive Cities, Edited by Rene Van Veenhuizen, 2006, Leusden, Netherlands.

The most common urban agriculture practices are *subsistence livelihoods* and *crisis mitigation*, support livelihoods for the urban poor, and a lesser extent the middle class. In this point, UA plays a part in a *subsistence economy*, generally family-based, and is seldom to make a profit (Cabannes, 2012:8).

The second type practices are *market production enterp*rises, which are concerning market-oriented activities, which can be individual or family-based smallholders or larger cooperatives or producer associations. They contribute the whole food chain, from the production of vegetables, and other products to agro- processing and marketing. Producers sell the products directly at markets or through intermediaries in these market- oriented activities. For the less distance, products are sold through formal distribution channels (supermarkets etc…) (Cabannes, 2012:9).

The third type refers to agriculture **as leisure and recreation activities** rarely or regularly. It is directly relating to my case study. Urban agriculture as recreation and leisure activities is practiced mostly in developed counties than in developing countries. This type is seen as a way ***to maintain or restore the relationship between urban citizens and nature*** (Nature + city + citizens). They contribute to raise public awareness on environmental issues and makes children possible to experience nature and food cycles[57].

Mixed types of UA practices are "a combination of two or three of the previously described types" (Cabannes, 2012:9). For example a family based urban agriculture practice meets the need of its own consumption, and they can also sell their products locally to make external income. European farmers practice UA mostly ***as a recreational or health related activity produce food that can sometimes reduce their home expenses*** *(Cabannes, 2012)*.

Existing situation in Yedikule bostans is second type practices of urban gardens. Yedikule bostans are family-based micro enterprises. Their primary aim is to make profit. Gardeners sell their products themselves directly in neighborhood and district bazaars, as well as at the roadside stands, as street vendors. They gain in importance to provide food security in neighborhood level.

My study is focused on the third type which ***refers urban gardens as a source of recreation and leisure activities.*** The complementary activities-such as educational opportunities-provide increasing awareness of environmental issues of public. Urban gardens ***as recreation source*** contribute to maintain and restore relationship between nature and citizens; therefore urban garden provides residents to access to nature and to access to experience of nature. Yedikule bostans as ***'a recreation and conservation related activity'*** produce food that can provide ***social, environmental, economic, health*** benefits.

[57] (Cabannes, 2012: ", "Pro-poor legal and institutional frameworks for urban and peri-urban agriculture", p.9

4.2.3 Types of Urban Gardens

- Community Gardens,
- Community farms,
- Commercial gardens (smallholder family operations)
- Institutional farms and gardens, (school, church, prison gardens, city housing authority gardens)

Institutional Farms and Gardens *(School bostans, City Housing Authority bostans, hospital, church, prison bostans)*	**Commercial Farms**
 Image 4-2: Roof garden as classroom in New York, image by Rachel Kangas. (Source: Accessed on March, 2015, from http://www.dac.dk/en/dac-cities/sustainable-cities/all-cases/health/new-york-city-the-school-garden-is-the-new-classroom/).	 Image 4-3: Brooklyn Grange, Queens. (Source: Accessed on March, 2015, from http://brooklyngrangefarm.com/).
▪ Roof garden of the Robert Simon Complex on Lower East Side (LES). ▪ The garden belongs to three municipal schools in the area. ▪ It functions as an outdoor classroom for students. ▪ Initiative came from volunteer teachers and parents at the school. ▪ 280 m^2 roof garden.	▪ Commercial rooftop garden. ▪ Two commercial rooftop gardens ▪ Totally 2.5 acres. ▪ An apiary with 30 naturally managed honey bee hive ▪ It has become a partner with a nonprofit organization, the Refugee Immigrant Fund. ▪ Bringing recently immigrants into city.
Integrating gardens into the school curriculum provide many opportunities: ▪ Increasing the acknowledge of children about the climate, healthy food, nutritious food ▪ Students grow themselves vegetables on rooftops, in schoolyards and taste.	▪ Contributing to ecological benefits (capturing rainwater, etc.), healthy eating, and horticultural therapy. ▪ Some of them can also rely on volunteer labor as community gardens.
▪ Connected with an institution ▪ School gardens are non-profit gardens. ▪ Hospital, church, prison gardens whose primary mission is not food production, but they support urban	*Managed for profit as business* ▪ The primary goal of commercial gardeners is to maximize crops performance in order to increase profit, in contrast to community gardeners.

bostans. (Therapy for inmates, kitchen supplements for daily meals, homeless, etc.).	*Concerning Yedikule Bostans, they are commercial gardens, gardeners' primary goal is to make profit, sell in neighborhood bazaars.*

Community Gardens	**Community Farms**
 Image 4-4: Hands and Hearts Garden, Brooklyn. (Source: N. Cohen et al., 2012: "The Five Borough Farm":60)	 Image 4-5: Taqwa Community Farm, Bronx. (Source: http://www.wsj.com/articles/SB10001424052748704575304575296831105864688, accessed on March, 2015).
▪ In New York City, there are 490 community gardens, total area is 100 acres. ▪ Involving various activities, growing vegetables, flowers, or meeting space for socializing, recreation. ▪ Under the jurisdiction of Departments of Parks & Recreation	▪ They are operated on public properties, but not developed lands by the city. ▪ Mostly on Parks, Recreation, Housing Preservation and Development land. ▪ *"While the gardeners want a permanent plan to preserve their gardens, the city wants to retain flexibility on open parcels to keep up with changing communities"* (Source: Susan Farley, Wall Street Journey, accessed on March 2015, from http://www.wsj.com/articles/SB10001424052748704575304575296831105864688).
Mostly community gardens are located on vacant lots. They are increased in neighborhoods. Located in city-owned lands. (Public properties) They are host open hours for the general public.	Mostly focus on community building, development, social programs such as educational programs, rather than on profitability. Improving youth leadership skills, job readiness, educating people.
Managed by group of local resident volunteers ▪ Typically run by a group of volunteers or member volunteers. ▪ Volunteers maintain *individual plots* or communal growing spaces.	*Managed by nonprofit organization, its mission is to engage with surrounding community* ▪ Growing spaces operated by nonprofit organization in contrast to community gardens. ▪ Typically characterize *communal growing spaces*, managed by staff.

4.2.4 Potentials of urban agriculture

Rapid urbanization especially in developing countries and migration of rural populations to urban areas, as well as growing cities, faced urban authorities with the demand to provide *sufficient employment* opportunities and *adequate living conditions* for its growing population. It results in rapid development in informal sector, including urban agriculture in predominantly South cities (Africa, Asia and Latin America). The main reasons to preserve urban gardens -*agriculture*- are urban food security and income generation for the urban poor (Van Veenhuizen, 2006; Van Veenhuizen & Jaramillo Avilo, ETC RUAF, UA-Magazine, 2002). Urban agriculture has been investigated from various aspects such as relating food distribution, through food price stability, which might ensure urban poor to reach enough food, whether it contributes to alleviate poverty in low income neighborhoods or empower the community, as well as gender perspective-such as woman constitute an important percentage of urban agriculture producers (up to 65 percentage) of the world urban farmers, that led to a significant increase in the independence and empowerment of woman (Mougeot, 2005; Garret, 2002b; Garret, 2000).

Urban agriculture is an integral part of *sustainability of urban development* through **economical, social and environmental benefits**. German co-operation development related to UA has identified three priority areas: poverty alleviation, **environmental and resource protection**, and **education and training** (BMZ 1999 quoted in Jacobi et al., 2000). It is a tool to establish job opportunities for low incomes; it helps to improve social structure of a community through social integration of various producers, and it provides gardeners to "feed their families and raise their income, while enhancing their self -management and entrepreneurial capacities" (Zeeuw et al., 2010, p.13), and also gardening activity makes sense for gardeners on increasing self-esteem, and self-actualization [58] and feeling wholesome themselves -*physical and mental health.*

UA is a tool for making productive use of urban open spaces, productive reuse of urban waste -*urban waste management: treating or recovering urban solid, liquid wastes,* for greening of urban, generating or saving income and employment, reducing vulnerability to climate (Mougeout, 2000; Dubbeling et al. 2010).

Socio-economic benefits of UA are widely studied (Quon, 1999). Self-produced food in cities provides positively nutrition feeding urban gardeners, it contributes **food expense saving** as much as %20 of income, which can be spent on other needs (Mougeot, 2000). Poor people can spend from %60 to %80 of their income on food (UA-Magazine, 2002). UA fill the need of the urban poor to inadequate, unreliable, irregular access to food and the lack of purchasing power (Van Veenhuizen, 2006). It helps to raise food security at household level through producing for household consumption and provides positively nutritional status (Mougeot, 2000) to each urban gardener with a healthier diet through access to fresh food or livestock

[58] Waliczek, Tina M., Mattson Richard H., Zajicek Jayne M., 1996: "*Benefits of community gardening on quality-of-life issues*." Journal of Environmental Horticulture 14(4): 204-209.

productions [59]. In addition to that making UA available at close to cities contributes reducing the costs of food, because locally-produced food involves fewer intermediaries and less transport, cold storage, processing and packaging (Dubbeling et al., 2010). Self production represents in Nairobi at least %50 of food consumed is gained from the farmers own production (Mwangi 1995, quoted from UA-Magazine, 2002). In Havana, urban gardens have significantly increased the quality and quantity of food available at producers' household and neighborhood level; and improved the financial welfare of households and enhanced the environmental quality of the community (Altieri et al., 1999 quoted from Mogeout, 2000).

Smit et al. mention the contribution of socio-economic development significantly through UA "is a prime job generator in low-income cities" and "an easy-in easy-out entrepreneurial activity for people at different levels of income" (Smit et al., 2001, p.2.). It generates **self-employment** and **income**, particularly for the urban poor who lack to access other job opportunities and as a complementary source of income for low and middle income households (UA-Magazin, 2002).

For the poorest of the poor, it provides good access to food; for the stable poor, it provides a source of income and good quality of food at low cost; for middle-income families, it offers the possibility of savings and a return on their investment in urban poverty; for small and large entrepreneurs, it is a profitable business [60]. Concerning case study, Yedikule gardeners are small scale family operations, their primary aim is to make profit. They sell their vegetables from bostan produced into neighborhood and district bazaars.

Economic benefits of UA are not be easily evaluated. It contributes local economic development. Although the production levels and turnover of individual urban producers in many cases will be small, the high number of urban producers in each city makes their overall contribution to the urban economy highly significant, generating *employment* for many poor urban households and providing incomes equivalent to or higher than the official minimum wage [61]. Urban gardeners' income is uncertain, contribute household maintenance and also significant. In some cases UA is the second employer, (Dar Es Salaam in Tanzania) and also monthly income of a market gardener can be found to equal ten minimum salaries (Lomé in Togo) (Abutiate cited in UA-Magazine, 2002). Moreover, non-food production perspective may improve the income and employment through the local plant demand for beautification especially women participating.

[59] Van Veenhuizen R. from ETC RUAF & Jaramillo Avila A. from the municipality of Quito, Ecuador, UA-Magazine, on August 2002, RUAF Foundation, Practical Action Publishing Ltd, UK.

[60] Smit J., Nasr J., Ratta A., 2001: *"Urban Agriculture: Food, Jobs and Sustainable Cities"*, Chapter 1, Cities that feed themselves, pp.1-29, p.2, published by the Urban Agriculture Network with permission from UNDP.

[61] Moustier and Danso, 2006, In: Dubbeling M., De Zeeuw H., Van Veenhuizen R., 2010: *"Cities, Poverty and Food",* RUAF Foundation, Practical Action Publishing Ltd, UK.

Producing own food has been saved tens of millions of dollars in growing cities. Smit et al. (1996b.) estimated that 800 million people around the world are engaged in UA, and play an important role in feeding world's cities through self-sufficient, higher valued and nutritional productions. They are not only doing household farms producing food through family labor, and also numerous other people are employed in the farming, marketing and processing activities (Dubbeling et al., 2010). In addition to enhanced **urban food security** and nutrition of the urban producers themselves, Margaret Armar-Klemsu, 2000 claim that 200 million urban residents produce food for the urban market providing 15 to 20 percent of the world's food (Van Veenhuizen, 2006).

Another important potential of UA is its contribution to **social inclusion**; *social integration of disadvantages groups* are such as immigrants, HIV-AIDS affected households, disabled people, female-headed households with children, elderly people without pension, and youngsters without a job (Van Veenhuizen, 2006). According to a gender perspective, for women it is more difficult to get skilled jobs in industrial areas or in the city, but they are able to combine their processing and selling activities with household activities[62].

A large proportion of people in urban agriculture involved are *urban poor* (Dubbeling et al., 2010). Contrary to belief that those involved in urban agriculture are fundamentally recent migrants from rural area, it is practiced generally by poor people who have been living in the city for one or more generations and have had time to access urban land, water and other productive resources [63].

UA has significantly **environmental benefits** through being **a part of urban ecological system**. It prevents soil erosion and sophisticated agricultural land use types help decreasing air pollution, truck traffic, rebuild urban forests by expanding planted area and greening of the city. In regarding UA to use in **a productive way**, it helps to improve urban soil, water, air and living environment. It plays an important role on ***urban environmental management*** especially with ***urban waste management.*** Growing cites produce increasingly organic wastes, disposing of solid and liquid wastes should not be seen a problem instead of that the wastes should be seen a resource for sustainability (Smit et al., 2001). They emphasize, it must be considered as closed-loop system, in which wastes and resources are the same, instead of open-closed system, in which resources in and wastes out in particularly metropolitan areas. Output from one process, it could be use input for another process in closed-loop systems; therefore it can be eliminated the need of waste export of the system. It is important ***turning the urban wastes into a productive resource*** through compost production, vermiculture, irrigation with wastewater (Van Veenhuizen, 2006).

[62] Mougeot L., 2005, In: *"Pro Poor legal and institutional frameworks for urban and peri-urban agriculture"*, edited by Cabannes Y., published by FAO in Rome, 2012.

[63] Dubbeling M., de Zeeuw and van Veenhuizen R., 2010: "*Cities, poverty and food*", RUAF Foundation, Practical Action Publishing Ltd, UK.

Greening of the city through expanding plant areas, rebuild urban forest, UA can contribute the improvement of ***the urban micro-climate*** like ***wind breaks***, ***dust reduction, shade***; and ***maintenance of the biodiversity***, as well as the ***reduction of the ecological footprint*** of the city by producing fresh foods close to the costumers and thereby ***reducing energy use*** for transport, such as packaging, cooling (Van Veenhuizen, 2006).

Some approaches are **emphasized UA as *unsightly*** and ***aesthetically inappropriate*** in urban areas (Smit et. al., 2001). Contrary to that perspective, it is a tool for beautifying the city by gardening or well-managed animal grazing; generating green spaces around the roadsides. Urban gardens play an important role ***for preserving vacant, underused and unkempt lands*** in urban open spaces. It is important contribution on keeping cities ***clean*** and ***hygienic*** by recycling urban wastes. It is enriched the urban landscape in many forms of urban gardens. Urban garden ***creates economical, environmental impacts in the cities, and also*** **educational, cultural and health benefits *through* recreational leisure practices *of urban gardens*** by providing '**edible landscape'** in the cities. **UA is a tool on providing aesthetic and recreational open spaces with *edible landscape*.** In the urban landscape, generally industrial and commercial areas are often considered productive, but urban open spaces in relating recreational use and aesthetic appearance are considered non-productive. Urban garden generates a '**green and aesthetic landscape'**, at the same time '**productive' through providing high returns economically, environmentally, socially from vacant or inefficient spaces to gardeners, city stakeholders directly or indirectly** (Smit et al., 2001). Smit's approach **on *edible landscape*** can be described as follows:

*"...street trees bearing fruit, ponds and rivers producing fish and water vegetables, hillsides yielding fuel, and formerly **vacant lots** growing vegetables. This landscape is then fecund and brings high return to cultivator and breeder"* (Smit J., 2001, p.10).

Mekouar underlines that urban areas need to "***increase nature in the cities*** and to *pay attention to the impact of urban areas on surrounding rural areas*" (Mekouar 1997 cited in Quon 1999, p.10). Increasing natural areas in the city mention that natural areas within cities should be **preserved, protected, restored, including "gardening"**; food production, as well as recreation and leisure. Urban gardens provide much more than food production, ***converting urban gardens into multi functional land use,*** they provide besides food production, recreation and leisure, too. Urban gardens with complementary activities, they provide environmental, social, economic, health benefits to urban residents.

Using urban gardens **to preserve urban open spaces** may be making ***less pressure*** on ***natural areas*** than other structured areas. It might be considered, rapid urbanizations' impacts on transformation of land use functions in cities from ***natural areas to artificial surfaces***, and **decreasing the connection between *people and nature***, between intra and peri urban communities and also maybe it shows growing cities are expanding, and their impacts on surrounding rural areas. *Urban gardens play an important role for **creating near-nature open spaces in urban areas.*** *Urban gardens* might be a bridge between people and nature, and between intra- and peri urban communities and rural communities. If we look for the city history, nature was in the city, and then it is pushed to peripheries in last decades. Quon's

perspective about UA benefits in relating to bring nature back into city can be described as follows:

"Urban agriculture, without a doubt, is an activity that should be promoted and developed in order to provide food for home consumption, for urban residents with limited resources. As well, this kind of activity will allow us to reestablish contact with nature, something that has been lost in large urban centers. Respect for nature, on top of the benefits of urban agriculture" (Executive Director of Environmental Management and Protection, Secretariat of the Environment, Mexico D.F, Quon S., 1999, p.10).

4.2.5 Risks of urban agriculture

As UA has various benefits on urban-cycle, but it has also negative environmental impacts and threatens public health. Although it has positive impacts on public health through providing nutritious rich and fresh food, it can be threatened public health if it is in a wrong way and at wrong place to gardening. Health risks concern to contamination risks of producers, handlers, consumers, and people in the production areas carried out at wrong place and inappropriate practices. UA should be legitimate use (in a right way and at right place, according to site characteristics to choice of right production) such as right use of fertilizers, pesticides -*agrochemicals*, unthreatened waste products, and farming where air, water, soil unpolluted (Mougeot, 2000). The fear is based on contaminated food, such as polluted streams, unhygienic handling of the products during transport, processing, marketing of products and heavy metals due to traffic emissions (Van Veenhuizen, 2006).

The environmental contamination is about visual dirties, soil erosion, destruction of vegetation, and pollution of resources, such as soil, air, water (Mougeot, 2000). By misuse of agrochemicals like using high inputs of chemical fertilizers and pesticides caused polluting resources. That can also contaminate local water sources and maybe drinking water suppliers. Inappropriate farming practices may cause reduction of vegetation as pushing UA to peripheries or to marginal areas such as wetlands or hill-slopes under the stiff competition for land in intra-urban (Van Veenhuizen, 2006).

The inappropriate urban gardening practices may cause the most serious problems regarding to threaten public health. Urban gardening is discussed being "hygienic" or not. Smit in 2001 claims that urban gardening is not *intrinsically* unhygienic, urban farmers should take care due to its potential to impact large populations. The wrong practices of reusing solid and liquid wastes, contamination of food crops, as well as rearing livestock threat the hygiene of the living environment. If its potential risks are controlled through regulations, education, and others, and (right used) legitimate use of UA in land and waste management systems, it can improve the hygiene in a sustainable way by using the polluted waste as a production input (Smit, 2001).

4.3 City Planning Strategies for urban gardens: What kind of conditions allows the communities to feed itself?

The dialogue between design and city authorities, planning professionals, local government, and the community is necessary to focus on the need for integrated urban infrastructure, urban open space planning approaches (as a role to preserve urban open spaces), and creating policies that allow urban gardens to provide much more than food production, as well to fill recreation needs (Phillips, 2013).

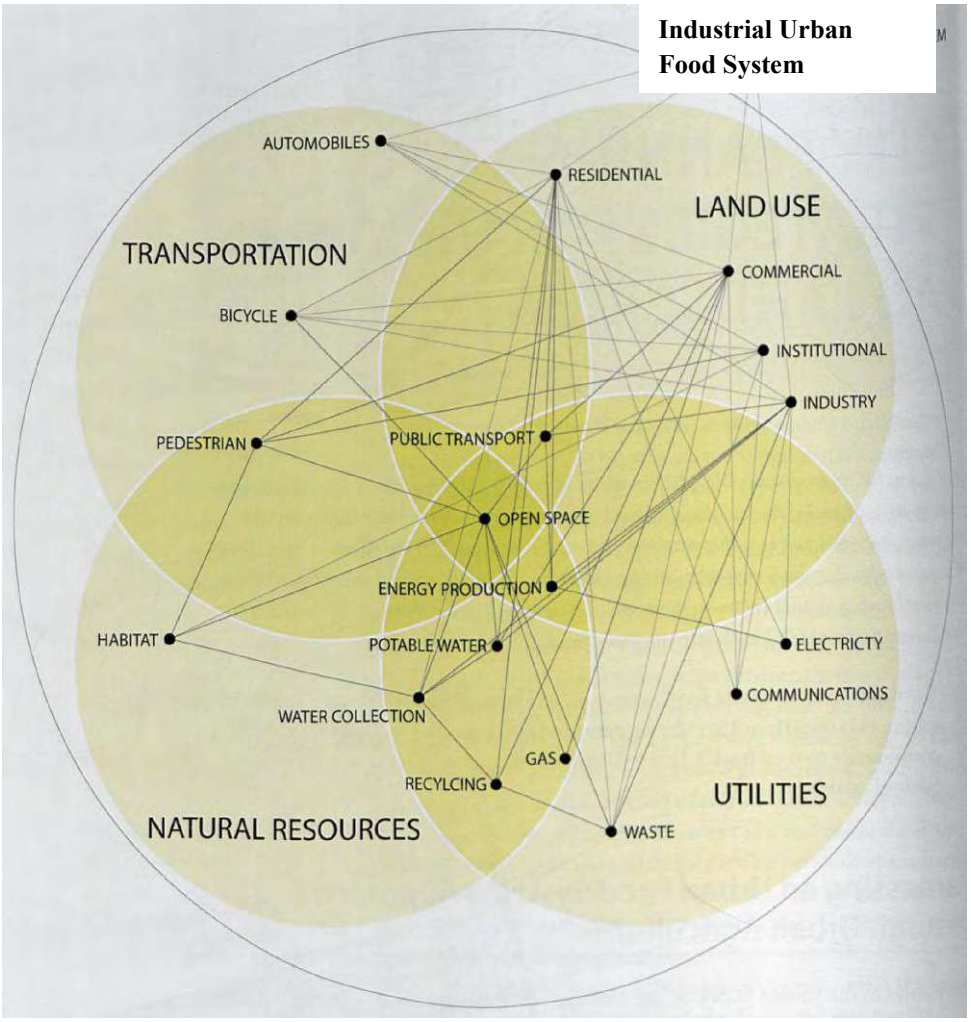


Image 4-6: Urban Infrastructure Web, (Source: April Phillips, 2013: "Designing Urban Agriculture", p. 60)

Integrated systems focus on as a whole unit rather than independent units. The more integration of nodes into the system creates efficiency of connections in the system. Industrial food system node is as outlier of the system (See Image 4-6).

Urban agriculture is integrated into the system as an integral part. This offers new ways to think city infrastructure about water, energy, people that will benefit both city and regional

systems. This increases the efficiency of the system and reduces the dependences of outside inputs. (See Image 4-7).

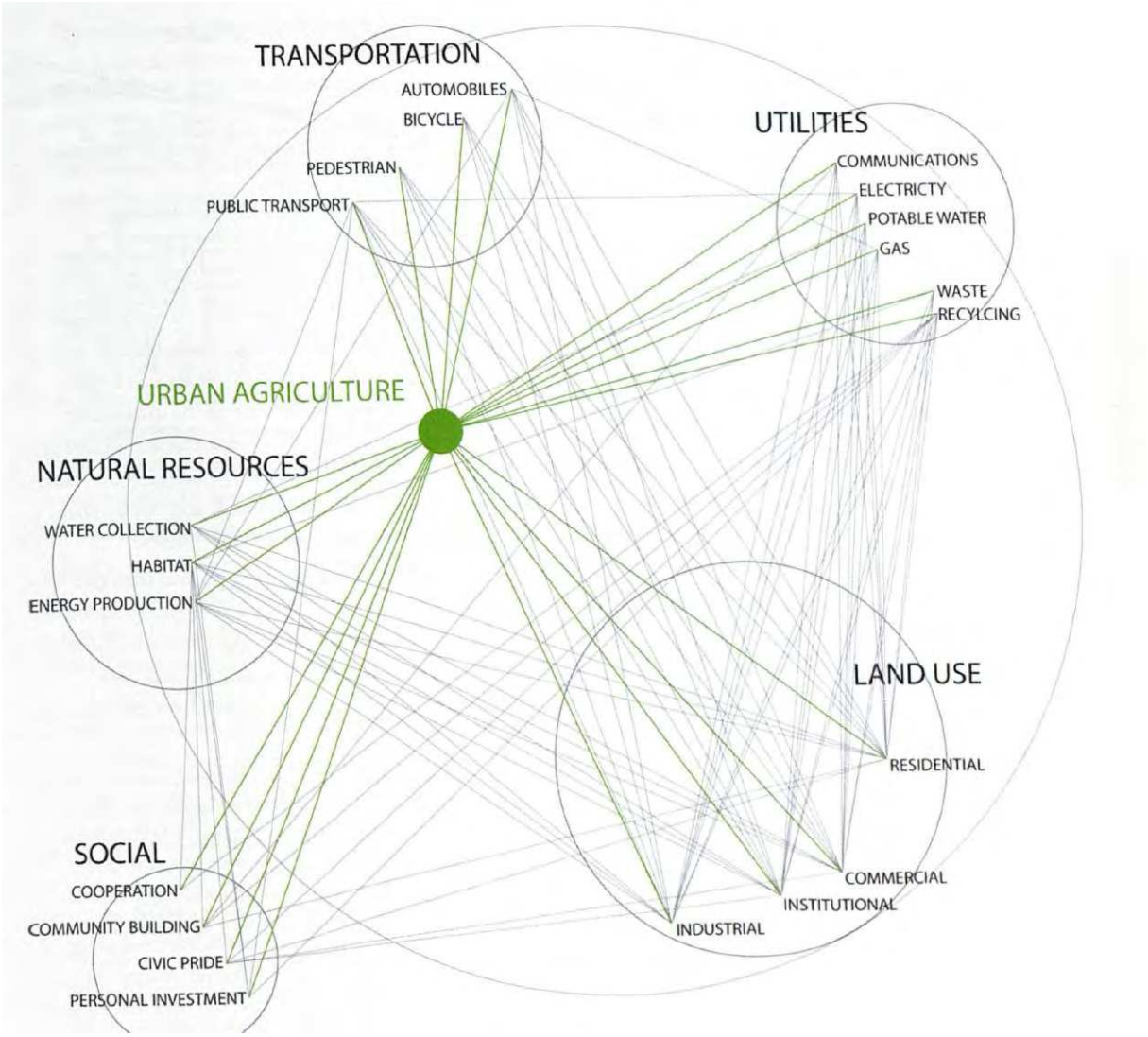


Image 4-7: Urban Agriculture within the urban infrastructure web, (Source: April Phillips, 2013: "Designing Urban Agriculture", p. 61).

4.3.1 Urban gardens as integrated urban design and physical planning

The integration of urban gardens into physical plans and building communities requires combining urban gardens with complementary uses. It is necessary to create multi-compatible activities such as recreation opportunities, and maximizing of the experience of urban gardens by education, training, viewing opportunities. Urban gardens should be designed to fill recreation needs through maximizing opportunities for connecting people to nature. Integrating urban gardens as a part of urban design and **physical planning should be considered as a part of green infrastructure of the city matrix**. Urban gardens have potential for integrated connectivity with urban infrastructure network, such as preserving urban open spaces, natural resource management. Four key principles are identified for integrated system (Phillips, 2013):

1. The output of one system is the input for other system, and all waste materials are as sources for treating.
2. Generate value and make income from collected resources.
3. Achieve multiple benefits from each system.
4. The resource producers and users located near each other to facilitate resource exchange (de la Salle, 2010 quoted in A. Phillips, 2013, p. 66).

4.3.2 Urban gardens as a part of urban open space system

Community gardens play an important role as being a part of the city's open space system. Planning policies are generated from open space guidelines. Community based gardens create variety of neighborhood gardens. Urban gardens are introduced as elements of the open spaces as parks, community recreation nodes and learning centers.

4.3.3 Urban food networks | Urban Food security

Food Security is defined as giving populations both economic and physical access to a supply of food, sufficient in both quality and quantity, at all times, regardless of climate and harvest, social level and income[64] (WHO).

Urban food security depends on '***availability of food'***, (which depends on food production in rural and urban sectors, food imports, marketing and distribution, infrastructure, availability fuel energy etc…); ***'access to food'*** (depends on purchasing power of urban households, subsistence production, household networks etc…); '***quality of food'*** (depending on preservation of street food, quality of production, abuse of pesticides, use of waste urban waste for production as compost or water, sanitary conditions on markets, air quality etc…) (Veenhuizen & Jaramillo Avilo, ETC-RUAF, UA-Magazine, 2002).

4.3.3.1 Urban Food System and Urban Agriculture (Large- scale agro-business)

According to Smit, UA is a part of urban and national food system and it includes:

- Food that urban residents consume
- Production location
- Means of production
- Transportation and storage options
- Food processing and packaging options
- Intra-community and global marketing systems that move food from producers to consumers (Smit J. et al., 2001, p.18).

The amount of food supply is depending on a range of factors such as economic status of the country (developing, industrial or post-industrial); completeness of food marketing, storage, and transportation infrastructure and system; agricultural productivity (per hectare, capital

[64] Viljoen A. ed., 2005: "Continuous Urban Productive Landscape", Burlington, Architectural Press, p.xx.

investment, per worker); availability of land, water, and other natural resources; agricultural and urban development policies.

4.3.4 Community Food System and Urban Gardens

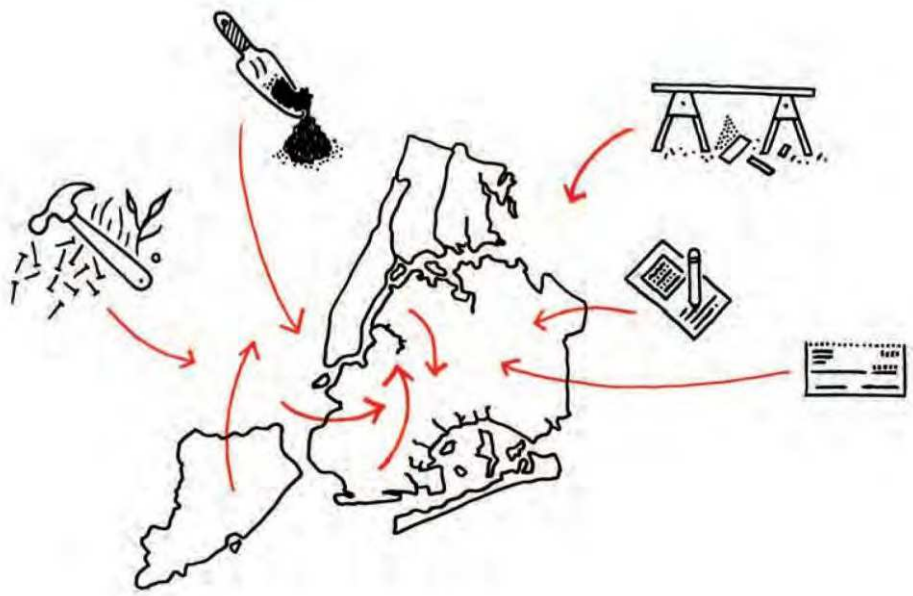


Image 4-8:Connecting community residents to the city (N. Cohen et al., 2012: "The Five Borough Farm":39).

The community food security is issued significantly social justice, anti-poverty, and anti-hunger fields. Hamm is defined as *"all persons obtaining at all times a culturally acceptable, nutritionally adequate diet through local non-emergency resource"* (Hamm, 1999, p.4, quoted in Smit et al., 2001, p.23).

It fills the needs on solutions of hunger problems and relies more local food system than national or global nets, including welfare and relief; it allows for access to food in continuously from individual to global levels; dealing with how and where food is produced such as quality of diet; empowering individuals through community initiatives (Smit et al., 2001).

Zooming from a community garden, local residents and volunteers grow vegetables, orchards and livestock, and as well turning food wastes into compost, or guiding students from a school in a school program. Someone learns to cook different vegetable meals; residents pick up vegetables before going out to restaurants, farmer markets.

4.3.5 Sustainable urban food system

Urban gardens promote social sustainability, ecological biodiversity in urban environments. Considering appropriate methodologies and tools, innovative technologies, urban gardens as integral part in urban systems, play an important role in urban open space planning strategies and sustainability of the city. The consideration of urban gardens as preserving urban open spaces leads urban food security from local to urban level. Phillips underlines 8 components of sustainable urban system[65] on Image 4-9:

1. Growing food and operations: The growing, raising and managing of food landscapes. This involves input and output connections.
2. Processing: This includes collecting, packaging, baking, preserving and other methods of transforming by human actions.
3. Distribution and storage: Distribution of food from producer to consumer. This involves food miles, associated with input and output connections, as a network between producer and consumers.
4. Selling and buying: This involves buying, wholesaling, retailing of products, also community trading, bartering of food exchange and programs such as CSAs. Perhaps, these actions occur at the farm stands on-sites or at the farmer markets, restaurants, at the streets by vendors or gardeners, as being on off-site. Many urban gardens do a combination of on-sites and off-site activities.
5. Eating and Celebrating: The enjoyment of food could be for nutrition, feasts or celebrations in public or private spaces. The celebrations could be on-site consumptions, as well on off-site.
6. Waste and recycling management: This involves the utilization, management, and various organic wastes from food growing, processing and consumption. A zero-waste environment includes *all waste stream management as a resource*.
7. Education and branding: The teaching of food and ecological, social and economic benefits to public and private sectors. This involves on-site education, training, mentoring of students, community members, as well as the marketing of produced food, and branding of urban garden development to address eco-literacy and benefits to community and city.
8. Policy and Advocacy: The creation of policies, guidelines to support urban gardens that provide opportunities for urban food system, for preserving urban open spaces in a productive way. Sometimes advocacy is necessary for policies to take into account urban gardens, before urban gardens constructed. In some cases, free expressions highlight the need for policy change, new directions. There is a relationship between needs and challenges, community and city cooperation. Policy and advocacy is also necessary for input and output connections of urban gardens to other systems in the city, (Phillips, 2013, p. 70).

[65] April Phillips, 2013: "Designing Urban Agriculture", published by Wiley & Sons, in Canada, p.70.

Image 4-9: The components of sustainable urban food system (Philips A., 2013, p.71).

Comparative Studies

5 COMPARATIVE STUDIES

5.1 Urban Bostans in growing cities, in the Worldwide

The examples of urban bostans for recreation and leisure use: There are lots of examples, especially in developed countries, of using urban bostans for the purpose of recreation and leisure; but in Yedikule case, urban bostans are not recognized for the purposes of recreation and leisure, for educational, cultural, social activities. Presently, urban bostans are considered to be an opportunity to provide recreation and leisure in educational way. At the present time, urban bostans have been being created to make gardening practices in highly populated, densely built up areas, as well as in metropolises where the land costs are high. Creating urban bostans in highly populated, densely built up areas, provides the social disadvantaged groups income economically, and food accessibility for social groups which don't have possibility to access quality and fresh food. It provides immigrants in the city the possibility to integrate into other social groups in their neighborhoods with the purpose of socialization. As a result, urban bostans play an important role in the creation of neighborhood life and society.

Concerning Yedikule case, gardeners are also inland migrants into the Yedikule, and belong to low income groups; they make income economically by selling their vegetables in neighborhood bazaars. They are second or third generation in ongoing gardening practices in Yedikule; bostans ensure fresh and quality food accessibility for gardeners, therefore gardeners are integrated into Yedikule neighborhood life and society.

5.1.1 New York, Five Borough Farm Project

There are 700 urban gardens-*bostans,* producing food in across the city of New York (Box 4, Image 5-1, Image 5-2). The number of urban gardens is increasing rapidly. New York is also one of the most populated urban agglomerations of the world [66]. Although it has dense urban settlements, the city has 700 urban bostans, with complementary activities, that are producing food. The various activities with health, social, economical, ecological benefits are integrated into urban bostans; therefore, they provide recreation and leisure activities in a productive way for local residents, or for volunteers. The aim of the Five Borough Farm project is to make fresh vegetables and fruits accessible for everyone at low costs in the city of New York; and to make **multifunctional land usages** underused public open spaces or open spaces with usage problems[67]. The Five Borough Farm project was initiated by the organization of Design Trust for Public Space in collaboration with the Department of Parks & Recreation in New York; and then there is formalized government support for urban gardens. The Food Policy Coordinator is working with the Department of City Planning, developing and adopting an urban garden plan; identifying locations where urban bostans should be encouraged etc… [68] Therefore, the collaboration of the organization of Design Trust for Public Space with the Department of Parks &

BOX 4.

Five Borough Farm Project in New York

The more than 700 urban garden sites in New York are on publicly owned land. The project provides urban gardening activities on the different public spaces-from schoolyard to the ground of public housing developments, community gardens to parks, vacant lands, and small-scale, community-based public spaces. These public open spaces are converted to provide ***multifunctional land use*** *opportunities; they do much more than provide fresh vegetables and fruits, they offer also educational opportunities, create jobs, capture and reuse storm-water, improve local residents' physical and mental well-being, decrease the waste stream through composting, and bring people together as* ***keepers*** *of communal open spaces (Source: Susan Chin, Executive Director, Design Trust for Public Space, from the book of Five Borough Farm, p.2).*

[66] Rhett Butler, 2003–2006: "World's Largest Urban Areas (Ranked by Urban Area Population), accessed January 15, 2015, http://www.mongabay.com/cities_urban_01.htm.

[67] Professor Assistant B. Yiğit Turan at Özyeğin University, July 19, 2013: *"Yedikule Recreation Implementation Project, Urban Design and Landscape Assessment Report"*

[68] Cohen N., Reynolds K. & Shanghvi R., 2012: "The Five Borough Farm" Seeding the future of urban agriculture in New York, published by the Design Trust for Public Space, pp. 1-169., p.8.

Recreation in New York plays an important role ***in highlighting the significance of urban gardens*** in public open spaces (parks, vacant lands, schoolyards etc…). As a result, the competent authorities of urban management, civil society organizations, and the public and in relation to city actors, urban stakeholders have been informed the significance of urban bostans; afterwards urban bostans are being built in the pubic open spaces rapidly. As it can be seen in the case of New York city, by supporting the collaborations of social organizations with city departments, the **awareness** about the importance of urban gardens is being **encouraged** among the urban stakeholders, concerned city actors and city authorities; from top to down-*from city authorities to the city actors*-, and from bottom up-*from the concerned city actors to the city authorities*. It is necessary to achieve ***the consensus of different users of public open spaces, from bottom up, as well as from top down****, to make balance between the institutions from local to regional, to national and also from national institutions to local institutions,* to develop and adopt urban garden plans with the coordination of city authority departments and civil society organizations.

Image 5-1: Phoenix Community Garden in Brownsville, Brooklyn, New York, by Rob Stephenson for Design Trust for Public Space.

Image 5-2: Battery Urban Farm, one acre educational farm is located into historic Battery, at the 25 acre Park in Manhattan, New York. (Source: http://www.thebattery.org/projects/battery-urban-farm/).

In this project, the broad range of activities take place in urban bostans to contribute ***to health, social, economic, and ecological outcomes*** and benefits. The components of urban bostan system have been shown on the Image 5-3. Urban bostans provide cleaning and remediation of vacant and underused lands, connecting resident to nature, creating income-earning opportunities and providing safe spaces for local residents. Various activities take place at urban bostans. The participants of these activities could improve their job readiness and leadership skills. Participants actively access to experience of urban bostans. Therefore, advantages are: ***increasing the awareness*** of different groups of society about healthy nutrition and ***environmental issues***; storing the rainwater to different purposes, such as capturing rainwater for harvesting, turning food waste into compost for gardening activities, educating people about environmental issues, healthy nutrition with educational activities such as social/food justice education, cooking and nutrition classes. It also provides disadvantaged groups of society access to fresh vegetables and fruits. Besides the gardening activities, it provides safe and unceasing useful space to visitors; users in urban bostans with other physical facilities such as children playgrounds, open air cinemas/theaters, neighborhood libraries, and public kitchens can also use fresh produced vegetables and fruits from gardens**. Public kitchens** provide cooking together and sharing experiences between the participants, creating strong social connections; also cooking and nutrition classes take place in the public kitchens. Moreover, social and cultural activities are integrated into urban bostans with a well- managed model; these temporary activities, such as concerts, events, public meetings, take place at certain times, in the temporary spaces in urban bostan; these make safe spaces and local residents, visitors would use the space unceasingly.

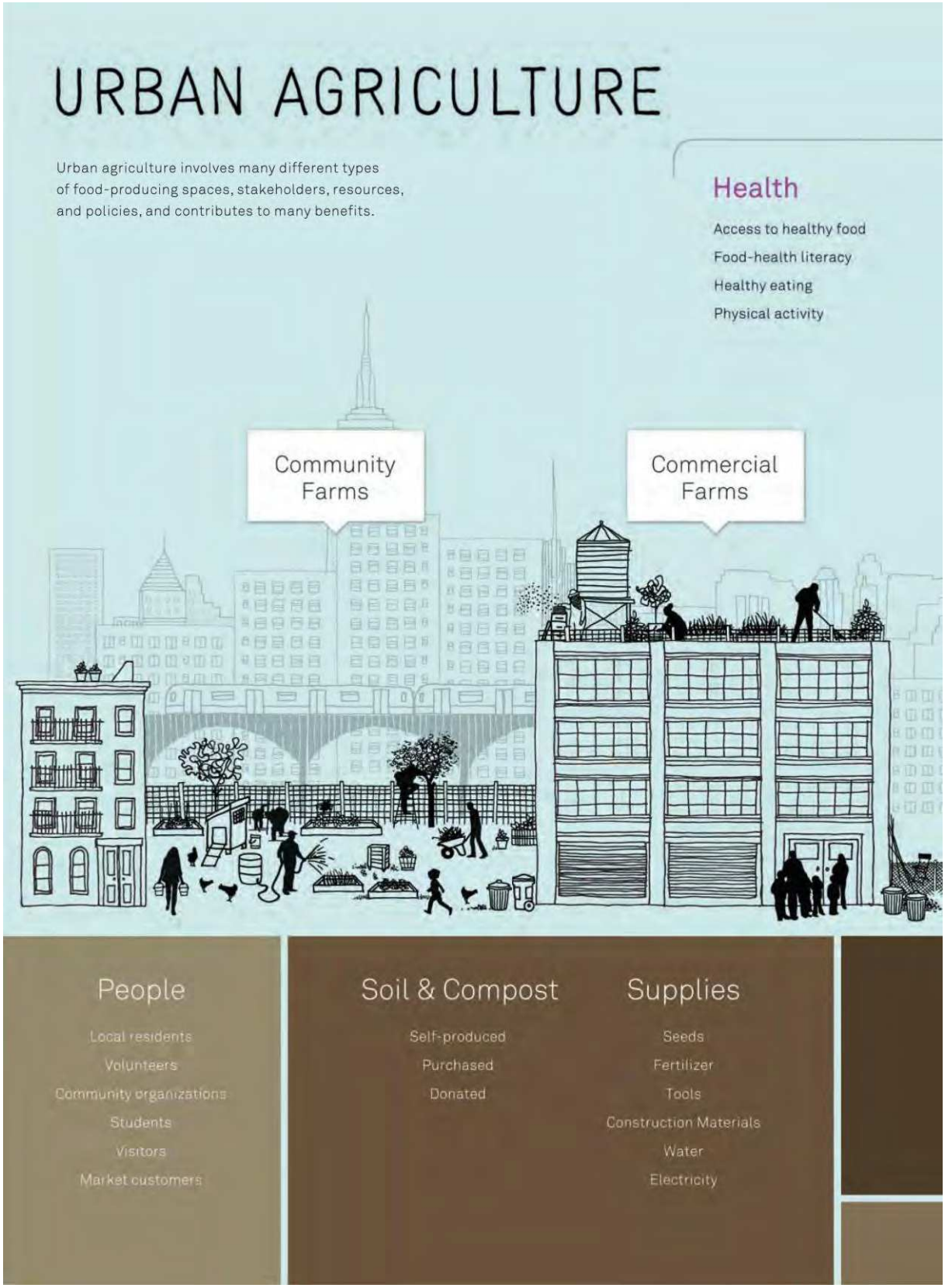


Image 5-3: The Components of Urban Agriculture system,1. (Source: accessed November 2014, http://www.fiveboroughfarm.org/.)

Image 5-4: The Components of Urban Agriculture system, 2. (Source: accessed November 2014, http://www.fiveboroughfarm.org/.)

5.1.1.1 Encouraging rooftop gardens in New York

Urban bostans are important for preserving urban open spaces in specifically densely built up areas and growing cities. Rooftops have been seen as an opportunity, as **a resource to use growing space, to convert rooftops into growing spaces,** into urban bostan. NYC Housing Preservation and Development support development of housing projects, with houses that include rooftop gardens, in order to promote converting open spaces of rooftops into urban bostans with multifunctional uses, such as fruit and vegetable producing, social gathering and passive recreation; and they also provide benefits to managing rainwater and building insulation at the rooftop gardens (See the Image 5-5). They are non profit used gardens such as therapeutic gardens; housing developers are also starting to build rooftop gardens and green houses for residential buildings; the rooftops are as sources as being used by grocers and restaurants for getting fresh products. They provide collecting rainwater to use for harvesting, as well as reduction of a building's heating and cooling costs[69]. New York has 2700 acres of flat rooftop potential to convert open spaces of rooftops into urban bostans; it means an area bigger than three times the size of the New York Central Park[70]. It contributes to an increase of the green areas, as well as outdoor functions in the city. City planners and policy makers are promoting rooftop bostans and changing regulations in order to make it easier to install greenhouses at the rooftops.

Image 5-5: Eagle Street Rooftop Farm, Brooklyn, New York (Source: accessed January 2015, http://brooklynbrewery.com/blog/events/seedtock-eagle-street-rooftop-farm-july-9/.)

[69] N. Cohen, K. Reynolds & R. Shanghvi, 2012: "The Five Borough Farm" Seeding the future of urban agriculture in New York, published by the Design Trust for Public Space, pp. 1-169., p.140-141.

[70] Ackerman, K., op cit., 2014, in: N. Cohen, K. Reynolds & R. Shanghvi, 2012: "The Five Borough Farm" Seeding the future of urban agriculture in New York, published by the Design Trust for Public Space, pp. 1-169., p.142.

City Council made new local laws relating urban bostans policies to encourage implementing rooftop gardens in city-wide. One of them is *"Resolution 527: it calls on the State Legislature to extend the Green Roof Tax Abatement to live food-producing plants as well as low-maintenance sedums, thus encouraging more property owners to install rooftop farms"*[71].

5.1.2 Vienna, Karls-Garten (Schaugarten and research garden)

Vienna is a growing city; Karls Garten provides a near-natural space in Vienna (Box 5), as well as the aesthetic appreciation of city landscape, positive impacts on urban microclimate. Vertical wall facilities are saving space in densely built up areas. Vertical wall consists of recycled materials such as PET-bottles and serves as a holder for the substrate-reduced plants. It is also suitable for private balconies and terraces. On one hand, it provides newly created ecosystem for habitats, animals and plants; and on the other hand it provides positive influences on climate and ecology. It contributes to the urban heat island effect (in densely built up areas less cooling at nights, keeping heat of the space), serves as heat insulation and windbreak; bottles serve as collectors of rainwater for harvesting the plants inside the bottles. It contributes to traffic related emissions in the way of reducing noise and dust. It contributes to increasing of the awareness of public on environment and urban food production issues; it includes temporary activities such as events, workshops, and organizing guided tours for visitors, school to garden, garden to school workshops. It also provides social and societal functions, space and facilities for recreation and leisure such as benches for sitting, ways for walking in the garden (involving directly use for recreation by residents); therefore it provides social contact and communication, the possibility of having lunch there, or meeting point for friends,…etc. As well as providing contact with nature actively, it provides the increasing

BOX 5. Karls Garten in Vienna (Schau-und Forschungsgarten)

Karls Garten is a demonstration and research garden for urban agriculture in the city centre of Vienna. It is named Karls-garden, because it takes place in Karls-square (Karls-platz) in Vienna. It involves approximately 2000 square meters area. It means 0.2 hectares of the size of the plot. It is grown biologically over 50 varieties of fruit, vegetables and cereals. Bees, snails and insects complement the demonstration garden.

The non-profit Association of Karls Garten isn't established only for growing vegetables, but it also promotes through extensive supporting programme with events, workshops such as guided tours on site and to raise awareness of urban food production, environmental issues. In cooperation with the Institute of Soil Bioengineering and *Landscape Construction of BOKU (University of Natural Resources and Life Sciences) in Vienna, as well it is investigated, which farming methods, as well as the crops for exposed urban location as Karlsplatz particularly well suited.*

Source: Karls Garten in Vienna accessed on 19 February, 2015, from http://www.karlsgarten.at/beschreibung.html.

[71] N. Cohen, K. Reynolds & R. Shanghvi, 2012: "The Five Borough Farm" Seeding the future of urban agriculture in New York, published by the Design Trust for Public Space, pp. 1-169., p.116.

awareness of public about environment and food production issue and influences human physical and mental health, well-being (Image 5-6, Image 5-7, Image 5-8).

As a result, it provides much more than recreation and leisure. It provides increasing of the awareness of public about environment, food production with various activities that take place at Karls garten such as events, workshops, meetings, guided tours.

Image 5-6: Karls Garten in Vienna, Austria (Source: accessed on February, 2015, from http://www.karlsgarten.at/images/kg_overview_foto.jpg)

Image 5-7: Watch and be astonished, research beds at Karls Garten (Source: the image by the author, August, 2014)

Image 5-8: Vertical Wall consists of Pet-bottles at Karls Garten (Source: the image by the author, August, 2014)

5.1.3 Vienna, Simmering Commercial Gardens

Simmering is 11th district in Vienna. The gardens in Simmering are in direct closeness to the residential area (Image 5-9).They are example to urban gardens. Urban gardens in Simmering are much more intensive growing plots in contrast to community gardens, romantic gardens. The gardeners' primary goal is to maximize crops performance in order to increase profit, in contrast to community gardeners. Simmering gardens act as commercial gardens, close to district neighborhoods.

Urban gardens in Simmering supply the all city of Vienna with fresh food and provide short-food miles. The produced fresh food distribution is directly from gardens to the local city markets, to the supermarkets in Vienna. Simmering Commercial Gardens are a good example to supplying fresh food to the all city in Vienna. They are very important to supplying the city network, being a part of urban food security in Vienna. They do not only supply the neighborhood level.

Commercial gardens lie on the size of the area of approximately 295 hectares (Image 5-10). Existing gardens are used by a certain group of people, private urban open spaces, which are used for certain purposes such as food production for making profit. These gardens don't let public access in contrast to community gardens. They don't make a network to building communities, which is contemporary attempt to integrate urban agriculture into the social, environmental dimensions that drive daily life.

The city population in Vienna is growing and increasing housing development projects, recreation needs of the city dwellers. Simmering urban gardens may have potential to exploring 'reproductive functions of urban agriculture' that has the real potential to being a part of urban open spaces and urban life due to being near the residential area.

Image 5-9: Commercial gardens, glass houses in Simmering (Source: Google earth, 2015).

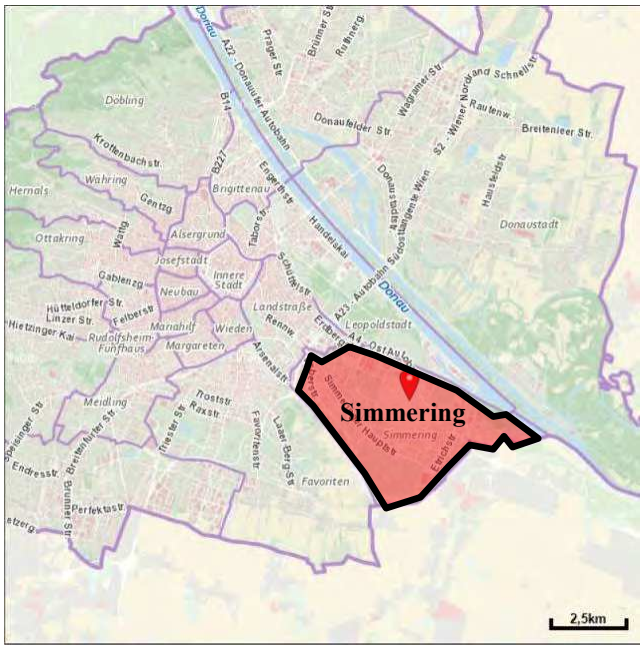


Image 5-10: Displaying Simmering district on the city map of Vienna. (Source: Stadt Wien - ViennaGIS http://www.wien.gv.at/viennagis).

5.2 The planning policy context concerning Urban Bostans

Considering the importance of public policies in shaping publicly and privately owned open spaces (Stiles, 2013), it involves planning policies with an active public participation plans to understand the wishes, demands of different urban stakeholders, understanding the role of urban gardeners rather than just prohibit or permit temporary urban bostan in open spaces, by suitable planning policies to promote facilities and regulations to maximize the benefits, and to reduce the social risks (Van Veenhuizen, 2006). Making good urban open spaces to promote the importance of life quality of citizens, creation of "a City for All", making accessible spaces for all, balancing the demands of all different stakeholders (Stiles, 2013), to meet the resources and the necessities of life in an appropriate level of use are issues of urban planning professionals. Urban planners need to consider designing and managing urban open spaces **environmentally, economically, socially productively**, such as providing food from urban gardens, the reduction of pollution, increasing biodiversity, giving residents contact with nature, creating social connections, as well as increasing the awareness of environmental issues through educational, cultural and social activities. Making **productive urban landscapes** means **managing and creating open spaces in such a way to be economic, social, ecologic productivity**[72] (Viljoen, A. & Bohn K., p. xviii). (For example: providing food from urban gardens, pollution absorption...). Recognition of environmental, social and economic productivity in open spaces and suitable land use patterns are increasingly related to accessibility, a legitimate use of open spaces. Regulations to promote educational activities are increasingly considered to reduce the environmental and health risks (Quon, 1999), because they promote the increasing awareness of the public to the safe use of urban wastes, chemicals and fertilizers, and provide information about food waste for composting, as well promoting educational activities relating to food security, healthy food, using recycling materials to increase environmental awareness. Moreover, the planning policy context involves *"the policy, legislation, organization of government and elected officials and government staff involved in planning communities" (Quon, 1999, p.10.);* in some countries it has been limiting the activities of urban gardeners. Additionally, there is a lack of information on the part of urban planning professionals about how to take urban bostans into account in planning policies.

The main challenges in concerning urban bostans have been identified by de Zeeuw (1998):

- Prohibitive urban policies and regulations;
- Limited access to productive resources and insecure land tenure
- Lack of support services; and
- Lack of organization among urban farmers (Zeeuw 1998 quoted in Armer-Klemesu, 1999).

[72]Viljoen, A. & Bohn K., 2005: "An introductory glossary", In: Viljoen A. ed., Continuous Urban Productive Landscape, Burlington, Architectural Press.

The first three points relate to public policy, they are within the responsibility of public authorities. According to Bourque (2000), the lack of perception of their importance by city authorities brings out prohibitive policies and regulations concerning urban bostans, as well as the fact that they are seen as a rural activity. However, today's trends on open space planning bring out urban bostans an integrated resource which is an integral part of the city. The other barriers to their acceptance are the limited access to land, the fact that they only allow access to a particular group, lack of access to seeds and water. There is also an absence of technical support to zoning, while public health laws and other municipal regulations regarding to urban bostans also fail to consider them as an activity in the city (Bourque, 2000, p.120). There is a need to change the precondition by increasing the awareness of the contribution of urban bostans on the part of city and national leaders. From this will follow a change in the public policies of local government and national institutions, and this should result in the expansion and institutionalization of local movements and the reinforcing the local neighborhoods, as well gardeners, and in increased support for urban gardening activities across the city.

In policy making process is important to consider both a ***'multi stakeholder approach'*** and a ***'functional approach of open spaces*** *(Stiles, 2013)'*. This is important in order to consider 'all possible functions of open spaces' that will be providing for the demands of multi stakeholders so that policy making can lead to a legitimate use of open spaces, with an appropriate level of use being shared between the different stakeholders and city authorities. Such a policy can provide a good plan for open space by balancing the demands of different stakeholders.

Urban bostans involve **three main policy dimensions as** seen on the Image 5-11. They meet ecological, economic, and social demands of city, and can make an appropriate use for public open spaces. These policy dimensions can overlap to meet the demands of multi stakeholders. They are embedded in the vision of municipalities, which are already potentially compatible with the contribution of bostans, and with the expectations of multi-stakeholders, making it possible to find a suitable way of using public open space for the benefit of all. Consideration of different disciplines depends on the scope of public policy, it provides "a fuller integration of UA into the urban eco-system requires that urban planners, public health and environmental management actors join in with others committed so far" (Mougeot, 2000, p.3).

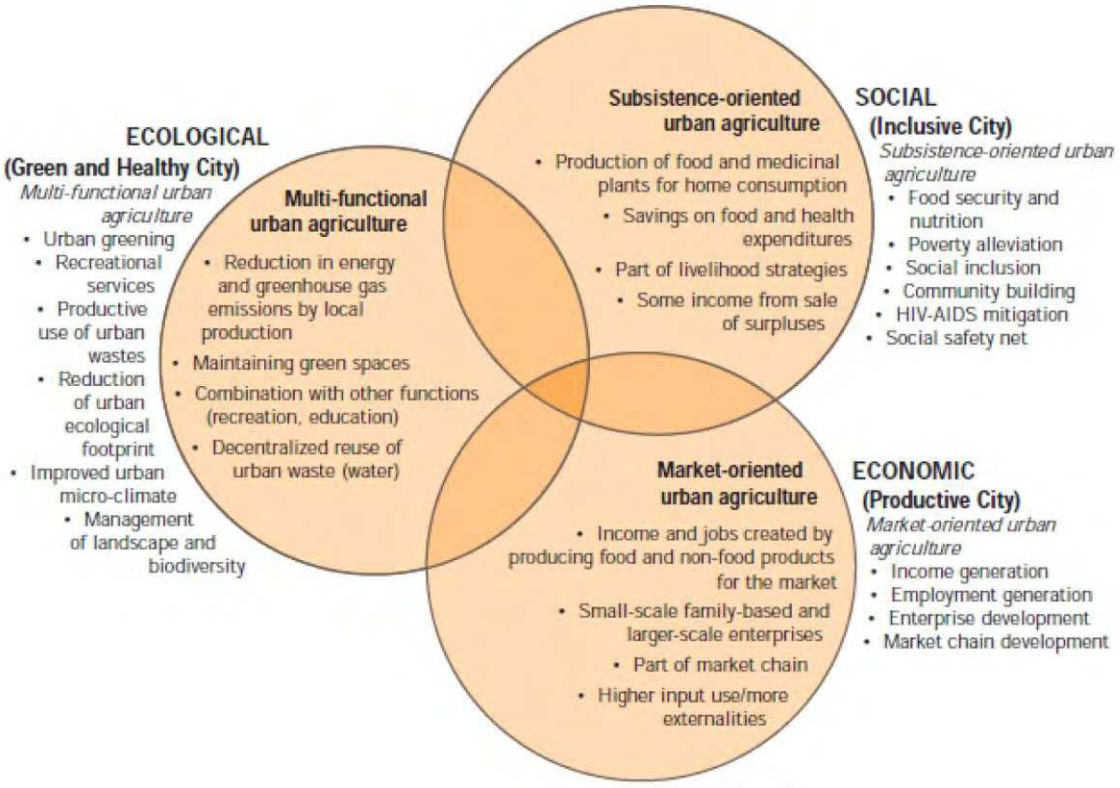


Image 5-11: The main policy dimensions in social, economic, ecological perspectives, and main types of urban bostans, (Source: Dubbeling, 2010, Main policy perspectives on urban agriculture, p.19).

Making an active public participation in policy making with collaborations among municipality, province bodies, and local agencies is important to make a good open space. Public entities with strong stakeholder participation (Bourque, 2000) provide the understanding the wishes of different urban stakeholders and to co-ordinate the actions of different public agencies. Therefore integrating **multi stakeholder** approach into **multi-functional approach** of open spaces, it contributes an outcome in making planning policies, and it promotes to create ***a good urban open space*** with understanding the demand of different target groups in decision makers' side, as well as the users' side, finding a way in an appropriate level of use of open space, it provides to make more acceptance, useful open spaces by different stakeholders (Stiles, 2013). Moreover, involving the various stakeholders/groups in planning process at the beginning is very important; it makes a feeling of ownership of the given space, sense of ownership and responsibility of neighborhood, reduce the security risks and increases the sense of safety (Stiles, 2013).

5.3 What is the best strategy to protect open spaces?

Finding the best strategy to protecting open spaces strongly concerns to creating good urban open spaces. It needs to meet functional criteria. Considering the possible functions of open spaces, it helps to find an ***objective approach,*** to address the quality of space. It is essential to consider all possible functions to find a way, how to go on protecting existing open spaces, and making a good urban open space. The consideration of possible functions of existing open space, it gives opportunities about how to enhance existing quality of open space. ***So just what is the best strategy to protect open spaces?*** And what makes a good urban open space. The core point **'quality'** plays an important role; it is significant to consider **'communal use of the space'**.

If the planned open space meets the demands of only one or two different groups of a society, if missing to considering only one of the possible functions of open space, it influences rapidly the quality of space unfavorable. Making good open space plans is not only a subject of personal taste; when dealing with ***communal use of space***, and being paid with public money, creating a joint strategy, it helps to find an objective approach , as possible to addressing the quality of space (Stiles, 2013).

Considering the possible functions of open spaces is a key to find the best strategy to protect open spaces, and it highlights that urban open spaces should be much more than recreation and leisure functions (Stiles, 2013).

A functional approach is one of the most commitments to find the best way to protect open spaces. **Functional approach** in relation to open space includes considering possible functions which "are ***capable of performing and looking at the extent for which these are fulfilled"*** (Stiles R., 2013, p.14). The three main groups of open space functions to protect open spaces in the best way, and making good open space can be identified by Stiles (2013) as follows: (Image 5-12)

- **Environmental and ecological functions that describes an ecosystem services, and include:**

-Climatic amelioration
-Noise screening
-Influencing the hydrological cycle-storm water management
-Providing habitats for wild plants and animals

- **Social and societal functions are related direct use of urban open spaces by people, include:**

- Providing space and facilities for leisure and recreation
- Facilitating social contact and communication, including cultural and commercial activities
- allowing access to and experience of nature
- influencing human physical and psychological health and well-being

- **Structural and symbolic functions** are related to both important functions of open spaces which can play at city and local scale, and as well as their more intangible functions, include:

- Articulating, dividing and linking areas of the urban fabric
- improving the legibility of the city or neighborhood
- establishing a sense of place
- acting as a carrier of identity, meanings and values (Stiles, R., 2013, p.13).

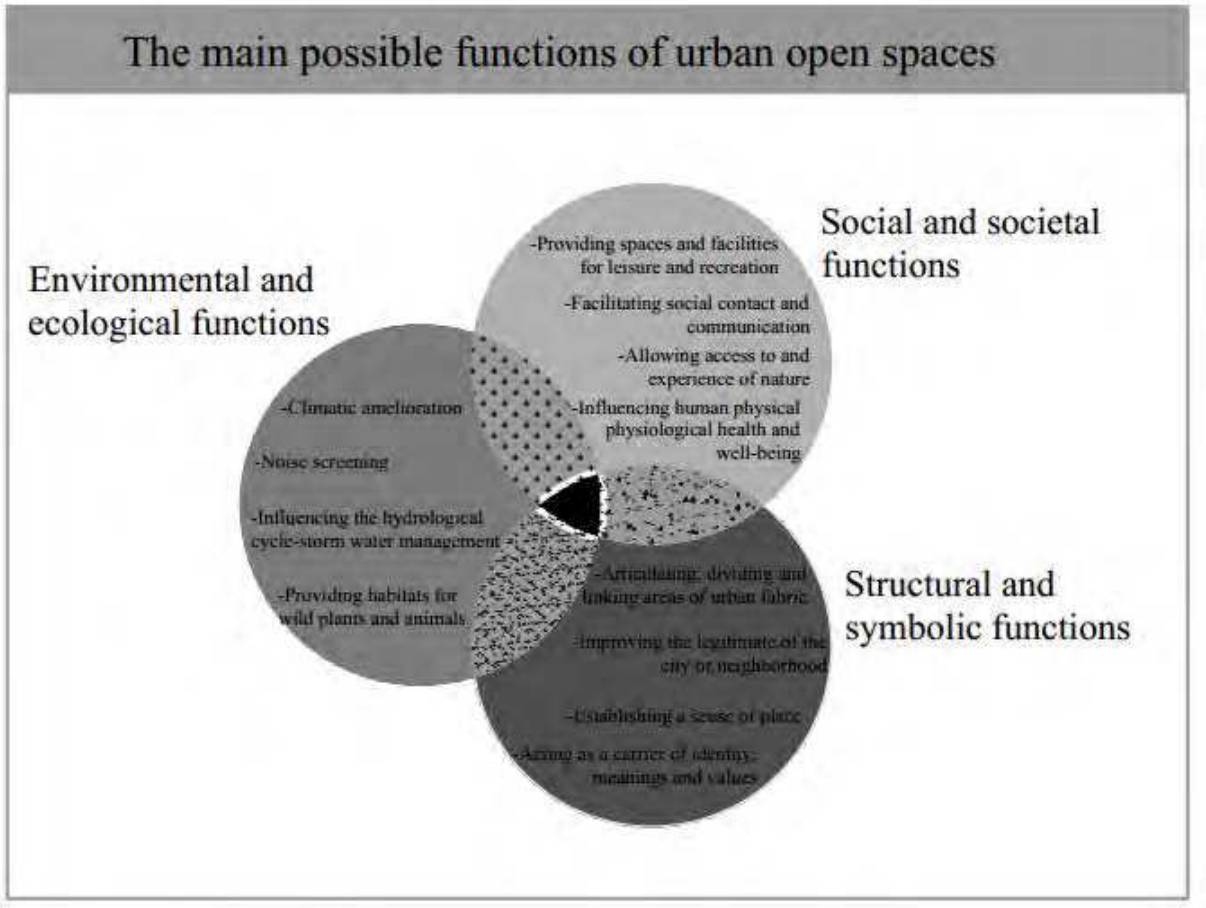


Image 5-12: The three main possible functions of urban open space, self-drawing (Information resource: R. Stiles, 2013, Characteristics of Good Urban Open Spaces, In: A Guideline for Making Space: Joint Strategy, pp. 10-16.)

Environmental and ecological functions:

Designing with respect to its environmental and ecological functions as ecosystem services, they provide goods and services that benefit humans (Turner, 2004, quoted in Stiles, 2013). Accordingly to make near-natural open spaces by a respect to its environmental and ecological functions is one of the best strategies to protect open spaces. It provides green space factor with the amount of open space per citizen, using for input and supporting native fauna and flora contribute to low maintenance costs versus city significance, using regionally produced compost provides the cessation of mineral fertilizer and pesticides, using local materials and characteristic vegetation, recycled and renewable materials, therefore created open space is integrated into existed environmental functions, benefit mutually together with including society, it provides a sustainable ecosystem.

Social and societal functions:

Protecting an open space provides more than to creating a park for recreation and leisure. The best strategy to protect open spaces concerning ***recreation and leisure function***s can be defined with these indicators; including to make functional ecological network to increasing

the usability for citizens; providing enough supplementary equipments for seating, meeting, communication in an appropriated locations in the open space, enhancing the security at overlooked places by providing a refuge from the surrounding areas, where the direct views into surroundings not necessary, accessible sanitary installations. The best strategy to protect open space concerning ***social contact and communication function*** could be defined, an active public participation in planning policies, plan-making processes with public meetings, consultations with key players, managing the vision of the city's future, planning meeting with organized walks; involvement of all potential target groups in plan making process accurate the information of public, openness to public participation on decision makers side, therefore it helps to make clear public participation plan; the involvement of local community in policy making will endure as a functioning team with a sense of ownership; finding an appropriate level of use creates reducing the crime and it makes a sense of safety; providing complementary activities with attractive laws promote abiding users on the space. The best strategy to protect open space concerning ***experience of nature, human physical and mental well being can*** be defined these parameters: providing contact to nature, it promotes recovery from stress, benefit for mental health, improves behaviors and make attention in children; designing with respect to minimum spaces for turning, and making near natural open spaces. Considering the social and societal function of open space to finding the best strategy to protect open spaces with addressing all of these parameters contribute the **sustainability.** It balance economic, environmental and social development to the protected open space area, public participation process ties citizens strengthened into the town; designing to protect open spaces with management and maintenance in mind, it discourages crime at the present and future; **designing for all**, it helps to make ready the citizens for democratic change***; the best strategies to protect open spaces will be only successful in the long time, if they are accepted and used by the public***[73].

Structural and symbolic functions:

These cover mostly the perception of people. The perception is a part of landscape, and important as the physical lands concerning the European Landscape Convention in Article 1[74] the landscape is defined as 'an area of land as perceived by people…' (ELC, 2000).

The best strategy to protect open spaces to make good plans on urban open spaces concerning **dividing and linking areas in urban fabric** mean to consider dividing areas at the city that go together as a whole with green infrastructure and open space system. They can be described with these indicators: vulnerable spaces to crime can be overlooked by the potential users in surrounding, creating a network with proper distribution in the territory and defining proper attractions for inhabitants, making clear distinction between private, semi-public and

[73]R. Stiles, 2013, Characteristics of Good Urban Open Spaces, In: A Guideline for Making Space: Joint Strategy, pp. 16-18.

[74]Accessed on January, 2015, from http://www.coe.int/t/dg4/cultureheritage/heritage/Landscape/Publications/Convention-Txt-Ref_en.pdf, pp. 1-94, p.9.

public spaces through permeable materials such as glass, strictly divided, structured, user defined spaces cause to reduce to access opportunities for other groups. The best strategy to protect open spaces concerning ***accessibility*** can be defined with these parameters: the distance between living and public space should be 300m. (European Common indicators, quoted in Stiles, 2013), creating good movement network is import, such as cycling and walking route that should run alongside each other. The best strategy to protect open spaces concerning ***improving the legibility of the city*** involves clearly defined orientation for efficiency use of the spaces and physiologically well-being of population. Some indicator of them: entrances should provide suitable movement, well-defined routes, creating a good image of the city through combining nodes, paths, districts and functions of the space. The needs and expectations of the owner, the public and politic authorities should turn into a formal layout, in this way the designer may reach the best left to protect open spaces in the best way.

Urban open spaces for individual spaces **act as carrier of identity, meaning and values**. They help to create and strengthen individual and community identity (Stiles, 2013). Different groups in the society have different past experience, and expectations; because of that they perceive and may value the same space differently. Exploring the meaning of the open space is embedded in its context. Considering its geographical, topographical, social, economical ecological context may help to find the best way to make a good plan in urban open space, and so, it helps to protect open spaces in the best way.

Interpretation of the meanings between the groups, individuals explores values. Creating value on the space depends making meaning on the space. How can we make a sense on the space? Active public participation from the beginning of policy making process may help to establish a sense of space, understanding the meanings, perceptions of the space. Symbols represent the meanings, help to design open spaces with the sense of identity. Looking into the significance of space will help to find the symbols of space.

Considering to **design *with respect to its identity, meanings and values may help to find*** the best strategy to protect urban open spaces. Taking into account the history and geography of the place, and its significance for the people who use it, conceiving for everyday life, besides that, an active public participation in policy making, involving various groups in the planning process from the beginning **creates a feeling of ownership of the area.** It is necessary to avoid clichés in providing specific facilities, which seem appropriate for specific user groups, excluding other potential users. The best strategy to protect urban open spaces may **make space to use for All** through not exclusively planning approaches for rich, poor, kids, old, man or woman etc. All these provide frequently use of space and increasing responsibility in neighborhood, increasing the maintenance of the space, therefore, these steps create safe spaces[75].

[75] R. Stiles, 2013, Characteristics of Good Urban Open Spaces, In: A Guideline for Making Space: Joint Strategy, pp. 19-20.

Concerning cultural heritage, feeling of ownership of space helps to increase sustainability of public spaces, specifically the maintenance and protection of the space against vandalism. This helps to create a city for all citizens. It is important to manage the changes, hierarchy of fixed and changeable elements on the space to make good plans on urban open spaces; therefore we can reach the best strategy to protect urban open spaces.

Finding an appropriate level of use of space depends on meeting the demands of the owners, local people and policy authorities, and then it helps to make lovely, frequently used, attractive spaces on urban open spaces. Urban open space quality can be understood, including variety of functions as above explained, as possible as multi-functional planning approaches may fulfill the needs to meet enhancing the existed quality of open spaces, it can be as a tool for protecting open spaces.

6 CONCLUSION TO PART 2

Urban gardens exist as an integral part of urban infrastructure network. Many layers of network intersect at the node of urban garden, which works as a heart integrated into the urban system. Urban gardens are integrated into ecologic, social, economic layers of urban infrastructure network.

Urban bostans contribute to feed dense urban settlements, as a part of urban food network; the contributions range from community food security to urban food security and from neighborhood level to city-wide level. Urban bostans as urban activities provide resources for living, working, playing and learning, and contribute to build and reinforce urban communities. They play an important role to create neighborhood life and society. Urban bostans function as **the land use elements of urban open spaces** such as parks and learning centers. Urban bostans are **a part of green infrastructure** of the city, they have potential to contribute open spaces, energy, waste, storm water, natural resource management in the city.

The bostans as urban activities play an important role to create productive urban open spaces. The bostans as urban gardening activities provide social, economic, ecologic, health outcomes. They contribute much more than intensive food production, growing fresh vegetables, and fruits and rising animals in the cities, as urban activities they provide educational opportunities, creating jobs, storm water management such as capturing rainwater for harvesting, waste management such as using food waste for composting. Moreover, they contribute increasing connection between people and nature, in this way they promote increasing awareness of public on environmental and healthy food issues, furthermore they contribute improving physically and mental well-being of local residents, and bring people as **keepers of communal urban open spaces**. They contribute also reducing long food miles, access to fresh agriculture products, and reducing energy consumption and labor for food access.

Urban bostans with multi-functionality act **as a structure component for urban development and urban restructuring**. They contribute converting vacant, underused,

demolished urban open spaces into ***agricultural temporary use*** and ***subsequent use*** spaces. Therefore, they contribute remediating and cleaning vacant and underused open spaces, and providing access to cultivation, access to health food, recreation and leisure. So, urban bostans contribute **reducing in shorter or longer period a serious deficit of the field** in planning urban open spaces. In this way, urban bostans contribute improvement in ecological, environmental and living conditions in the cities. They contribute providing productive urban landscapes and urban sustainability. Urban bostans have potential to reinforce social solidarity with public kitchens to share food, cooking and eating together, provide various social, cultural activities.

The maintenance and volarisation ***(In-Wert-Setzung)*** of urban bostans contribute an **'identification'** and **'image'** to urban open spaces. Recreational experiencing of urban bostans contributes to produce cultural landscapes.

The contributions of urban bostans to urban open space are widely explained. I investigate the role of urban gardens to preserve urban open spaces. I try to find the best open space preservation strategy. This is inquired through the bostans in Yedikule. On the one hand, the bostan tradition is going in the same production zones for a long time in Yedikule; on the other hand contemporary approaches try to integrate urban agriculture into urban infrastructure network; into social, economic, ecologic layers of urban network, as a part of green network of the city, as land use elements of open spaces. The bostans at the ancient city walls in Yedikule, at the conservation site, become today a public park due to urban renewal projects; they challenge a municipal park project, which promotes the demolition of some sections of the historic bostans to meet the recreation needs. I am going to look into the potential and challenges of bostans in Yedikule to find the best open space preservation strategy. I try to find a coherent use of space between traditional functions of space and requirements, new demands and new structures. Considering functional approach of open spaces and multi stakeholder approach in making policies process, it may help to find the best way.

I will take into account three inputs to find the best way for preserving urban open spaces, and provide the legitimate use of public open spaces. Firstly, I am going to explore the potential of the site, the potential of the bostans in Yedikule in order to find their contributions to urban open spaces and the neighborhood, their potential to meet requirements of different groups, in a broad sense its urban and landscape context, its meanings and values that arise from its historical and social context as widely explained structural and symbolic functions of open spaces. Secondly, I try to discover the needs of Yedikule neighborhood, the aspirations of users, experts, local residents, and existing users of gardens and currently proposed municipal park project. Does the proposed municipal park project satisfy the expectations and requirements of the different groups? If the municipal park project satisfies, then why? If not, what are the reasons? Thirdly, I try to integrate the potential of the Yedikule bostans and the expectations of different groups in Yedikule; and I try to tie these two factors together, exploring the history and social context of the study site, the bostans in Yedikule, with its functional requirements and then identifying the users with new space, trying to create a coherent mix on the space between the potential of the study site and requirements and

expectations of local residents, gardeners, the demands of different groups. This way may help to consider the significance of keeping and developing historic bostans and balance the demands of different groups and find the best strategy for protect urban open spaces.

PART 3

CASE STUDY: Threats to Bostans in Yedikule Mahallesi, Istanbul

Source of the image: M. H URLIMANN, 1957: “Istanbul Konstantinopel, p.120-121., published by Atlas Verlag Zürich.

7 CASE STUDY: YEDIKULE BOSTANS

7.1 HISTORIC ASPECTS

7.1.1 Historic timeline

The timeline shows the development of Land Walls, the Istanbul urban gardens and the city of Istanbul. It points out that the history of urban gardens is interwoven with the history of old city walls. The walls and urban gardens have 1600 years of history together. Urban gardens are satisfied the food need of the city Istanbul from Byzantine Period to the twentieth century (Kaldjian, 2004). These gardens mean 'urban kitchen gardens' and they are named 'urban bostans'. The bostans between and along the Land Walls are a part of urban gardening tradition in Istanbul. *Bostancılık* means *'urban gardening actions'*; these actions are still ongoing in the same food production zones. They rely on Byzantine Period since the construction of Land Walls in 4th century to Ottoman Period, between 15th and 19th centuries, and Republic Period in 19th century up to today (see the timeline); they compose an intangible cultural heritage, *bostancılık tradition*. Today, Yedikule Bostans are still ongoing food production at the same food production zones. They are located inside and south part of the Theodosion Land Walls, near the Golden Gate. These bostans are named 'Yedikule Bostans', after the construction of the Yedikule Castle (Yedikule means seven-tower) near the Golden Gate, at the end of 14th century in Ottoman Period. Urban gardening history and socio-cultural value of the Istanbul urban gardens will be widely explain in the next chapters.

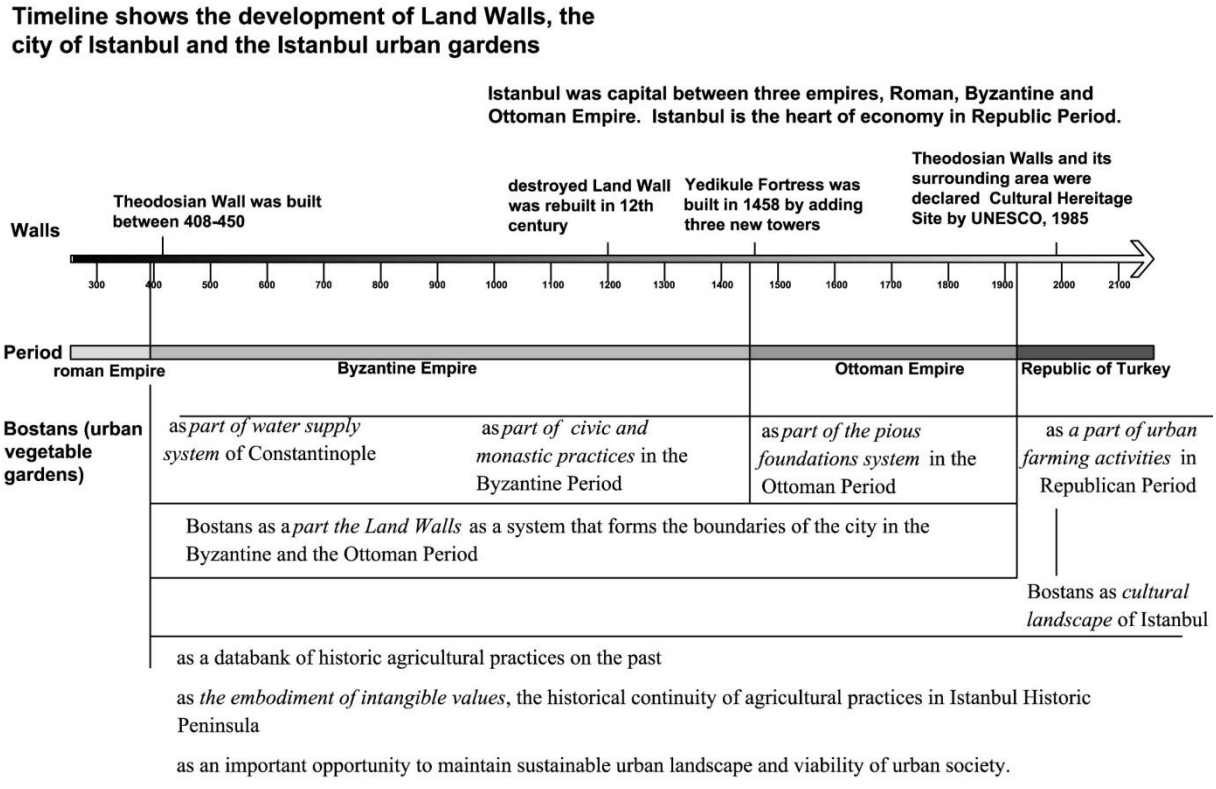


Image 7-1: The relation between the development of the Land Walls, the Istanbul urban gardens and the city of Istanbul, self drawing.

The development of the city of Istanbul relies back to the Roman Empire. The first city wall (Constantine Walls) was built during the Roman Empire due to the necessity for protection from hostile forces. The second city wall (Theodosian Walls) was built in 400s, 1.5 km west of the Constantine Walls. The reason was not a need to expand the settlement for growing population, but the need for protection from hostile forces and to increase agricultural spaces and construct cisterns [76]. A water storage system was invested between the inner and the outer city walls. There was approximately 3 km^2 area between the walls; the land was allocated as a vast green common and used for cultivation and pasture. There was 2 km. broad buffer zone for farm fields outside the Theodosian Walls. Totally 15km^2 of land close to the urban zone was used for food production to feed the city as seen on the Image 7-2 .These food production zones represent ***urban kitchen gardens***, and they had potential to feed up to 300.000 people [77].

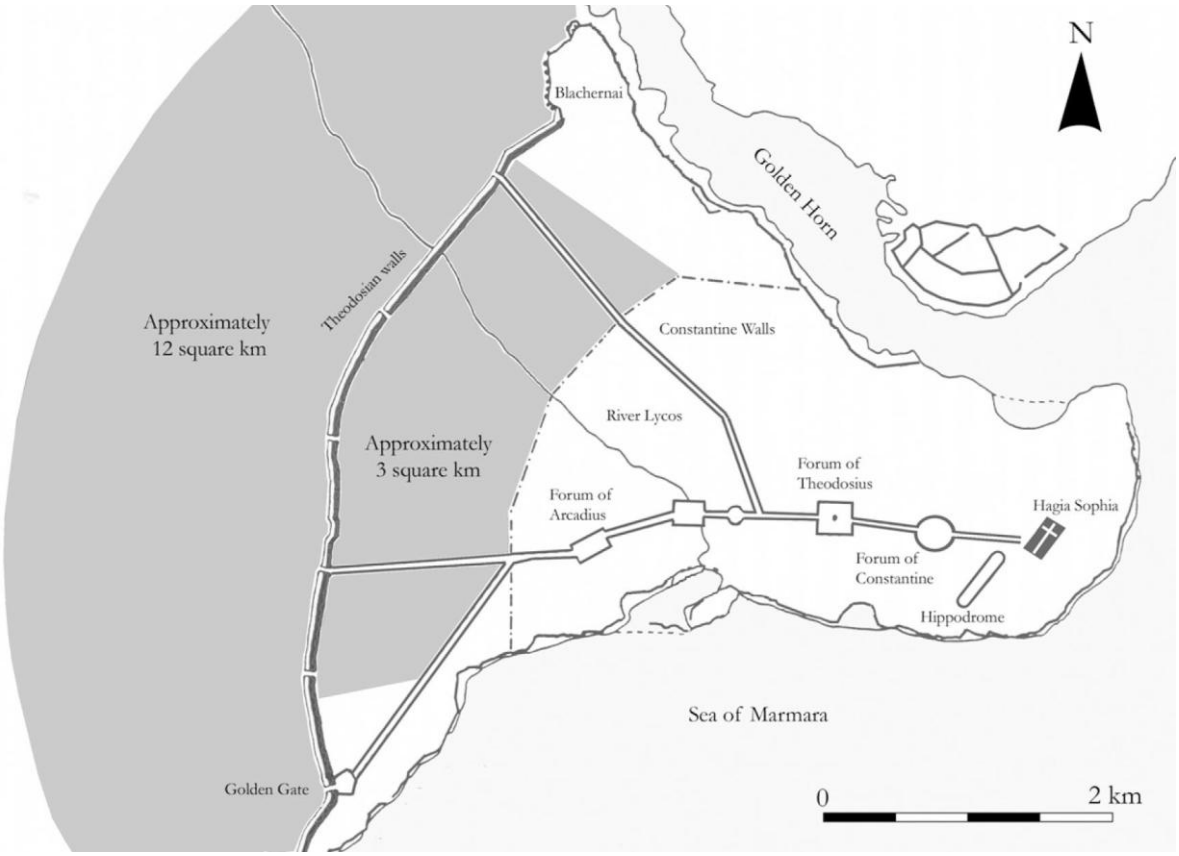


Image 7-2: Map of Constantinople, where areas used for agriculture, gardening, horticulture and pasture are highlighted, in total 15 square km, inside and outside Theodosian Walls, by Ljungkvist et al. (2010). (Source: Barthel, S. & Isendhal C., 2013, "Urban gardens, agriculture, and water management: Sources of resilience for long-term food security in cities", Ecological Economics 86, pp.224-234, p. 229.)

[76] Barthel, S. & Isendhal C., 2013, "Urban gardens, agriculture, and water management: Sources of resilience for long-term food security in cities", Ecological Economics 86, pp.224-234, p. 230.

[77] Cited from Barthel, S. & Isendhal C., 2013, "Urban gardens, agriculture, and water management: Sources of resilience for long-term food security in cities", p. 230, from Balicka-Witakowska, 2010: Constantinople in the transition from Late Antiquity to the Middle Ages and Koder, 1995: Fresh vegetables for the capital. In: Mango, C., Dagron, G. (Eds.), Constantinople and Its Hinterland.

As a result, Urban bostans provided vegetables and fruit needs of Istanbulese for centuries. Gardens were provided vegetables to Constantinople's citizens until the12th century in Byzantine Period, which is documented around the city walls near the Yedikule neighborhood of historic Istanbul [78]. Koder, 1995 mentions that Constantinople satisfied the vegetable needs of 300,000-500,000 people within and around the city walls by 15 square kilometers bostan areas and its 3 square kilometer was inside the city walls [79] (Image 7-3). Bostans satisfied the vegetable needs of Istanbulese from the Byzantine period until 1950s (Istanbul Ansiklopedisi, 1994 cited in Kaldjian, 2004, pp.284-304, p.290).

7.1.2 The Theodosian old city walls: 1600 years old

The Theodosian Land Walls with their second line of defense was created in 447. It was "one of the leading references for **military architecture**" [80]. The currently visible walls are the "results from modifications performed in the 7th and 12th centuries to include the quarter…"[81]. The Land Walls are considered as a sample for the ancient military architecture due to their multiple defense system. There are three layers of the structure in the cross-section of the Land Walls due to their multiple defense system (Image 7-3 & Image 7-4).

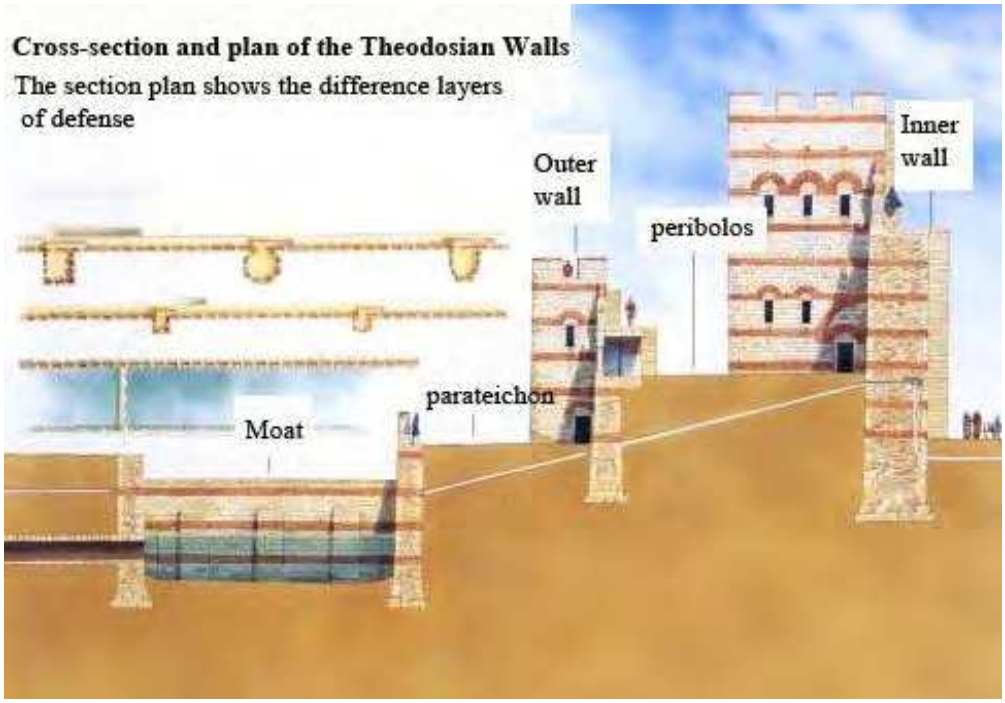


Image 7-3: The cross-section and plan of Land Walls, The three defense layers of Theodosian Wall, Source: after Turnbull, S. 2004, The Walls of Constantinople AD 324-1453, Osprey Publishing Ltd., p.11, accessed on December 12, 2014.)

[78] Koder J, 1995: "*Fresh Vegetables for the Capital, In Constantinople and Its Hinterland*", pp.49-56., p.53.

[79] Istanbul Ansiklopedisi, 1994, Bostan: "Dünden Bugüne Istanbul Ansiklopedisi (Encyclopedia of Istanbul for Yesterday to Today)", 2, pp. 309-310.

[80]UNESCO World Heritage List, Historic Areas of Istanbul.

[81]Ibid.

Their **multiple defense system**[82] consists of moat, outer terrace (parateichion), outer wall, inner terrace (peribols), and inner wall. The area between the inner wall and the outer wall is called 'inner terrace', and the area between the outer wall and the moat is called 'outer terrace'. The moat, the outer terrace, and the inner terrace consist of three layers structure of Land Walls.

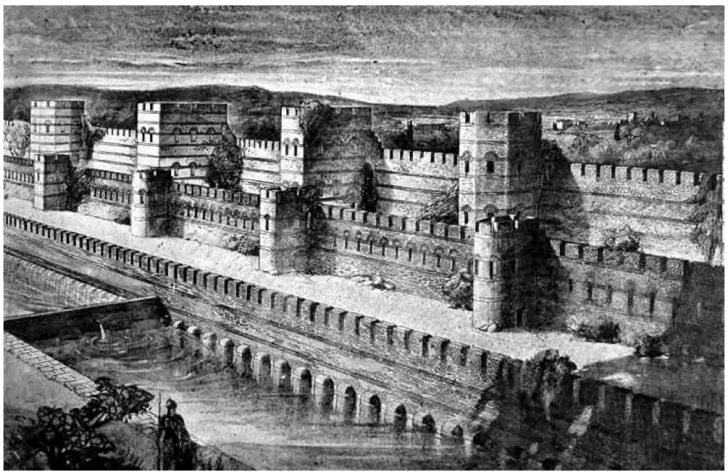


Image 7-4: Theodosian Walls with three layers. (Source: Accessed January 12, 2015, https://www.studyblue.com/notes/note/n/lecture-15-byzantine-architecture-metaphysics-of-light/deck/4045597.)

The Theodosian Wall was surrounded the land boundaries of Byzantine settlement in Byzantine Period. Today, the Theodosian old city walls are a part of the Land Walls in Istanbul. It still holds its "power image" and provides an efficient land for urban gardening.

7.1.3 Yedikule Bostans concerning Historic Landscape Character, Cultural Heritage and Historic Cultural Landscape

The Land Walls of Istanbul and its surrounding area were declared as a **World Heritage Site** by the inscription of **UNESCO** in **1985**. The area refers to 'the area along both sides of the Theodosian Land Walls…,'[83] and so, Yedikule bostans are located inside south part of the Theodosion Land Walls. They are production zones since Byzantine Period till this day. Historic maps from 18th centuries and the vouch book from 1735 show bostans at the same food production zone in Yedikule (see the Image 7-7: The colored area by author on the map is showing Bostans inside the Land Walls and Bostans between the gates of Yedikule and Belgrad. (Source: The map of 1875 in Ottoman Period, by Ayverdi in 1958).Image 7-7and the pious foundation systems in Ottoman Period).

Yedikule Bostans concerning Historic Landscape Character (HLC)

The definition of landscape that lies in the European Landscape Convention: "Landscape means an area **as perceived by people**, whose character is the result of the action and

[82] Turnbull, S. 2004, The Walls of Constantinople AD 324-1453, Osprey Publishing Ltd., p.11, accessed on December 12, 2015.

[83] UNESCO World Heritage List, Historic Areas of Istanbul, accessed February 8, 2015, from http://whc.unesco.org/en/list/356.

interaction of natural and/or human factors" (ELC; 2000). It takes account in ELC, all viewers have different past experience and different expectations, so they perceive differently. These differences play an important role how people perceive things.

New dimensions of the landscape are *local distinctiveness* and *time-depth.* In the guiding principles for HLC; it involves '*present not past*', it's the present-day landscape such as Yedikule Bostans, and the most important character of landscape is its time depth, in regard to Yedikule Bostans that they represent Byzantine, Ottoman and Republic Period of farming practices at the Land Walls. They still survive and are in ongoing production. Existing landscape still carries agrarian traces between three periods. They are living features and Yedikule bostans are a part of landscape character as human landscape.

In the guiding principles for historic landscape character *"Characterization of landscape is a matter of interpretation not record, perception not facts; understand 'landscape' as an idea, not purely as an objective thing"*[84] and *" people's views: it is important to consider collective and public perceptions of landscape alongside more expert views. Landscape is and always has been dynamic: management of change, not preservation is the aim."*[85] Yedikule Bostans are Istanbul's identity, because they are famous with its special crops, specifically with lettuce, in neighborhood bazaars it is known Yedikule lettuce in public perception. But by the destruction of bostans to make them park, this traditional culture will be forgotten in time. According to Framework Convention on the Value of Cultural Heritage for Society (Faro, 2005)[86] "*Cultural heritage is a group of resources inherited from the past which people regard, irrespective of who owns them, as a reflection and expression of their own constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time".* Yedikule Bostans represent a tradition of gardening that goes back to centuries with irrigation techniques and knowledge (know-how). They are cultural heritage that need **a management of changes**, not only preserving passively, also adding value on the space and exploring its potential for all citizens. Keeping going gardening actions on the same lands with complementary activities, it helps to keep urban gardening traditions and knowledge. Yedikule Bostans are commercial farms and **semi-public open spaces,** which *are* ***accessible only for a clearly defined group.*** Converting them into public open spaces with keeping gardening actions on the lands could ***fill the gaps*** and needs of public access for recreation in Yedikule. It shows a management of changes with keeping traditions.

Yedikule Bostans concerning Cultural Heritage and Historic Cultural Landscape

[84] Stiles, 2012: Landscape Planning and the European Landscape Convention, Summer Semester, Part 1: Guiding Principles for HLC, pp.1-117, p.108.

[85] Ibid.

[86] Framework Convention on the Value of Cultural Heritage for Society, Faro, 2005, accessed on February, 2015, from http://conventions.coe.int/Treaty/en/Treaties/Html/199.htm.

According to the World Heritage Convention concerning the Conservation of Cultural and Natural Heritage in article 1, the *sites*, which shall be considered as cultural heritage, are identified[87]: ***"works of man or the combined works of nature and of man***, and areas including archeological sites which are of Outstanding Universal Value from historical, aesthetic, ethnological or anthropological points of view". Relating to this definition in the Convention concerning the Conservation of Cultural and Natural Heritage, landscapes which should be considered **as cultural landscapes**, are identified in item 47[88]: "Cultural landscapes are cultural properties and represent ***the combined works of nature and of man*** designed Article 1 of the *Convention.* ***They are illustrative of the evaluation of human society and settlement over time, under the influence of the physical constraint and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal".***

According to these description concerning open spaces which identifies the **sites as cultural heritage** including **cultural landscapes**, a rich ***cultural landscape*** has been emerged in the area along both sides of the Land Walls for centuries. In the Land Walls Area, there are some examples of landscape, monuments and spatial organizations that were constructed around the Land Walls. They are the historic vegetable gardens-*bostans,* Byzantine and Ottoman Period architecture, and historic cemeteries. The architectural works, such as the monasteries, Yedikule Castle were planned around the Land Walls. [89] As a result, ***the Land Walls World Heritage Site*** holds monuments from Byzantine and Ottoman Period such as traditional settlements, cemeteries, gardener cottages, barns, water wells and historic vegetable gardens regarding the case study. All of these were formed in relation to the monument of Land Walls.

According to Operational Guidelines for Implementation of the World Heritage Convention[90], it highlights the conditions of integrity to properties in World Heritage Sites. Presenting in a statement **of integrity of the cultural heritage**, it's underlined in item 89: *"A significant proportion of the elements necessary to convey the totality of the value conveyed by the property should be included.* ***Relationships and dynamic functions present in cultural landscapes****, historic towns or other* ***living properties essential to their distinctive character*** *should also be maintained".*

As a result of these descriptions, *Yedikule Bostans* ***concerning historic cultural landscape***; historic vegetable gardens (bostans), traditional residences, and historic monuments with their

[87]United Nations Educational, Scientific, and Cultural Organization UNESCO, Intergovernmental Committee for Protection of the World Cultural and Natural Heritage 2013, "The Operational Guidelines for the Implementation of the World Heritage Convention", Article 1, p.13; from http://whc.unesco.org/archive/opguide13-en.pdf, accessed o n February 8, 2014.

[88]UNESCO, "The Operational Guidelines for the Implementation of the World Heritage Convention", Item 47, p.14; from http://whc.unesco.org/archive/opguide13-en.pdf, accessed o n February 8, 2014.

[89] From "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, published on January, 2014, p.2.

[90]UNESCO, "The Operational Guidelines for the Implementation of the World Heritage Convention", Item 89, p.23; from http://whc.unesco.org/archive/opguide13-en.pdf, accessed o n February 8, 2014.

tangible and intangible **assets form a cultural landscape**[91] in the area along both sides of the Land Walls and they are essential for **'distinctive character'** of the Land Walls World Heritage Site. Concerning Yedikule Bostans, they take place inside the Land Walls and they **symbolize historic cultural landscape.**

In this research the *term* of Bostans-*historic vegetable gardens*[92]*is defined as* a property type, dedicated for planting vegetables, fruit trees, consisted of barns, porches, water wells, water pools, cisterns in Ottoman era, the land belonging to the foundations, the size between 1 and 100 acres, and surrounded by stone walls, and it is continued today, vegetable-growing on the same areas, inside and outside the Land Walls. Today, the typical size of bostan in Istanbul is around 1-1.2 hectares as individual garden-*one family garden*- (Kaldjian, 2004), as seen in Yedikule Bostans. Mostly, vegetables are produced on the bostans, but some bostans have fruit trees, farm animals, such as chicken and they feed lots of people.

The significance of Bostans[93], in relation to case study, represent a tradition of farming that goes back to centuries with an irrigation system (tangible value) and intangible know-how that are integral to it. Tangible and intangible assets of Yedikule *Bostans-the historic urban vegetable gardens*- that are inside and outside the Land Walls, within and adjoin to the Land Walls. Presently they are threatened; the recent municipal actions damaged Yedikule *Bostans* in a great extent.

7.1.4 Urban Gardening History and Socio-cultural Value of the Istanbul Urban Vegetable Gardens (Bostans)

In the scope of this part, some historic documents are mentioned with the aim of discussing the values of bostans located inside the Land Walls World Heritage Site. Yedikule Bostans are located inside the Land Walls WHS (Image 7-11, Image 7-12, Image 7-13). There are many historic documents mentioning the existence and the importance of bostans in Byzantine and Ottoman periods (Image 7-7, Image 7-42, Image 7-43,Image 7-46). It will explain existing and still surviving Yedikule Bostans, and the significance of keeping bostans for food production and conservation. Bostans' urban and cultural value can be framed in the following contexts[94]: (Aksoy et al., 2014, p. 35)

[91]From "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, published on January, 2014:3.

[92]A detailed definition of Bostan can be found in Bilgin's article (Bilgin Arif, 2010 " Osmanli Dönemi Istanbul Bostanlari-*Istanbul Bostans in Ottoman Era",* Yemek ve Kültür Vol. 20, Ciya Yayinlari, Istanbul, 87.

[93] From "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, published on January, 2014:5.

[94] From "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, published on January, 2014:35.

Image 7-5: The photo by Artamanoff dated 1937, Near Yedikule: „general view of Land Walls, showing Yedikule Gardens along the city walls", which shows the Public Park project area of Fatih Municipality.

- "Bostans (urban vegetable gardens) as *part of water supply system* of Historic Peninsula and Constantinople,
- Bostans as *cultural landscape* of Istanbul,
- Bostans as *part of civic and monastic practices* in the Byzantine Period,
- Bostans as *part of the pious foundations system* in the Ottoman Period,
- Bostans as *a part of urban farming activities* in Historic Peninsula in the Republican Period,
- Bostans as a *part the Land Walls* as a system that forms the boundaries of the city in the Byzantine and the Ottoman Period,
- Bostans as *a databank of historic and stratigraphic data on the seeds and agricultural practices* on the past,
- Bostans as *the embodiment of intangible val*ues, which is the historical continuity of agricultural practices in Istanbul Historic Peninsula" [95],
- "Bostans as "an important opportunity to maintain sustainable urban landscape and viability of urban society" [96].

1. **A part of water supply system in Historic Peninsula and Constantinople**

Agricultural practices are closely related to water supply system to distribute water to the fields[97]. In 1735, Vouch book shows an intensive urban gardening inside and outside the Land Walls; besides that water wells, pools, cisterns and other similar constructions in and near the bostans provide a concrete basis for the examination of water distribution systems and observable information about agriculture technology from the Period of Ottoman[98]. Referring to this claim, Yedikule Bostans are located inside the Land Walls as it is pointed out in Vouch book and four water wells are remarked in the proposed urban park project area. (See existing land use plan).

[95] Ibid.

[96] Baser, Bahar and Hayriye Esbah Tuncay, 2010, in: Aksoy, A. et al., (2014): "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, p.35.

[97] From "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, published on January, 2014:35-36.

[98] Shopov, Aleksandar and Ayhan Han, "Osmanli Istanbulu'nda Kent Ici Tarimsal Toprak Kullanimi ve Dönüsümleri: Yedikule Bostanlari, Toplumsal Tarih 236, August 2013, 34-38.

Three open air cisterns in Byzantine Period were used as bostans after 15th century[99] in Ottoman and Republican Period. Cisterns were named basin **(çukur),** because of their topographical form as a basin. The use of first open air cistern as bostans for agricultural purposes is ended by the transformations of bostans into a soccer field[100] in 1940; the second one was used as bostans and had been grown tomatoes, peppers, melons, watermelons, until the cement pavement[101] was constructed for a market place instead of bostans. In addition, the third one has been similarly transformed into a social complex and urban park by Fatih Municipality, and the traces of old bostans have been not revealed in cistern areas today. Although these Bostans are significant components for urban vegetable gardens and water distribution system of historic peninsula, they were not considered as a cultural heritage, and therefore were destroyed. Although there is a lack of specific study on the network between Byzantine, Ottoman water supply systems, open air cisterns, bostans and the Land Walls, the studies on Historic Peninsula give the information about the historic value of bostans as a part of water supply system of Byzantine and Ottoman Period. Furthermore, Bostans at the Land Walls have been revealed as an integral part of city boundaries with built and agricultural landscape.

As a result, Yedikule Bostans are located in an intensive gardening area inside the Land Walls, which was remarked in 1735 Vouch book. Intensive gardening in this area can give an idea about the soil quality. It indicates rich in humus soil for food producing. Yedikule bostans with its four water wells and other constructions inside the area of the proposed urban park project gives the information about the historic value of bostans as a part of water supply system of Byzantine and Ottoman Period. Yedikule Bostans are an integral part of distinctive character of Land Walls with forming a cultural landscape.

2. Bostans as cultural landscape of Istanbul[102]

Historic vegetable gardens surrounding the Land Walls compose urban agricultural heritage site through making possible to give information about Byzantine, Ottoman and Republican Period of the historic peninsula. They constitute a significant component of **the *topography of Historic Peninsula*** and City Walls and they provide a prominent view to look at new and old city as distinction new and old city[103].

[99] Magdalino Paul, 2012: Ortacagda Istanbul, Koc Universitesi Yayinlari, Istanbul.

[100] Istanbul'un **Ç**ukurbostanlari , accessed November, 19, 2014, http://wowturkey.com/forum/viewtopic.php?t=83042.

[101] Bir Istanbul Hayali, "Ah, şu cukurun br dili olsa da konuşsa: Çukurbostan'in hikayesi", accessed November 19, 2014, http://www.biristanbulhayali.com/ah-su-cukurun-bir-dili-olsada-konussa.

[102] Aksoy, A. et al., (2014): "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, p.37-38.

[103] From "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, published on January, 2014: p.10 and pp.37-38.

Bostans are a part of Istanbul's identity: The continuous use of Bostans (vegetable gardens) with the same type of crops being produced between Ottoman and Republican Period, and therefore ***different neighborhoods were known the specialty of their gardens***. Arnavutköy was known for its fragrant strawberries, Çengelköy was known with its aromatic cucumbers, and near the Old Palace the gardens of Langa were known with its amazing large cucumbers and the season's early vegetables, **the gardens of Yedikule were known with its lettuce, which had reputation of being soft and oily[104].** Moreover, they are known as the home of an exquisite lettuce, or *marul* in Turkish (*Lactuca sativa L. var. longifoli*a) – as a local gardener says, *if you want to sell* marul*, you call it Yedikule in the bazaars*[105].

Land Walls World Heritage Site (WHS), as it has been shown with red areas in Image 7-11, Yedikule Bostans should be accepted as a cultural landscape, as well as a cultural heritage, and its natural agricultural landscape should be evaluated in the right way. Land Walls WHS might be a natural reserve of crops and of ancient watering equipment and a reserve of Ottoman agriculture technology with barns, porch, water wells, water pools, cisterns, shacks. A useful benefit from Yedikule Bostans may be keeping bostans for recreation and leisure use with promoting educational activities for school students, local community, or tourism activities, converting them into a multi-functional land use, including a good public access to them.

The famous Yedikule Marul–*Lettuce*

Yedikule bostans have always been famous with their Romaine lettuce. Yedikule-seven towers-*neighborhood has also known today with its special* ***lettuce*** on the local markets.

Alessandra Ricci has argued that bostans should be protected as 'Intangible Cultural Heritage' by UNESCO. Intangible heritage represent a paradox:

"A head of lettuce in Yedikule in 2013 isn't physically the same head of lettuce that grew there in 1013, but it's still a functional lettuce. In a way, the Yedikule bostans give us a sense of history that we can't get from, say, the Yedikule dungeons, which are physically the same dungeons that stood there in the fifteenth century but ***which no longer function the same way****… to be able to look at those walls and also see, smell, and taste the* ***actual living descendants of Byzantine lettuce"[106].***

[104] Kaldjian, Paul J., 2004, "Istanbul's Bostans: A Millenium of Market Gardens", Geographical Review, Vol. 94, No.3, People, Places, & Gardens, pp.284-304, p.291.

[105]Cornucopia, "Heartbreak Bostan: The ongoing destruction of Istanbul's cultural heritage" by John Scott, 2013, accessed on November 19, 2014, from http://www.cornucopia.net/blog/heartbreak-bostan/.

[106] Alessandra Ricci is the Byzantine architectural historian at Koc University in Istanbul, accessed December, 2014, http://www.newyorker.com/news/news-desk/istanbuls-troubled-gardens-yedikules-lettuce.

3. Bostans as a part of civic and monastic practices in Byzantine Period[107]

In Byzantine Period local urban agriculture systems shaped complex networks as involving different social groups and various organizational structures, from household gardening (kitchen gardening) and animal husbandry to the management of the large orchards, vineyards in a higher level of organization. Social combination was complex and multiethnic, different kinds of urban gardeners and farmers participated in food production, through cultivation of their own land or as laborers for monasteries or private large-scale landowners. Lower class people tended to kitchen gardens as source of additional food [108]. Land ownership was divided at least into four main social groups, accordingly Ljunkvist et al., 2010: (1) the emperor and aristocracy; (2) monasteries; (3) land owning farmers, and (4) household gardens. Lower social strata have used the lands for small domestic gardens [109] (Urban kitchen gardens).

According to Constantinidies, 1996[110] monasteries and aristocracy had land, but in practice it was rented and farmed by smallholders. Monastery owned a large tract of land outside the Land Walls (Theodosian walls from 4th century). The arable lands outside the Land Walls were managed by an aristocratic family; they supplied the monastery by vegetables. The families from civic society rented out plots from the aristocrats. In this way, "*institution of sharing*, land owners such as the Church gained prestige as insurance against food shortages"[111]. In reference to that, monastic and civic life and agricultural activity point out visual and functional relationship with Land Walls and vegetable gardens by Alessandra Ricci[112] "the Land Walls … display a perceptible link with the city's daily life and needs… the monument, inform us about the relationship between Land Walls and its surrounding landscape. Lands around the defensive system must have functioned as agricultural territories

[107] Aksoy, A. et al., (2014): "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, p.38.

[108] Cited from Barthel, S. & Isendhal C., 2013, "Urban gardens, agriculture, and water management: Sources of resilience for long-term food security in cities", p. 229, from Barthel et al., 2010b: Innovative memory and resilient cities: echoes from ancient Constantinople, pp.329-366; and Buchmann C., 2009: Cuban home gardens and their role in social–ecological resilience, pp.705-721.

[109] Ljungkvist, J., Barthel, S., Finnveden, G., Sörlin, S., 2010. The urban Anthropocene: lessons for sustainability from the environmental history of Constantinople. In: Sinclair, P., Herschend,F., Nordquist,G., Isendahl,C. (Eds.),The Urban Mind: Cultural and Environmental Dynamics. : Studies in Global Archaeology, pp. 367–390, p.384, accessed on November 19, 2014, from http://www.diva-portal.org/smash/get/diva2:387468/FULLTEXT01.pdf.)

[110] Cited from Barthel, S. & Isendhal C., 2013, "Urban gardens, agriculture, and water management: Sources of resilience for long-term food security in cities", p. 229; Constantinides, 1996: Byzantine gardens and horticulture in the Late Byzantine Period, 1204–1453, pp.87-103.

[111] Cited from Barthel, S. & Isendhal C., 2013, "Urban gardens, agriculture, and water management: Sources of resilience for long-term food security in cities", p. 229.

[112] Cited from "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", 2014, p.39-40; Ricci, Alessandra, 2008, "Intangible Cultural Heritage in Istanbul: The case of the Land Wall's Byzantine Orchards". Ricci used the term 'orchard' for bostans.

feeding produce to the city. …The orchards along the Land Walls must have in part feed the city's population".

The existing agricultural areas, gardens, inside and outside the Land Walls, which enclose the land boundaries of Byzantine settlement due to military defense system, Land Walls are considered as an ancient military architecture. Existing agricultural areas were an integral part of the socio-economic life and daily practices. Archaeobotanical studies on material composition of the gardens are necessary for a full study of historic urban vegetable gardens, suggested by archaeobotanist Chantel White [113].

As a result, Yedikule Bostans are a place for civic and monastic practices in Byzantine Period, due to providing employment as laborer for monasteries and private large scale land owners; and providing access to food for lower classes as source of kitchen needs. Yedikule Bostans are remarked on several historic maps (see the Image 7-7,Image 7-42, Image 7-43, Image 7-46); they display a perceptible relation with the city's daily life and needs. They functioned as agricultural areas to feed the city's population and provide employments for citizens.

4. Bostans as a part of the pious foundations system in Ottoman Period[114]

Official registers belonging to pious foundations pointed out that some of bostans were owned by the pious foundations in Ottoman Period[115] In the article about the use and transformation of urban agricultural lands in Ottoman Istanbul, Shopov and Han denote to the significance of bostans in Ottoman Period, between 15th and 18th centuries, by mentioning:

"In 1735 vouch book shows in Istanbul intra muros (inside the Land Walls), there are 344 Bostans and 1381 Bostancı (truck gardener: bostan-keepers)" and also "18 Bostans belonging to Süleymaniye Pious Foundations, these had been on the safeguarding against any interventions, with a decision circa 1585, situated within gardens of Langa" [116] (Langa Bostanları).

These two facts are from written sources of Ottoman Period bring out that the *bostans,* as urban agricultural areas- situated in efficient agricultural lands, were under the pressure of interventions since 15th century and needed to preserve against the interventions of

[113] Cited from "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", 2014, p.41; Cornucopia, "Yedikule Gardens Archaeobotany Workshop with Chantel White, PhD", accessed November 19, 2014 from http://www.cornucopia.net/events/archaeobotany-workshop-with-chantel-white-phd., 3.Uluslararasi Tarihi Yarimada Sempozyumu, Istanbul, 66-67.

[114] Aksoy, A. et al., (2014): "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, p.41-45.

[115] Shopov, Aleksandar and Ayhan Han, "Osmanli Istanbulu'nda Kent Ici Tarimsal Toprak Kullanimi ve Dönüsümleri: Yedikule Bostanlari, Toplumsal Tarih 236, August 2013, pp. 34-38, p.35.

[116] Ibid.

constructions. Bostans are described not only written resources and also in graphical resources as showing *bostans* in historic maps [117].

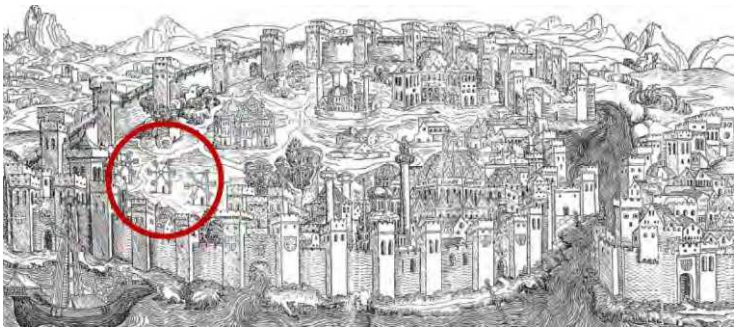


Image 7-6: 'Ancient Plan of Istanbul Map' by Hartman Schedel, 1493 is displaying "water mills (bostan dolapları)" near Yedikule area. (Souce: Kayra, Maps of Istanbul, 65, cited from Aksoy A. et al., 2014, p.43)

Water mills are painted near Yedikule area in the map 1493 (Image 7-6), and also the gardens inside and outside the Land Walls may be noticed.

Yedikule Bostans: The most comprehensive information about the gardens of Yedikule can be achieved in the vouch book in 1735, it mentions "*from the gate of Yedikule to gate of Silivri, thereof 9 Bostans extending at the ancient Land Walls"*, (from 344 Bostans inside the Land Walls) and also "*thereof 52 Bostancı (truck gardeners) work in these area, (from the all of 1381 truck gardeners)*" [118] (Between the gate of Yedikule and the gate of Silivri).

[117] From "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, published on January, 2014: p.41-45.

[118] Shopov, Aleksandar and Ayhan Han, "Osmanli Istanbulu'nda Kent Ici Tarimsal Toprak Kullanimi ve Dönüsümleri: Yedikule Bostanlari, Toplumsal Tarih 236, August 2013, pp. 34-38, p.36.

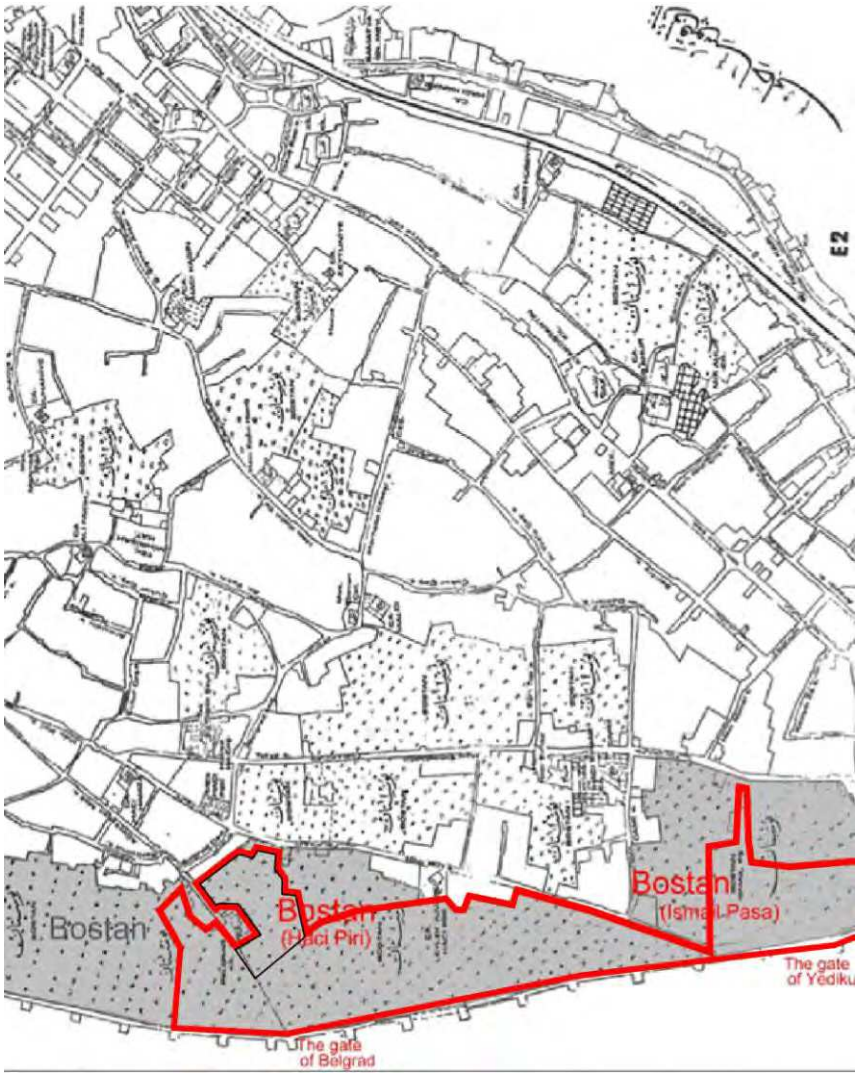


Image 7-7: The colored area by author on the map is showing Bostans inside the Land Walls and Bostans between the gates of Yedikule and Belgrad. (Source: The map of 1875 in Ottoman Period, by Ayverdi in 1958).

As a result, Yedikule Bostans are a part of foundation system, relating to Ismail Pasha Foundation in Ottoman Period.

A drawing according to Ayverdi map of 1875, it displays that in Ottoman Period, Bostans of Hacı Evhad and Hacı Piri neighborhoods had been located between the gate of Yedikule and Belgrad inside the Land Walls. Bostans near the gate of Yedikule are called Ismail Paşa Bostans which belonging İsmail Paşa foundation, he was rand vizier in 1685 during the Ottoman Period [119]. These Bostans are going to be destroying by Fatih Municipality with collaborating Istanbul Metropolitan Municipality to construct Public Park (Image 7-7).

The colored area by author on the map is showing Bostans inside the Land Walls, and Bostans between the gates of Yedikule and Belgrad, included Ismail Pasa and Haci Piri Bostans, are going to be destroying by local municipality for the construction of Public Park on the Image 7-7 (The map of 1875 in Ottoman Period, by Ayverdi in 1958).

Concerning the plan decisions about the Conservation of the Land Walls World Heritage Site, Istanbul Historic Peninsula Site Management Plan[120], relates to the Fatih District Urban Conservation Site 1/5000 Scale Conservation Plan mentions in 2011 *"...as the Land Walls Green Area for Conservation and outside the ownership of the Foundation, should be*

[119] Ibid.

[120] Istanbul Historic Peninsula Site Management Plan, 2011, p.115.

renovated and used for social-cultural purposes after they are placed under public ownership" [121] and evaluated first degree conservation area on the third item as follows:

"Partial archeological excavations can be conducted in water moats of Istanbul Land Walls. Landscape design will take place in the water moats which will be protected as a whole with the Land Walls. ***Vegetable garden areas*** *present in lots adjacent to the Land Walls that have appeared in maps dating as far back as 1875 will also be protected"* [122]. Therefore, referring to Istanbul Historic Peninsula SMP, bostans inside and outside the Land Walls should be preserved.

Istanbul bostans inside the Land Walls based on 1950s maps; it had been shown by Paul Kaldjian[123] on 1911 Ottoman Map (Image 7-8). It shows also bostans outside the Land Walls and Sea Walls of historic Istanbul. *Bostans are an integral part of the historic landscape for land uses as urban agricultural landscape and form the boundaries of the historic peninsula of Istanbul along the Land Walls.*

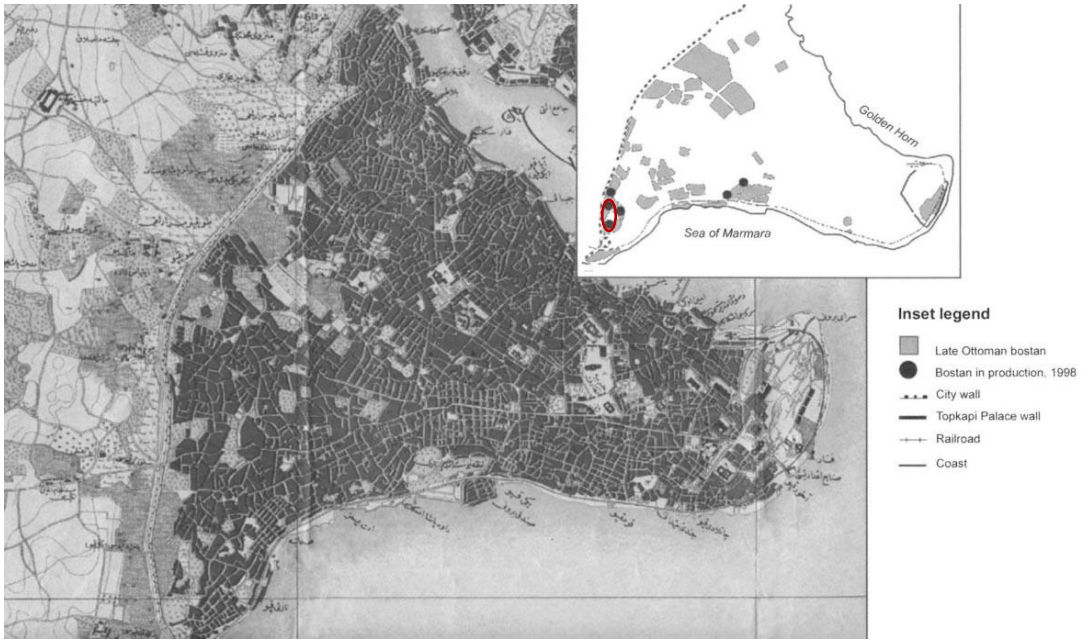


Image 7-8: Map of Istanbul's Bostans, "Istanbul's Market Gardens" by Kaldjian. (Source: Kaldjian, 2004).

In the upper right corner map show traditional areas of bostan production within the gray portions inside the Land Walls, and Bostans still in production used patterns by 1998 are marked with black dot.

Urban vegetable gardens in Yedikule Neighborhood on the right upper corner map can be observed within red circled black dots at the Land Walls, they are still in production, and they

[121] Ibid.

[122] Ibid. and vegetable gardens are used for the term of 'bostan' on the Site Management Plan.

[123] Kaldjian, Paul J., 2004, "Istanbul's Bostans: A Millennium of Market Gardens", Geographical Review, Vol. 94, No.3, People, Places, & Gardens, in July 2004, pp.284-304.

are used as land patterns in traditional Bostan areas. Unfortunately, they are going to be destroyed with Public Park construction purposes by local municipality (Image 7-8).

5. **Bostans as *a part of urban farming activities* in Historic Peninsula in the Republican Period**[124]

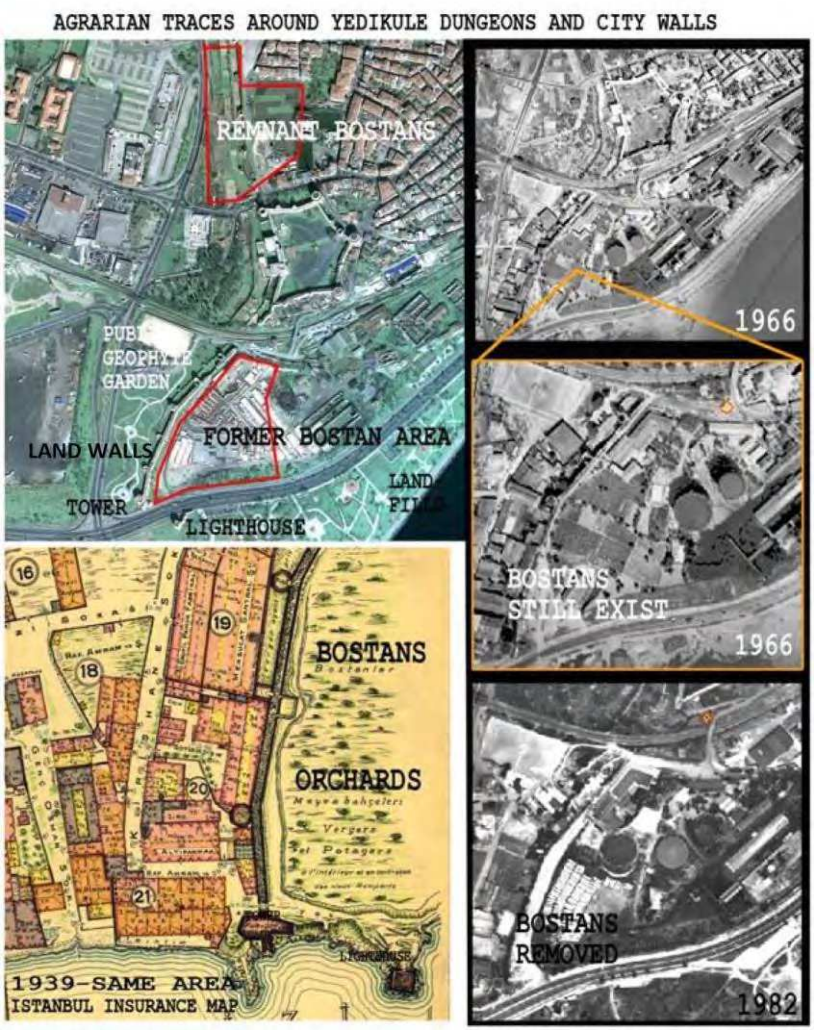


Image 7-9: The images show the existed Bostans between Yedikule Dungeons/Fortress and Land Walls at least until 1966, Bostans were removed in 1982, cited from Başer and Eşbah Tuncay's article.

Başer and Eşbah Tuncay[125] comment in their article about "Understanding the spatial and historical characteristics of agricultural landscapes in Istanbul" that "*Although, Istanbul had always been more than a seat of agrarian empires, Byzantine and Ottoman (Keyder, 1999), vegetable production in and around Istanbul changed little from at the end of the Ottoman Empire ...not drastically until the 1970s."* As a considerable example for this fact: open space cisterns in Byzantine Period had been used as bostans (Çukurbostans) in Ottoman Period, then they are transformed into parks, market places, and social complex between 1940s and 1970s. Also bostans between the Land Walls and Yedikule Dungeons/Fortress (Turkish means Dungeons of seven towers) were removed between 1966 and 1982 (Image 7-9).

[124] Aksoy, A. et al., (2014): "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, p.46.

[125] Cited from Başer and Eşbah Tuncay, "Understanding the spatial and characteristics of agricultural landscapes in Istanbul", p.112: from Keyder, Çağlar, 1999, Istanbul: Between the Global and the Local, Kaldjian P., 2004, "Istanbul's Bostans: A Millennium of Market Gardens".

Başer and Eşbah Tuncay[126] remark, *"Istanbul's bostans become truly endangered in the 1980s, when massive population growth combined with political corruption and speculative investment in housing and development to make real estate the highest profit sector in Istanbul"* (quoted in Aksoy, A. et al., 2014, p. 46). They underline, by modernization process, agricultural and natural land uses have disappeared, while new land use patterns have been structuring due to uncontrolled expansion of urbanization. The settlement diversities, "industrial and mass agricultural land-uses and over scale transportation corridors has redefined the Istanbul's landscape, hence challenging the traditional landscape characteristics of city" [127].

As a result, Yedikule Bostans are still living and yet on production in Republican Period. Furthermore, they are a part of farming activities in Historic Peninsula in the Republican Period. After rapid urbanization in 1950s, the internal migrant families from Cide began to use Yedikule Bostans, as labor renters, and then the old land-owners moved away; so they became land managers in their bostans. It may be said that the bostans at the ancient city walls have been threatened by the projects implementations after the declaration as *renewal zone.* After 2000s, specifically in Yedikule case, firstly Yedikule Villas constructed on Ismail Pasha Bostan, and then the proposed Yedikule Urban Park Project in 2013.

6. **Bostans as *a databank of historic and stratigraphic data on the seeds and agricultural practices* on the past**[128]

The studies about bostans should be recognized as an essential approach to reveal the significance and history of the Land Walls. Archaeobotanical studies about bostans will highlight further information on the significance and history of the urban agricultural landscape in Istanbul Historic Peninsula [129].

As a result, at least 200 years old Yedikule Bostans and their four water wells can be used as a databank for giving information about seed and agricultural practices in the past.

7. **Bostans as *the embodiment of intangible val*ues**[130]

Arif Bilgin[131] lights in his article about "Market Gardens of Istanbul in the Ottoman Times" lights a "*bostancılık*" gardening culture in Ottoman Istanbul. Referring to him[132], the registers

[126] Cited from Aksoy, A. et al., (2014): "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, p.46.

[127] Cited from Başer and Eşbah Tuncay, "Understanding the spatial and characteristics of agricultural landscapes in Istanbul", p.112.

[128] Aksoy, A. et al., (2014): "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, p.47.

[129] Ibid.

[130] Aksoy, A. et al., (2014): "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, p.47.

of water wells, water mills and, less frequently, pools reflect the everyday gardening practices that took place in bostans (Image 7-10). Probably, the pools were used for cleaning the produced vegetables. In written resources, it is known that a few bostans existed without wells [133].

Bilgin discuss the management, and the location of bostans, the names of bostan workers (gardeners), and the names of bostans, which represent *characteristic* ***'bostancılık' (vegetable gardening) culture*** in Ottoman Istanbul. Considered that a few bostans have kept on being cultivated from Ottoman Period until today, perhaps the ongoing bostancılık actions compose an intangible cultural heritage to be preserved. Bostans and their equipments (water wells, pools) are tangible reflections of the intangible heritage.

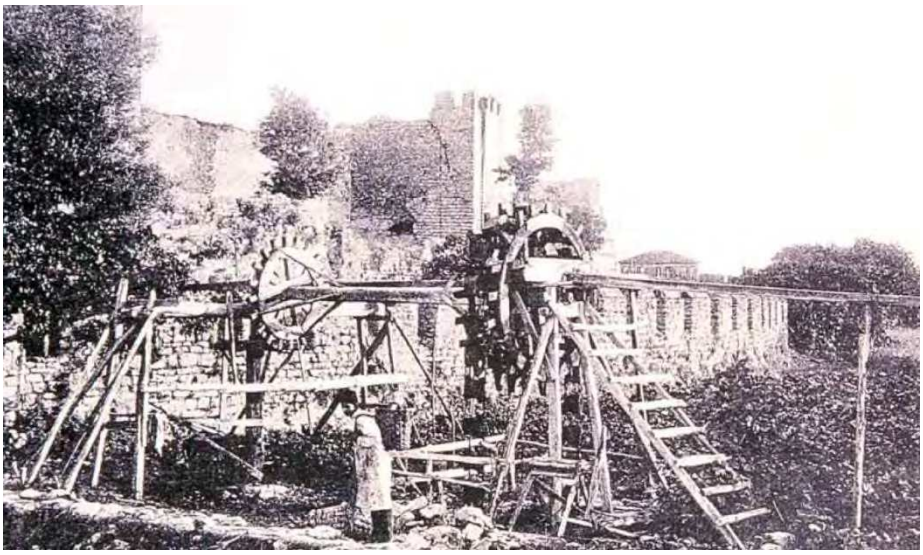


Image 7-10: The image displaying water wheel and bostans inside the moat of the Land Walls, (Ortayli, ilber, 2003, „Tarihsel Perspektiften Sur Dışı", in Surların Öte Yanı Zeytinburnu, edited by Burcak Evren, Zeytinburnu Belediyesi Kültür Yayınları, pp.154-163.)

As a result, existing *Yedikule Bostans around* ***two hundred-years old-,*** *and* ***their four water wells and other constructions*** *(porch, barn, gardener shack etc…) for managing bostans and the bostan workers could compose an intangible cultural heritage* as claiming Bilgin about ***'bostancılık' (vegetable gardening) culture*** from Ottoman Istanbul. Accordingly, Yedikule Bostans and their equipments are tangible reflections of the intangible heritage.

[131] Bilgin A., 2010, "Osmanlı Dönemi Istanbul Bostanları (bir giris denemesi)" [Market Gardens of Istanbul in the Ottoman Times], Yemek ve Kültür Vol. 20, Çiya Yayınları, Istanbul, pp. 86-97.

[132] Bilgin A., 2010, "Osmanlı Dönemi Istanbul Bostanları (bir giris denemesi)", cited from Aksoy, A. et al., (2014): "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, p.47.

[133] Bilgin A., 2010, "Osmanlı Dönemi Istanbul Bostanları (bir giris denemesi)", p.89.

8. **Bostans as "*an important opportunity to maintain sustainable urban landscape and viability of urban society*"**[134]

Bostans might be recognized as an integral part of preserving sustainable urban landscape. Başer and Eşbah Tuncay[135] explore that: *"Istanbul has considerable cultural, social and environmental potential for implementing urban agriculture programs. Due to its geographical location, water and soil resources, and heterogeneous landscape characteristics, Istanbul enables production of various agricultural products, hence facilitating diversity in urban agriculture"(*Başer and Eşbah Tuncay, 2010 quoted in Aksoy, A. et al., 2014, p. 48).

[134] Aksoy, A. et al., (2014): "A Report of Concern on the conservation issues of the Istanbul land walls world heritage site", with a special focus on the historic Yedikule Vegetable Gardens, p.48.

[135] Başer and Eşbah Tuncay, 2010, "Understanding the spatial and characteristics of agricultural landscapes in Istanbul", p.117.

7.2 CONTEMPORARY PLANNING CONTEXT

7.2.1 Planning Context of Istanbul and Yedikule Neighborhood

7.2.1.1 The Governing of Istanbul and link to District Municipality of Fatih

Metropolitan Mayor of the Istanbul Metropolitan Municipality (IMM) is the most important political figure in Istanbul, who shares executive power with a Municipal Council. Istanbul has 39 district Municipalities and their District Mayors. IMM has extensive powers and a significant budget **at *city level*** for urban development, finance, transport, infrastructure, utilities. Relating to case study ***at city level***, it scopes the responsibility of IMM mostly on the department of infrastructure, which consists of construction, ***Environmental and Historical Sites Protection***, *Parks and Gardens*, Waste Management. District Municipalities (DM) **at *local level*** have powers for urban development, land registry, environment, and services. Relating to case study ***at local level,*** it scopes the responsibility of District Municipality of Fatih, which consists of urbanization plans and projects**, Environment Protection, *Park and Gardens*** and other services such as maintenance, cultural services etc.(See Table 2).

Table 2: The Governing of Istanbul

Source: Urban Age Istanbul, 2009: Istanbul City of Intersections, in: Governing Cities, p.26.

Relating the case study, IMM is responsible for Environmental and Historic Sites Protection at city level, DM is responsible for Environment Protection, Parks and Gardens at local level.

7.2.1.2 Yedikule Bostans concerning Conservation Issue of the Istanbul Land Walls World Heritage Site

Turkey signed the Convention Concerning the Conservation of the World Cultural and Natural Heritage in 1983, in regard to UNESCO. The convention aims to recognize and introduce that "the cultural and natural properties in the world which have a Outstanding

Universal Value as the common heritage of the whole of humanity, is the requirement to establish the consciousness of protecting the universal heritage within the communities and to ensure necessary cooperation in order to maintain these values" [136]. In the context of the implementation of convention, **the *four conservation areas in Istanbul*** were inscribed on the World Heritage Sites Lists in 1985 under the definition of '*Historic Areas of Istanbul*'[137]. Due to the fact that they met the 'cultural criteria', which are numbered (i), (ii), (iii) and (iv) of the ten criteria, used for description of properties with Outstanding Value (OUV) on the World Heritage List. These criteria are as follows[138]: (i) represent a masterpiece of human creative genius; (ii) ***exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design***; (iii) bear a unique or at least exceptional testimony to a cultural tradition or to a civilization; be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates significant stages in human history.

The management and protection in regard to Historic Areas of Istanbul, which was described on UNESCO WHSs, the identified **conservation areas** are **legally protected through national conservation legislation**. The management structure for the protection and conservation of the properties is underlined that "*the shared responsibilities of national government, local administration and several state institutions. The approval of the Conservation Council has to be obtained for* ***physical interventions and functional changes in registered buildings and conservation sites*** [139]".

One of the four conservation areas by the inscription of UNESCO in 1985 is identified ***the Land Walls of Istanbul and its surroundings*** referring to 'the area along both sides of the Theodosian land walls…,'[140] which was described on the 'Historic Areas of Istanbul' in World Heritage Sites Lists. In addition, **at the criterion (ii)**, it was underlined that "the 6,650 meter terrestrial wall of Theodosius II with its second line of **defence**, created in 447, was one of the leading references for **military architecture**" [141]; and furthermore, the description of Land Walls World Heritage Sites was also underlined that "the current layout of the walls results from modifications performed in the 7th and 12th centuries to include the quarter…"[142].

[136]Historic Peninsula Site Management Plan, 2011, p.6.

[137] Ibid.

[138]Ibid.

[139]UNESCO World Heritage List, Historic Areas of Istanbul, Protection and Management Requirements, accessed February 8, 2015, from http://whc.unesco.org/en/list/356.

[140]UNESCO World Heritage List, Historic Areas of Istanbul, accessed February 8, 2015, from http://whc.unesco.org/en/list/356.

[141]UNESCO World Heritage List, Historic Areas of Istanbul.

[142]Ibid.

The Land Walls and its surrounding area in the local district of Fatih constitute a significant **conservation area** in regard to being one of the four conservation areas of Istanbul.

7.2.1.3 Yedikule Bostans concerning Istanbul Historic Peninsula Site Management Plan

Istanbul Metropolitan Municipality (IMM) adopted Istanbul Historic Peninsula Site Management Plan (SMP) in October 2011. It includes the regulations of management of Historic Areas of Istanbul World Heritage Sites (WHS). All of *the four Historic Areas* of Istanbul WHSs are identified in Historic Peninsula SMP; and it scopes additionally the responsibility of four local district municipalities. The local municipality in Fatih is one of them, which has overseen zones that are defined in Historic Peninsula SMP areas; and according to national law it was legalized also by local municipality of Fatih. 'Management Areas' and 'Management Plan' of Historic Areas of Istanbul World Heritage Sites were included into the national law legislations[143]. 'The Management Areas'[144] are defined by the law: "the places whose borders are determined by the Ministry after consulting the related administrations and which are formed to *provide the coordination between central and local governments authorized in planning* and *conservation* and non-governmental organizations in order to efficiently protect, maintain, utilize the natural and cultural sites, ruins and interaction fields within their natural integrity*, develop the same under a specific vision or theme and combine them with the cultural and educational needs of the community*"; and 'Management Plans' as well defined[145]: "the plans which are revised every five years and exhibit the annual and five-year implementation stages and *budget of the conservation* and development project which is devised by considering the operational project, excavation plan, *landscape project* or *conservational development plan in order to protect, maintain and utilize the Management Area"*. 'Implementation of SMP' is stimulated by the law as "...Public institutions and establishments, municipalities and natural and legal persons are required to obey the management plan approved by the coordination and advisory board, to prioritize the services under the plan and to allocate the necessary funds in their budgets accordingly"[146].

As a result, Historic Peninsula Site Management Plan is a guiding document for all activities, as a guide for management areas, management plan and the implementation of SMP in 'Historic Areas of Istanbul' consists of the four WHSs in Istanbul. However, the related four local municipalities haven't taken any steps in order to implement what the SMP proposed since the plan came into effect in 2011. Regarding to the case study, the local municipality of Fatih has the Land Walls World Heritage Site, accordingly it takes the responsibilities to take into consideration of plans that SMP proposed for implementing projects in conservation areas, and included into the national law as above explained. But the fact that the responsible municipality of Fatih hasn't implemented with the Historic Peninsula SMP and its conservation measures; also the effectiveness of SMP hasn't proven in regard to Land Walls

[143]"As declared within the article of Appendix-2a which was added to the Law on the Conservation of Cultural and Natural Properties numbered 2863 as per the Law numbered 5226."

[144]Cited in "Istanbul Historic Peninsula Site Management Plan (SMP)", 2011, p.7.

[145]Ibid.

[146]Ibid.

WHS. Herbert Stover[147] remarks "*suggesting that the adequacy of management can be verified by demonstrating the existence of management plan, without reference to the actual impact or effectiveness of management measure within the plan is obviously misplaced";* he takes attention to need to look beyond the formal management institutions or controls for exposing the management effectiveness[148]. Perhaps, there is a lack of the indicators of actual impact and effectiveness of management measures, not considering by formal institutions in relation to the lack of the implementation of conservation measures in Yedikule case.

Consequently, today the issue is hot debate, because Yedikule Bostans have historic cultural landscape value, and it takes place at the conservation area in Land Walls World Heritage Site. It takes place under the responsibility of IMM for **Historic Sites Protection** issue. But on the other hand, the proposed plan by District Municipality of Fatih asserts the replacement of Bostans with urban park. The proposed plan demonstrates, it wasn't considered by local municipality that the guidelines regarding the management of Historic Areas of Istanbul World Heritage Sites through SMP proposed. But according to the national law, the local municipality of Fatih had to consider the guidelines of Historic Peninsula SMP.

According to Historic Peninsula Site Management Plan (SMP), the Management Area is formed inside and outside of Land Walls: Historic Peninsula that is named inside the Land Walls as **Suriçi zone** (Fatih district) and outside the Land Walls is named **Buffer zone/Green Belt,** which is the external conservation belt of the Land Walls in Historic Peninsula Site Management Plan (SMP)[149] (Image 7-11). *Green Belt* is consisted of a part of neighborhood districts' areas of Eyüp, Bayrampasa and Zeytinburnu as we see on Image 7-11. The total area of green belt zone is 548 hectares; the area of Historic Peninsula inside the Land Wall is 1562 hectares, the Historic Site Management Plan Area is 2110 hectares[150].

[147]Stovel H., 2004: "Approaches to Managing Urban Transformaton for Historic Cities" in: The Conservation of Urban Heritage: Macao Vision, the Conference took place at the Macao Cultural Centre S.A.R. 10-12 September, 2002, , accessed on February 8, 2015, from http://www.macauheritage.net/en/knowledge/vision/vision_103.pdf, pp.103-120, p.105.

[148]Ibid.

[149]Istanbul Historic Peninsula Site Management Plan (SMP), 2011, p.18, from http://www.alanbaskanligi.gov.tr/files/Management_Plan_090312_TUM.pdf, accessed on November, 2014.

[150]Istanbul Historic Peninsula Site Management Plan (SMP), 2011, p.20, from http://www.alanbaskanligi.gov.tr/files/Management_Plan_090312_TUM.pdf, accessed on November, 2014.

Green Belt/Buffer Zone and Surici Zone in SMP Area

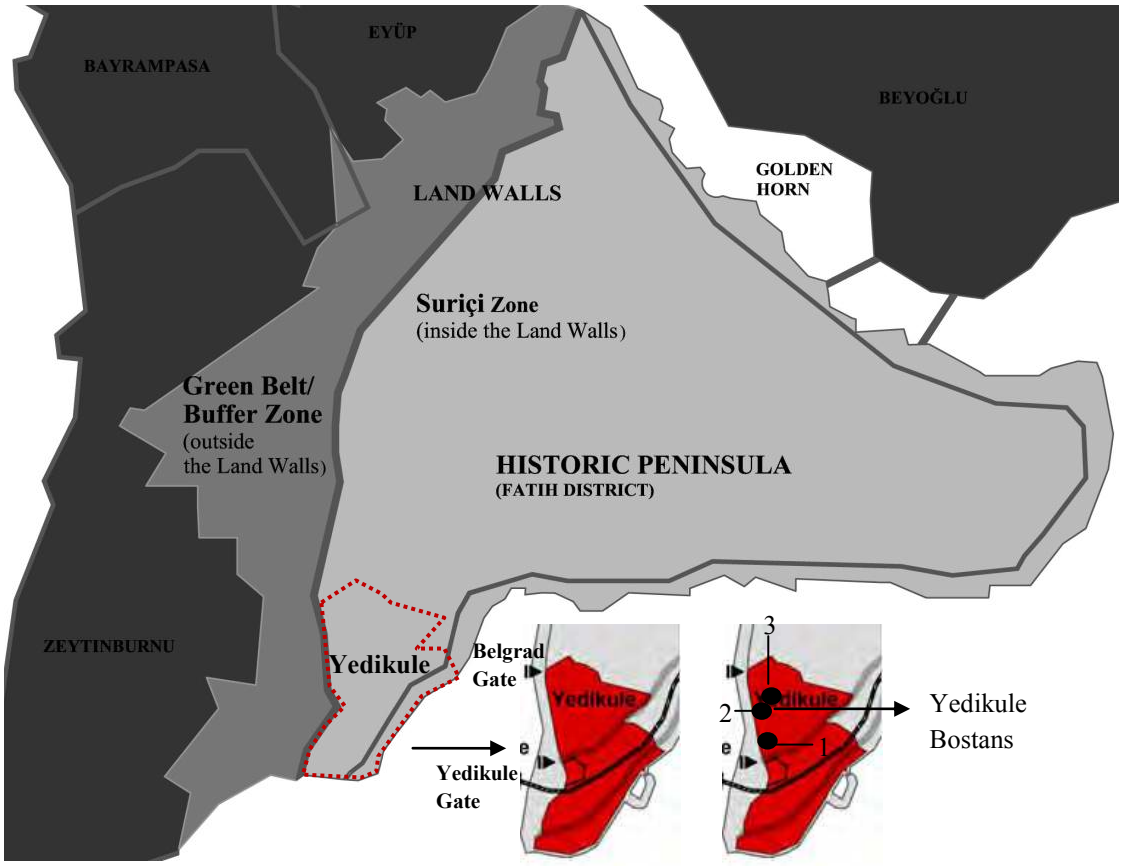


Image 7-11: A drawing displaying Historic Peninsula Site Management Plan Area, self drawing. (Source: (Source: Istanbul Historic Peninsula SMP, 2011, p.20)

Image 7-11 displays Historic Peninsula Site Management Plan Area where boundaries of Surici Zone (Historic Peninsula) and Buffer Zone (some areas of Eyüp, Bayrampasa and Zeytinburnu) are colored by author, according to the boundaries as approved by Ministry of Culture and Tourism on 21st April 2009.

Land Walls World Heritage Site

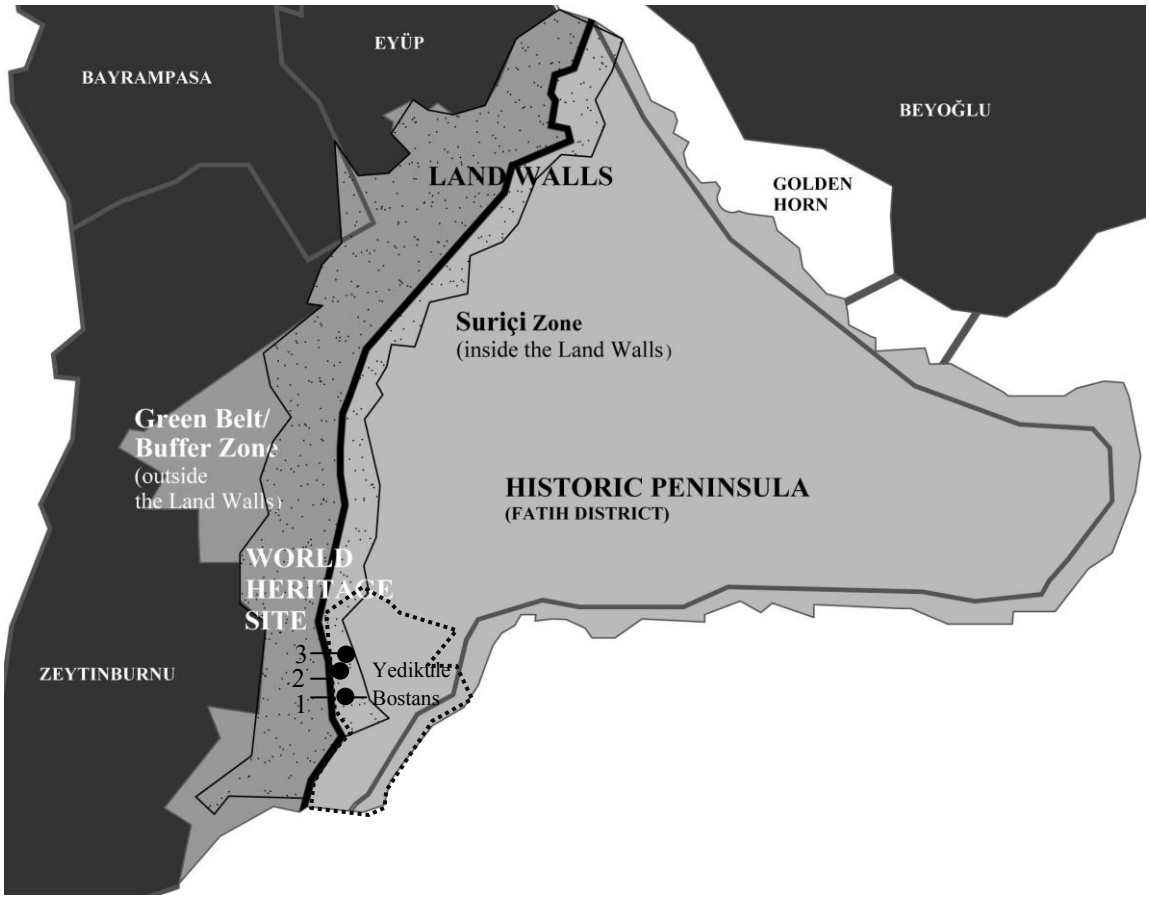


Image 7-12: A drawing displaying World Heritage Site inside and outside the Land Walls where the boundary area is dotted by author, self drawing. (Source: Istanbul Historic Peninsula SMP, 2011, p.20)

Image 7-12 displays World Heritage Site inside and outside the Land Walls where the boundary area is dotted by author as approved by Ministry of Culture and Tourism on 21st April, 2009, and Yedikule Bostans in the border of Yedikule neighborhood.

Land Walls and its surrounding areas are identified as World Heritage Site in 1985.In regard to the case study; Yedikule Bostans take place inside the Land Walls World Heritage Site (Image 7-12).

Consequently, the safeguarding of the historic vegetable gardens is threatened due to:

- The changes in the national legislative framework, that let speculative investments in conservation areas;
- Unsuitable change of the function of the cultural heritage regarding forming a historic cultural landscape within tangible and intangible assets of Yedikule Bostans, containing Land Walls and its surrounding areas;
- The proposed urban park project by local municipality of Fatih asserts the demolition of the historic vegetable gardens inside the Land Walls World Heritage Site.

7.2.1.4 Yedikule Bostans concerning National Legislative Framework

The legislative framework, which determines the conservation status concerning Istanbul Historic Peninsula, is laid out in the Historic Peninsula SMP in 2011. There are several laws about conservation areas. According to SMP in relation to Yedikule Bostans concerning legislative framework, it will handle the legislation as follows[151]:

- *"Law on Preservation by Renovation and Utilisation by Revitalisation of Deteriorated Historical and Cultural Properties" numbered 5366.*

Law No: 5366, Law on Preservation by Renovation and Utilisation by Revitalisation of Deteriorated Historical and Cultural Properties

The Land Walls World Heritage Site is concerned by the Law No: 5366, it lets the threaten the safeguarding of Land Walls and its surrounding areas, where Yedikule Bostans are located as well as seen in Image 7-11; they are located inside the World Heritage Site. The law cames into effect on May 7th, 2005: "*authorizes the local authorities to execute and implement 'renewal projects' in the renewal areas to be declared independent from the conservation plans*"[152]. The law lets the local municipality of Fatih, the zones within the Land Walls World Heritage Site to declare areas as 'renewal zones'; and the municipality began to produce and implement renewal projects within the zones adjacent to Land Walls (Image 7-13). The proposed urban park project in Yedikule neighborhood is one of them; it asserts the demolition of historic Yedikule vegetable gardens.

[151] Istanbul Historic Peninsula Site Management Plan (SMP), 2011, p.64.

[152] Istanbul Historic Peninsula Site Management Plan, 65.

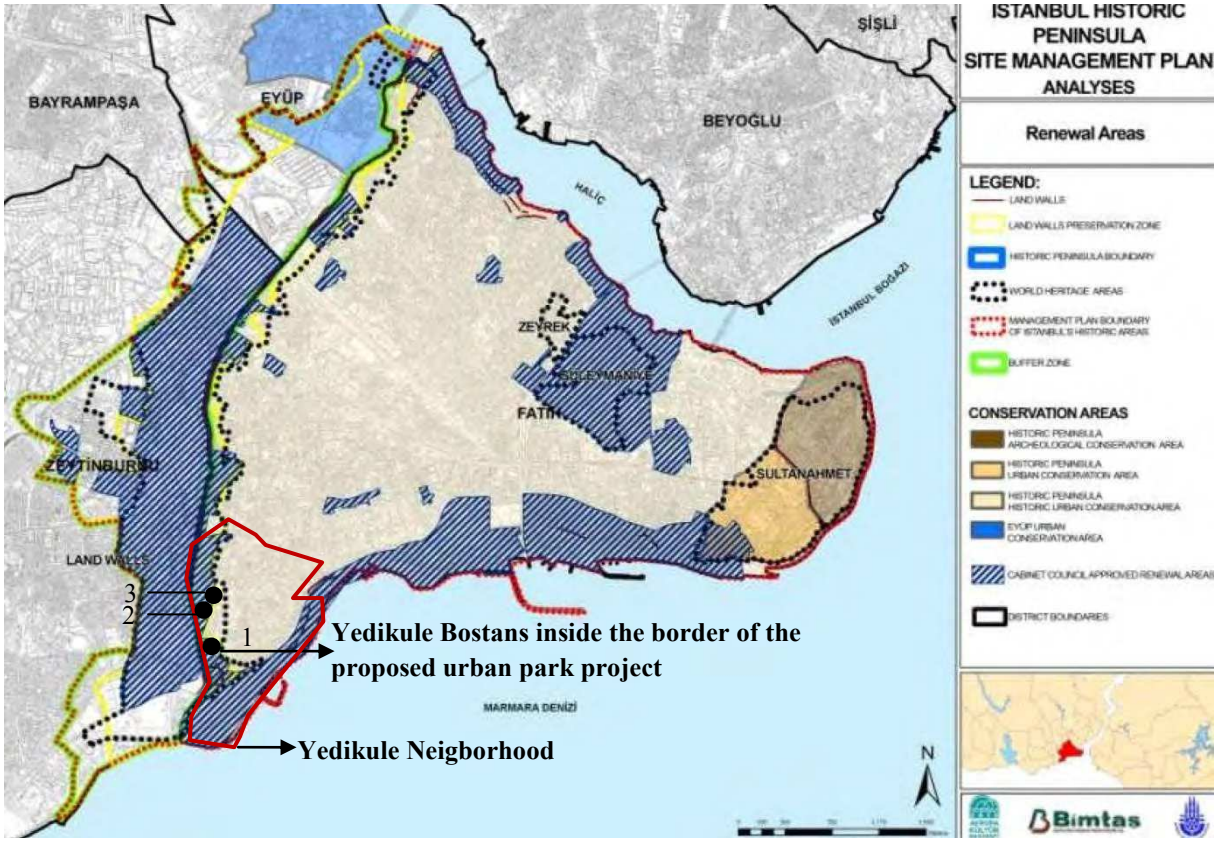


Image 7-13: The renewal zones have been shown by the hatched areas with dark blue lines in the border of Istanbul Historic Peninsula SMP (Source: Istanbul Historic Peninsula SMP, 2011, p. 66.)

As seen in Image 7-13, Yedikule Bostans have additionally been shown inside the border of proposed urban park project with black dots, and the border of Yedikule neighborhood with red line by the author. It covers two historic bostans.

The SMP underlines on the protection of "…infrastructure systems for provision of water" which were "established in the Byzantine era and developed and extended due to engineering implementations particularly in the Roman and Ottoman eras" [153], concerning the existing water wells, water pools in Yedikule Bostan area, they can give information about the water supply system of Byzantine and Ottoman Periods. The national conservation plan concerning Yedikule Bostans, the values to the safeguarding of Land Walls WHS is highlighted as follows[154]:

- "*…water moats will not be completely restructured, but be repaired partly according to evaluation of findings*".

[153] Istanbul Historic Peninsula Site Management Plan (SMP), 2011, p.21.

[154] Istanbul Historic Peninsula Site Management Plan (SMP), 2011, p.115.

- "*…Landscape design will take place in the water moats which will be protected with the Land Walls as a whole. Vegetable garden areas in lots adjacent to the Land Walls that have appeared in the maps dating as far back as 1875 will also be protected*".

According to Conservation Plan decisions concerning Yedikule Bostans, it is considered the significance of the historic vegetable gardens-bostan- for integrity of distinctive character of Land Walls WHS. As a result, *Bostans which are marked in the historic maps until 1875 and still surviving should be preserved as urban gardens with combining them with the cultural and educational needs of the community.* Yedikule Bostans are marked in the historic maps from 1875s, and they are still surviving by ongoing production. (See the historic maps)

Consequently, making project in Historic Peninsula has to consider designing with respect to the guidelines of SMP in historic areas, because it's approved with national law[155]. According to Urban Design and Landscape Assessment Report in concerning Yedikule Recreation and Implementation Project [156] remarks that '1/1000 Scale Conservation and Implementation Plans of Istanbul Historic Peninsula Fatih and Plan Notes' in this regard national law takes place in the items of B-II-A-2-1 and B-III-C-2, "*Vegetable garden areas* (bostans) *in lots adjacent to the Land Walls that have appeared in the maps dating as far back as 1875 and which keep the presence of bostans until today will be protected'* and "*the prepared projects for urban design-landscape projects, will be appropriated with regards to identity of Historic Peninsula, will be carried out ecological survey, to maintain the existing greenery, to use suitable plant species to the characteristics of Historic Peninsula and Istanbul, in this way to increase the quality of landscape, and therefore, the agricultural character of ongoing the existence of historic bostan areas will be protected."* According to these statements, bostans are under the protection of national laws; as well the protection of bostans in regard national law is mentioned in SMP. It was necessary that the Renewal Areas Conservation Council No.2[157] to oversee the Yedikule Recreation and Implementation Project to control the compliance with national law or it had to take into consideration in line with the Conservation Boards decisions in SMP. But the control mechanism-*Renewal Areas Conservation Council No.2*- didn't consider, as well the Council should wanted a revision of the proposed recreation project from local municipality, but the control Council let green light to the implementation of the municipal park project. It seems the lack of coordination between formal institutions and the ***lack of the importance given to keeping cultural landscapes alive*** in this regard follow the guideline of Historic Peninsula SMP. Therefore, the proposed municipal recreation project was approved with the existing situation, which eliminates bostans and their relations to historic and cultural heritage. In SMP is also underlined to take into account of the plan

[155] Istanbul Historic Peninsula Site Management Plan (SMP), 2011, p.115.

[156] Professor Assistant B. Yiğit Turan at Özyeğin University, July 19, 2013: *"Yedikule Recreation Implementation Project, Urban Design and Landscape Assessment Report"*

[157]Istanbul II Numaralı Yenilme Alanları Kültür Varlıklarını Koruma Bölge Müdürlüğü, established by the law No: 5366.

decisions of SMP to combining educational and cultural needs of community, when a new project takes place in conservation areas.

7.2.1.5 Yedikule Bostans concerning the European Landscape Convention (ELC)

The European Landscape Convention has been signed by the state of Turkey on October 20th, 2000, and ratified on October 13th, 2003, and came into force on March 1st, 2004[158]. It means that the ELC has been entered into force in approximately 4 years in Turkey. ELC is ***a legally binding international treaty***, but it's ***not a directive***, which has to be translated into national law by member states, although it can be choose to sign or not.

The landscape gains unique qualifications in consequence of the human activities in everyday life, historical, ordinary or extraordinary situations in the urban, rural and natural areas. The state of Turkey gave an undertaking to consider landscape as the perception of the people, their economic and social life, as a part of their culture and identity, and taking into account the innovations and scientific data, and making polices based on the principles of participatory, democratic, sustainable, pluralist, and protecting and developing these unique landscapes by plans and projects[159].

The introduction of the European Landscape Convention:

The European Landscape Convention plays an important role in **providing a common starting point for considering landscape planning** in international level. The term **'landscape planning'** has entered the first time officially into the field of European policy in March 2004, with coming into force of ELC. Landscape became recognizable and it got characterized by set of ideas, methods and practices between the members. The landscape planning has been interpreted and implemented in different members of states differently and has been seen also differently in different context. Each member defines their landscape strategies differently to promote landscape protection, management and planning, and to take part in European co-operation issues.

ELC **fills the gap** to ***recognize landscape as international legal instrument*** that deals directly, specifically within European landscapes. The European Landscape Convention is a ***guideline*** for theoretical, methodological and practical implementation for the members who choose to sign the wish a landscape policy based on the convention.

The introduction of the Convention highlights[160] "*Landscape must become a mainstream political concern… landscape lends itself a democratic treatment, particularly at local and*

[158] Stiles, 2012: Landscape Planning and the European Landscape Convention, Summer Semester, Part 1: Guiding Principles for HLC, pp.1-117, p.14.

[159] Professor Assistant B. Yiğit Turan at Özyeğin University, July 19, 2013: *"Yedikule Recreation Implementation Project, Urban Design and Landscape Assessment Report."*

[160] The European Landscape Convention in the context of European Environmental Policy, the Preamble to the Convention aims to set out the philosophy and motivation behind the document, from the lecture presentations 'Landscape Planning and the European Landscape Convention, R. Stiles, on April 26th, 2012, p. 41.

regional level." The Guidelines of Implementation of ELC is underlined[161] "… *landscape is undergoing a period of rapid and profound change accompanied by significant advances"*.

The member States of the Council of Europe signatory: The Council of Europe aims to achieve a greater unity, consensus between its members; it aims each Party to realize the ideals and principles, that are their common heritage and the convention could pursue through agreements in the economic and social fields. It concerns to reach sustainable development by balanced relationships between social needs, economic activities and the environment.

Landscape protection, management and planning can contribute **job creation**. Furthermore, landscape contributes also the ***formation of local cultures***. Landscape is a component of the European natural and cultural heritage that leads to human well-being and European identity (European Landscape Convention Preamble-ii)[162].

According to preamble-iii[163] "landscape is an important part of the quality of life for people everywhere". The changes on the world economy, on forestry, agriculture, industry, regional planning, town planning, tourism, infrastructure, transport, ***recreation***… that shows in many cases the transformation of landscapes.

Yedikule Bostans in relation to the Articles from the European Landscape Convention: Article 1 is written about definitions of landscape, landscape policy and landscape quality objective. According to Article 1, **Landscape** is "an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors[164]." Referring to Yedikule Bostans, the meaning of landscape didn't take into account by the member of state of Turkey, the landscape form of Yedikule Bostans needs to be considered ***as a whole*** of natural and cultural components together.

According **to landscape policy**[165] definition Article 1 "means an expression by the competent public authorities of general principles, strategies and guidelines that permit the taking of specific measures aimed at the protection, management and planning of landscapes." This is very important to accept or to make a landscape policy by public authorities about implementation of European Landscape Convention. Of course it is not about implementation of the same policy as in the convention; but all countries could do their own landscape policies to create the impression that the public authorities pay attention to landscape, how much do they really care about it? It depends what kind of laws they have or they do for

[161] The European Landscape Convention in the context of European Environmental Policy, Guidelines for the implementation of the European Landscape Convention – adopted by the Committee of Ministers 6. February 2008.

[162] Stiles, 2012: Landscape Planning and the European Landscape Convention, Summer Semester, Part 2: Preamble, pp.1-91, p.44.

[163] Stiles, 2012: Landscape Planning and the European Landscape Convention, SS., Part 2: Preamble, p.45.

[164] Stiles, 2012: Landscape Planning and the European Landscape Convention, SS., Part 2: Preamble, p.51.

[165] Ibid.

implementing the Convention. But this is very important to permit specific measure on taking place in landscape protection, management and planning by the authorities. That lies to give information to the public authorities about landscape that how important it is and what does it bring on human and natural life. The experts should share their approaches about landscape; inform the authorities, and then it may be work from bottom to up. I am going to look for the landscape policy, in particular how it works in Turkey concerning Yedikule case? Is there any landscape policy in law? How much do the authorities pay attention for making landscape policy, how well do this policy? Or is it just a law, nobody cares about it. This would show that the states function is not enough; and then it brings out the need for informing people.

In Yedikule case, if we look into the proposed municipal park project related to the project production processes, the consideration of landscape quality and the scientific quality of the municipal project, it seems that the interventions on the landscape by local authorities damage the cultural landscape irreversible, therefore the suggestions of the ELC do not fulfill the commitment by the ratification of the proposed municipal park project in Yedikule.

7.2.2 A view to city scale: Access to Istanbul at the Present

Istanbul as *transcontinental* city, is located in a very strategic location which spreads over two continents, lies at a point where Asia and Europe are separated by a narrow strait-*passage* 'Bosporus'. Throughout the history the city has been a crucial trade center since its location on the strategic junction of lands and seas[166]. It has an important *passageway* between the seas, which are the Black Sea and the Sea of Marmara with Bosporus and then the Aegean Sea from north to south, and the Bosporus Bridge has combined the lands, which are Asian and European lands, from Anatolian to Tracie, from east to west (Image 7-14).

Image 7-14: The study area is rectangle in Istanbul map. Yedikule Neighborhood is located at Historic Peninsula, which is named Fatih District by Public Act No: 5747 in March 2008.(Source: The location of Fatih)

In 21th century Istanbul has become the most crowded and largest city, and the most important economic, culture and tourism centre of Turkey. At the same time Istanbul plays an important role as being historical capital of three different empires (Roman, Byzantine and Ottoman), which carried the traces of its natural beauty and historic (*living*) monuments[167]. The city has always been capital of civilizations, which settled around European and Asian part, embracing both eastern and western cultures. Moreover, since Istanbul is the heart of industrial and financial development in Turkey, it has become economic capital of Turkey. The city has great historical and cultural values which have symbolized the city, and through its strategic location as passageway between Europe and Asia, today symbolizes the city as the front door of Turkey opened to the world [168].The information about density, population and public green areas in Istanbul is given Box.2

[166] http://www.istanbul.gov.tr/Default.aspx?pid=12413, accessed November, 2014.

[167] Dökmeci & Berkoz, 2000 cited from Ozus E., Sence Turk S., Dökmeci V., 2011: Urban Restructuring of Istanbul, pp. 331-356.

[168] Baser et al., 2007 cited from Baser B. & Esbah Tuncay H., 2010: *Understanding the spatial and historical characteristics of agricultural landscapes in Istanbul*, pp. 106-120, p.109.

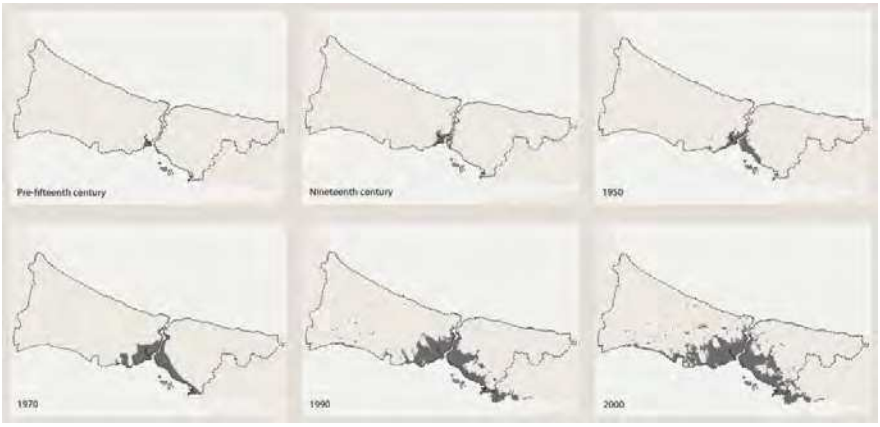


Image 7-15: Urban expansion in Istanbul from 15th to 20th centuries. (Source: Urban Age, 2009)

The map shows how built up area in Istanbul has expanded from 15th to 20th century. The city started to develop from the ***historic peninsula*** (today is Fatih District) on the Bosporus. By 1950 the built up area expanded East-West axis covering the costs on both sides of Bosporus. The city expanded considerably since 1970, the reason of the first large-scale migration from rural Anatolia to Istanbul occurred through informal settlements as occupying periphery, and continuing industrial land uses promoted the migration more and therefore by 1990 the natural reserves, agricultural lands, historical areas began to be threatened by uncontrolled expansion, and today as a result of increased built up areas and population, green open spaces of the city has decreased and density has grown rapidly.

As a result of the pressure of uncontrolled growing population, density and changed life styles, the city is faced with non-returnable pressures on natural reserves, agricultural areas, green spaces, and today city inhabitants need more open spaces, green areas for recreational activities, today city dwellers are fighting for more open spaces, green areas, but unfortunately publicly accessible green spaces (parks and gardens) in Istanbul is only 1.5 percent.

BOX 6. Istanbul

According to Istanbul Metropolitan Municipality, Istanbul covers an area of 5.313km², **the density** is 2665 inhabitants per square kilometer, the green structure of the city is defined north forests 40% of the whole city, and the city started to develop from the historic peninsula(Fatih District) on the Bosporus. According to Urban Age 2009, **public green spaces (park and gardens) in Istanbul area is 1.5** percent.*

*Today, 18.2** percent of Turkey's population lives in Istanbul (14 million), if the population grows continuously, the population in Istanbul would increase to 19 million in 2020 (source: Istanbul Metropolitan Municipality, 2005)*

*Source is from Turkey's 2010 Statistical Year Book, is cited from the report of World Cities Culture, 2013.
**Source is from Turkish Statistical Institute in 2011, is cited from the report of World Cities Culture, 2013.

Although the first degree agricultural lands cover 14%[169] of the province Istanbul, the city mostly depends on the surrounding cities and South Mediterranean region for providing food need. Strategic plan report of the municipality[170] is enounced that the pressure of service and industrial sectors and changed lifestyles will be driving forces for the main green infrastructure, and economic structure of the city, it means in the next decades it will be driving force on the need of shifted land use functions, from mono-functional land uses to multi-functional land uses, to balance various interests of different land users. The challenges can be solved by the mutuality approaches from governance institutions to local dwellers, from local dwellers to responsible municipality authorities.

In recent years the most dramatic loss has been observed in agricultural lands in Istanbul. Istanbul's agricultural lands have been reduced 40% between 1954 and 2000 (from 95 000 hectares to 37 000 hectares)[171]. *Urban green areas have increased 2.8 times*, whilst the housing area has increased 7.4 times and the *population has increased 9.3 times* and natural areas have decreased 3 times, and also industrial, commercial and transportation land uses have increased 6.7 times in the same period (Table 1). Urban green areas have been increased 24 times between 1970s and 1990s, but after 1990s have been decreased 1.07 times. It means urban green areas have been decreasing again since 1990s.

Table 3: Land Use Pattern by Years (hectares)

Years	Housing	Agricultural Land	Industry Commerce Transportation	Urban Green Areas	Natural Areas	Total (excluding sea)
1945	6,537	94,991	5,534	723	111,190	222,033
1968	14,392	94,133	13,659	90	95,758	222,189
1988	36,886	62,580	31,749	2,180	31,749	222,025
2000	48,506	38,811	36,965	2,025	36,965	223,499

Source: Gercek H. & Demir O., 2008, Urban Mobility in Istanbul. French Development Agency [172].

On the other hand Turkey National Statistic Institution reported especially in five years, between 1997 and 2002, agricultural lands decreased 15 percent; specifically croplands, vegetable gardens, and orchards were replaced into built-up areas. Furthermore, 2.5 percent of housing area was settled on the most fertile agricultural lands[173]. Built up structures dramatically occupied what was previously used for agricultural purposes. On one hand the population firstly needed shelter as housing to live as Maslow defined before that the first level is for human basic needs , but on the other hand changing lifestyles, shifting of working

[169]Istanbul Metropolitan Planning Report, 2005.

[170]Ibid.

[171]Final Report ESIA of the third Bosporus Bridge and Connected motorways, published by AECOM, Chapter 5: Land Use, accessed on 2nd August, 2013.

[172]Cited from Final Report ESIA of the third Bosporus Bridge and Connected motorways, published by AECOM, Chapter 5: Land Use pp.14, p.7, accessed on 2nd August, 2013.

[173]Istanbul Metropolitan Planning Report, 2005 cited from from Baser B. & Esbah Tuncay H., 2010.

conditions, from farming to industrialization *(decreasing labor on agricultural lands by mechanization)*, today people in specifically densely structured areas also need open green spaces for recreational leisure and the demand for shifting from mono-functionality to **multi-functionality** land use patterns, which is addressed providing the demands of different interests of land users and in this way can achieve ***consensus*** such as including more wishes of users and providing more urban open spaces which are publicly accessible.

The land use patterns in Istanbul have begun to change dramatically after 1970s, because of influx of migration, increased housing, transportation, industrial and commercial land use patterns. But unfortunately urban green areas didn't increased equally with population, and housing. It bought out a demand for urban open space uses, specifically publicly accessible green areas such as parks or gardens. And today ***only 1.5 percent of urban green areas are publicly accessible in Istanbul*** (World Cities Culture Forum, 2013, p.45). **The amount of green open spaces per city dweller is 6 square meters in Istanbul**[174]**, relation to international minimum standard by WHO, the amount of green open spaces per city dweller is minimum 9 square meters**[175]. Population growth and urban density brought new land use patterns to Istanbul, the challenge has been that the focus on city level-specific planning strategies (IMM) on urban planning decisions, the lack of local level district-specific planning strategies which embrace local potentials like historical and traditional significance, such as Yedikule neighborhood which is facing the challenge of ignoring the potential of historic gardens and the increased demands on publicly accessible green areas-*public park-,* and how should be considered mixed types of land uses in urban open spaces to answer more wishes of different urban stakeholders.

[174] Accessed on November, 2014, from http://www.ibb.gov.tr/tr-TR/BilgiHizmetleri/Istatistikler/Documents/bldhizmetleri/2010/parkvebahceler_mud_2004-%202010.pdf.

[175] Accessed on November, 2014, from http://www.fao.org/docrep/003/x1577e/x1577e06.htm.

7.2.3 A view from district scale to neighborhood scale: Access to Fatih District (Historic Peninsula) and Yedikule Neighborhood at the Present

Yedikule is one neighborhood of the local district of Fatih. There are 57 neighborhoods in Fatih[176]. Yedikule Neighborhood is located in Fatih District and till 2008, two districts (Eminönü and Fatih) were responsible for historic peninsula, but after Public Act[177] in 2008, Fatih district border covers all historic peninsula; therefore at the local level district authority has all power over the entire historic peninsula. Historic peninsula was consisted of Eminönü and Fatih districts until the Public Act 2008. The other reason is that the population loss in district of Eminönü after 1960s, and the population loss in Fatih district after 1990s. (See Table 2) Eminönü was the economic heart of the old city, but after industrialization in Istanbul, the factories, the wholesale market, and others were moved out of the old city center. The factories in Yedikule neighborhood area were also moved out. The development is become narrower, the old residents, whose economic opportunities-*income*- are increased, moved out towards other districts. The replacement of significant residential areas with business and commercial areas is caused the population loss in historic peninsula. These residential areas are gained qualifications as being commercial areas.

Table 4: Demographics of Fatih and Eminönü districts by Years

Year	Fatih	Eminönü	Historic Peninsula
1965[178]	344.602	137.849	482.451
1975[179]	504.127	122.885	627.012
1985[180]	497.459	93.383	590.842
2000[181]	403.508	55.635	459.143

[176] Accessed on December, 2014, from http://www.fatih.bel.tr/icerik/87/bugunku-fatih/.

[177]Public Act No 5747 on March 6, 2008: "more quarters were designated as districts, whereas the District of Eminönü became a quarter within the jurisdiction of the District of Fatih. Therefore, the number of district municipalities in Istanbul rose to 39; whereas, the first-level municipalities were abolished"; accessed on November, 2014, from http://www.ibb.gov.tr/en-us/organization/municipalhistory/pages/anasayfa.aspx.

[178]TUIK (Turkish Statistical Institute): The population census in 1965, accessed on February 6, 2015, from http://rapor.tuik.gov.tr/reports/rwservlet?nufus80db2=&ENVID=nufus80db2Env&report=nfs80_ilce_koy_sehir_cinsiyet.RDF&p_kod=1&p_il=34&p_kod=1&p_yil=1965&desformat=html.

[179]TUIK (Turkish Statistical Institute): The population census in 1975, accessed on February 6, 2015, from http://rapor.tuik.gov.tr/reports/rwservlet?nufus80db2=&ENVID=nufus80db2Env&report=nfs80_ilce_koy_sehir_cinsiyet.RDF&p_kod=1&p_il=34&p_kod=1&p_yil=1975&desformat=html.

[180]TUIK (Turkish Statistical Institute): The population census in 1985, accessed on February 6, 2015, from http://rapor.tuik.gov.tr/reports/rwservlet?nufus85db2=&ENVID=nufus85db2Env&report=nfs85_ilce_koy_sehir_cinsiyet.RDF&p_kod=1&p_il=34&p_kod=1&desformat=html.

[181]TUIK (Turkish Statistical Institute): The population census in 2000, accessed on February 6, 2015, from http://rapor.tuik.gov.tr/reports/rwservlet?nufus2000db2=&ENVID=nufus2000db2Env&report=ilce_koy_sehir_cinsiyet.RDF&p_kod=1&p_il=34&p_kod=1&desformat=html.

2007[182]	422.941	32.557	455.498
2008[183]	443.955		443.955
2014[184]	419.266		419.266

Source: The dates are collected from TUIK (Turkish Statistical Institute), self drawing

As seen at the table, the population in the district of Fatih was increased in between the years 1965 and 1975, after 1980s it was decreased. On the other hand the population in the district of Eminönü was decreased. The population was constantly diminished in Eminönü, and in 2007 the population was 32,557 people. Then, Eminönü district was abolished by Public Act in 2008 and merged into Fatih district. Therefore, the district municipality of Fatih is took possession of the jurisdiction of the all historic peninsula at the local level.

Image 7-16: The area of Yedikule N. (Source: Accessed on January, 2015, from https://gis.fatih.bel.tr/webgis/default.aspx.)

Today, Fatih district covers an area of 15.62 km² (1562 hectares)[185]. According to Turkish Statistical Institute, Fatih district population in 2014 is 419,266[186]. According to these dates, the population density in Fatih district is 26,841 people per square kilometer. There are 57 neighborhoods in Fatih district[187] and Yedikule neighborhood takes place 23rd. Yedikule neighborhood population is 17,476[188] ; and it covers an area of 0.780058.07[189] square kilometers (Image 7-16). According to these dates, the population density in Yedikule neighborhood is around 22,403 people per square kilometer (Image 7-17).

[182]TUIK (Turkish Statistical Institute): The population census in 2007, accessed on February 6, 2015, from http://www.webcitation.org/6Bu1ywlV9.

[183]TUIK (Turkish Statistical Institute): The population census in 2008 accessed on February 6, 2015, http://www.webcitation.org/6Bu3myMLK.

[184]TUIK (Turkish Statistical Institute), accessed on February 6, 2015, from http://rapory.tuik.gov.tr/06-02-2015-18:28:59-20326588335119040151210238786.pdf.

[185]Accessed on February 6, 2015, from http://www.fatih.bel.tr/icerik/87/bugunku-fatih/.

[186]TUIK (Turkish Statistical Institute), accessed on February 6, 2015, from http://rapory.tuik.gov.tr/06-02-2015-18:28:59-20326588335119040151210238786.pdf

[187] Accessed on December, 2014, from http://www.fatih.bel.tr/icerik/87/bugunku-fatih/.

[188]The status of Yedikule population in 2010; accessed on February 6, 2015, from http://www.fatih.gov.tr/default_B0.aspx?content=194.

[189]The area of Yedikule Neighborhood, accessed on February 6, 2015, from https://gis.fatih.bel.tr/webgis/default.aspx.

Image 7-17: The population density in Yedikule neighborhood approximately is 22,403 pp/km^2. (based on TUIK (Turkish Statistical Institute), http://www.tuik.gov.tr/)

7.2.3.1 The Network of Ways in Historic Peninsula, in the district of Fatih

There are road ways, railways and seaways to access Fatih District. The main roadways are Atatürk, Millet and Vatan Roads. There is a subway at the Vatan Road; it makes the connection through west side. A tramway at the Millet Road, it makes a horizontal connection between east and west side of the district, it continues over the Galata Bridge to Beyoglu. There is Atatürk Bridge, it makes a connection by road ways over Halic to Beyoglu. Atatürk Bridge continues to Atatürk Boulevard between north and south axes, parallel to Land Walls. The tramway is connecting the east-west axes and Atatürk Boulevard is connecting the north-west axes at the middle of the district.

Kennedy Road at the south is surrounding, parallel to the Sea Walls, and 10.Yil Road at the west side of the district, at the Land Walls (Theodosian) between north-south axes is surrounding, parallel to Land Walls. There is also a suburban railway, parallel to the Sea Walls, passing the Yedikule neighborhood. There is also Yedikule railway station.

In the Image 7-18, Yedikule neighborhood is shown with red color. The gates at the Land Walls are shown as well. Yedikule is located at the south of Land Walls. There are two gates to pass the Land Walls and to access 10. Yil Street. The study area is between Belgrad and Yedikule Gates, inside the Land Walls in Yedikule Neighborhood.

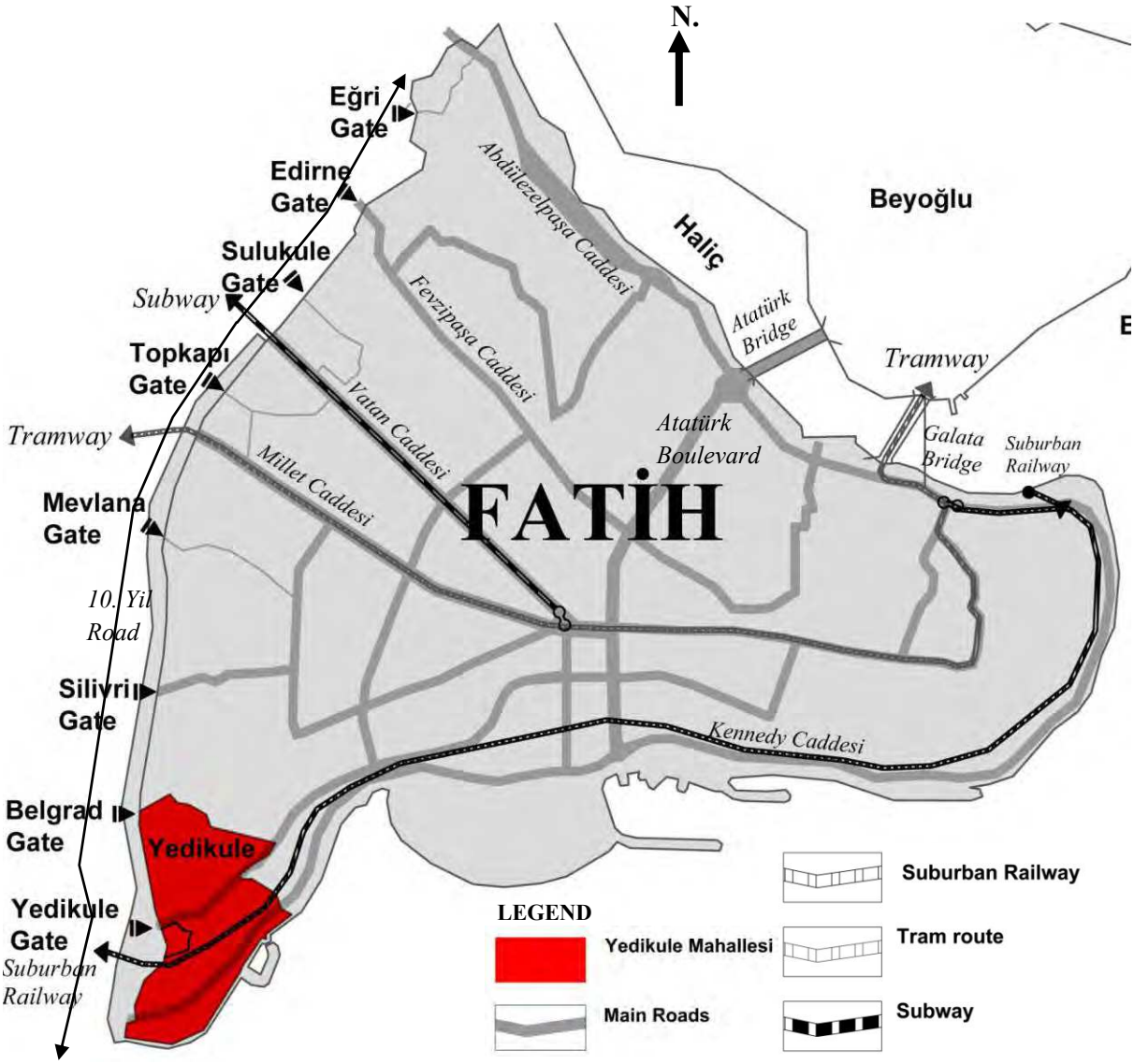


Image 7-18: The Network of Ways, self drawing. (Source: Accessed on January, 2015, from https://gis.fatih.bel.tr/webgis/default.aspx.)

7.2.3.2 The present state of the Land Walls & Inventory analysis in Yedikule

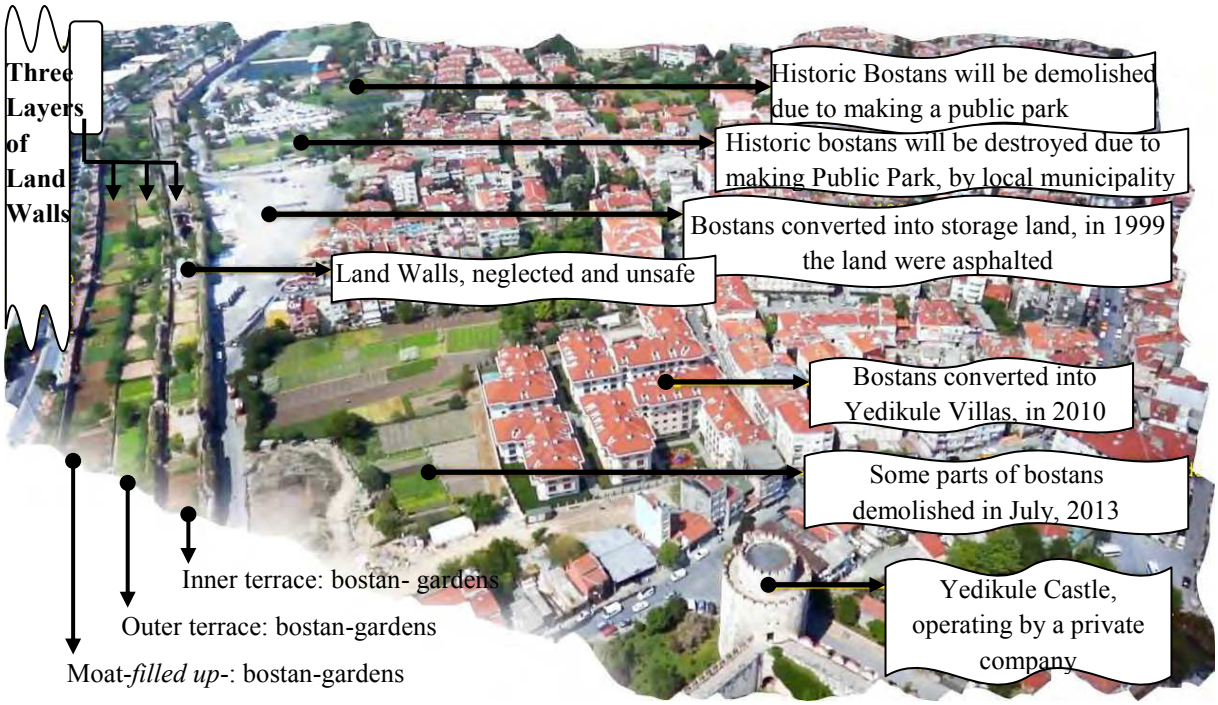


Image 7-19: Yedikule Bostans, the present state of the Land Walls and inventory analysis, picture from July 24th, 2013. (Source: accessed on August, 2013 from http://everywheretaksim.net/tr/birgunyedikule-bostanlari-uzerine-taleplerimiz/)

The historic bostans inside and outside of the Land Walls are shown converted into hard surfaces at the images of proposed urban development project of local municipality of Fatih. The proposed municipal public park project in Yedikule is one of them.

Presently, the lands between walls are used for bostan (Image 7-19). Bostans have opportunity to strengthen the identity of Land Wall corridors with filling land for gardening use. Bostans seem to be ***a typical land use element*** in Istanbul. The land belongs to the municipality and it is rented by families to grow vegetables since 1990s.

Image 5 40: Theodosian Walls with three layers. (Source: Accessed January 12, 2015, http://www.see-tcp-project-sagittarius.eu/phocadownload/wp3/SAGITTARIUS_1stSTVT_PartIII_Locations.pdf, p.19.)

Bostans along the Theodosian Wall since 1990s

After 1990s, the three layers of Theodosian Wall (moat, inner terrace and outer terrace) are used as bostan[190]. In particular, the spaces between the walls are used as land for bostans.

The moat, outer terrace and inner terrace are used as land for bostans. The old city with surrounding Land Walls is on one side of the field, it gets transformed into a modern metropolitan city center. Bostans near Yedikule at the Land Walls were declared as 'renewal zone'[191] in September 2006, and then bostans have being transformed into villas with new four-story residences in 2010, and in 2013, next to Yedikule Villas, an urban park project is ratified by the local authority. It faces the replacement of some section of bostans in Yedikule with a modern recreational park area. On the other side of the field is being agglomerated by different dense urban settlements such as Yedikule Villas by the construction of residence projects.

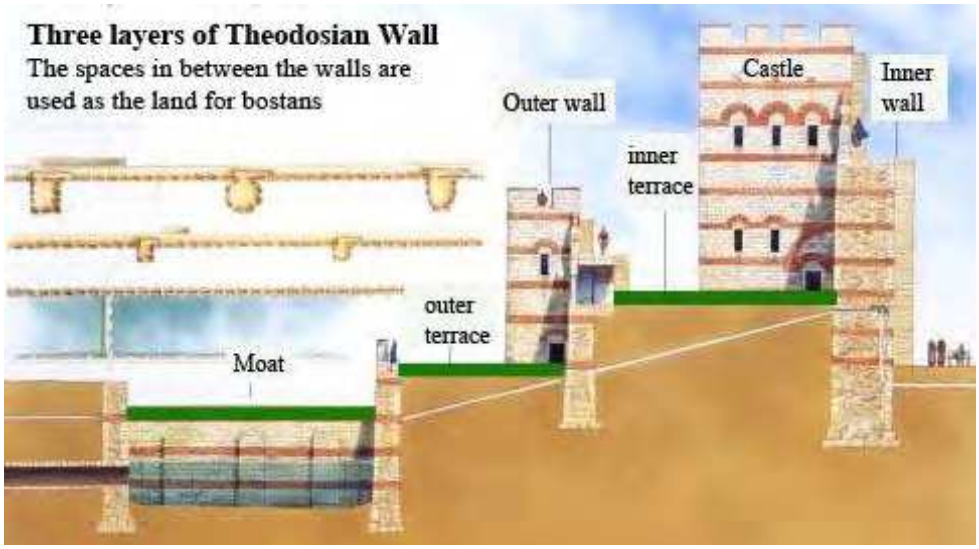


Image 7-20: The cross-section and plan of Land Walls, the spaces in between the land walls, which are named moat, outer terrace and inner terrace, are used as land for bostans, colored by author. (Source: after Turnbull, S. 2004, The Walls of Constantinople AD 324-1453, Osprey Publishing Ltd., p.11, accessed on December 12, 2014.)

The bostan near Yedikule, the bostan plots inside the border of municipal park project are historic bostans. There are water wells, water pools and other agriculture constructions from Ottoman Period in these gardens. These historical gardens are supposed to be replaced with a modern recreational urban park area by the local authority (by the ratification of urban park project in 2013). A number of gardens along and outside the wall expanded northward from Yedikule toward the gate of Topkapı, since the late 1990s, it forms a linear farm land along

[190] Interview with Ali Küpücü , who is the reeve of Yedikule Neighborhood, December 29, 2014.

[191] Yedikule-Yenikapi I. Stage (Haci Evhattin, Imrahor Ilyasbey Neighbourhoods, Yedikule-Yenikapi II. Stage (Haci Huseyin, Sancaktar Hayrettin, Kasap Ilyas Neighbourhoods), Yedikule-Yenikapi III. Stage (Yali, Kasap Ilyas, Cakiraga, Kurkcubasi Neighbourhoods), Veledi Karabas, Cambaziye, Haci Hamza, Haci Evhattin, Imrahor Ilyasbey Neighbourhoods (Wall-2), and Kucuk MustafaPasha and Haracci Kara Mehmet Neighbourhoods were declared 'renewal area's in 13.09.2006 by decision of numbered 2006/10961 of Council of Ministers and issue dated in official Gazette 13.10.2006—26318, (Istanbul Historic Peninsula Site Management Plan, 65)

the wall [192]. It is approved by my interview with the reeve of Yedikule neighborhood (his name: Ali Küpücü), he *explained*[193] *"The permission was given the spaces along and outside the wall to use as land for gardening, providing some opportunities for farmer immigrants, when Saadettin Tantan was the mayor of Fatih district."* He was the mayor of Fatih district between the years 1994 and 1999. These lands belong to municipality. The reason of the permission about the emergence of bostans along and outside the wall is closely related to the urbanization of Istanbul. After the industrialization in Istanbul, the factories located in this area were moved out of the city center by the decision of government. By relocation of factories towards out of the city center, the land was polluted [194]. Therewith the government put forward a method for developing farmland here, so farmer immigrants in Istanbul benefit from the open spaces along and outside wall to use as the land for gardening and also it improves the ecological conditions of the soil. Urban gardens have potential to provide a beautification by improving the view of abandoned factory areas in the local district of Fatih.

Various vegetables are produced on the lands-*open spaces-, which* as bostan used inside the Land Walls and the moat of Land Walls, it has a moist environment for suitable cultivation and they are now mostly raised by modern restoration works inner and outer terrace of Land Walls[195]. My work focuses on the Land Walls between the gates of Yedikule and Belgrad where the municipal project border is located. The survival of orchards is still apparent in the bostan plots.

Urban open spaces are preserved by urban bostans and bostans as urban kitchen gardens foster dense settlements in urbanization process in Istanbul. Bostans as urban activity area provide employment for farmer immigrants; bostans give opportunities to provide working, playing and learning areas. Moreover, urban bostans provide green open spaces to satisfy the requirements of green spaces per city dweller in dense urban settlements, **in this way urban bostans play an important role to be a part of green network** of Istanbul. Furthermore, they play an important role in historic conservation, tourism with its local food bazaars, urban kitchen gardens, fresh vegetables, and serving food from bostans to consumer, such as working together roadside seller and new restaurants at Yedikule, it helps to explore the local food and traditional identity in Yedikule.

[192] Xia, Di and Yao Dong, "Bostans: Agricultural Generators for Istanbul's Urbanization", Harvard University Graduate School of Design, accessed November, 2014, pp.1-66, p.55.

[193] Interview with Ali Küpücü , is the reeve of Yedikule Neighborhood, December 29, 2014.

[194] Xia, Di and Yao Dong, "Bostans: Agricultural Generators for Istanbul's Urbanization", Harvard University Graduate School of Design, accessed November, 2014, pp.1-66, p.55.

[195] In 2004-2005, the Byzantine architectural historian Alessandra Ricci at Koc University, accessed January 14, 2015 http://www.hurriyetdailynews.com/save-the-lettuce.aspx?pageID=238&nID=50188&NewsCatID=473.

7.2.3.3 Access to Study Area: Existing Land Use Analysis in Yedikule

The study site border is red colored and existed land uses are analyzed by the author (Figure 16). Ongoing vegetable gardening areas, historic water wells, and open free spaces are articulated inside the red colored border. The protected monuments are Land Walls and Yedikule Castle /Dungeons, which rely on 5th century in Byzantine Period, has been shown. The planned recreational public park project between the gates Belgrad and Yedikule at the Land Walls will be implemented inside the red colored border by the municipality. The implementation has begun on 5th of July, 2013. The ongoing vegetable gardening is inside and outside the Land Walls as it seems on the drawing (Image 7-21).

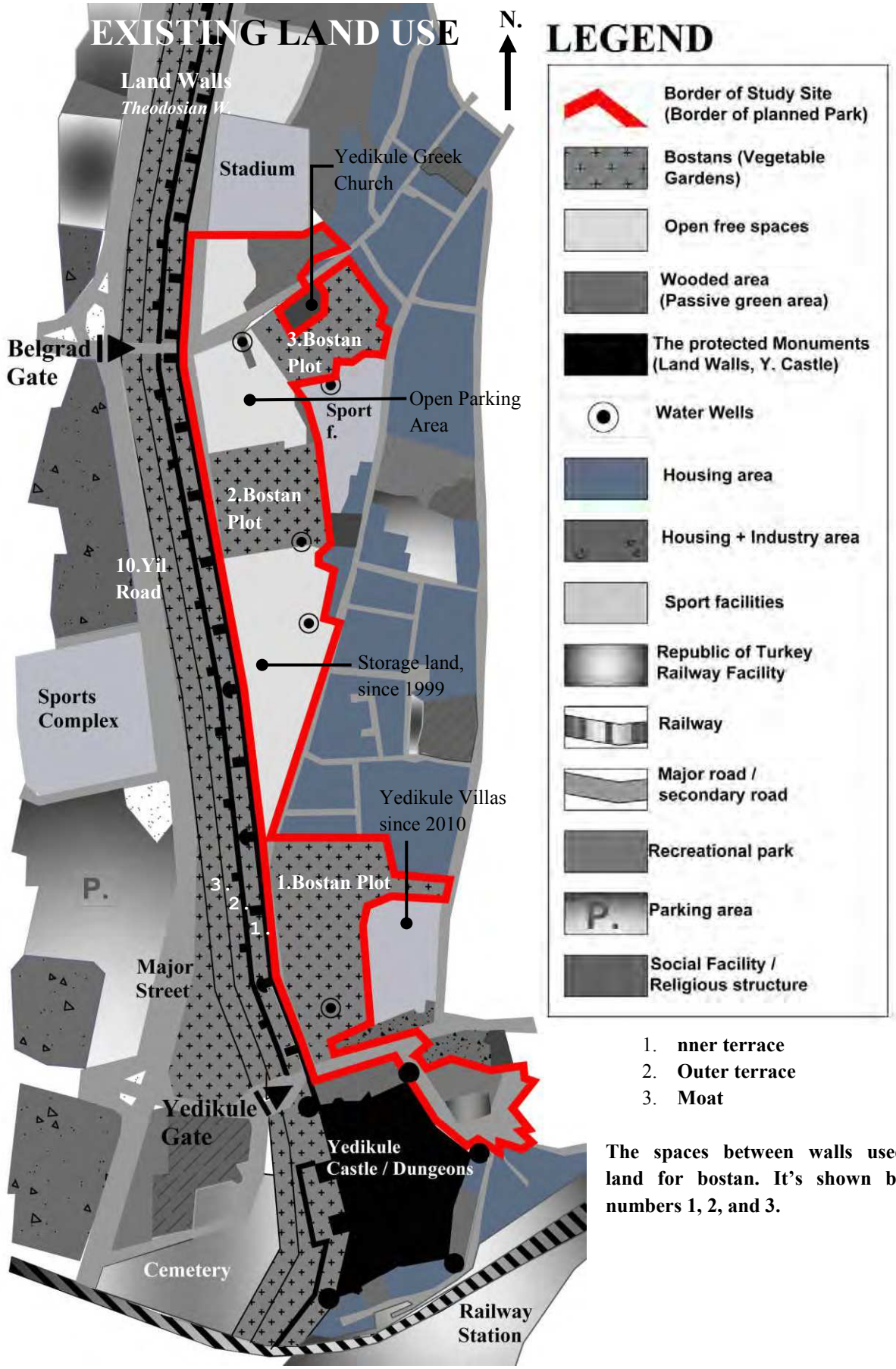
Yedikule Railway Station is located near Yedikule Castle, on the right site of drawing, an historic railway station, which was privileged to start construction of 2000 km. of the Eastern railroads in 1869, the aim was to connect Istanbul to main European cities, and 1888 Istanbul was connected to European railways [196] (Image 7-23). The railroad line started from Yedikule stops at the historic peninsula to the terminal of Sirkeci.

There is also a historic cemetery, which is located opposite the Yedikule Castle, outside the Land Walls. There are sport fields at the neighborhoods of the project/study area; Namik Sevik Stadium is on the north of study area, Zigana and Poryum Sport Facilities on the east, and Abdi Ipekci Sports Complex is located on the west of project area. The housing areas are located east of the study site. Wooded areas are located between Yedikule Street and the north of Yedikule Dungeons, and also north part of study site. The gates named the streets such as Yedikule Gate located Yedikule Street and Belgrad gate is named Belgradkapı Street.

In the land use plans, the land of Yedikule Villas seem sports field, but the land used for gardening for years, it is a part of Ismail Pasha Bostan. The demolished land was carried historic value until 2010, and then the land is converted into building complex.

At the Route Network drawing has been shown two ways connecting the study site to 10. Yil Road,from inside the walled city to outside the Land Walls.The study site is located inside the Land Walls, there is also a road connecting north-south axis, parallel to the Land Walls inside the ancient city walls. As well as 10. Yil Road is located outside the Land Walls, parallel to Land Walls, connecting notrh-south axis (Image 7-22).

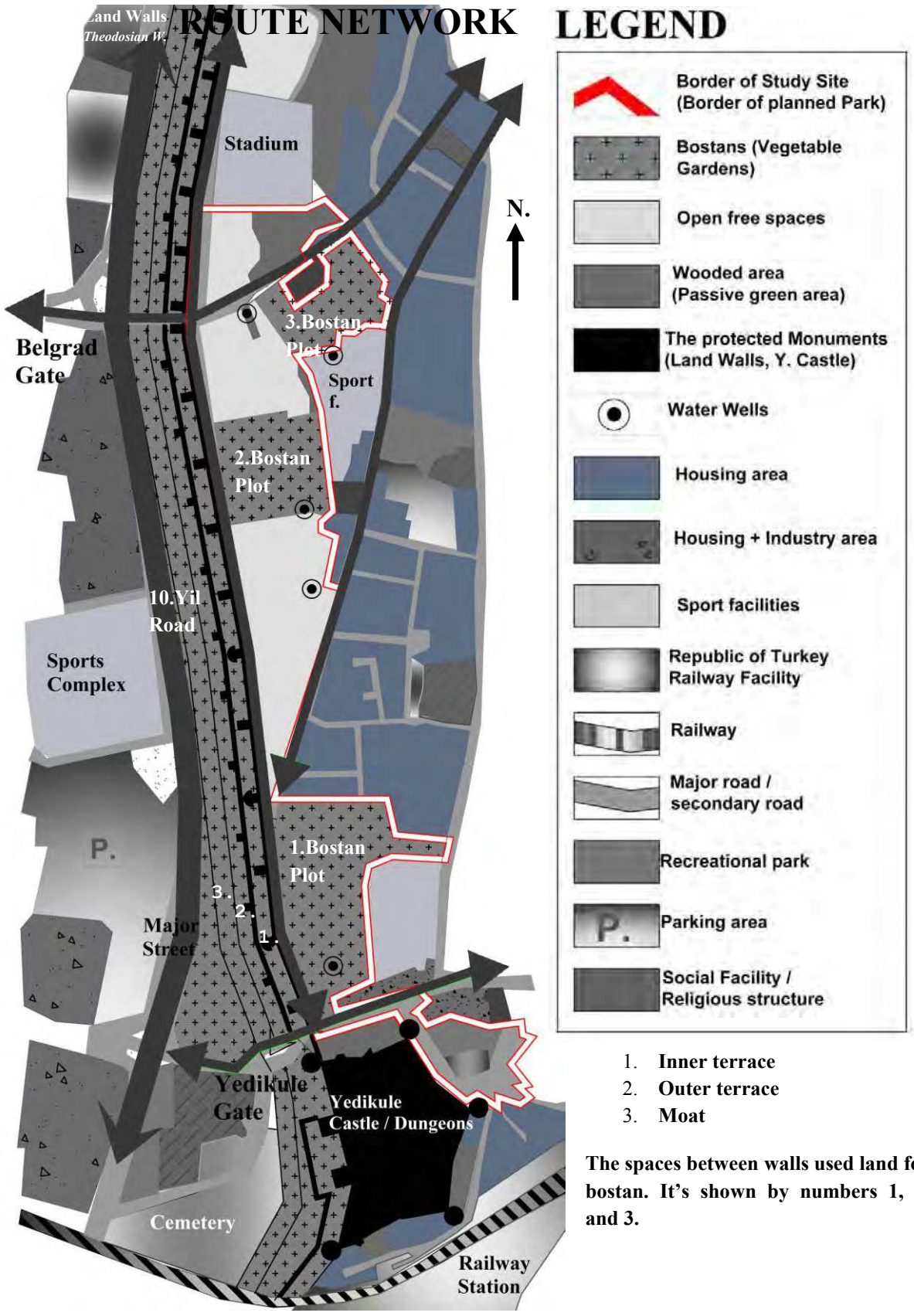
[196] Accessed on December, 2014, from http://www.tcdd.gov.tr/home/detail/?id=344.



1. **nner terrace**
2. **Outer terrace**
3. **Moat**

The spaces between walls used land for bostan. It's shown by numbers 1, 2, and 3.

Image 7-21: A drawing displaying the existed land use in study site (self-drawn by the author). (Source: The report of the proposed municipal park project, prepared by Kutup Planlama, p. 26.)



1. **Inner terrace**
2. **Outer terrace**
3. **Moat**

The spaces between walls used land for bostan. It's shown by numbers 1, 2, and 3.

Image 7-22: A drawing displaying route network (self-drawn by the author). (Source: The report of the proposed municipal park project, prepared by Kutup Planlama, p. 26.)

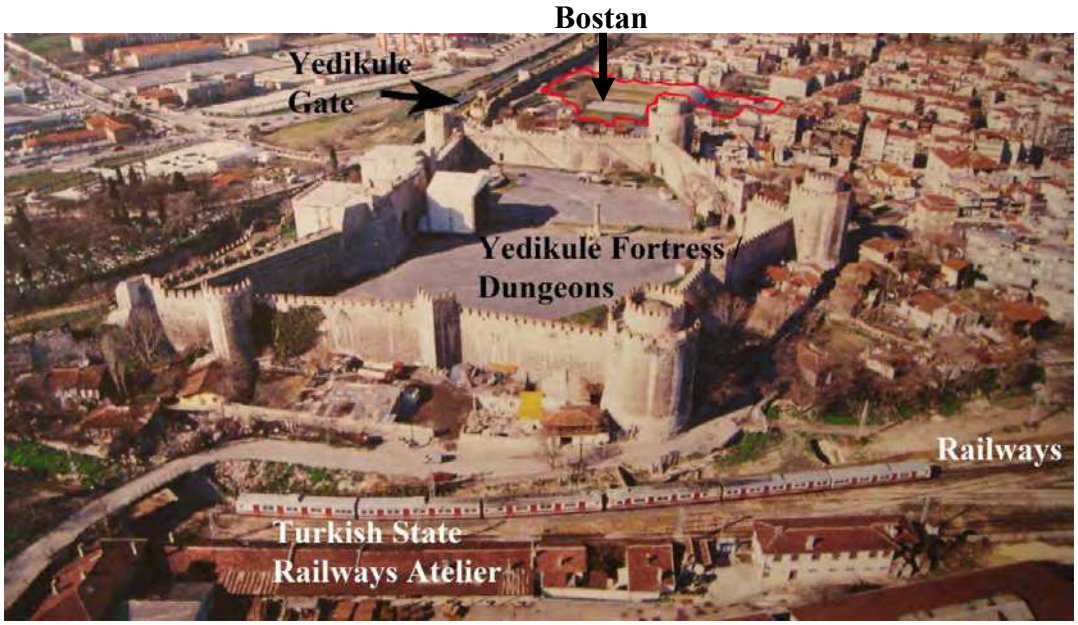


Image 7-23: Bostans near Yedikule Gate, Yedikule Railway line (the construction started in 1870) and Yedikule Cer Atelier (in 1872), and the atelier had lost its function and it was closed in 1997) (Source: Xia et al., 2013:51).

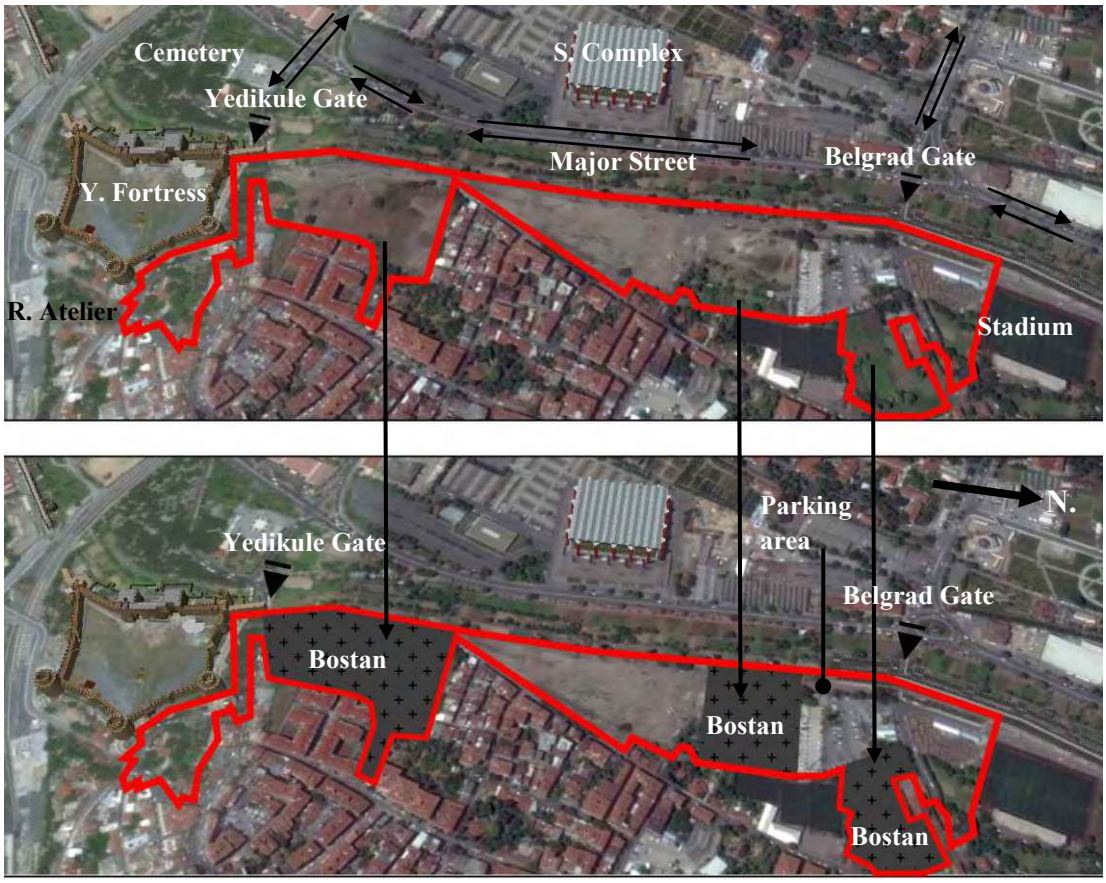


Image 7-24: The border of Recreational Implementation Project on the first image, Bostans in the border of project, inside the Land Walls on the second image, self drawing. (Source: Google earth, 2014)

The images show currently situation on research site on June 13, 2014. Mostly gardeners didn't cultivate their land for next year's crop in 2014 due to uncertainty of their position. As seen on the first image, only one parcel of bostan is cultivated, because the demolition of bostans have began from first number of parcel of bostan (Image 7-24).

7.2.3.4 Images from existing study site and its surrounding areas

Photos from existing study site have been explained on Image 7-25 as following:

1. Image shows the Belgrad Gate and the filled up moat that is using for gardening activities since 1990s, also a roadside stand on the right side of the image.

2. Image shows the third bostan plot inside the border of the proposed municipal park project, it will be demolish by the responsibility of local authorities. But, today it's still on production in 2014.

3. Image shows the outer terrace, which is using for gardening activities since 1990s.

4. Image shows the inner terrace, which is using for gardening activities since 1990s.

5. Image shows a view from 10.Yil Road to the Land Walls.

6. Image shows the responsible institutions: The responsible control mechanism is from the Department of Construction in Istanbul Metropolitan Municipality. The contractor company is Efor Yapı and the sub-contractor company is Yimtaş.

7. Image shows a view from the second bostan plot, the second bostan plot hasn't been cultivate by the gardeners due to uncertainty of their situation on December, 2014.

8. Image shows the mud and some construction materials on the second bostan plot.

9. Image shows car parking area and uncultivated second bostan plot.

10. Image shows a view from storage land, rubbles on the efficient land and other construction materials.

11. Image shows the gardeners' cottage on the second bostan plot and rubbles on the efficient land.

12. Image shows the car parking area and sport field involving football play ground.

13. Image shows glass house and the first bostan plot that was cultivated in 2013.

14. Image shows a roadside stand at the filled moat, near 10. Yil road.

15. Image shows a small pickup at the roadside inside the Land Walls at the entrance of Belgrad Gate, a boy sells pomegranate apples.

Photos from existing study site and its surrounding areas

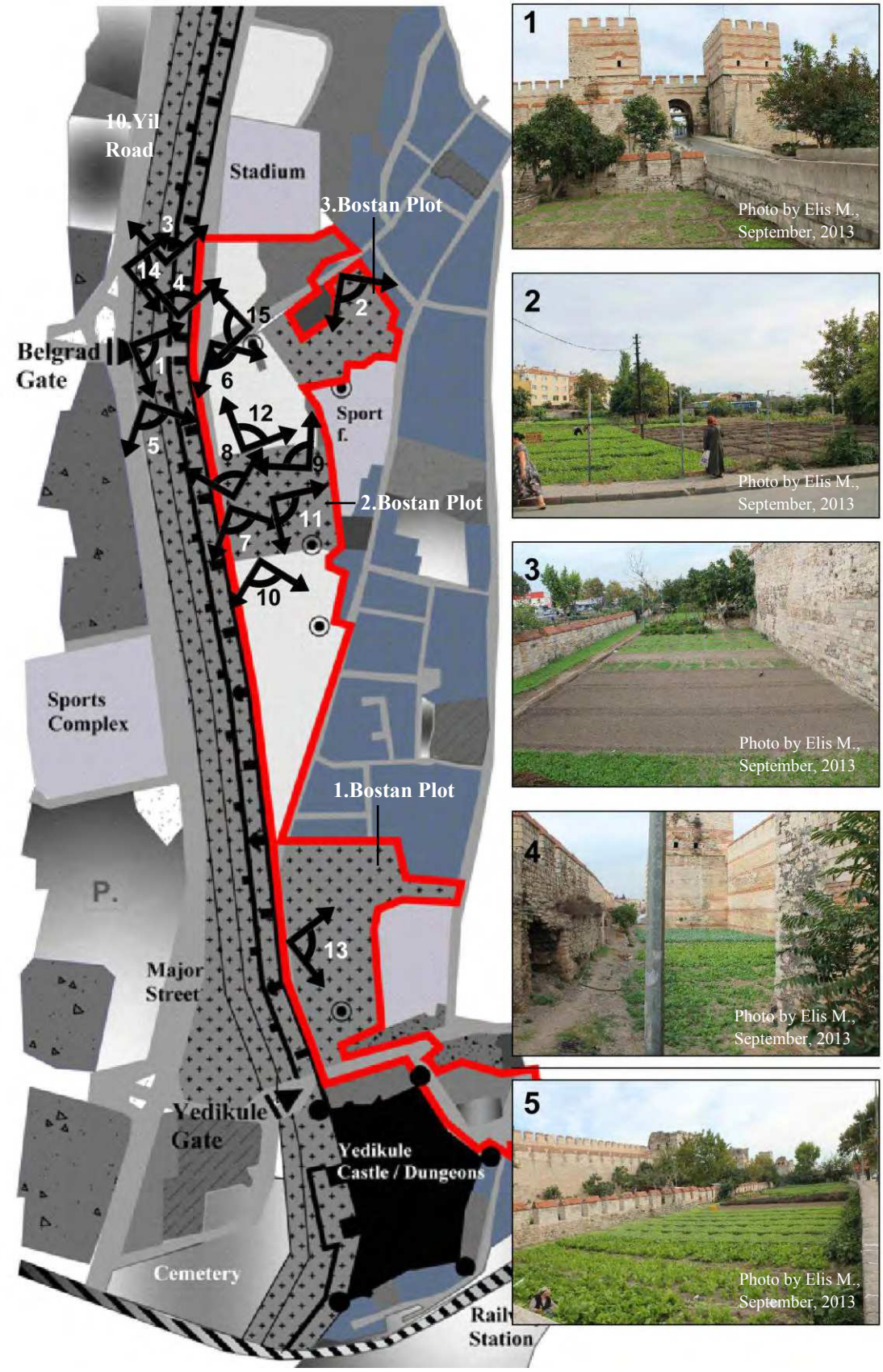
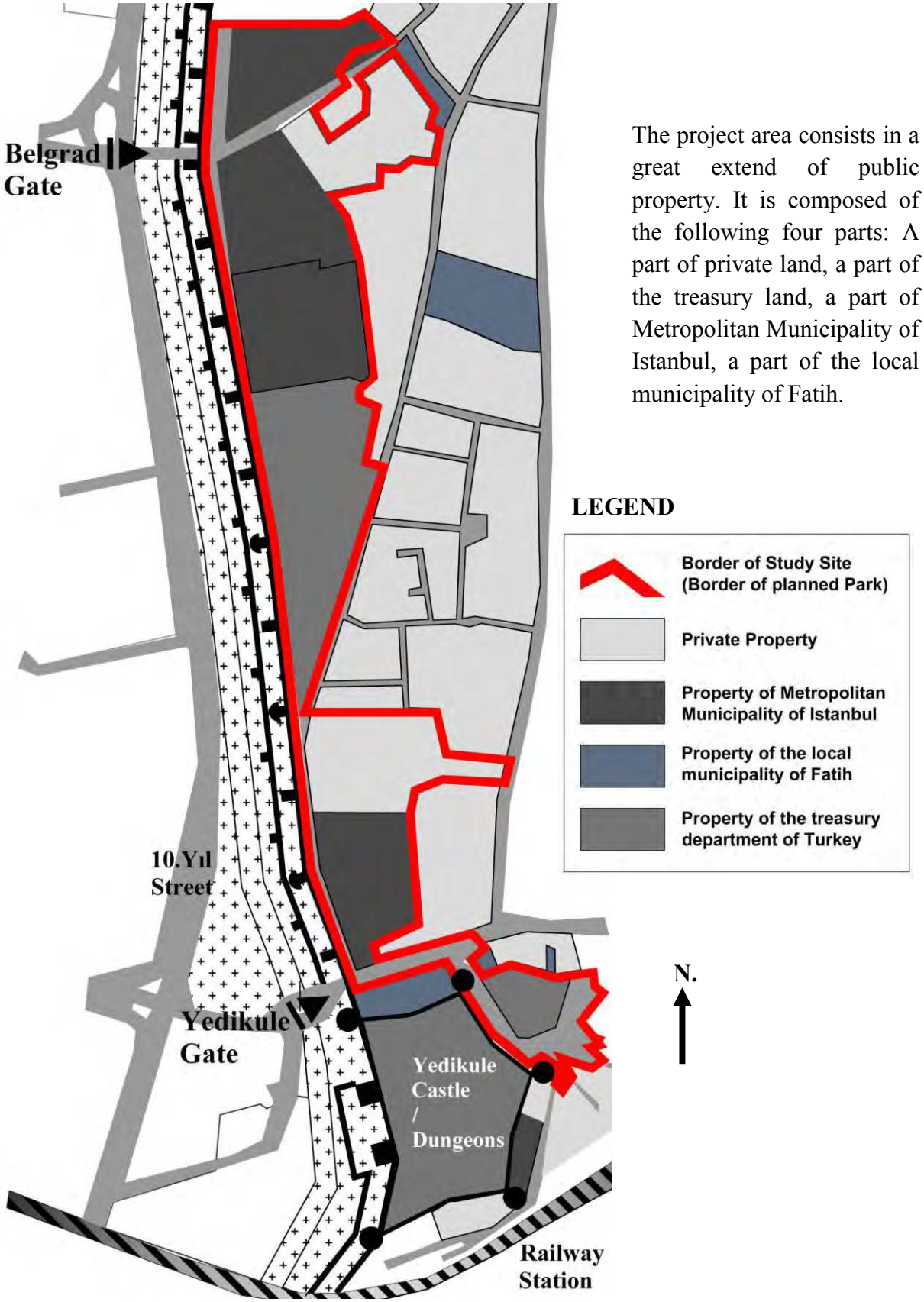


Image 7-25: The photos from the study site and its surrounding, 2013, the photos by Elis Mehmed.

Image 7-26: The images from the study site and its surrounding, mostly from 2014.

7.2.3.5 The property status of existing study site



The project area consists in a great extend of public property. It is composed of the following four parts: A part of private land, a part of the treasury land, a part of Metropolitan Municipality of Istanbul, a part of the local municipality of Fatih.

Image 7-27: The property status of existing study site, self drawing (Source: the report "Recreation and Conservation of inside the Land Walls between Yedikule Gate and Belgrad Gate", prepared by Kutup Planlama, 2013, p.45).

Existing land use relating to the property status of existing study site: The project area consists of public and private properties. The municipal acts show how public policies influence the private properties in Yedikule.

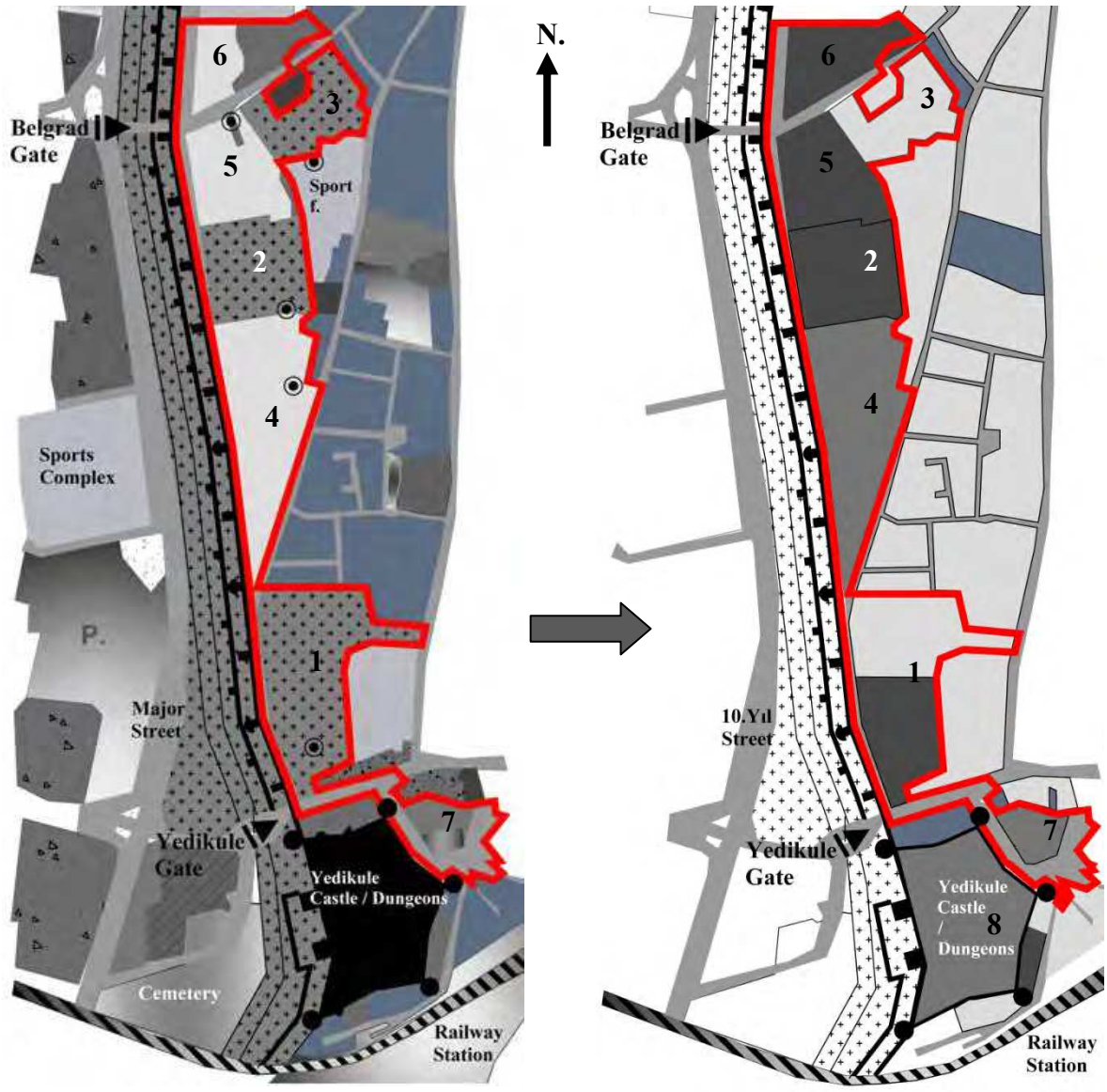


Image 7-28: Existing land use relating to the property status of existing study site, self drawing (The report, 2013)

The land number 1 is used for bostan activities; it consists of private land and public land. (Public land represents the property of Metropolitan Municipality of Istanbul).

The land number 2 is used for bostan activities; it consists of public land (The land of Metropolitan Municipality of Istanbul). The land number 3 is used for bostan, it is private property. The land number 5 is underused open space, it consists of public land. (The land of Metropolitan Municipality of Istanbul)The land number 6 is composed of vacant and underused green open spaces; it consists of the public land, (IMM). The land number 4 is vacant land, the land number 7 is green open space and the land of Yedikule Castle (8); they consist of the treasury land.

7.2.4 Planning Proposal of local municipality of Fatih

Fatih municipality ratified an urban park project in Yedikule Neighborhood in 2013. The urban park project is prepared by Kutup Planlama, which is a private company, and which was established 2009. The planning proposal asserts the replacement of some section of Yedikule Bostans with a recreational park, inside the Land Walls.

The report of Kutup Planlama remarks that[197], the boundary of proposed urban park project area was inside the Historic Peninsula 1/5000 Scale Conservation Plan dated on April 30 2005; the area was declared in the plan as Conservation of inside the Land Walls Green Area. However, this plan was cancelled by a decision dated on November 29th, 2007; the planned position had fallen in the project area. Implementer conservation development plans (1/1000 Scale) were approved on May 21st, 2005, it was declared in the plan as *Conservation of inside the Land Walls Green Area*. But, this plan was also cancelled by decision dated on November 4th 2008; the planned position had fallen.

Image 7-29: The proposed urban park project area in 1/5000 Scale Conservation Plan (Source: the report "Recreation and Conservation of inside the Land Walls between Yedikule Gate and Belgrad Gate", prepared by Kutup Planlama, 2013, pp. 1-71, p.46.)

[197]The report concerning the project entitled "Recreation and Conservation of inside the Land Walls between Yedikule Gate and Belgrad Gate", prepared by Kutup Planlama, 2013, pp. 1-71, p.46.

The bostans were declared as a "renewal area" by the decision numbered 2006/10961[198] in September 13th, 2006. Renewal Areas Conservation Council No: 2 examined the issue in its original place on May 13th, 2013[199]. Referring to report from Council, the Council focused on the fallen down pieces of the Land Walls due to the high vehicle traffic, but it gave no further information about existing three bostan plots inside the border of municipal park project.

2010, Yedikule Villas were constructed with new four-story residences; Yedikule Villas were constructed also on the bostans which were declared as a renewal zone in 2006[200].

2013, the local municipality of Fatih ratified an urban park project near Yedikule Villas. The ratified urban park project asserts the replacement of some sections of Yedikule Bostans inside the Land Walls; three bostan plots seem inside the border of project[201] (Image 7-30, Image 7-33).

Image 7-30: The proposed urban park project by local municipality of Fatih, accessed on April, 2015 from http://www.fatih.bel.tr/Gallery.aspx?GalleryID=1610.

The proposed project is entitled "*Recreation Implementation Project for Yedikule*". It covers 8.5 hectares of area between the gates Yedikule and Belgrad. Its 6 hectares is presently farmed and keeping Istanbul's tradition of urban bostans. The municipal project has started on the 5th of July, and 2.7 hectares of Bostan area have been destroyed[202].

[198]Yedikule-Yenikapi 1.Stage, Yedikule-Yenikapi 2.Stage, Yedikule-Yenikapi 2.Stage were declared 'renewal areas' (Source: Historic Peninsula Site Management Plan, p. 65).

[199]Istanbul II NumaralıYenileme Alanları Kültür VarlıklarınıKoruma Bölge Kurulu Müdürlüğü (Renewal Areas Conservation Council No: 2), Decision Date and No: 28.05.2013-279 (Source: Aysun A. et al, 2014, p. 10).

[200]Koca, Asun, "Güncel Dosya: Bostanlar", Yapi 386, pp.58-63, p.53, accessed on February, 2015, from https://bogachandundaralp.files.wordpress.com/2014/01/guncel_dosya.pdf.

[201]Fatih Belediyesi, Yedikule Kapi ile belgrad Kapi Arasinda Kara Surlari Ic Koruma Rekreasyon Projesi, accessed March 24, 2013, http://www.fatih.bel.tr/icerik/4137/yedikule-kapi-ile-belgrad-kapi-arasinda-kara-surlari-ic-koruma-rekreasyon-projesi/.

[202]From "A Report of Concern on the conservation issues of the Istanbul Land Walls World Heritage Site", published in 2013, p.11.

Image 7-31: Bulldozer in the project area. Yedikule Villas can be seen (Photo by Ali Taptık, July 2013).

The bostan plots weren't harvested for the next year's crops by gardeners in 2014 (Image 7-32).

Image 7-32: The land wasn't harvested for the next year's crops; the image shows the bostan area in the urban park project area, by Elis Mehmed, December, 2014.

7.2.4.1 Analysis of the proposed municipal park project

The destruction of three bostan plots for recreational urban park: The proposed municipal project foresees the destruction of some parts of historic Yedikule bostans; and makes a publicly accessible **stereotype park.** It seems on the images of municipal park project**, a public park with modern artificial design.** The three bostan plots seem inside the project border (Image 7-33).

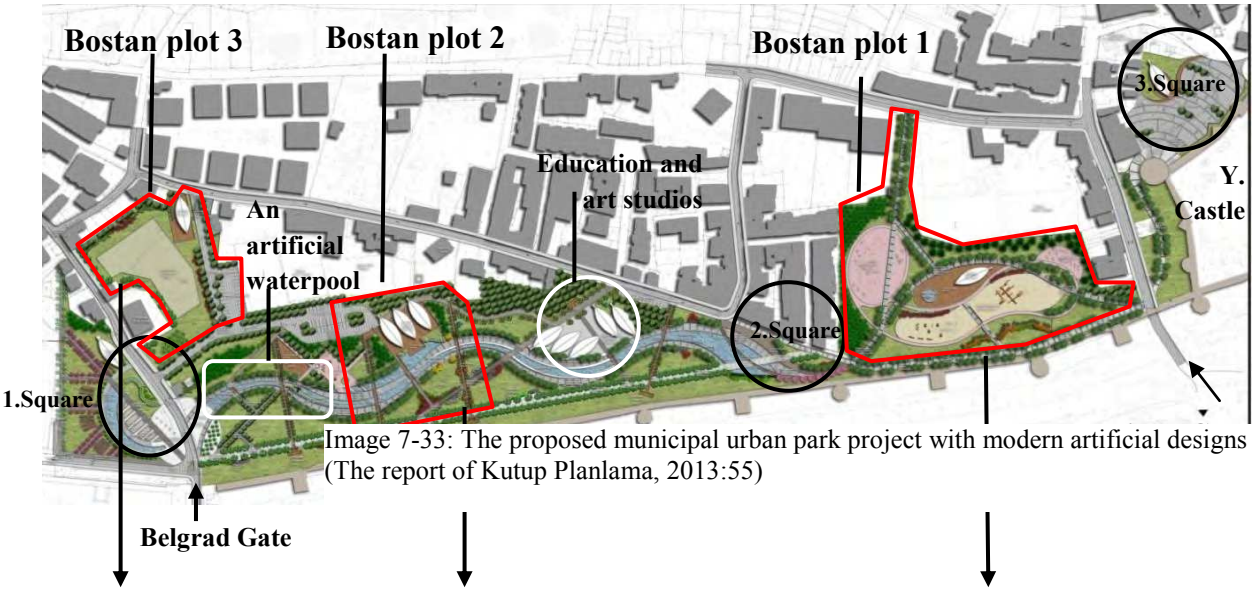


Image 7-33: The proposed municipal urban park project with modern artificial designs (The report of Kutup Planlama, 2013:55)

Image 7-36: A skateboard and parking space

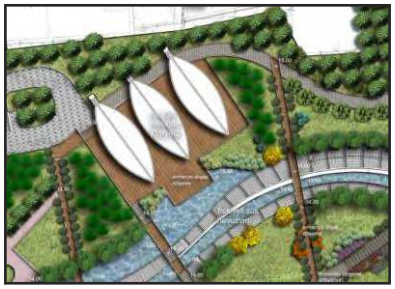


Image 7-35:A restaurant

Image 7-34:Kids adventure and gymnastic space

Image 7-40:An artificial water pool with fountains, forming waves from north towards south of Land Walls

Image 7-39:First Square at the entrance of Belgrad Gate

Image 7-38: Square in the middle

Image 7-37:Castle Square at the entrance of Yedikule Castle

According to the report of proposed urban park project by Kutup Planlama (company) and the confirmation of the project by local municipality of Fatih[203], the third bostan plots are supposed to be converted into a skateboard space and car parking space (Image 7-36); the second bostan land shall be converted into a restaurant space (Image 7-35) and the first bostan plot shall be converted into a kids adventure and gymnastic space (Image 7-34).

There are three artificial squares; first one at the entrance of Belgrad Gate (Image 7-39), the second smaller one in the middle of the project (Image 7-38), the third artificial square at the entrance of Yedikule Gate, at the south of Land Walls, it was also located at the entrance of the Castle of Yedikule, and it is named 'Castle square' due to locating at the entrance of Yedikule Castle (Image 7-37). Moreover there is an artificial water pool with fountains, forming waves from north towards south of Land Walls, the water shall be moving in certain places, and standing in some places at the park (Image 7-40).The project includes also 3 pieces of education and art studios. They are intended to serve for social education and art exhibitions, and there are also cafes and restaurants (Image 7-41). It underlines on the structural fiction that there will be located no higher structures than the monuments of Land Walls inside the Land Walls, and it will be used lights effects and non-occlusive, a modest architectural structure at the park project[204].

Image 7-41:The three numbers of education and art studios for serving social education and art exhibitions(The report of Kutup Planlama, 2013:66)

[203]A Report from Kutup Planlama to Fatih Municipality: "Yedikule Kapi ile Belgrad Kapi arasi Kara Surlari Ic Koruma Alani" (Recreation and Conservation of inside the Land Walls between Yedikule Gate and Belgrad Gate), 2013, pp.53-67.

[204]A Report from Kutup Planlama to Fatih Municipality, 2013, p.63.

Conclusion-Facts:

The municipal public park project seems as a frontage of Yedikule Villas (Image 7-45). The project is placed in front of the villas, and it promotes new high income residents to access recreational park, and to increase land value. The proposed park seems to be a kind of backward of envisioned housing development. The municipality may intend by the project, that organizing the Bostans as **a stereotype park** would increase the land rent in the area and make it easier to change the image and sell the properties much easier at higher prices.

The project let bulldozing some parts of the historic gardens in July, 2013. As a result, bulldozing action will damage the historic water irrigation system (water wells, water pools) on the bostans, and also the nostalgic view of the Land Walls. The fact of that the Historic Landscape Character of Yedikule Bostans and being *a cultural landscape* of Byzantine, Ottoman and Republican Period weren't considered at the municipal park project. The safeguarding of cultural landscape values of Yedikule Bostans have threatened through the ratified urban park project under the jurisdiction of the local municipality of Fatih. By the new urban park project, the demolition of Yedikule Bostans ***let to lose the symbol of historic vegetable gardening at the Land Walls.*** As told in Sharma's article[205], *the transformation of Delhi's tomb complex from a funerary garden into Public Park,* it mentions "*The garden's new identity as public park caused funerary symbolism to be lost. Its historic value was reduced…*" From historical view, the Bostans are a part of Istanbul's identity: "different neighborhoods were known for the specialty crops of their gardens" [206] and "the experience of their gardeners and cultural context in which they struggle to produce" [207]. It highlights the daily life in Bostans and the contributions to the citizen's daily practices and connecting citizens to nature, and producing cultural landscape. The significance of these three bostan plots inside project is totally undermined.

Urban park project was approved by local municipality and Istanbul Metropolitan Municipality in 2013, although the project areas were inside the Lands Walls World Heritage Site, in particular the Land Walls and its surrounding area by the inscription of UNESCO in 1985[208](Image 7-11, Image 7-12 ,Image 7-13). *The Land Walls World Heritage Site* holds monuments from Byzantine and Ottoman Period such as traditional settlements, cemeteries, gardener cottages, barns, water wells ***and historic vegetable gardens***.

As a result of urban park project subscription, historic monuments as Land Walls have been considered as a conservation issue, but historic vegetable gardens as cultural landscape haven't been considered as a conservation issue by the authorities of local municipality of

[205]Sharma, "The British Treatment of Historic Gardens in the Indian Subcontinent: The transformation of Delhi's Nawab Safdarjung's Tomb Complex from a funerary garden into a public park; Garden History, Vol. 35, No. 2 (Winter, 2007), pp. 210-228, p.225.

[206]By Kaldjian, "Istanbul's Bostans: A Millenium of Market Gardens"; p.285.

[207]Ibid.

[208]UNESCO World Heritage List, Historic Areas of Istanbul.

Fatih and Istanbul Metropolitan Municipality. Perhaps there is a lack of acknowledge of cultural landscape by responsible authorities, but Istanbul Land Walls WHS was identified by the inscription of UNESCO in 1985[209]. Referring to the inscription of UNESCO, the authorities of local municipality of Fatih and the authorities of Istanbul Metropolitan Municipality should consider Yedikule Bostans-*historic vegetable gardens*- as an conservation issue. As on Sharma's article mentioned[210] ***"a funerary garden seemed immaterial as its potential for remodeling…., even as the garden came to be recognized as an historic site, the rather constricted understanding of notion of built heritage focused attention only on the conservation its monuments…***". Yedikule Bostans have are immaterial as its potential for remodeling or improving. Even the vegetable gardens at the Land Walls are recognized as an historic site, the rather constricted understanding of notion of built heritage focused attention only on the conservation of its monuments such as Land Walls in Yedikule case. Unfortunately, nobody from local municipality seems to have considered that these three bostan plots are under the protection of national law.

Yedikule Bostans are over the tangible and intangible assets of Land Walls. They have been challenging a serious threat due to the replacement of these three Yedikule bostan plots with the proposed Yedikule Recreation Implementation Project by the local municipality of Fatih, and the destruction of these Yedikule bostan plots. As the proposal of Kutup Planlama shows, the recreational park project is not linking/following to address the conservation issue of the urban gardening heritage, although it is an integral part of the Land Walls WHS (Image 7-11, Image 7-12, Image 7-13).

Dialogues from Forum-*public meeting*

July 2013, a forum-*public meeting* was organized at the demolished bostans, in Yedikule (Box7). [211] The discussions were about *different interests of food production, recreational leisure use and conservation of the historic cultural landscape* between local neighborhoods, garden-owners, and students, academicians, intellectuals from **Yedikule Gardens Preservation Initiative** (YGPI). There are three groups:

1. The interests in historic landscape conservation. This group contains city activists, students, academicians, intellectuals and members of Yedikule Bostans Preservation Initiative.
2. The interests in food production. (Urban gardens-Bostans) This group contains bostan-owners, bostan-workers, Cideli residents at the neighborhood, some other residents of neighborhood, and sellers of district groceries.
3. The interests in recreational leisure use (building public park). This group contains neighborhood reeve, most of residents of neighborhood, the mayor of municipality.

[209]Ibid.

[210]Sharma, "The British Treatment of Historic Gardens in the Indian Subcontinent: The transformation of Delhi's Nawab Safdarjung's Tomb Complex from a funerary garden into a public park, pp. 210-228, p.225.

[211] Accessed on December, 2014, from http://www.bianet.org/bianet/toplum/148555-baga-gel-bostana-gel.

The demand of first group is **conservation of the historic cultural landscape** and building a public park by preserving bostans and supporting gardeners. This group contains academicians, intellectuals, students specifically from Yedikule Bostans Preservation Initiative. Participants on this initiative demand keeping ongoing production activity on bostans and showing solidarity with gardeners. A newspaper announced that the municipality has revised the project due to reactions of Yedikule Bostans Preservation Initiative. The mayor of Fatih Municipality (his name: Mustafa Demir) has explained that *"We will preserve 800 square meters of Yedikule Bostans"* in August 2013 (one month after the Forum). The Mayor of Fatih Municipality told[212]:

"After the start of the project, inland and foreign lecturers are explained, that bostans are inherited gardens from Byzantine era, they are a rare example of active agriculture in the city, and they are a part of the city's flora. There is also Ismail Pasha Bostan, and water wells inside the border of park project area, Ismail Pasha was the vizier of Sultan Selim. The park project has been revised, and Ismail Pasha Bostan is added to the project. We have planned 8 units of 100 square meters of bostans."

But according to Bianet from Nilay Vardar's news, Aleksander Shopov– PhD student at Harvard University working on Ottoman agriculture technologies – said[213]:

"*Bostans are the place for production, not a hobby garden. It can be only hobby garden with 800 square meters. It is no longer inherited from Ottoman Period. There is a topography, water well, water pool, barn, and well in Ismail Pasha Bostan. All these could not fit into 800 square meters of gardens. Urban gardens with ongoing production meet fruit and vegetable needs in the planned public park project area with 20 thousands square meters. What can be produced in 800 square meter?"*

BOX 7.

Dialogues from Forum-*public meeting*[08]
(July, 2013)

Could it be possible to build a public park by preserving bostans?

Suna Kafadar is an activist, anthropologist and a member of Yedikule Bostans Preservation Initiative. She said: *"We want to show solidarity with the gardeners and we want to preserve urban agricultural lands, which are used for gardening for hundreds of years, which are the last remained gardens inside the city walls. A public park can be built without demolition of historic vegetable gardens-Bostans. Gardeners couldn't pick up their all crops due to bull-dozing gardens."*

Hatice Türkdoğan is a member of local neighborhood in Yedikule. She mentioned: *"There is not any security for years in Suriçi (inside the city walls, historic peninsula, today Fatih district covers it).*
We want a beautiful park close to our houses to be able to wander safely."

Mehmet Eryılmaz is a bostan-owner; he mentioned that Bostancıs don't disturb neigh-borhoods security, and:
"*If they told me one year ago about the park, I would leave bostans, but now I owe TL50.000 due to my investments (approximately €18.000). I am a farmer; they do not need to crush us so."*

[212] Accessed on December, 2014, from http://www.yapi.com.tr/haberler/yedikule-bostanlari-hobi-bahcesi-mi-oluyor_111546.html.

[213] Ibid.

7.2.5 Bostans on the historic maps relation to the municipal park project

In the map of 1950s, 44 discrete areas of bostan were found inside the city walls, each of them could be divided into 10 or 20 individual gardens (Xia & Dong, 2010, p.6), (Image 7-42). After 1980s, bostans seriously were endangered and pushed away from the city centre because of growing massive population, political corruption, housing development (Keyder, 1999). In 1998s map, the discrete areas of late Ottoman bostans are shown in Image 7-43, most of them are not in production, and perhaps they are destroyed for other land uses. Furthermore, 6 discrete areas of ***bostan in production*** are shown on 1998s map and its 2 discrete will be demolished to make a public park as seen inside the red circle, it meets 6 hectares of the size of bostan in the project border. If the typical size of bostan in Istanbul is around 1-1.2 hectares as individual garden-one family garden- (Kaldjian, 2004), around 6 family gardens will be demolished by the implementation of municipal public park project. If there are 6 discrete areas of bostan in production in 1998s, it may meet 18 hectares of the size of bostan in production, and then it means around 18 family bostans in production at the end of 19th century at the historic food production zones.

The second and third bostan plots in the border of my study site seem as one discrete area in1920s map and as well in the map of 1998 by Kaldjian on Image 7-43. It shows the second and third bostan plots were together as one discrete area until 1998s, but after 1999s, some section of this discrete area was asphalted and converted to car parking area and storage land, Car parking area seems between second and third bostan plot in the border of my study on Image 7-44.

In 2013, 3 bostan plots were seemed in production inside the border of municipal park project. In 2014, the gardeners didn't harvest the second and third bostan plots due to bulldozing them in July, 2013, and as well as uncertain situation of their lands in refer to Google earth self-drawn (Image 7-44).

The proposed municipal park project is shown with the demolition of bostans on Image 7-45. Yedikule Bostans seem inside and outside the project border, in 2013(Image 7-45: 1). Yedikule Villas were completed in 2010, but before the land was used for bostan for years, in 1875s maps, it as a part of Ismail Pasha Bostan. First bostan in production inside the project border was Ismail Pasha Bostan, it is illustrated in 1875's map, as well as in 1786's map, this area will be demolished. The second bostan in production inside the proposed project border was Haci Piri Bostan, it is drawn in 1875's map, as well as in 1786's map, his area will be also demolished. It means these two Yedikule bostans in the project area are ***at least 200 year-old.*** Since 1786, these Yedikule bostans have been in production.

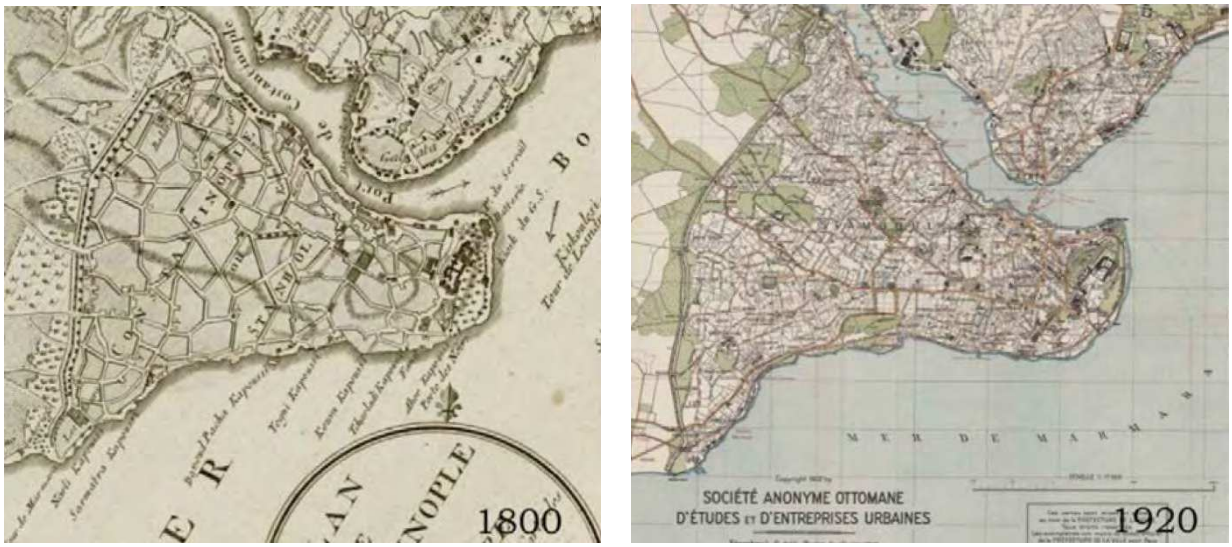


Image 7-42: Distribution of Bostans in Istanbul in 1800 and 1920, cited from Xia, Di and Yao Dong, "Bostans: Agricultural Generators for Istanbul's Urbanization", pp.1-66, p.8, accessed November, 2014

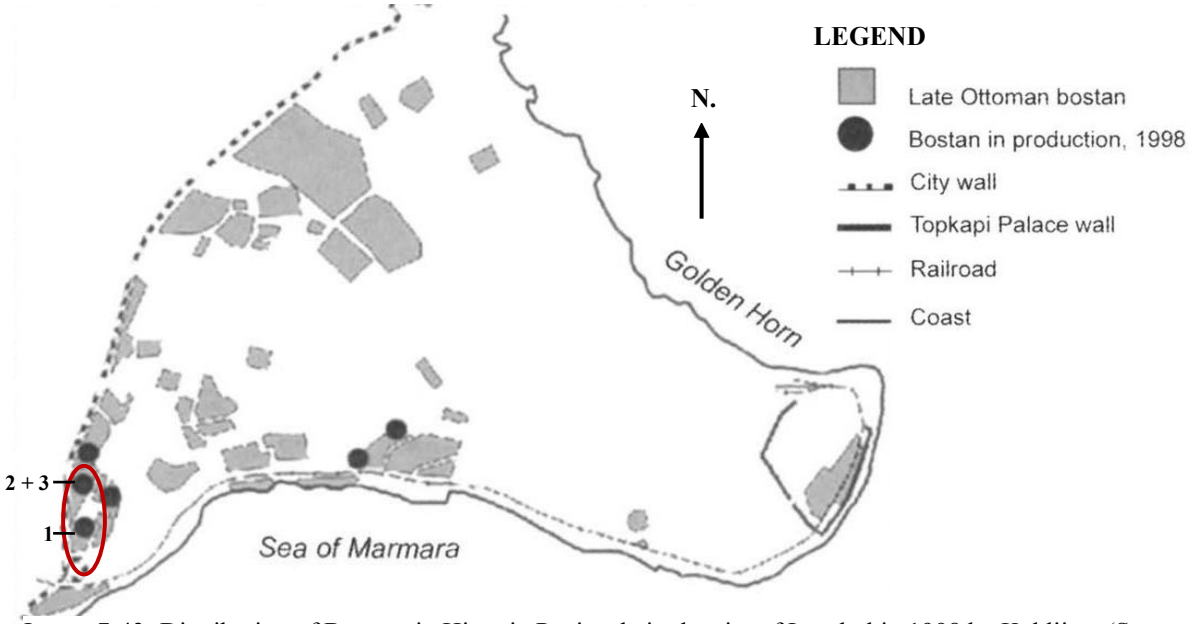


Image 7-43: Distribution of Bostans in Historic Peninsula in the city of Istanbul in 1998 by Kaldjian, (Source: Kaldjian Paul J., 2004, "Istanbul's Bostans: A Millennium of Market Gardens", pp.284-304, p.289.

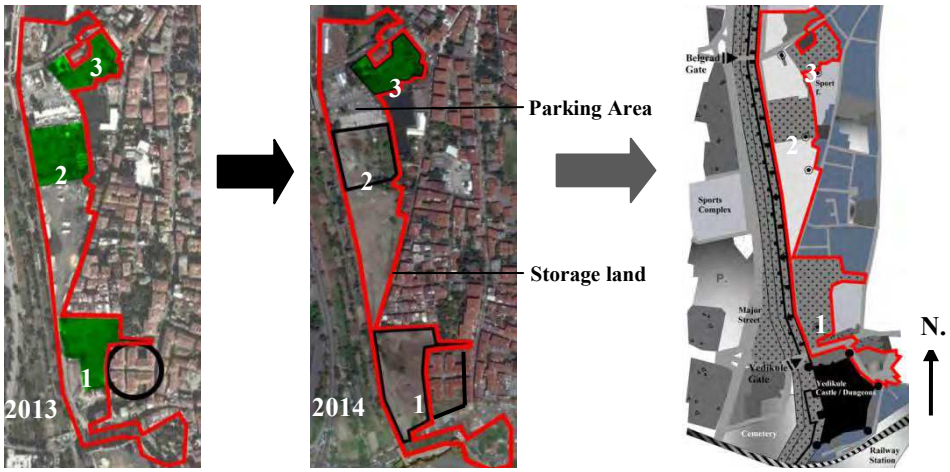
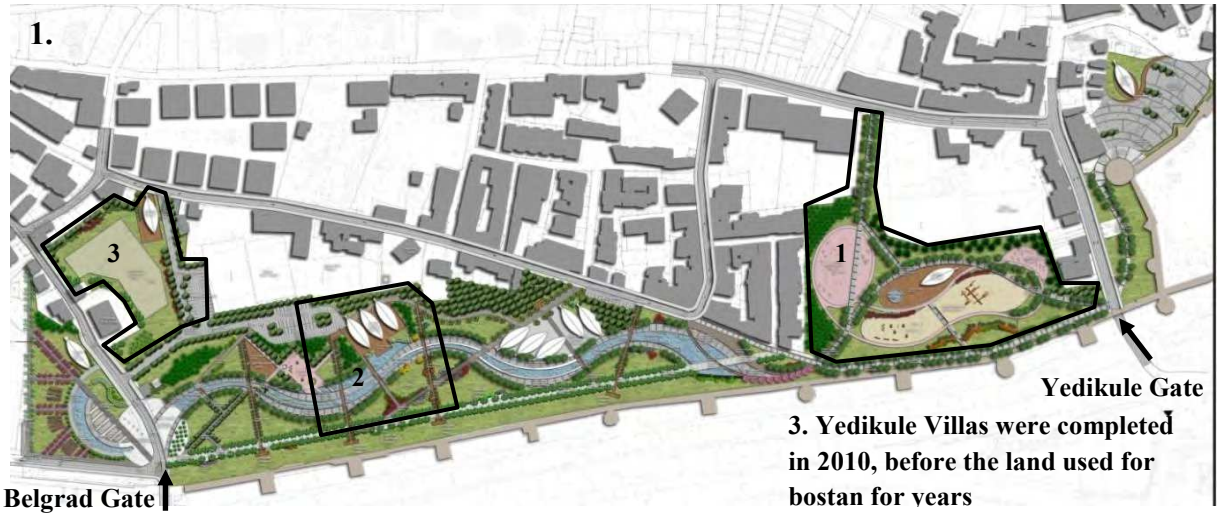
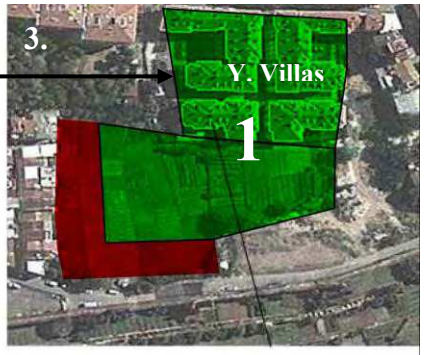


Image 7-44: Bostans in the border of R. Project in 2013 and 2014 google earth,& Bostans in the border, self drawing

Image 7-45: Planning Proposal of Local Municipality in Yedikule Neighborhood (Kutup Planlama, 2013:55)



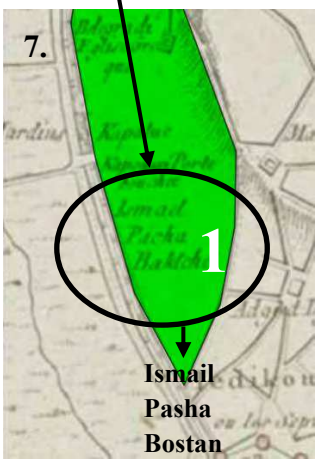
Bostans inside/outside the border of proposed public park project



Thrown rubbles on red areas of bostan

Bostans aren't cultivated inside the project border by Bostancıs, after 2013

According to map in 1875, it appears Ismail Pasha Bostan



6: Ismail Pasha Bostan and Hacı Piri Bostan on the map in 1875, by Hakkı Ayverdi, self colored.

7: Ismail Pasha Bostan on the map in 1786, by J. B. Le Chevalier.

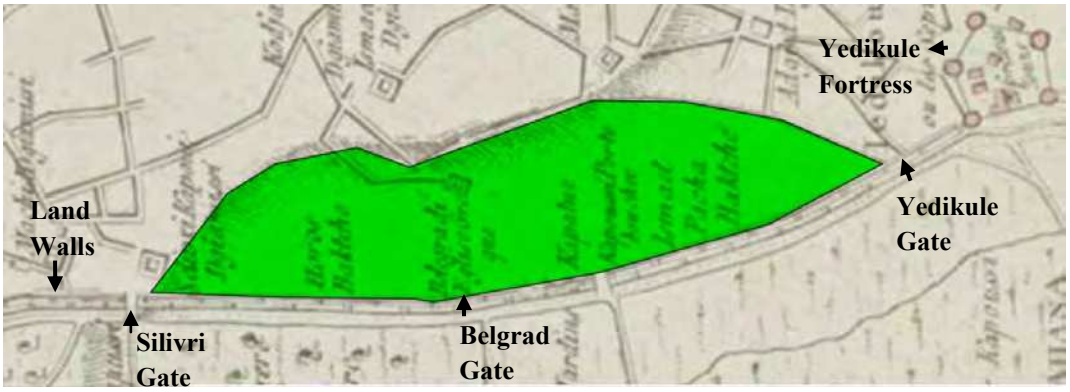


Image 7-46: Between the gates Silivri and Yedikule, Hacı Piri and Ismail Pasha Bostans are shown on the map in 1786, by J.B. Le Chevalier

In Image 7-45:

1: The drawing shows planning proposal of Public Park project of local municipality in Yedikule Neighborhood, in 2013. The project covers 8.5 hectares of the land size. It intends to demolish 6 hectares of the size of bostan lands.

2: Bostans are inside and outside of the border of proposed public park project in 2013, self drawing.

3: Yedikule Villas were completed in 2010, before that the land was used for bostans for years. Red hatched areas were destroyed in July, 2013; the size of demolished land is 2.7 hectares.

4: After 2013, bostans aren't cultivated inside the project border by bostancıs due to being uncertain situation in 2014.

5: According to map in 1875, the first land number appears Ismail Pasha Bostan. It means the land where Yedikule Villas were completed was used for bostan until 2010.

6: Ismail Pasha Bostan and Hacı Piri Bostan are illustrated on the map in 1875, by Hakkı Ayverdi. The border of proposed municipal Public Park project is shown with red line by the author, self colored.

7: Ismail Pasha Bostan on the map in 1786, by J. B. Le Chevalier.

According to the map in 1786 by Le Chevalier and the map in 1875 by Ayverdi, there are bostans for more than 200 years in Yedikule (Image 7-45: 6 &7 and Image 7-46). Most parts of Ismail Pasha Bostan still exist. Ismail Pasha Bostan will be destroyed by local municipality due to ongoing recreational implementation project (Image 7-45: 1, 2, and 4). Some parts of Ismail Pasha Bostan are already destroyed, and at these places Yedikule Villas are built in 2010 (Image 7-45: 2, 3, 4 and 5). Today this bostan consists of bostan house, single storey brick barn, water well, water pool such as bostan outbuildings. According to the map by Ayverdi in 1875, wooded bostan house and brick barn still exist at this location today[214].

[214] Aleksander Shopov & Ayhan Han, 2013: Tarihi Yedikule Bostanlari Yok Ediliyor!, accessed on January, 2015, http://www.viralmecmua.com/tarihi-yedikule-bostanlari-yokediliyor-/haberdetay/501342/default.htm.

Image 7-47: Yedikule Bostans inside the Land Walls in Historic Peninsula, approximately in 1890, by Pascal Sabah.

Image 7-48: Yedikule Bostans (Ismail Pasha) and Yedikule Villas in 2011. (Source: accessed on July, 2013 from www.yesilmimarlik.com.)

CHAPTER 7.3

Discussion of the issues

Both of urban open spaces

Status quo:

Characteristics of urban bostans in Yedikule neighborhood

Planning proposal of local municipality:

The demolition of bostans in order to make an urban park

7.3 DISCUSSION OF THE ISSUES

Both of urban open spaces: Urban Bostans and the proposed public park

I am going to investigate the border of study site in Yedikule. The existing situation of the study site at the present, on one hand there is an urban public park project, ratified by the local municipality of Fatih in Yedikule in 2013. There are some plots of Yedikule Bostans in the border of the proposed municipal park project. The planning proposal asserts the replacement of Yedikule bostan plots with a recreational park, inside the Land Walls, at the study site. On the other hand, these bostan plots are used for gardening activities by second or third generation of gardeners, and historic maps shows, the land is used for food production at the same food production zones at least 200 years, their social, cultural and historic value is widely explained before. The reason of being historic cultural landscape, these bostan plots are necessary to preserve. But how should be these historic bostan plots preserved to meet the needs of today? How should be managed the changes? Keeping bostan plots as used at the present, will it meet the needs of current situation, the demands of different city actors, and the requirements of the changed lifestyles? Existing Yedikule Bostans are **semi-private open spaces**, which are ***accessible only clearly defined group of people through using certain purposes.*** They are acting as **commercial farms**; the primary goal of food production is to make profit. The lacks of Yedikule Bostans to satisfy today's needs and the necessity of keeping bostans will be investigated. Advantages and disadvantages of keeping bostans at the existing situation will be explored, as well as the advantages and disadvantages of the proposed public park project.

The lacks of the proposed municipal park project and the necessity of making a public park will be investigated. Both issues are urban open spaces, the existing situation urban bostans and the proposed public park. Both issues will be compared to find out **the right way to make a good plan on urban open spaces.** The reason of finding the right way to make a good plan in Yedikule, I am going to compare both issues as the following:

Firstly why is important to keep land as bostan for food production or to make a public park for recreation? Is it possible keeping food production purposes of bostan plots and to convert recreation activities, if there is a demand for recreation? Secondly, who benefits of existing Yedikule Bostans that acting as commercial farms, as individual use of heritage and who benefits of it as making a public park, as common use of heritage? If a small group of people is allowed to access to bostan plots and to get benefits from them, what about the demands of other city dwellers, different groups? But a public park is allowed to access to all city dwellers and so all neighborhoods can get benefits from bostan lands. Lastly, I am going to compare the advantages and disadvantages of keeping land as bostan for food production, in this way to find out existing benefits, as well existing lacks, and how should bostan plots be used to let to access to bostans and to get benefits all neighborhood dwellers from them. As well as the advantages and disadvantages of the proposed public park project will be widely explained.

7.3.1 Status quo: existing bostans in Yedikule neighborhood

7.3.1.1 The Significance of Keeping Bostans:

The bostans in Yedikule are **structural and symbolic functions of open spaces** in Yedikule Neighborhood. The structural and symbolic functions cover mostly the perception of people of urban areas. In article 1 of the European Landscape Convention, ***'landscape' is defined as 'an area of land as perceived by people...'*** referring to this definition, perception is a part of landscape as the physical area of land itself. The bostans in Yedikule contribute to **keep the perception of bostan activities for local residents and for city residents.** They are **acting as a carrier of identity, meanings and values**. They establish a **sense of place** by taking into account the history and the geography of the place, and explore the significance of the bostans.

They are **a part of traditional farming activities**; the bostans along the Land Walls carry the traditional farming practices from Byzantine Period, until 15th century; Ottoman Period, between 15th and 19th centuries; and the Turkish Republic Period in 19th century up to today. The place addresses as a bridge between three periods, the traditional gardening techniques keep still ongoing by gardeners . They are livable reminders as well and it helps to keep the bostans at the perception of local dwellers. They contribute **perception of continuous food production activities on the same plots for local resident and for city residents.** The existing bostans lets **the perception** of residents continue about traditional gardening in Istanbul. *Bostancılık –gardening culture-* is still ongoing on the same production zones, which can be seen on the historic maps at least 200 years. They rely on the construction of the Land Walls on 4th century. They are 16 year-old bostan plots, in which there is still food production activities at the same plots. They compose an intangible **cultural heritage**, ***bostancılık tradition*.**

The bostans in Yedikule are **a part of historic cultural landscape.** They contribute the conservation of ***historic cultural landscape value, at the Land Walls and its surrounding area.*** They are an integral part of distinctive character of Land Walls while forming a cultural landscape. They make it possible to give information about agrarian practices in Byzantine, Ottoman and Republican Period of the Historic peninsula. They are an important component of the Land Walls and Historic Peninsula. They are an important conservation structure of the Land Walls, they are necessary to keep the nostalgic view and **image** of Land Walls. They are **a part of cultural landscape of Istanbul**. The bostans are a part of ***Istanbul's identity.*** *Different neighborhoods were known for the specialty of their gardens*, the gardens of Yedikule were known for its lettuce, which had reputation of being soft and oily[215]. Yedikule lettuce-*marul*- is famous at the bazaars. **Marul** Festivals were organized in Yedikule.

[215] Kaldjian, Paul J., 2004, "Istanbul's Bostans: A Millenium of Market Gardens", Geographical Review, Vol. 94, No.3, People, Places, & Gardens, pp.284-304, p.291.

For example, in 1938, the foundation day of the Yedikule Hospital was celebrated by '***marul festival'*** in Yedikule[216].

Urban Gardening History and Socio-cultural Value of the Istanbul Urban Vegetable Gardens (Bostans) are widely explained under the chapter of historic aspects, as well as their contribution to cultural heritage. There are four water wells, pools at the study site from Byzantine time that give information about water supply system of Historic Peninsula. They are **a part of water supply system** of Constantinople and Historic Peninsula. They are a part of *civic ad monastic practices* in the Byzantine Period, *the pious foundations system* in the Ottoman Period. They act as *a databank of historic data on the seeds and agricultural practices* on the past. They are carrier of *intangible val*ues, which represent the historical continuity of agricultural practices in Istanbul Historic Peninsula. Bostans have potential to maintain sustainable urban landscape and viability of urban society.

[216]The report of the newspaper Cumhuriyet, in 30th May, 1938, p.5, accessed on November, 2014, from http://yedikulebostanlari.tumblr.com/image/57776691214.

7.3.1.2 Who benefits of it as keeping Bostan?

Who are urban gardeners / Bostancıs – *vegetable producers / vegetable garden keepers***?**

Istanbul's early Bostancıs –*vegetable producers* were Greeks and Armenians in Byzantine Period [217] . Kömürcüyan remarked that in 17th century (Ottoman Period) the vegetable producers were Armenians or Bulgarians; Bulgarians inherited the know-how for the bostan production process, vegetable gardens and opportunities from Greeks or Armenians. Afterwards, when Albanian migrants learned the trade in Istanbul, Albanian producers-*gardeners* predominated through renaming bostans by Albanian names; it had been shown in 1883 map of Istanbul [218].

Image 7-49: One of Albanian gardener is Rıza Bey and other Yedikule gardeners at '**lettuce garden'** near the Yedikule Walls, 1963.(http://cityandagricultureistanbul.org/category/gardens/yedikule-gardens/)

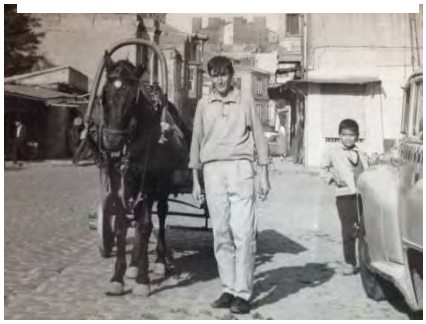


Image 7-50: Albanian gardener Rıza Bey takes fresh production from bostans to market, early 1960s. http://cityandagricultureistanbul.org/category/gardens/yedikule-gardens/).

Currently, the internal migrant families from Cide-*a district of Kastamonu province in the Black Sea region of Turkey*- are the mostly vegetable producers at the bostans. Bostancıs of today are second or third generation of gardeners from Cide, ongoing production in the bostans in twenty first century. After the Second World War by Marshal Plan in 1950s start the mechanization in agricultural land in rural area in Turkey, and the need of human labor has decreased in rural areas. As a result of that internal migrants increased in Istanbul as Cidelis. Bostans played an important role to meet the needs of employment for some migrants. Cidelis began working on the bostans *as hired labor* for the Bulgarians and Albanians in the mid-to-late 1950s. According to Cidelis, they had been working as vegetable producers in the gardens of Black Sea region, and their experience on gardens prepared them for working Istanbul's bostans. Albanians and Bulgarians sold their bostans in 1980s, and therefore Cidelis inherited ongoing production sites of bostans, and became expert Bostancı themselves. At the end of 20th century, a few older Bulgarians or Albanians were still gardening, (Image 7-49 and Image 7-50) and today at the beginning of 21st century the transition between Cidelis generations from **second to third** is ongoing [219] .

[217] Günçıkan B., 1990; field interviews; cited from Kaldjian P., 2004*: "Istanbul's Bostans: A Millennium of Market Gardens"*, pp.284-304, p.292.

[218] Istanbul Ansiklopedisi, 1994, Bostan: "Dünden Bugüne Istanbul Ansiklopedisi (Encyclopedia of Istanbul for Yesterday to Today)", 2, pp. 309-310.

[219] Kaldjian P., 2004*: "Istanbul's Bostans: A Millennium of Market Gardens"*, pp.284-304, p.292.

The Cidelis became urban vegetable gardeners-*Bostancıs* on the most extant bostans in Istanbul, and controlled production (Image 7-51). They are land renters of bostans; the increased land costs let them stay as renter, they could not become owners of bostans. In the face of intensive competitions for urban land and global food network, Bostancıs and bostans became powerless. They preserved themselves in metropolis Istanbul and continued within village lifestyles by an association with migrant practices-*traditional and agricultural practices* for gardening on Bostans. But the **traditional and agricultural practices in Istanbul were not welcome for the official modern city vision.** Because after the foundation of Turkish Republic in 1923, European fashion have been the goal in urban development and western economy institutions[220], -supermarkets, shopping malls or recreational land uses such as public parks with modern artificial constructions for example-are tempted in the media as modern efficient urban life, urban ideal, **in contrast traditional institutions** such as neighborhood bazaars or neighborhood bostans-which **symbolize the traditional urban gardening** at the city walls and support the communities-, these are described as noisy, dirty, crowded, backward spaces. Agricultural practices in the cities are marked in common myths and the perception of neighborhood bostan became unhygienic, inefficient, dirty, and backward spaces across the world [221] . In Yedikule Bostans, **the opportunity has been missed for recreation and leisure activities that might take place at urban bostan.** As Kuppinger in 1995 commented, that traditional practices are often pushed toward social, economic and legal margins.

Image 7-51: Todays Bostancıs pick up their harvest before the bulldozer destroying them, in Yedikule Bostans, photo by Aleksandar Shopov, 14th July, 2013 (http://www.mimdap.org/?p=160400).

The contributions of neighborhood gardens such as Yedikule Bostans to neighborhood life, to community life, to Istanbul life, paved over. As Image 7-51 shows, ***bulldozers destroyed the harvest without paying attention to Cidelis to pick up their harvest,*** in July 2013.

I made an interview with Muhammed Kayan (Image 7-52). His family is one of the gardeners of demolished Yedikule Bostans, they are originally from Cide, as all today's gardeners at the city walls from Cide. He is 13 years old, and his family has been worked on Yedikule Bostans

[220] Kaldjian P., 2004*: "Istanbul's Bostans: A Millennium of Market Gardens"*.

[221] Cheema et al., 1996, *"Urban Agriculture: Food, Jobs and Sustainable Cities"*; Bryld E., 2003, "*Potentials, Problems and Policy Implications for Urban Agriculture in Developing Countries.*"

Image 7-52: Interview with Muhammed Kayan, a son of Cideli family, who are today's Yedikule Bostancıs, December, 2014, Photo by Elis Mehmed.

for years. But he tells: *"This year my family didn't harvest on Yedikule Bostans, because they are demolished by the municipality, and my family is waiting for legal decision, it is still not clear"*[222]**.**

He asked me about Aleksander, who is struggled for keeping bostans, and a member of Yedikule Gardens Preservation Initiative. He is a researcher on Ottoman agriculture technology, in Harvard University. Muhammed likes him; because conservation groups that consist of intellectuals, academicians support gardener families. After our conversation, I want from Muhammed to meet with his father, he went to call his father, but the father didn't come, I think his family winced when I wanted to talk. Perhaps, they have pressure from local authorities not to getting contact with anyone, anymore.

Today's Bostancıs play an important role on preserving traditional bostans and ongoing production process with their experience, and also bostans are still exist in the perception of residents as traditional gardening in Istanbul. They gain in meaning as ***"vegetable garden keepers"*** today**,** because vegetable garden keepers-*Bostancıs*- ***prevent the disappearance of gardens and prevent staying as the neglected, unelaborated gardens***. Bostancıs maintain their gardens and products, and take up very seriously their job ***as smallholder family operations. They are second or third generation family members, who continue the bostan business. They are temporary owners of bostan lands in Yedikule.*** Urban bostancıs play an important role as bostan keepers, maintaining the gardens, preventing the disappearance of historic vegetable gardens by ongoing production on the land. The remaining bostans demonstrate that bostancıs work as land managers, and struggle with authorities in every intervention for keeping gardens and sustaining bostan tradition. Therefore, bostancıs have been productive till today.

Urban bostancıs **serve as land guards, as bostan keepers, as land managers** in a broad sense; and monitor their lands. Yedikule bostancıs maintain traditions. They are important on remediating gardens and beautification of vacant and underused lands, and beautify landscapes. Yedikule bostancıs beautify and ensure the view of the16 hundreds years old Land Walls that are a part of Istanbul's identity. They ensure the view of historic monuments. They provide keeping nostalgic view of Land Walls and gardens around the walls.

[222] Interview with M. Kayan, the son of bostancı family from demolished bostans in Yedikule, December, 2014.

7.3.1.3 Advantages & Disadvantages of Keeping Bostans

Health

Urban bostans and bostancıs improve the health of buyers-*local residents* through providing access to nutritious food, fresh vegetables. It is important for bostancı families selling fresh produce at the roadside stands on their bostans, selling in neighborhood bazaars, selling as street vendors, to sell other retailers and restaurants. Urban bostans and bostancıs motivate local residents to increase their consumption of vegetables from local bostans such as domestic gardens, to access fresh produced vegetables.

The Network of Yedikule Bostans and the local district: Food Miles / Food Distribution

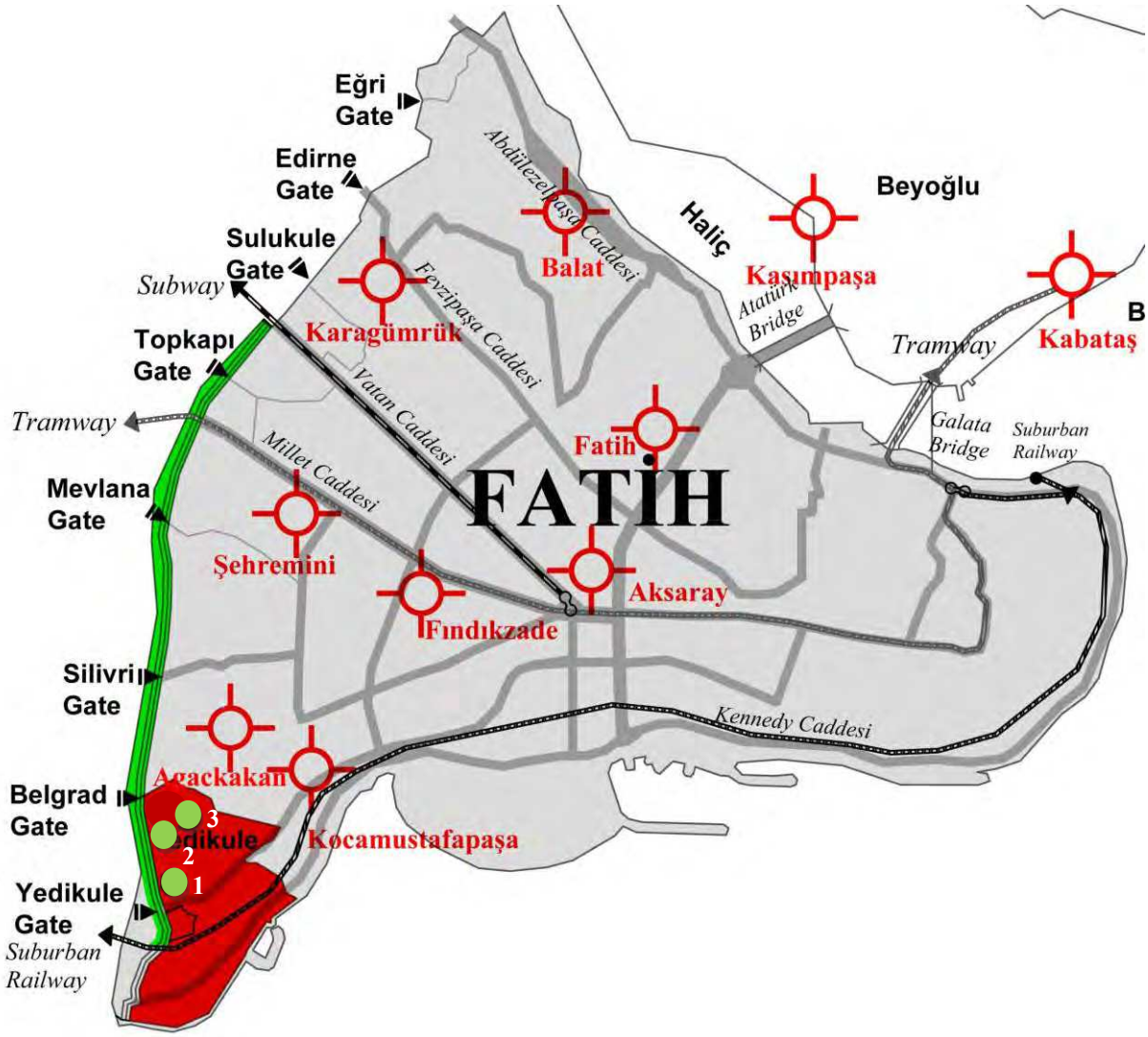


Image 7-53: The Network of Yedikule Bostans and Fatih District, self drawing (https://gis.fatih.bel.tr/webgis/default.aspx.)

There are three lands, which are still used for production in the border of Yedikule Neighborhood, which are at least 200 years old. (See the map in 18th century by Le Chevalier, Image 7-46). Today, bostan-owners are several families, who moved from Cide, a district of Kastamonu, in the region of Black Sea, after 1950s. A number of bostans along and outside

the Land Walls expanded from Yedikule toward to Topkapı Gate since 1995s. It forms a linear farm lands along the Land Wall. Inland migrants established a booming bostan-land as well as the strong connection with Yedikule local neighborhood and district-wide bazaars.

The most important thing for the ongoing production in Yedikule neighborhood is that it tries to **establish a network through the selling and buying activity** of the bostan products district wide. I interviewed the bostancıs in Yedikule and tried to find out, which neighborhood bazaars they often send their products or they sell their products personally. They sell also on their bostans, at the roadside. By the mapping of that, I can find the network spreads in the local district of Fatih (Image 7-53, Image 7-54). I can also find the food miles from the production space on bostans to the consumption space on neighborhood bazaars. Vegetables are mostly sold in the bazaars, in a traditional way, in Turkey.

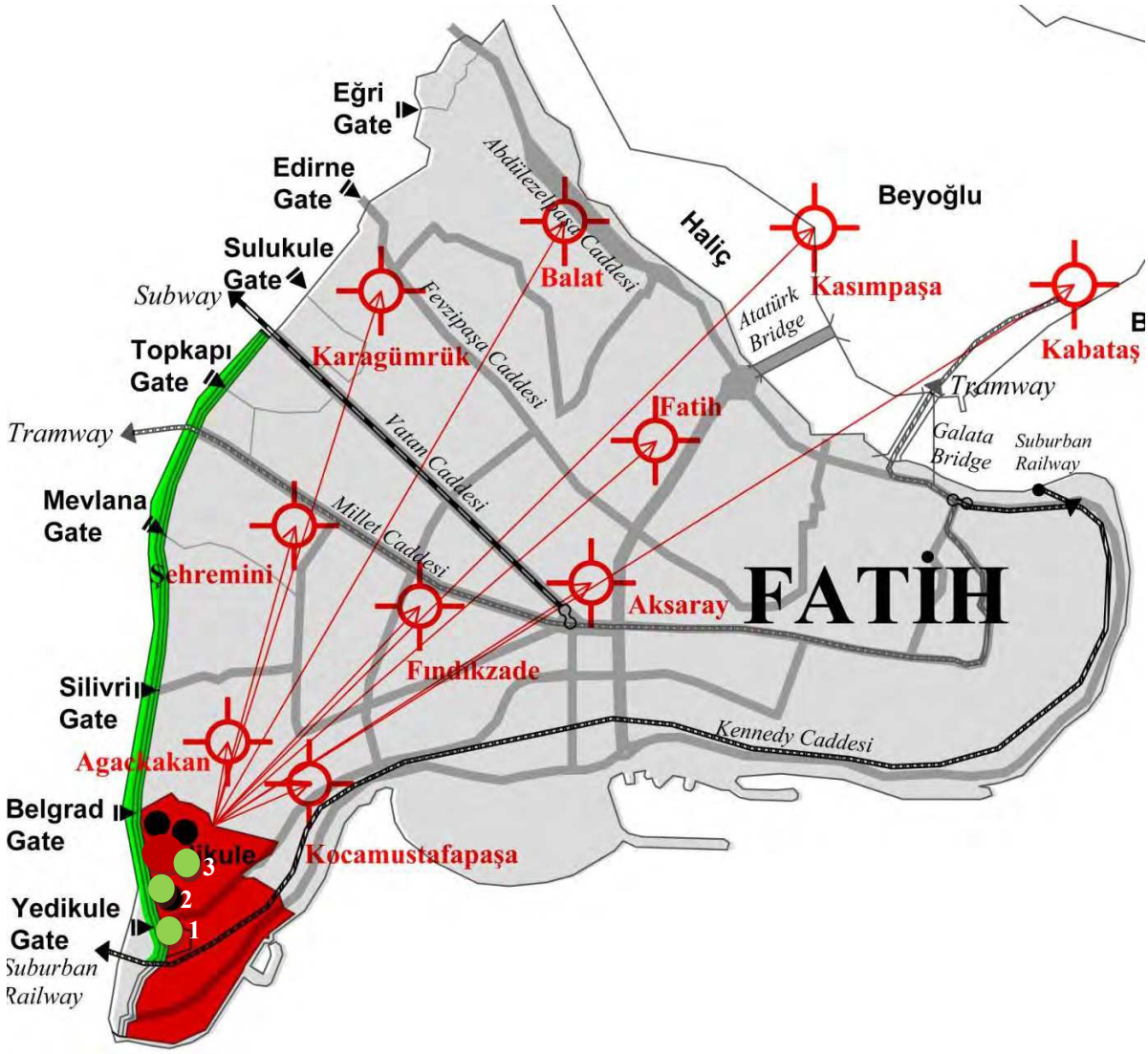


Image 7-54: The Network of Yedikule Bostans and Fatih district, food distribution self drawing, (https://gis.fatih.bel.tr/webgis/default.aspx.)

Urban gardens along and outside the Land Walls have **function of remediating, cleaning vacant urban lands, waste urban lands and generating productive spaces**, providing

purchasable food and employment for the people who move the neighborhood in the urbanization process. Urban gardens provide safe spaces for local residents. Urban gardens-*bostans* in Yedikule Neighborhood **create job opportunities for migrants who move the neighborhood in the urbanization process**. Economically, Bostancıs are normally land renters for gardening activities. They hire sometimes local friends or townsman who moved from Cide, in the season times; but generally they work as a family.

Urban gardens in Yedikule provide access to nutritious food for local residents. They provide **fresh products into local district bazaars**. **Short-food miles** provide less damage in environment. They help to improve environment conditions in their neighborhood, and the district. Short food miles help to improve air quality in the district, giving less carbon dioxide emissions into the air. If we compare the long food miles, that food comes from Mediterranean provinces to the Istanbul's wholesale; and then from Istanbul's wholesale to neighborhood bazaars; it takes long distance to reach consumers. **Chemical preservatives and colorings are used to keep the food longer 'fresh' at the long distance food miles.** That's why Yedikule bostans are important to **provide fresh food by short-food miles for the local residents in the district.**

Bostans are **integrated in the city's food production and distribution network economically and socially.** Vegetables grown in Yedikule bostans have been sold to the citywide since 18th century, which can be seen on historic maps. The lands inside the Land Walls in Yedikule are used as a bostan for gardening activities at least two hundred years. Since then, they are **a part of city's food production and distribution network**. As well as on Istanbul maps in 1807 by Kauffer and Le Chevalier and Ayverdi maps in 1875 and the map in 1920, and also the map in 1998 by Kaldjian, it is proved that the three lands were used for gardening activities since 18th century; and today these food production plots are still used for production.(See the historic maps).

Urban bostancıs sell their fresh products from Yedikule bostans to the different neighborhood bazaars in the district of Fatih (Image 7-53, Image 7-54, Table 5).

Days	Neigborhood Bazaars
Monday	*Karagümrük*
Tuesday	*Şehremini and Balat Bazaar*
Wednesday	*Fatih (Çarşamba Bazaar)*
Thursday	*Ağaçkakan*
Friday	*Fındıkzade*
Saturday	*Kocamustafapaşa*
Sunday	*Kasımpaşa*

As seen in the graphic there are bazaar establishment in the local district of Fatih. Neighborhood bazaars take place every day per a week in different neighborhoods in the local district of Fatih. Bostancıs have opportunities to sell their fresh products in neighborhood bazaars.

Table 5: Neighborhood Bazaars in the district of Fatih (Source: http://www.fatih.bel.tr/)

Bostans have been provided vegetables and fruit needs of Istanbulese for centuries. Today, bostans are **not enough to satisfy all vegetable needs of Istanbulese in city level**, but in **neighborhood level,** it still satisfies a part of vegetable needs of local residents, and they are **integrated in district's food production and distribution network economically and**

socially. In this way, **bostans are a part of the city's food production and distribution network.** They are a part of urban food security from neighborhood level to city level.

Food Contribution: from large scale…to small scale

Food contribution of Istanbul's bostans, if it is evaluated on a metropolitan scale, to meet food needs of 14 million people in Istanbul, bostans no longer provide significant amounts of food; and also to compare with what is produced, the vegetable diversity in the global, agro industrial marketplace such as transporting the mass-produced vegetables from Turkey's Mediterranean provinces to Istanbul, and marketing inexpensively at wholesale facility, the vegetables from Istanbul's bostans seem insignificant.

If the food contribution of bostans is evaluated at the neighborhood scale-as bostans in Yedikule neighborhood, the amounts and the diversity of produced vegetables from bostans may be not able to meet the food needs of all 17.000 people in Yedikule neighborhood, but significantly they contribute to household and neighborhood needs, as a source of income for gardeners and fresh produce for the residents and bostancıs. Bostans as sources of income and fresh produced vegetables, they represent valuable jobs and important sources for Bostancıs' households-food supply around 25 percent of the annual household. [223] Maybe it cannot meet the migrant families' livelihood need on a single source (bostan) of income, because typical household spends 30-40 percent of its income for food in Istanbul, and to make profit for bostancıs, it is required to work as family, as one gardener explained; but urban gardens-*bostans* may fill an important household need of gardeners through providing food themselves, may feel not all food needs of gardeners, but the income spent on food expenditures of gardeners allows the supplementary, to save money to use other needs. The margin of profit for bostancıs is small, and by working as a family they try to increase their profit.

Bostans provide environmental and social benefits. Its benefits spread across the city Istanbul. If we compare food miles-*the term refers to the distance of food which is transported from the production source of food to the customer's plate*[224]; from Mediterranean provinces to Istanbul's customers, is a long distance. Its impact on global warming by increasing greenhouse gases is one of many environmental or social reasons for promoting to eat locally, at the neighborhood scale.

Environmental

Composting & Fertilizer and other inputs

[223] Kaldjian P., 2000, quoted from Kaldjian P., 2004*: "Istanbul's Bostans: A Millennium of Market Gardens"*, pp.284-304, p.295.

[224] Accessed on December, 2014, from http://pubs.acs.org/doi/pdf/10.1021/es087190e.

Until 1990s, urban bostancıs in Yedikule relied on natural fertilizers to sustain healthy and productive soils. In this way, they produced high quality vegetables for centuries. Some bostancıs had chickens, cows, farm animals and draft animals until 1990s. Farm animals provided **manure for fertilization their harvest naturally**. But **after 1990s, the municipal authorities began to remove herd and work animals from the city, then bostancıs begun to buy fertilizer from outside for their harvest**. Therefore it is caused **an increase of the pressure to rely on chemical fertilizers.** Using chemical fertilizers has had negative impacts in compare to natural fertilizers from farm animals**. The costs are discouraged gardeners on keeping producing activities on their bostan.** It causes to **decline vegetables quality and to threaten long-term sustainability.**

Yedikule bostancıs and their buyers assert that the vegetables from bostan **taste better than industrially and mass produced vegetables** from Mediterranean provinces. Because the vegetables from bostan are sold after harvest directly at the roadside stands or in the neighborhood bazaars. Yedikule bostancıs prefer to use mostly manure, rather than chemical fertilizer. As Ramazan explained that many bostancıs buy truckloads of manure from farms in Çatalca or other farms around Istanbul. Vegetables with chemical fertilizer grow faster than vegetables with manure, but they don't taste as good as vegetables with manure.

The main problem concerning gardeners may present the changes in inputs as hybrid and **genetically modified seeds.** They provide food production cheaper. Due to lower expense, they may prevent opportunity about the seed preservation from one season to another season. But Yedikule gardeners prefer the preserving seeds for the next season from their bostan plots, as a common practice between bostancıs.

Economic

Urban bostans have potential for feeding bostan families, providing employment, producing vegetables and fruits. Yedikule bostancıs earn income selling produce they have grown on their bostan plots, inside and outside along the Land Walls.

Bostans contribute feeding Bostan families, but not enough to satisfy all needs, therefore families need external sources.

Cidelis are working as smallholders, as extended family to make profit, as Cemil explained[225] ***"we have to work as family to make profit"***, because profit margins are so small. It is necessary for the household labor, but ***the only income of bostan sources is not enough to feed the needs*****,** in the other hand without bostan sources it makes life more difficult for Cidelis-*low income groups,* and causes further increasing labor needs. ***The typical size of bostan in Istanbul is around 1-1.2 hectares***, it is necessary for a household of five people to meet its basic livelihood needs. It may be necessary 3 hectares-*30 dönüm*- size of bostan, without any external sources of income, to support a household of extended families from

[225] Cited from Kaldjian P., 2004*: "Istanbul's Bostans: A Millennium of Market Gardens"*, pp.284-304, p.293.

Cide [226]. Small families have less than 1 hectares-*10 dönüm*- size of bostan; mostly remnants of urban vegetable gardens are small at the beginning of 21st century. Accordingly it becomes more critical for small family gardeners.

Inside the border of Yedikule Recreation Implementation Project, there are 6 hectares-*60 acres (turkish: dönüm)* arable land for bostan, if 3 hectares size of bostan have potential to feed a family without external resources as Kaldjian told, the existed bostan plots have potential to feed two families in Yedikule, but there are more than two families on the bostan plots. ***They may meet the basic livelihood needs, but they need external income sources to feed their families***. The gardeners in Yedikule will **lose their one of the sources of income by the demolition of the bostan plots t**o make an urban park (BOX 8).

The total bostan lands provide employment & produce vegetables and fruit for selling

Bostans provide employment for local residents, bostancıs hire local residents to help gathering crops, in crop season. The total bostan lands inside the Land Walls provide employment for closely 100 people; bostans on the moat and outside along the Land Walls in Yedikule provide employment for closely 200 people. Subsequently, all bostan plots in Yedikule provide employment for totally **300 people**. Relating Yedikule case, the bostans, which are going to demolish, take place inside the Land Walls. Thus, three smallholder families will lose their jobs, their income sources, at least these bostans meet livelihood needs of these families, but **the income from the size of 6 hectares of bostans are not enough to feed the needs of families** (Box 8).

Bostans inside the Land Walls provide approximately 10 tons of vegetable crops per a year; bostans on the moat provide approximately 30 tons of vegetable crops per a year. So, bostans in Yedikule provide totally about **40 tons of vegetable crops per year**. Approximately a few tons of vegetable crops per a year will be lost by the demolition of the bostan plots to make public park project (Box 8, Image 7-56).

The total bostan plots in Yedikule have 100 fruit trees, and they have potential to produce approximately 4 tons of fruit (fig, mulberry, and pomegranate) from these lands per a year (Box 8, Image 7-55).

[226] Cited from Kaldjian P., 2004*: "Istanbul's Bostans: A Millennium of Market Gardens"*, p.286-287.

BOX 8.

Yedikule Recreation Implementation Project

Social Impact Assessment Report, 17th of July, 2013

*As of the year 2013, inside the Land Wall, there is 6 hectare-*60 acres *of arable land for bostan. According to park plan of municipality, these bostan plots are going to demolish, it predicts also that filled moat for gardening at the Land Walls may demolish with other projects.*

In between 5th and 17th July of 2013, 27 of 60 acres of bostan plots inside the Land Walls were lost. Bostan plots are not only income to feed bostan families. Bostan families need external sources to feed their families.

***The total lands (*open spaces*) for bostan used inside the Land Walls** provide **employment** for closely **100 people**; approximately **10 tons of vegetable crops** are produced from these bostans per a year (*Image 7-56).

***The total lands (open spaces) for bostan used on the moat of Land Walls** provide **employment** for closely **200 people**; approximately **30 tons of vegetable crops** are produced from these bostans per a year (*Image 7-56*).*

*Approximately **4 tons of fruit** (fig, mulberry, and pomegranate) is produced from **100 fruit trees** of these lands (*Image 7-55).

*According to report, various vegetables are produced in Yedikule; the different types of vegetables are tomatoes**, lettuce**, purslane, chard, black kale, cauliflower, parsley, garden cress, eggplant, dill, maize, cabbage.*

(Prepared by Eda CAKMAKCI, MSc. Anthropology, University of British Columbia & Aleksander SHOPOV, Phd. Student at Harvard University)

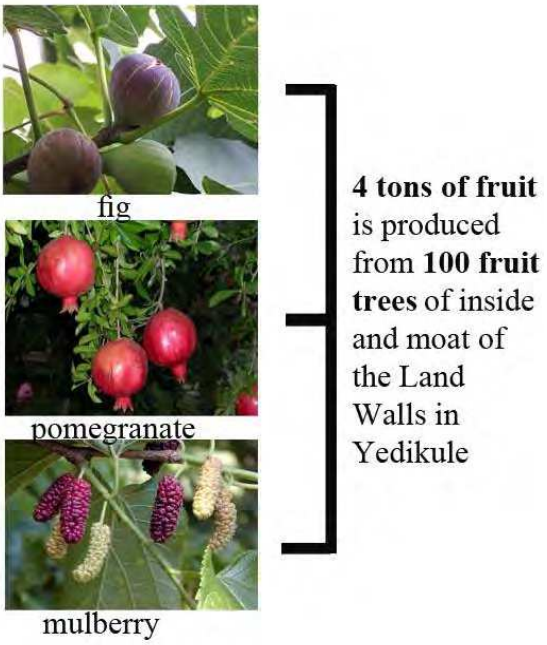


Image 7-55: The type of fruits produced in Yedikule Bostan.(Source: alanar.com.tr, baglamabuyusu.biz.tr, forumdas.com)

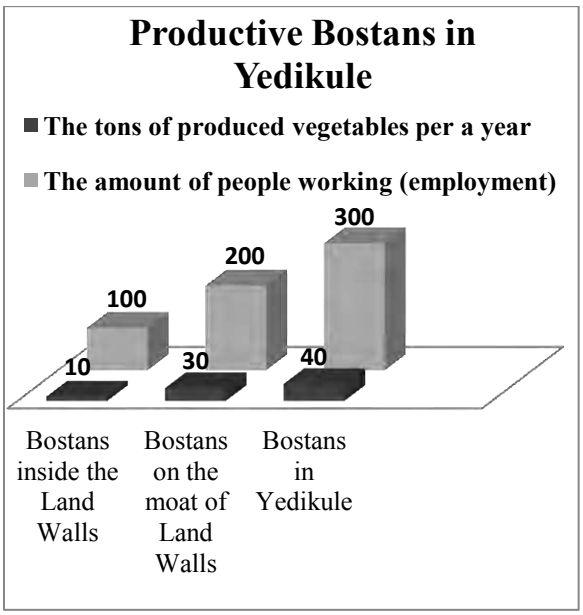


Image 7-56: Productive Bostans in Yedikule, displaying the tones of produced vegetables and the employment, self drawing. (Social Impact Assessment Report).

Providing crop-diversity to reduce market risks

A typical bostan in Istanbul produce **various vegetables**, around twenty types of vegetables; today they still satisfy the fresh vegetable demands of hundreds of people. The produced vegetables on bostans are especially leafy crops such as lettuce, purslane, spinach, parsley, arugula, mint, black cabbage, leeks, and also to crops like garlic, radishes which are sold by the bunch; crops like onions, peppers, tomatoes, eggplants, cucumbers, which are sold by weight. At the beginning of 21st century, a typical bostan near the city walls in Istanbul's Fatih district is conceptualized by a sketch of Kaldjian (Image 7-57).

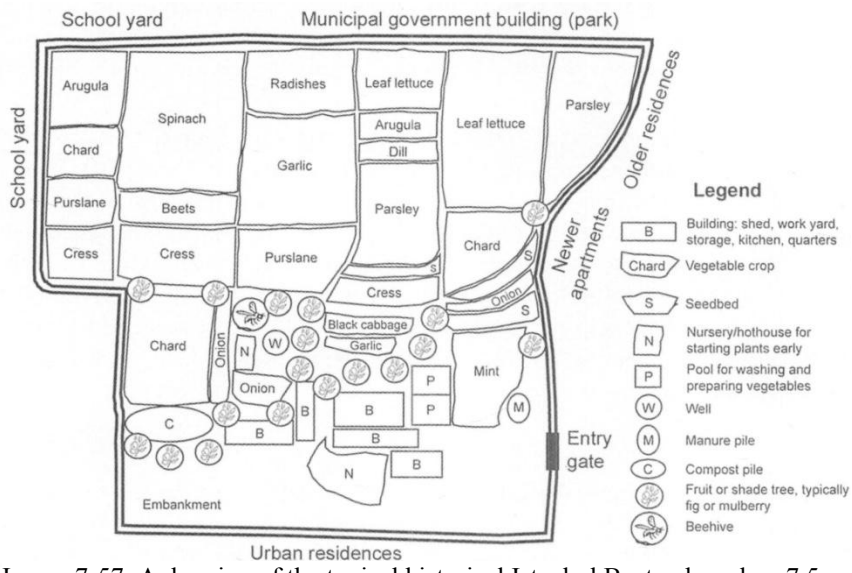


Image 7-57: A drawing of the typical historical Istanbul Bostan based on 7.5 acres-dönüm, near the old city walls, in Istanbul's Fatih district. (Source: Kaldjian, 2004)

Bostancıs focus on sustainable production and provide **multiple-crops**, because **crop diversity is playing an important role to reduce risks not only environmentally, in specifically to reduce market risks**. It makes **competition economically**, the price between the harvests of Istanbul's Bostancıs and Mediterranean provinces, where vegetables are grown cheaper in a large scale by agro-businesses relation to global marketplace. **Accordingly *crop diversification* it helps to minimize the direct competition.** Early-season vegetables provide advantages for gardeners to make the margin of profit high. Because the supplies were minimum and customers would to pay more. After 1990s, there are ***no season advantages*** any more for gardeners, because of the large scale agro-businesses, which produce year round from Mediterranean provinces.

Crop diversification in Yedikule bostans have shown on the **Fehler! Verweisquelle konnte nicht gefunden werden.**. Some types of vegetables produced from Yedikule bostans are tomatoes, chard, famous Yedikule lettuce, kale, purslane, cauliflower, parsley, eggplant, garden cress, dill.

Selling Food

Cideli bostancıs market their own produce now, **at roadside stands on their bostans, sell in neighborhood bazaars, and sell to restaurants, or sell as street vendors** (Image 7-59). The size of leftover bostans is getting smaller. At the end, it is required for bostancıs to supplement of their income by external sources, and they began to go to Istanbul's wholesale facility, to buy vegetables grown in Mediterranean provinces of Turkey and sell these vegetables side by side their own produce in neighborhood bazaars and sell as street vendors[227]**.**

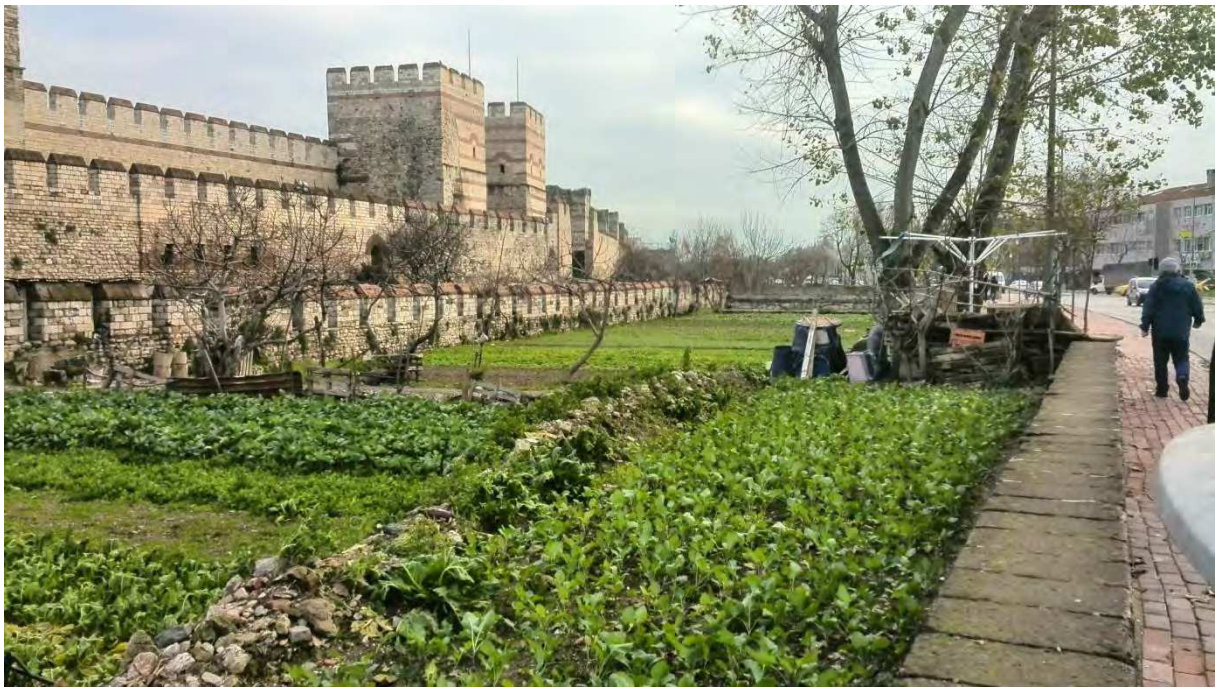


Image 7-58: Bostan fields, image by author

[227] Cited from Kaldjian P., 2004*: "Istanbul's Bostans: A Millennium of Market Gardens"*, pp.284-304, p.293.

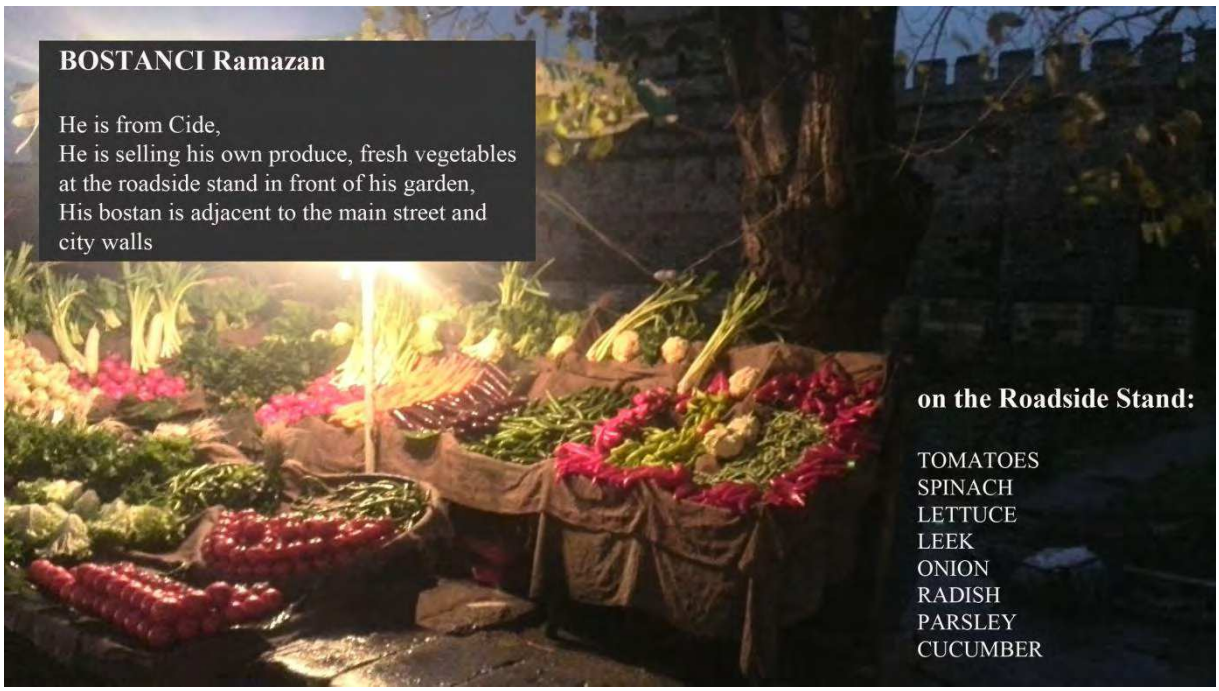


Image 7-59: A seller at the roadside stand, in front of his garden, interview with Ramazan in 29th December, 2014, photo by Elis Mehmed.

According to my interview with Ramazan, he is uncle of Muhammed. I asked him about the variety of vegetables, which he sell, whether he is going to Istanbul's wholesale facility to buy vegetables or all vegetables from ongoing production of Yedikule bostans. Then he explained *"I have also 40 dönüm-4 hectares- size of garden in Çatalca (suburb district in Istanbul). I bring my own produce to sell at the roadside stands in Yedikule or sell in neighborhoods bazaars"*. *Çatalca* is a rural district of Istanbul, it is in European part of Istanbul, and mostly farmers are living there (Image 7-60).

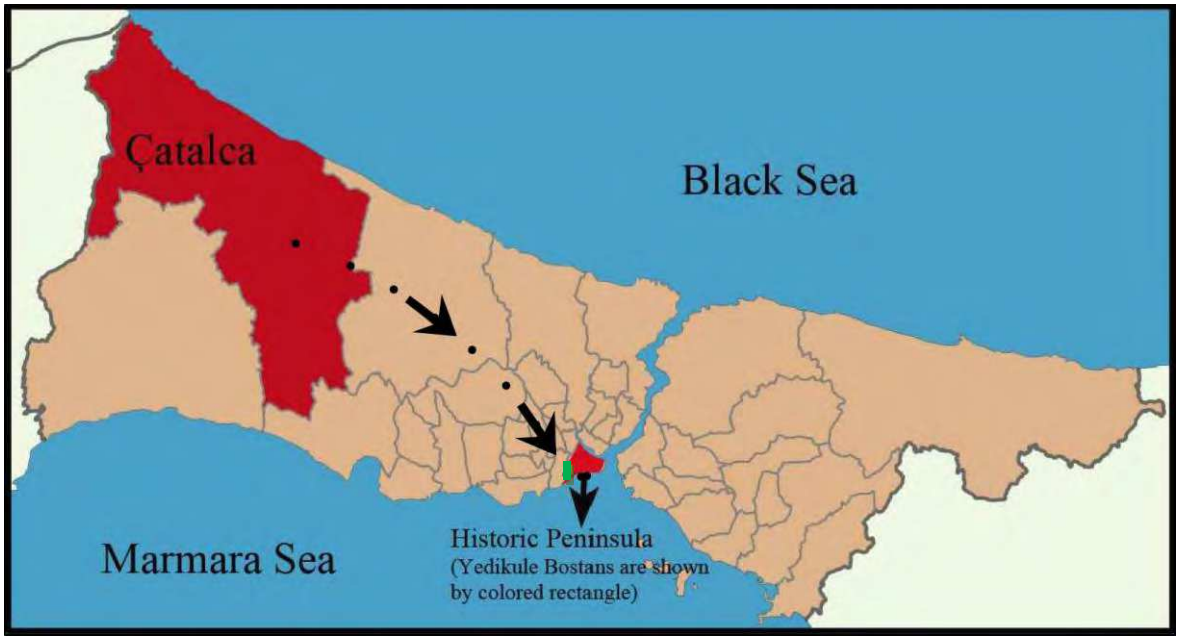


Image 7-60: Food miles from Çatalca to Historic Peninsula are shown by the author.

Some bostancıs in Yedikule have also gardens in Çatalca; they bring their own produced vegetables to sell on their bostans at the roadside stands in Yedikule or in neighborhood bazaars in Historic Peninsua, in Fatih (Image 7-61).

Image 7-61: A roadside stand at the outside the Land Walls, near the gate of Yedikule. It is Ramazan's stand; he was not there on 1st January, 2015, photo by Elis Mehmed.

In the night of 29th December, 2014, Ramazan had opened his stand but he was not there on 1st January, 2015 (Image 7-61). As shown on the left image, he has roadside stand in front of his bostans, the cultivated crops of his bostan can be seen on the left image, his bostans stay on the outside of the Land Walls, near the gate of Yedikule. There are the main street and the bus stops in front of his stand, and there is also a cemetery opposite the gate of Yedikule on the right side of the main street. There weren't any seller outside the Land Walls; but I saw another street vendor inside the Land Walls in Yedikule (Image 7-62).

Image 7-62: A street vendor in Yedikule neighborhood inside the Land Walls, a boy sells pomegranates at the truck; photo by Elis Mehmed, 1st January, 2015.

During on my field trip, I recognized that the street vendors or roadside sellers are not only 'bostancıs" in Yedikule, also there are sellers at the truck in the city walls, from other inland migrants in Yedikule. Bostancıs are migrants from Cide, from the Black Sea region, but the seller of pomegranates at the truck comes originally from Batman. Batman is a province in the southeast region of Turkey. He sells the pomegranates produced in Yedikule (Image 7-62), he was not a 'gardener' in Yedikule, he told me:

"I sell pomegranates that produced in Yedikule and I am selling one kilo pomegranates for 2 T. liras (€ 0.75)."

He sells near the gate of Yedikule, inside the Land Walls. There is a cemetery near the gate of Yedikule on the outside the Land Walls, opposite the Yedikule Castle (Image 7-22).

Bostans provide the opportunities for sellers due to **being on the much used roadsides** in Yedikule. It provides to *access to fresh produce* from bostans not only for local residents, also it provides to access fresh produce for other residents in Istanbul.

Growing farm animals in urban bostans: selling natural farm animal products

Some bostancıs had chickens and dairy cows and these domestic animals provided multiple benefits as for household consumption, income, and manure until 1990s. Producing milk from dairy cows and selling surplus production of milk to customers, and also making yogurt and cheese were additional income sources. Farming animals provided manure for free for gardeners, perhaps it didn't meet all the need for fertilizer naturally, but the manure was the margin of the profit for gardeners. Since 1990s the municipal authorities have begun to remove large animals-cows from the city. Therefore **bostancıs lost their additional income and start to buy fertilizer from outside for their harvests**. They have to buy from supermarkets yoghurt, milk and cheese needs. Therefore, **the expenditures of bostancıs have been increased** after 1990s through the **pressure on removing large animals by the authorities**. It affects negatively the profit margin of gardeners.

Health and Environmental

After 1990s **the filled moat, inside terrace and outside terrace of the Land Walls are used as bostan lands for production.** This actions show the contribution of bostans for **cleaning and remediating vacant and underused urban open spaces at the Land Walls in Yedikule.**

Since the late 1990s by the permission, lots of bostans within and along the outside of the Land Walls has expanded from Yedikule toward the gate of Topkapı. The open spaces between the lands, which are named moat, outer terrace and inner terrace, are used as land for bostan. Various open spaces were uncultivated, dirty. The garbage was strewn all over the open spaces. (Broken glasses, alcohol bottles)These vacant lands are transformed into land for production. It provides cleaning and remediating vacant and underused open spaces. It provides hygienic, healthy environment, beautify and ensure the view of **the16 hundreds years old Land Walls that are a part of Istanbul's identity.** Bostans protect the open spaces and **ensure the view of historic monuments**. **Bostancıs** have beautified the open spaces and serve as rangers, who are **responsible for managing and protecting open spaces,** and keeping ongoing production of historic Yedikule Bostans inside the Land Walls. They provide **keeping nostalgic view of Land Walls and gardens** around the walls.

Beautifying vacant and underused open spaces and providing hygienic open spaces

Urban bostans provide beautifying the urban open spaces, and ensuring the photogenic view of spaces. Bostancıs **remediate vacant lands not to become rubble-filled dumping ground, and produce hygienic open spaces.**

In the image of Yedikule Bostans from December 2014 (Image 7-63), it seems dirty, muddy and unhygienic as the girls complained. There is puddle and dirty space, no ways to walk.

Image 7-63: The image of Yedikule Bostans, in December 2014, Photo by Elis Mehmed. Bostans are conquered by concrete.

The view of two young girls that I made interview in Yedikule, they find also uncultivated bostan lands unhygienic, dirty, inefficient spaces as in the above highlighted (Box 9). The gardeners didn't cultivate their bostan plots inside the border of urban park project due to uncertain situation of their lands.

BOX 9.

Two young girls from Yedikule

According to interview with two young girls, around 15 years old, from Yedikule, in December 2014:

"We are originally from Batman, but for years we live in Yedikule, and we want modern, and beautiful public park, to enjoy our free times, look at here, ***so dirty****, we don't have even ways to walk"*

They were worried; they didn't want me to take picture of them.

Image 7-64: Yedikule Bostans, The comparison of Bostans, before and after the demolition, photo by Aleksandar Shopov. (Source: http://www.kuzeyormanlari.org/2014/04/28/yedikule-bostanlari-bizim-istanbul-bizim/)

Before the demolition of Bostans in 2009, by Image 7-64, urban gardens can be seen clean, hygienic, well maintained from Cideli gardeners. By demolition of gardens in 2013, a stack of rubbles on the efficient soil can be seen. A roadside stand seller Ramazan from Cideli is explained "Yedikule gardeners are worried to make harvest for the next year, so they didn't invest on the gardens for next year's crop" [228] (Image 7-65).

Image 7-65: A stack of rubbles on the efficient soils, instead of bostans, Photo by Elis Mehmed, December, 2014

The last view of Yedikule Bostans seems on the Image 7-65. As Ramazan explained, the gardeners haven't harvest for the next year and the open space seems dirty, bedraggled, and unhygienic, unsafe. Urban gardens play **an important role on preserving open spaces with covering green and productive, they also play role on beautification spaces and on making space safe.**

[228] Interview with Ramazan, who is gardener and roadside stand seller in Yedikule, is originally from Cide, December, 2014.

Environmental

Soil remediation

Urban gardening provides soil remediation. Keeping ongoing production on bostan plots provide an increase of efficiency of the soil. Harvesting with some plants provides increasing the soil efficiency by removing toxins from the soil. Using ladybird instead of chemical fertilizer provide increasing the quality of product. But in Yedikule case, **the efficient soil damaged with throwing rubbles on the gardens** (Image 7-64, Image 7-65).

Social

- Providing safe spaces for local residents, -Cleaning and remediating vacant and underused urban open spaces
- Bostancıs serve as land guard, keeper and monitor their gardens. They keep out illegal activities such as garbage dumping, unpermitted constructions, criminal activities.

Using vacant lands for gardening activities where building not permitted provide many benefits for gardeners and landowners, both takes advantages for this agreement. Bostancıs remediate vacant lands not to become rubble-filled dumping ground by paying very little or using free. Therefore, gardeners' margin of the profit will be increased. Land owners are benefited due to preventing third parties to commandeering; and to **capturing lands for illegal development**, therefore they keep their lands safe and productive. For this reason **gardeners play an important role to preserve underused, vacant lands, where building is not permitted**. Bostancıs gain identity in being ***'preserver'*** as urban open space keepers through keeping safe from harm and danger, and producing '*safe and productive open spaces*' in the city. In the large scale, using vacant and underused lands for gardening activities play an important role in reducing unemployment, in decreasing poverty in citywide, in reducing food miles, in increasing access to fresh produced vegetables, in **physiological gardeners feel self-awareness due to having job**.

In Yedikule Bostan case, it seems urban **gardens not enough on making space safe, because local neighborhoods complain** insecurity, (Box 6) and one of them explains "there is no light during the nights at the Land Walls, where the gardens are placed". The security problems are not relating in urban gardens or gardeners, because **it is the lack of fulfilling the responsibility of municipality to provide night-lights on gardens or at the city walls or the ways.** And also one neighborhood explains "If we have a modern park, the lights of park will be illuminate the city walls and the ways, and we do not have to worry walking on the nights." The security issue was one of the most debated topics in the Forum (Box 6). As Hatice complained about **insecurity**, as well as other residents of neighborhood, gardeners and city activists with the interest of conservation of historic landscape-*bostans* underlined "security problem", and all stakeholders are in the consensus, that *security problem* is under the responsibility of municipality, and it can be resolved with adequate lighting.

- Accessibility: Access to bostan plots. They are only used by bostan keepers, not accessible for other citizens. Local residents don't have any legal right to use bostans for recreation and leisure.
- There is a lack of involving its direct use to different activities for other groups in the society. Certain purpose to use space is caused restricted use of space, such as food production to make profit by gardeners.

Existing Yedikule Bostans are **semi-public open spaces,** which are **accessible only clearly defined group through using certain purposes such as food production to make profit.** *Yedikule bostans act as commercial gardens, they are* **not accessible for other citizens. The lack of accessibility food production plots for all citizens. They don't meet the demands of other groups, other city actors. Bostans are only used by bostan keepers**, and **they don't involve its direct use for different activities by the all groups of people in the society,** they are only used directly by bostans families for making profit. The local residents ***don't have any legal right to use bostans*** *for recreation and leisure*; actually they can only come into the bostans to the purpose of buying vegetables, because some stands take place on the bostans to selling fresh produced vegetables to customers. Bostans in the border of public park project mostly consist of public property, and also a small size of bostan belongs to a private owner (Image 7-27, Image 7-28). Gardeners are temporary owners. But bostans are rented to the purposes of food production-*producing vegetables*- by gardeners.

- **The lack of access to and experience of nature of existing bostan plots for citizens.**

  The fact of being semi-public open spaces of bostans, they don't provide citizens ***access to and experience of nature.*** Perhaps, that's why the reeve explained %90 local residents in Yedikule want a park, because the local residents are not allowed to ***access to and experience of nature*** in bostans, and thus, perhaps *local residents are experienced the bostans passively*, but the experience of bostans passively doesn't provide enough public awareness on environment issues in Yedikule.

- **Existing bostans promote only come into contact with customers through the purpose of buying and selling activities. They permit to access bostans only to the purpose of buying vegetables from bostans.** Lack of promoting social contact and communications except to buying activities. They don't contribute meeting and communication spaces between neighborhoods; don't promote facilities to recreation and leisure.

Everybody can come and enter only to the purposes of buying activities into Yedikule Bostans. It **doesn't permit people to enter the activities unrelated to the purpose of buying vegetables from bostans**; because there are selling stands on the bostans, in which bostancıs are selling their fresh produced vegetables, and **making contact with customers**. But it **doesn't permit to enter into Yedikule bostans to the purposes of recreation activities such as walking around gardens** or playing areas for children or to meet with friends on the bostans. Yedikule Bostans are **accessible only a clearly defined group** such as bostancıs, and it is permitted making use only a clearly defined group of bostancıs. ***The***

different degree of accessibility on open spaces, and the different usability of spaces such as certain purposes to use, **makes spaces restrict to use.** It doesn't meet the needs of open spaces using to propose of recreation activities. It doesn't fill the gaps of recreation needs of Yedikule neighborhoods and it **doesn't promote social contact and communications except to buying activities.** There is a lack that bostans with food productions purposes could be also promote recreation and leisure activities through converting into multi functional land uses without destruction of bostans to make a public park; lots of activities that can take place at Yedikule Bostans. If there is a demand for recreation need, bostans are an opportunity to provide recreation and leisure activities such as health, environmental, social, economic activities.

- **Land Tenure**

Uncertain land tenure influences gardeners negatively in Yedikule. They do not have certain rights to hold bostans in exact time interval. The lack of certain land tenure generates difficulties to keep bostans, and continuing production process for gardeners.

The lands for bostan used in Yedikule have been zoned as protected zone on Historic Site Management Plan. But it's risky, because there is an on-going recreation project by city authorities; it aims to demolish the existing bostans, and built a public park.

Urban bostancıs mostly **do not have titles** to their bostans which are permanently protected from development. Many gardeners **don't have any legal signed documents** about **land use rights** or properties or titles to their land. Many of them cultivate land which has been zoned as **protection zone** in conservation plans on Historic Peninsula Site Management Plans, in relating Yedikule bostans, or off-limits to development zones. Urban open spaces which defined protection zone, conservation zone or green open spaces by laws, can take also **risks** over time by changing national legislative framework, and allowing speculative investment in housing and development in conservation areas relating to Yedikule bostans case.

In the case study Yedikule gardens, although they are in protection zone in conservation plans, they became independent from conservation plans by the law 5366, which came into effect on May 7th, 2005 "authorizes the local authorities to execute and implement 'renewal projects' in the renewal areas to be declared independent from the conservation plans" [229]. Firstly in 2010, Yedikule "Villas" (Yedikule Konakları) , which were modern, new four-story residences, Yedikule Villas project were constructed on the bostans, which declared as 'renewal area' in 2006 [230]. As can be seen in Yedikule Villa case, the gardening actions on open spaces, which were defined protection zone, may also take risks for gardeners. Because the new laws let building permission in conservation areas which were defined in protection zone until 2005.

[229] Istanbul Historic Peninsula Site Management Plan, 65.

[230] Koca, Aysun, "Güncel Dosya: Bostanlar", Yapı 386, 58

In 2013, the harvested bostan plots have been bulldozed and the gardeners couldn't pick up their crops in the border of municipal park project. It is caused to hurt gardener's ambitions to invest their lands in 2014. As Ramazan[231] is explained *"There is an uncertain situation, some bostans are demolished due to ongoing municipal park project on existing bostan plots in Yedikule; the gardeners, who have bostan plots inside the border of urban park project, they* ***hesitate to invest €8000-10.000*** *for the next year's crop due to bulldozing gardens, because during bulldozing gardens, gardeners couldn't pick up their all crops last year"* (Image 7-51). **These municipal actions don't foster the gardeners on investing their land**.

In the case study is threatened the safeguarding of Yedikule bostans by the Law No. 5366: *Law on Preservation by Renovation and Utilization by Revitalization of Deteriorated Historical and Cultural Properties*. In regarding this law it let the local municipality that has protected zone within Istanbul's Land Walls WHS (World Heritage Site) declared many areas as 'renewal zone', and begun producing and implementing renewal projects within protected zone at the Land Walls. It pressures the gardeners to leave bostans right away, even it is not allowed gardeners to pick-up their fresh produced vegetables from bostans and the authorities couldn't wait bostancıs' eviction to make intervention on Yedikule bostans with bulldozers in 5th July, 2013. **The gardeners in study site hesitate to invest their lands due to being repressive actions by city authorities.**

- **Non-official Bostan Community Organization-Networking with Bostan Communities**

Urban gardeners work with each other to share the resources such as supplies and provide direct assistance. Cidelis work as a family to make profit. They know each other for years; they are relatives with each other or friends from Cide. They share the information about the opportunities to access land, renting land for producing vegetables in Catalca and around Istanbul, or about the land tenure situation. They share information about access to food production and distribution network, selling in neighborhood bazaars and buying manure from farms around Istanbul. But there is **not any official Bostan community organization for supporting each other legitimately;** bostancıs network with each other in unofficial ways. **The lack of legitimate Bostan community organization for supporting together legitimately against the pressure of city authorities influences negatively gardeners.** They could support one family's land together as a bostan community organization. **The Bostan Community Organization** can defend Bostan Community voices, rights against the authoritative improvements during the clashing with urban authorities. It may help to find a legitimate use of bostan plots in a right way.

- **The pressure of urban development projects**

The pressure of urban development projects, massive investments on construction of house estates and others influence gardeners negatively to keep their lands in Yedikule. The bostan

[231] Interview with Ramazan, who is gardener and roadside stand seller in Yedikule, is originally from Cide, December 29, 2014.

lands have been converting to hard surfaces, and the size of existing bostans has been shrinking due to urban development projects and being a densely developed city with high land values of Istanbul.

- **Access to fresh produced vegetables by short food miles**

Existing bostan plots provide *'access to fresh produced vegetables'* for residents in Yedikule neighborhood. Resident's access to *-fresh produced vegetables-* is increasing due to the fact that bostancıs selling their produced vegetables at lower cost to local Yedikule neighborhoods, to frequent costumers, to local friends. They also provide vegetables to Yedikule neighborhood greengrocers, to neighborhood vendors, bazaars from their bostan plots. But gardeners sell vegetables as well from wholesale facility where the produced vegetables from Mediterranean provinces transported to Istanbul. But they are not fresh vegetables as local produced vegetables in Yedikule.

- **Access to food production and food distribution network in the city**

The difficulty *to access food production and food distribution network* in compare to agrarian industries that brings out that the competition from distant resources is becoming more difficult for gardeners in Yedikule. The massive produced vegetables from agrarian industries, sources from Mediterranean provinces of Turkey have been influenced existing gardeners in Yedikule negatively. Because urban bostancıs work as smallholder family operations to make profit, and the costs of inputs are increasing, gardeners have to buy manure from other farms around Istanbul, and have to pay other fertilizer needs. Yedikule bostancıs can access food distribution network in local district level, selling in neighborhood bazaars, or selling at the roadside stands. Perhaps it is enough to meet their subsistence needs. But only income of bostans is not enough to feed bostan families, they need external sources to feed their families.

- **The competition from distant resources is becoming more difficult for family smallholders.**

Massive produced vegetables from agrarian industries are grown inexpensively by large-scale operations, highly capitalized investments are networking global marketplaces easily; and **the diversity of products is more in compare to bostan vegetables**. Therefore, it makes **difficulty the competition for selling vegetables for gardeners. The massive produced vegetables access food distribution network easier; and it is more organized in compare to bostan family smallholders.**

- **Access to labor, as a household work (old and young woman, men, and children)**

The workforce in bostans relies on labor intensive techniques, and the labor consists of household members, including old and young woman, men, and children in Yedikule. Men mostly prepare beds for planting, irrigate, harvest and in specifically selling food in neighborhood bazaars or at the roadside stands; and women participate in harvesting and in specifically weeding the bostans. Bostans provide the source accessing the labor for old

women, and increasing self-esteem, mental well-being. Cidelis work as extended family to make profit; because profit margins are so small. It is necessary at least five of family to work together to feed the basic needs for the small size of bostan around 1 or 2 hectares. Gardeners need sometimes external sources of labor for pick-up the vegetables, or distributing food, and the helpers are mostly relatives or friends from Cide. Today, shrinking the size of bostans is caused to force the family members to work another jobs for feed their families.

- **Water irrigation-ongoing traditional techniques- keeping traditional watering practices**

Yedikule bostancıs access to water from the wells and water the lands by withdrawing water that collected in the well. In the study site there are still four historic water wells, remaining Ottoman agriculture techniques (See the Image 7-22: Existing land use analyses). When Cidelis worked as hired labor for the Macedonian or Albanian master gardeners in 1950s, they learnt water techniques. According to being second or third generations of Cideli families in Yedikule, gardeners continue the same water techniques as they learnt today. The continuation of the same water techniques from Ottoman Period to Republic Period gains the meaning in traditional sense. Yedikule bostancıs are named '*salma'* for this traditional water technique. Firstly, the withdrawal of water from undergoing waters is collected from the well, then the withdrawal of water is poured into the pool on the bostans, gardeners canalize in the land around the beds for planting-*tarh*-, (Image 7-66) and then the pool's vale is opened for watering the land, therefore the water spreads in the land channels.

- **Compost & Fertilizers: More difficult to access natural inputs, increasing to use fertilizers-**

Today, it is **more difficult to access sufficient compost**, in specifically manure. Because Yedikule gardeners used manure from their farm animals until 1990s in the bostan plots, Yedikule, then farm animals had been moved from bostans by city authorities. Bostancıs began to **pay for manure from farms around Istanbul**, and **began to use fertilizer**. **Access to manure is becoming more difficult**, and gardeners bring manure in the bostan plots, in Yedikule from farms in Catalca. The **high costs of fertilizers is decreased the margin of profit**. Today, there is *an increase to costs of inputs* such as tools, compost, fertilizer, construction materials, and labor.

- **Keeping bostans contribute to access to high quality soil for cultivating**

Yedikule bostancıs have opportunity to access quality soil, because the lands are used for producing vegetables and fruits around 1600-years, as well as mentioned before. It means that the soil of bostans is cultivated between Byzantine, Ottoman, and Republic Period, in this way the existing soil in Yedikule is efficient and has high quality for cultivating.

The demolition of gardens in 2013, a stack of rubbles are generated on the efficient soil due to bulldozing, and the rubbles still exist on the high quality soil in Yedikule in December, 2014.

- **Keeping bostans contribute to access to traditional production practices**

Yedikule bostancıs follow the traditional patterns for cultivation, the beds of plants in shaped rectangle plots and they follow traditional water technique for irrigation (Image 7-66, Image 7-67).

- **Non-supportive financial resources for gardeners**

Gardeners pay from individual budgets to access food distribution network, selling in neighborhood bazaars, to restaurants. **They don't have any supportive government funds.** They have to pay individual for the requirement sources such as materials, physical structures-stands-, gardening tools etc. **The budget of smallholder family operations is limited** in compare to large scale agrarian operations from Mediterranean provinces. **The agrarian industries** in large scale are able to list sources of funding for infrastructure over millions, they **have high budget for investing their operations in compare to smallholder family bostans in Yedikule.** Smallholder family operations in Yedikule have limited resources that constrain their ability to grow vegetables, selling spaces in neighborhood bazaars, make improvements to their bostans.

There is the lack of government fund for supportive services, such as offering education programs, offering visitor groups for displaying bostan history, explaining ecological conditions. Bostancıs sell in neighborhood bazaars through renting spaces from the individual budgets.

- **The lack of government fund to promote to keep ongoing food production for gardeners. Increasing class based disparities in the urban food system in Istanbul.**

Yedikule bostancıs are not able to gain access to incentive funds of government. Agriculture Incentive Fund mostly covers gardeners of institutional and commercial farms. They are able to gain access to government funds, but smallholder family bostancıs are excluded. The benefits of smallholder bostancıs are not considered by city authorities for empowering local voices, improving low-income communities. It seems the government officials focus on city-wide scale benefits of urban agriculture, and neglecting neighborhood level benefits of bostans.

Image 7-66: The canals in the land around the beds of plants for watering near the gate of Belgrad in Yedikule, photo by Elis M. in September, 2013.

Image 7-67: Production patterns at the Land Walls in Yedikule, photo by Elis M., in September, 2013

Image 7-68: Production patterns at the Land Walls in 2009, cited from Başer and Eşbah Tuncay's article.

7.3.2 The proposed municipal park project

7.3.2.1 The Significance of making Public Park

In densely developed city of Istanbul, citizens need open spaces for recreation and leisure activities. Although Eminönü district was merged into Fatih district by Public Act in 2008 due to losing population, and, the population loss in Historic Peninsula (Fatih district) didn't stop; it continues to lose in between the years 2008 and 2014. After 2008, Fatih district consists of all Historic Peninsula, and the population was lost in 2008 from 443,955[232] to 419,266[233] people in 2014. In spite of the fact that it seems continuously population loss in Fatih, the population density of Fatih is 26,841 people per square kilometer; and the population density in Yedikule neighborhood is 22,403 people per square kilometer in 2014. According to ***high density*** population in Yedikule, ***how much open spaces need to fulfill the needs of recreational use in Yedikule Neighborhood?*** Compare to the most livable city of the world Vienna[234], ***easy accessibility of urban green spaces*** by local dwellers is one of the indicators to measure livable cities in the world. Easy access to urban green spaces and the amount of urban green areas per capita gives some indicators for the measure of livability in the city.

Today, ***only 1.5 percent of urban green areas are publicly accessible in Istanbul*** (World Cities Culture Forum, 2013, p.45). According to this, Istanbul needs more publicly accessible urban green areas. ***The amount of green open spaces per city dweller is 6 square meters in Istanbul[235], concerning international minimum standard by WHO, the amount of green open spaces per city dweller is minimum 9 square meters[236]***. Accordingly, the city of Istanbul **needs more green open space** to reach the international minimum standard about the amount of green open spaces per city dweller. In 2013, the population density in Vienna[237] is 4,200 inhabitants per square kilometers. *Referring to local district of Fatih, the population density in Fatih district is 6.39 times more in compare to Vienna*. There is a need to open spaces in Fatih district compare to Vienna to achieve more livable conditions. It's not only relating to the urban open spaces, it is also important to provide publicly accessible outdoors and green areas in the local district.

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[232]TUIK (Turkish Statistical Institute): The population census in 2008 accessed on February 6, 2015, http://www.webcitation.org/6Bu3myMLK.

[233]TUIK (Turkish Statistical Institute), accessed on February 6, 2015, from http://rapory.tuik.gov.tr/06-02-2015-18:28:59-20326588335119040151210238786.pdf

[234]Accessed on February 13th, 2015, https://www.wieninternational.at/de/content/umweltstadt-wien-5050-gruen-de.

[235]Accessed on November, 2014, from http://www.ibb.gov.tr/tr-TR/BilgiHizmetleri/Istatistikler/Documents/bldhizmetleri/2010/parkvebahceler_mud_2004-%202010.pdf.

[236]Accessed on November, 2014, from http://www.fao.org/docrep/003/x1577e/x1577e06.htm.

[237]Accessed on February 13th, 2015, http://www.statistik.at/web_de/services/wirtschaftsatlas_oesterreich/oesterreich_und_seine_bundeslaender/.

As a result, the residents in Yedikule need open spaces for recreation and leisure use. There is **a need to produce *more publicly accessible green areas* in Yedikule** to achieve better livability city conditions as Vienna, and therefore, fulfilling the gaps of recreational needs of local residents.

Making Public Park provides ***public access to urban open spaces***; outdoors and green areas in local district. *All local residents* would have the opportunity to easily access to urban outdoors and green areas by increasing the number of public parks in Yedikule neighborhood. Therefore, increasing public access to open spaces in Yedikule will bring more livability and help to increase the life conditions in Fatih district.

In Fatih district, urban open spaces consist of ***publicly accessible outdoors and green areas***, and ***not directly open to public access of open spaces***. These two types of open spaces together compose 296 hectares, which is the total size of open spaces in Fatih district. Referring to the total area of Fatih 1562 hectares, 19% percent of total area of Fatih district consists of open spaces, and 81 % built-up areas (Table 4). Referring to the amount of population in local district, **the amount of open spaces per inhabitants is *7 square meters*** in local district of Fatih.

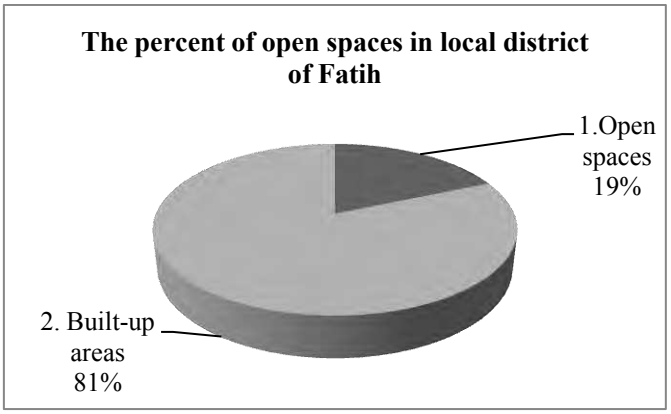


Image 7-69: The percent of urban open spaces and built up areas in the local district of Fatih, by author. (Source: Site Management Plan, 2011)

The total size of open spaces in the local district of Fatih is 296 hectares; the size of 155 hectares of open spaces is ***public access outdoors and green areas***; the size of 141 hectares of open spaces is ***not directly open to public access***[238].

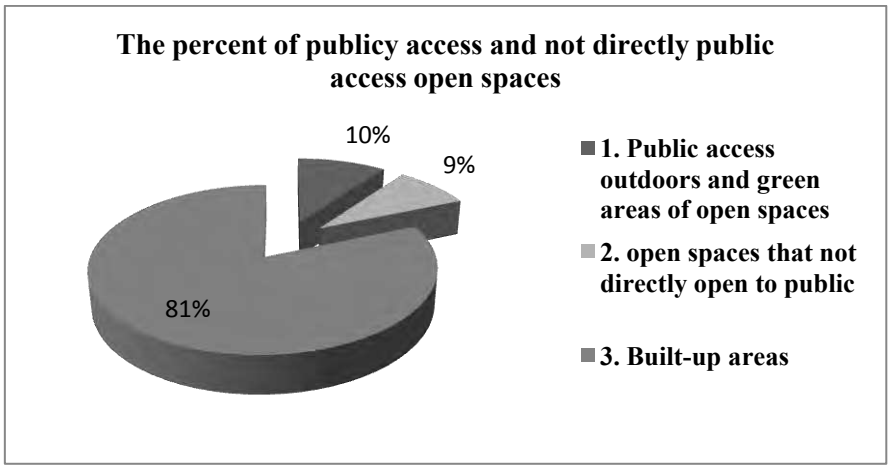


Image 7-70: The percent of publicly access and not directly public access open spaces in local district, by author. (Source: Site Management Plan, 2011)

Public access outdoors and green areas in Fatih cover 155 hectares, and they cover approximately %10 of Historic Peninsula[239] (Table 5). These are public parks, and other direct publicly accessible green areas. According to the population in Fatih, in 2014, the amount of ***public access outdoors and green areas per person is*** **3.7 square meters** *at existing situation in the local district of Fatih.*

Not directly open to public access of open spaces cover % 9 of Historic Peninsula (Table 5). These are existing urban bostans, cemeteries, university and hospital lawns, kulliyes. ***The three number of bostan plots inside the border of municipal park project are not directly open to public access***. Not directly open to public access of open spaces cover 141hectares. According to the population in Fatih, in 2014, the amount of ***not directly open to public of***

[238]Istanbul Historic Peninsula Site Management Plan, 2011, pp.1-474., p.75-77.

[239]Ibid.

open spaces per person is 3.3 square meters at the existing situation in the local district. *The green areas that go along the Land Walls include urban bostans (Yedikule bostans take place also here,) are 35 hectares; and the cemeteries in buffer zone are 106 hectares*[240]. If we exclude the potential of cemeteries for using recreational activities, and *if we convert the potential of green areas that go along the Land Walls into public access outdoors and green areas of open spaces*, it would provide the size of *35 hectares* of green areas ***more*** to use recreational activities with multi functional land uses. It is necessary to take into account the potential of existing bostan plots to make good plans on urban open spaces. It's important to consider legitimate use of open spaces through converting existing green areas into multi functional practices. Keeping food production on the bostan plots inside the border of municipal park project with complementary urban activities, such as education, health, environmental and social activities have potential to meet the needs of recreation and leisure.

The potential of green areas that go along the Land Walls: Referring to all green areas that go along the Land Walls that not directly open to public, if these green areas had opened to directly public access, the amount of 35 hectares of open spaces would be direct publicly access open spaces. Therefore, it would help to increase the total amount of 190(155+35) hectares of open spaces to public access. Therefore, ***the amount of public access outdoors and green areas per inhabitant will be increased from 3.7 square meters to 4.5 square meters*** **in** the local district. Therefore, **the publicly accessible open spaces for recreation uses will be increased**; and it will also provide **easy accessibility of urban green areas and outdoors for recreation needs**. These both indicators, that easy access to urban green areas by local dwellers and the amount of urban green areas per capita are the measurements to give information about the livability in the district. Accordingly, more public access outdoors and green areas would provide more comfortable, healthy, and qualified life conditions in local settlement. More publicly accessible areas in Historic Peninsula will help to increase the quality of life conditions of local residents in the local district of Fatih.

As a result, there is a need of publicly accessible outdoors and green areas to fill recreation and leisure needs in the local district of Fatih. Concerning Yedikule neighborhood, more publicly accessible outdoors and green areas help to achieve better livability conditions. Making urban park in Yedikule could provide easily access to recreational areas and urban green spaces. But it should be *a good plan for public access* through addressing the wishes of the all stakeholders with different interests.

7.3.2.2 Who benefits of it as making Urban Park

Making Public Park provides public access open spaces; outdoors and green areas in local district. On the one hand, all local residents will be use urban park for their recreation and leisure needs. On the other hand, existing Yedikule Bostans are not directly open to public access. They are used by bostan keepers for producing vegetables and making profit. Existing bostan plots are semi public open spaces, act as commercial gardens. A particular small group

[240] Ibid.

of people use gardens to certain purposes. They are using bostans as smallholder family operations, for working and selling their own produce into neighborhood bazaars or as street vendors, or at the roadside stands. It's not accessible for all citizens to use gardens, existing gardeners pay land compensation for occupying land to land owners. If the lands are private property, gardeners pay for renting their lands, but with unofficial agreements; or if the land is public property, then gardeners pay to the responsible authorities of the municipality for renting land, but it is also not directly signed official papers.

7.3.2.3 Advantages & Disadvantages of making urban park

The municipal project foresees **the destruction of some parts of existing Yedikule Bostans** and **replacing with a publicly accessible recreational urban park project.** It is **missing preservation of bostans for recreation and leisure activities** to **use as land use elements of open spaces** to make plans in urban open spaces. The neighborhoods will **lose the opportunity** for **improving the health of buyers**-*local residents*- themselves. Because, the destruction of bostans for making recreational urban park **cuts back health benefits**, due to losing 6hectares of vegetable gardens in Yedikule. It **makes reduction in *access to nutritious foods, fresh vegetables*.** This kind of interventions from the local authorities may intend not to motivate the local people to increase their consumption of vegetables and fruits from local bostans produced. These interventions can be also **caused marginalizing the bostans families and their productions from neighborhood markets** and from the society. It can also make **social disparities between the societies**. These type interventions will be **cut back the motivations of gardeners for investing their land;** and it will create **negative physiological effects for gardeners.**

Health & Environment

The Network of Yedikule Bostans and the local district /Food Miles / Food Distribution

- **Losing to access to network of food production, between gardeners' product and neighborhoods bazaars and the connection between seller (gardener) and buyers (local residents).**

Yedikule Bostancıs are inland migrants from Cide, by the destruction of their bostans; they will **lose their strong connection with Yedikule local neighborhoods and district-wide bazaars**. **The network through the selling and buying activity of the bostan products in the district wide will be *decreasing by losing 6 hectares of bostan lands*.** The network between Yedikule Bostans and the local district will be lost. Bostancıs will be **losing to access to network of food distribution between their products and neighborhood bazaars and the connection with buyers-local residents-.**

- **Increasing the food miles, supply vegetable needs from long distance sources**

Therefore, losing the produced vegetables from the size of 6 hectares of Yedikule bostans will be necessity **to supply vegetable needs of local citizens from wholesale markets**, and other

long distance food resources. The food is being mostly transported form Mediterranean provinces to Istanbul's wholesale market. It means the transportation of food from producer to consumer –*food miles*[241]- will be longer.

- **Long distance food miles impact environmentally negative; food from long distance large-scale agro operations may economically cheaper than local food from the bostans.**

The distance of food miles will be longer compared to Yedikule Bostans, transporting fresh produced vegetables from local production spaces on bostans to the consumption spaces into neighborhood bazaars *is shorter* than the distance of food transportations from the production sources in specifically from Mediterranean provinces to the consumption spaces into neighborhood bazaars. ***Long distance food transportations make negative impact*** **on global warming,** relating to environmental impacts of food. Greenhouse gas emissions are mostly created in production phase of food life-cycle; it creates approximately 83% of overall emissions of CO_2[242]. Food cycle consists of **production, consumption and transportation phase.** The energy is used for producing as well as for transportation. It is important, how the food is produced, which energy is used. If **cheap non renewable energy** is used in production phase **to make intensive farming** and to produce lots of vegetables in large scale operations from long distance sources concerning Mediterranean provinces, **long distance food transportation seem economically preferable by providing cheaper price to access to food for local residents**; but **non renewable energy impacts *environment* negatively.** It damages environment. More energy will be required for long distance food transportations compared to local productions from bostans, and as a result using **non renewable fossil fuel for food transportation from longer distances will be increased**; and it will cause **increasing carbon emission.**

- **Increasing the chemical materials from long distance food sources to keep the food longer 'fresh'.**

Long distance food resources could be required preservatives and colorings to keep the food longer 'fresh'. These chemical inputs are also not healthy as natural 'fresh' food compared to access from short distances food sources as bostans; the gardeners don't need to use chemical inputs to keep the vegetables longer fresh.

- **Increasing pesticides and fertilizer for intensive farming activities in large scale agro operations in food production phase, this is caused to decrease to access healthy and fresh products for buyers. Long distance food miles are caused**

[241]Paxton, A (1994): The Food Miles Report: The dangers of long-distance food transport, SAFE Alliance, London, UK, accessed February on 15th, 2015, from http://www.sustainweb.org/publications/?id=191.

[242]Weber, C., & Matthews, H. (2008): Food-Miles and the Relative Climate Impacts of Food Choices in the United States, Environmental Science & Technology, 42(10), 3508-3513, accessed February on 15th, 2015, from http://www.foodpolitics.com/wp-content/uploads/food_miles_climate_impacts.pdf.

increasing of carbon emissions, and used non-renewal fossil fuel. This impacts environment negative.

Producing phase consists of growing, processing such as composting or fertilizing, and other inputs. ***Environmentally*, if the producing techniques require *more pesticide and fertilizer using in* large-scale operations such as massive products from Mediterranean provinces compared to local products of bostans,** which is used natural composts for producing, it will **cause *increasing of carbon* emissions**; **and increasing of the used non renewal fossil fuel** by long distances. Pesticide and fertilizer using in large scale operations make faster growing in production phase compared to natural compost using. Using **natural inputs** such as natural composts compared to using pesticides and fertilizers makes healthier production and provide to access healthy and fresh products for buyers. More pesticides and fertilizers to use in production phase, for **increasing the amounts of products in large scale operations**, it will cause to provide to **access to not healthy as natural inputs used production as bostans and they may cheaper products than the food from local bostans.**

- **The buyers will lose access to healthy and fresh food by the destruction of Yedikule Bostans.**
- ***The environmental impact* of longer distance food miles shows increasing the percentage of pollution and the used non renewable fossil energy for transportation. It should be considered by buyers-*local residents*-carbon emission occurs from food production phase, to distribution and to consumers' plate. It effects environment negatively and it damages environment. It should be enhancing the acknowledgment of buyers on negative environmental impacts of long distance food transportations.**

Economic

- **Decreasing smallholder family operations**

The destruction of bostans to make publicly accessible urban park will **effect negatively the smallholder family operations in Yedikule.** Bostancı families will **lose their sources for feeding their families.**

- **Losing income of bostans to feed livelihood needs of bostancı families.**

Although **only income of commercial functions of existing bostans is not enough to feed a bostan family, the income of bostans help to feed livelihood needs of bostan families.** They **will lose their incomes** from selling products that produced on bostans. Concerning *feeding bostancı families as Kaldjian explained before, a bostan family needs approximately 3 hectare land to feed its family. The size of existing bostans in the study site is 6 hectare, and there are more than 2 family operations in the border of project,* ***bostan families need external income sources to feed all needs.***

- **Decreasing employment and sources to sell vegetables and fruits from bostans**

Bostans as sources provide employment for bostancı families. Through the destruction of bostan plots, **gardeners will lose their jobs.** *Bostancı families* have to find other sources for feeding their families, or another jobs. Perhaps they need to find other lands to use for producing vegetables; as one gardener Riza in Yedikule, he has also lands that act as commercial gardens surrounding Istanbul, and he sells his products on filled moat for gardening, at the roadside stands at the Land Walls.

- **Increasing the demands of recreation needs of local residents in Yedikule. Making a Public Park will fill the gaps of recreation needs.**
- **Increasing the value of land, the property owners can make more profit by renting their apartment or selling their lands in Yedikule.**

According to my interview with the reeve of Yedikule neighborhood Ali Küpücü[243], "*90% of local residents are interested of making an urban park with* ***modern artificial designs****, because it will enhance the value of lands for property owners, apartment owners and also the cost of rents of apartments, stores and other structures; therefore the property owners in Yedikule could make more profit by renting their apartments, or for selling their lands with high costs."* It seems **local authorities are interested more to make high profit** than the consideration of historic aspect of bostans**.**

- **The lack of consideration of enhancing values of existed bostans, exploring values of existed bostan plots in the project border can provide valuable properties not only for land owners, all neighborhoods in Yedikule as well.**

Local authorities don't consider enhancing existing values of bostans. Exploring values of bostans for food production purposes, designing with respect to structural and symbolic functions of open spaces can meet recreation and leisure needs. **All neighborhoods in Yedikule can benefit from the bostans.** This can provide valuable properties as well. It may contribute to make high costs for renting or selling the properties in Yedikule, therefore the property owners could also make more profit than before.

Social

The destruction of bostans for making recreational urban park cuts back social benefits. Two or three bostan families will lose their jobs. The poverty of the society will be increased.

- **Accessible for all residents, increasing social and societal functions of open spaces, provide its direct use for recreation and leisure activities. All facilities for recreation and leisure are available to use for all groups in Yedikule.**

Making an urban park that accessible for all people, it provides ***spaces and facilities for leisure and recreation*** and it includes **its direct use** for play, sport, and walking, formal and

[243]Interview with Ali Küpücü , is the reeve of Yedikule Neighborhood, December 29, 2014.

informal, recreation, active and passive. The proposed recreational public park project involves squares; children play grounds, sport spaces, restaurants, education and art studios for serving social education and exhibitions...etc as well as seen on Image 7-33. Therefore, the proposed park project provides play spaces for children of different age groups; it provides sport spaces such as gymnastic space, skateboard space; it **provides also for informal recreation** that **is not requiring special facilities such as walking ways** around the water pool with fountain by forming waves from north towards south of the Land Walls in the border of urban park project**. All these facilities are available to use for all groups in society;** even the destruction of bostans; the bostan keepers can also use these spaces for their leisure times. It seems attractive. Because **bostans are only used by bostan keepers**, and **they don't involve its direct use for different activities by the all groups of people in the society,** they are only used directly by bostans families for making profit.

- **Increasing *seating, meeting and communication areas by supplementary equipments in the public park***

Urban park provides ***seating, meeting and communication areas by supplementary equipments***.

- **Enhancing the security of the place with supplementary equipments in the park, accessible sanitary installations**

The overlooked spaces such as bostans in Yedikule, there is not enough night-lights on the bostans and ways at the Land Walls; it occurs unsafe places (Public Meeting, 2013). The local residents claim for insecurity near the bostans at the Land Walls. ***Making an urban park will enhance the security of the place*** with supplementary equipments such as installation of the lights or security guards in the park at the Land Walls. The installation of the lights and security guards will provide safe spaces for local residents, on the ways passing from city walls around the urban park. Therefore, making an urban park in Yedikule will enhance security by providing accessible sanitary installations.

- **Making public park contributes to increasing social contact and communication**

Making urban park project, it facilitates ***social contact and communication***. Publicly accessible open spaces such as urban park, it provides an essential arena in which people from different social, cultural and demographic groups meet and come into contact with each other[244]. It provides furthering social cohesion. The reeve of Yedikule neighborhood Ali Küpücü underlines[245] "*In Yedikule neighborhood lives Armenian, Jewish, Greek, Kurdish, Turkish people, different social, cultural groups"*. It means different social, cultural groups in

[244]Stiles R., 2013: A Guideline for Making Space: Joint Strategy Activity 3.3, it's a part of the project "UrbSpace" (www.urbanspaces.eu), it's implemented through Central Europe Programme, accessed on October, 2014, from http://www.central2013.eu/fileadmin/user_upload/Downloads/outputlib/Urbspace_Guideline_for_makingSpace.pdf, pp.1-60, p. 16-18.

[245]Interview with Ali Küpücü , is the reeve of Yedikule Neighborhood, December 29, 2014.

Yedikule can meet and come into contact with each other in urban park. Three levels of social interactions in public spaces are identified by Danish architect Jan Gehl (Gehl, 1986) [246]: People basically need to be in outdoor spaces occurs the first level of social interactions; creating open spaces which people prefer to spend their free time occurs second level; the last one involves the people when making use the opportunity to spend their free time in open spaces that results the possibility of social interactions becoming availability. Social interactions require a range of hierarchy in relating accessibility open spaces from private to public open spaces.

- **Keeping bostans to make a public park contribute to increase access to and to experience of nature actively, increasing the public awareness on environmental issues.**

Bostans are ***existing resources*** to provide **access to nature and access to experience of nature *through converting into multiple land use functions by complementary activities, and converting to being accessible and let right to use by all citizens*** . Public park users can derive benefits from keeping bostans for the urban environment.

People need to live close to natural areas, and getting contact to nature. As Biophilia Hypothesis'by E.O. Wilson puts forward that[247] "*human beings are a part of nature and as a result of the species having evolved in interaction with its natural environment over millions of years,"* people still need to close and contact to nature, even we live devastatingly in urban environments. Urban open spaces provide habitats for fauna and flora, and human users can derive benefits from urban environment, such as physical and mental well being; and promotes increasing the public awareness on environmental issues. It lets experiencing nature actively. Densely built up areas such Yedikule, it is **necessary to live close to natural areas, and contact to nature.**

The fact of the lack of the public awareness on Yedikule environment issues, it doesn't let to recognize, that the bostans are resources to access to and experience of nature *actively* by converting bostans into public open spaces with multiple land use functions. Therefore, it will let all citizens to access in bostans and all citizens would contact with nature, and in this way the public awareness will be increased on environment issues in Yedikule.

[246]Gehl J., 1986, quoted in Stiles R., 2013: A Guideline for Making Space: Joint Strategy Activity 3.3, it's a part of the project "UrbSpace" (www.urbanspaces.eu), it's implemented through Central Europe Programme, accessed on October, 2014, from http://www.central2013.eu/fileadmin/user_upload/Downloads/outputlib/Urbspace_Guideline_for_makingSpace.pdf, pp.1-60, p. 16.

[247]Wilson E.O., 1984, quoted in Stiles R., 2013: A Guideline for Making Space: Joint Strategy Activity 3.3, it's a part of the project "UrbSpace" (www.urbanspaces.eu), it's implemented through Central Europe Programme, accessed on October, 2014, from http://www.central2013.eu/fileadmin/user_upload/Downloads/outputlib/Urbspace_Guideline_for_makingSpace.pdf, pp.1-60, p. 17.

Keeping bostans to make a public park have the potential to contribute experiencing nature actively, such as promoting educational activities for environment, health, conservation issue of bostans **to being a carrier of historic cultural landscape;** using rainwater for harvesting, using environmental recycling materials such as PET-bottles as seen Karls Garten in Vienna (Box.10). It could promote also information related to growing vegetables biologically, food production process...etc. Yedikule Bostans have potential to **make an important contribution to enhancing environmental** *awareness through converting bostans into multi functional land uses such as keeping bostans with complementary activities to make a public park.* Therefore, it could contribute to be a good plan for open spaces.

- **Keeping bostans to make a public park contribute to increase contact with nature, recover from stress, take advantage of health benefits, physical and mental well being.**

Human beings are a part of nature; and they need to contact with nature ***Contacting with nature*** promotes recovery from stress, enhancing mental well being, *improves behaviors,* and it provides children attention into nature. Spending time in outdoors in specifically green areas promote people's ability to concentrate. The provision of green outdoor spaces in workplaces and schools, living close to green areas provide health benefits, physical and mental well being.

- Keeping bostans to make a public park with near-natural designs, designing with respect to minimum spaces for turning contribute to damage less habitat and natural character of place in Yedikule.

Near-natural designs derive more benefits and create less damage in the environment, and less damage to its natural character, habitat than artificial designs. Human beings are a part of nature, not a part of artificial-natural designs, at least the designs should provide ***near-natural designs***, ***designing with respect to minimum spaces for turning,*** and therefore minimum damage to its natural character, and its environment, its habitat in Yedikule and urban ecology.

Every public member can be experienced urban nature passively; but without the presence of near-natural areas in cities, in particular densely developed Yedikule neighborhood, it is difficult to increase public awareness about environmental issues. The ***existing plant and animal species in which occur habitats*** in Yedikule and, takes place in specifically Yedikule Bostans. Yedikule bostans provide natural areas in densely developed Yedikule neighborhood. Even Yedikule Bostans are natural areas in densely developed neighborhood of Yedikule, but it's not accessible, and it's used only a certain groups such as gardeners**, gardeners have right to use gardens**, but **citizens don't have legal right to use or access to bostans.**

- **<u>The demolition of bostans to make a public park with artificial designs</u> cause to lose the potential of access to and experience of nature; decrease access to and to experience of nature and to increase to contact with artificial nature and <u>decreasing public awareness on environmental issues</u>. It provides experiencing <u>artificial nature</u> actively.**

The demolition of bostans to make a Public Park with artificial designs lets all citizens to access green outdoors, but contact with artificial-nature. It promotes health and environment benefits. Experiencing nature promotes enhancing the public awareness about environment issues. **Looking at bostans promotes also living close to nature and health benefits**; but **it doesn't let to experiencing the nature actively. Experiencing artificial nature designs doesn't let as enhancing public awareness on environment as actively experiencing the near-natural designs.**

The lack of consideration of bostans as *sources to access to and experience of nature* in the proposed park project, it will let to lose the opportunity *to access to and experience of nature*, and instead of that, the demolition of bostans to make a public park with artificial designs will ***create to access to and to experience of artificial nature i***n Public Park. Therefore, the public would access the *public park with* ***<u>artificial-nature designs</u>***. It will *l****<u>ose the source to provide an awareness of urban environment</u>*** such as rainwater harvesting or turning waste into compost, educating school students or guiding informal visitors about the benefits of urban environment. As a result, the potential to make awareness in the public about environment will be loosed due to the demolition of bostans to make a public park. Urban public aware about environmental issues to make ***increasing awareness*** depends on the base of **<u>environmental education.</u>** But it's not enough. It requires the ***public behaviors to*** *be changed* and wider environmental goals to be reached by the increasing wider environment awareness in Yedikule.

- <u>The demolition of bostans to make a public park with artificial designs</u> contribute to <u>access artificial nature and access to experience of artificial nature.</u> There is <u>a lack of near natural designs</u> in the proposed municipal public park project. Compared to near natural designs, artificial designs in Yedikule will damage more habitat and natural character of the place in Yedikule, damage urban ecology and decrease the awareness of public on environment issues.

The proposed public park project foresees the destruction of bostans to make a public park with artificial designs and provides connecting all residents ***to access to artificial nature and access to experience of artificial nature***. As well as can be seen on Image 7-40, there is an artificial water pool with fountains in the middle of the proposed public park project. It will make attractions with fountains.

Near-natural designs and artificial designs create another discussion topic. It is also deeply discussed on the next part. Shortly, artificial designs let citizens to access ***artificial nature and access to experience of artificial nature***. The consideration of keeping bostans to make

Public Park will let to access to and experience of nature, instead of accessing artificial nature. The demolition of bostans to make a public park with **artificial designs causes to damage its habitat, its natural character**. Surely, contact to nature provides more benefits than to contact to artificial nature. **Perhaps it's better to look at bostans, and get experience of nature passively, than destroying its natural character, its habitat with artificial designs. Artificial nature doesn't let as increasing public awareness in environment issues as near-natural designs.** It lets green outdoors, but it doesn't derive benefits as near-natural designs.

- **Making a public park with artificial designs contribute to increase publicly accessible green outdoors and contribute *human physical and psychological health and well being in Yedikule, but it doesn't take advantage of health benefit as near-natural designs.***

Increasing green outdoors ***influences human physical and psychological health and well being***. **Publicly accessible urban park will provide the Yedikule residents living close to accessible green areas**, and they can go walking and spending time there, and therefore they will **recover from stress, take advantage of health benefits, physical and mental well being.**

- **Increasing resources to directly open to public access outdoors and green areas**

Referring to urban park project, some parts of Yedikule Bostans take place in the border of the proposed public park project. 6 hectares of bostans are included in the borders. It means 6 hectares of bostans will be destroying, and its 2.7 hectares have been already destructed. So, **6 hectares of *not directly to open public areas* will be open directly to access public areas.** By urban park project, 6 hectares of open spaces that not open to public access will **convert into public access open spaces**. Therefore, the amount of publicly accessible open spaces in the local district will increase 6 hectare. Therefore, **public access open spaces will be reach 161 hectares** in Fatih. According to the population in Fatih, in 2014, the amount of public access outdoors and green areas per person will be increased from **3.7 square meters to 3.84** square meters, after making Public Park. The total open space area in Fatih district will not change, but it is significant to provide publicly accessible open spaces in dense settlement of district of Fatih.

- **Increasing resources to space and facilities for recreation and leisure**

The pressure of increased population and densely developed district of Fatih requires to make a public park. Making a public park contributes ***resources to space and facilities for recreation and leisure***, **directly accessible public park** involves resources to space for recreation and leisure such **as spaces for playing, making sport, walking**, eating…etc; including to **its direct use formal or informal**, active or passive, spending some of free times in the border of urban park. The municipal public park involves resources to provide spaces such as sport; children play grounds, squares, education and art studios for serving social

education and exhibitions…etc. (Image 7-33, Image 7-41). Municipal park project **provides resource to access all people** and it provides **facilities for recreation and leisure such as sport spaces**; gymnastic space, skateboard space that for formal recreation requiring special facilities to establish; also walking ways around the water pool with fountain by forming waves from north towards south of the Land Walls in the border of urban park project that requiring not formal facilities to establish. ***All groups in society are available to use this space and facilities for recreation and leisure. It is open to access all people, through being a public space.***

- **Increasing equipments for seating, meeting and communication space**

Making a public park provides sources such as ***supplementary equipments for seating, meeting and communication space.*** People can sit on the benches at the park, and spend some of their free times, or meeting spaces such as meeting with friends or neighborhoods for a walk at the park, or meeting with friends for celebrations. Everybody can use park in different ways with different purposes.

- **Increasing access to spaces for social contact and communication**

Making urban park contribute ***social interactions in urban park***, urban park is a **public open space**, and **provides all people to entire inside**. As well it was mentioned before on the social benefits of making urban park that to provide spaces for social contact and communication. Publicly accessible open space provides an essential arena in which people from different social, cultural and demographic groups meet and come into contact with each other[248]. Making a public park in Yedikule contributes ***access to social interactions*** with different social, cultural, demographic groups. They can access to park, to meet and come into contact with each other.

Social interactions depend on the ***degree of accessibility of open spaces from private to public open space.*** Different degree of accessibility on open spaces gives *legal right to use* spaces with different usability of spaces, such as certain purposes to use spaces. It makes limited use of spaces for local residents. **Bostans are *semi-public open spaces***. **Converting semi-public open spaces into public open space to making urban park in Yedikule let all people to access without any permission to the purpose of recreation and leisure**. It will not anymore be permitted gardeners to occupy land to purpose of food production to make profit in the border of urban park. 6 hectares size of Yedikule bostans are inside the border of urban park project, it is accessible *only clearly defined group of gardeners to use certain purposes such as food production.* These bostans are *semi-public open spaces.* It's **not permitted to access bostans for recreation and leisure activities such as walking around the gardens or meeting with friends**, or playing areas for children.

[248]Stiles R., 2013: A Guideline for Making Space: Joint Strategy Activity 3.3, it's a part of the project "UrbSpace", accessed on October, 2014, from http://www.central2013.eu/fileadmin/user_upload/Downloads/outputlib/Urbspace_Guideline_for_makingSpace.pdf, pp.1-60, p. 16-18.

- **The destruction of bostans cause class based disparities between gardeners and local residents.**

The interventions of municipal authorities can be caused class based disparities between the societies. Gardeners are low income families, inland migrants. The destruction of bostans will cause making weaker the low income families in Yedikule bostans. Low income bostan families will marginalize and weakened from the society; therefore they will be disintegrated into the society. According to interview with the reeve of Yedikule, he underlines[249] "*I am 63 years old, I was born in Yedikule, originally my family is from Giresun, which is a province in Black Sea region. But I know who complains the urban park project, they are Cidelis, from Kastamonu, we are not pleased with them, they make a fuss for making urban park project and also for other things. %90 of local residents agree to make an urban park here, but Cidelis not."* It shows there are already **disparities in the society**, and **the authorities can't consider finding a way on planning an urban park with including different interests of different group of users in Yedikule. The interests of bostan families to use land for bostan activities have been ignored by the authorities.** But it should be a good plan for open spaces with including different rights of different groups of land users; but **the proposed project seems one-sided.** It creates also **the lack of trust in government and increasing the poverty and disintegrated societies in neighborhood level and city-wide.**

- **Land tenure**

Gardeners give **compensation for land tenure**. Gardeners are responsible to produce, maintain, and secure their lands; and **gardeners are temporary owners of bostans**. Existing bostans inside the project border are **mostly public property and a small size of bostan belong a private owner** (Image 7-27, Image 7-28). Gardeners rent the lands to use for bostan to the purposes of food production. 6 hectares size of Yedikule bostans are inside the border of park project. Everybody can come and enter only to the purposes of buying activities into Yedikule Bostans. It doesn't permit people to enter the activities unrelated to the purpose of buying vegetables from bostans. **After making urban park, the land will be owned by a local government or national body.** It will hold in trust for the public, and the security will be under the responsibility of the municipality, and **the municipality is also responsible to satisfy the necessity supplementary equipments** for night-lights, electricity and other facilities **for making park safe.**

- **Making an urban park provides directly access to all people, it is a public open space and offers the legal right to use and makes a sense of communal ownership.**

Making urban park that publicly accessible means public park; and it is ***a public open space***. It is accessible and is used by all citizens. Urban park **open to directly access to all people**, it creates **communal space** and **the legal right to use** and it makes **a sense of communal**

[249]Interview with Ali Küpücü , is the reeve of Yedikule Neighborhood, December 29, 2014.

ownership. All people in Yedikule will have the legal right to use the public park; and the users of the public park will have ***a sense of ownership***.

- **The demolition of bostans to making a municipal public park with artificial designs promotes to decrease resources for selling food.**

Bostancıs will lose their resources for selling food such as selling food on their bostans, at the roadsides, because Yedikule Bostans take place in the much used roadsides in Yedikule, and near the main street of 10.Yil. It provides the opportunity for easy accessible to connect with more customers for selling and buying activities. The vegetable sellers will lose their good places to sell products by easy accessibility of connection to the customers; and therefore to make more profit.

- **The demolition of bostans to making a municipal public park promotes to decrease to access to fresh produced vegetables.**

Existing bostans in the border of public park project are sources to provide access to fresh produced vegetables; not only for local residents, also district-wide residents will lose that the opportunity to access fresh produce, from bostans in district-wide bazaars. Because gardeners will lose their sources to produce health food and to take them into neighborhood and city-wide bazaars, therefore other residents will also lose to access health, fresh produce from bostans in the bazaars.

- **The demolition of bostans to making a municipal public park will cause to lose structural and symbolic functions of open spaces in Yedikule. Cultural heritage will be loosed.**

By the destruction of bostans, they will be loosed **being as a carrier of identity**. The destruction of historic Yedikule vegetable gardens will impact negatively ***socio-cultural value of the Istanbul Urban Vegetable Gardens (Bostans).*** It will be **lose** Yedikule Bostans **as being a part of cultural landscape of Istanbul**; because there will be not any more historic Yedikule bostans. In the border of urban park project, there are four water wells, water pool from Byzantine time that give information about water supply system of Historic Peninsula; by the destruction of Bostans with existing water supply system structures, a part of water supply system of Historic Peninsula and Constantinople will be loosed. It will be loosed as being a part of *civic and monastic practices* in the Byzantine Period, as being a part of *the pious foundations system* in the Ottoman Period, as *a part of urban farming activities* in Historic Peninsula in the Republican Period. It will be loose as a part of the Land Walls system that forms the boundaries of the city in the Byzantine and the Ottoman Period, as a databank of historic and stratigraphic data on the seeds and agricultural practices on the past. By the destruction of historic Yedikule Bostans, it will be lose *the embodiment of intangible val*ues, which is the historical continuity of agricultural practices in Istanbul Historic Peninsula, and the important opportunity to maintain sustainable urban landscape and viability of urban society. Therefore, ***cultural heritage*** will be loosed by the destruction of bostans to make a public park. Yedikule Bostans are structural and symbolic functions of open spaces.

It will **not any more keep the perception of bostan activities for local residents and for city residents.** The destruction of Bostans will be caused that the ongoing production process on bostans will stopped**, not any more provide preserving traditional bostans with ongoing production process with their experience**. After the destruction of Yedikule Bostans, the existing land will **not provide any more continuing the perception of residents, traditional gardening in Istanbul.** Ongoing production will be interrupted on the lands and it will be converted into recreation and leisure land, therefore *the perception of bostan activities for local residents in Yedikule and for the city will be destroyed*, and it will be forgotten by the upcoming years.

- **Lack of participating local residents and gardeners in policy making process, lack of making a sense of ownership of the proposed municipal park project.**

The local residents are not involved in policy making and plan decisions process by the local authorities; as well as gardeners, who are temporary land-owners, not involved in policy making and plan decisions. The way of making a public park instead of the bostan lands by local authorities doesn't contribute to make *a sense of ownership*.

- **Lack of involving various groups in the planning process from the beginning doesn't create a feeling of ownership of municipal park project.**

The lack of non-participating the local residents, activists and the land users-*gardeners*- in the management and design of Yedikule bostans to make a park, it doesn't create a feeling of ownership. The lack of involvement of public participation, participation of all target groups in the planning process in Yedikule case, in accordingly, **the local authorities didn't take into account to understanding the wishes of users-*gardeners*-, local residents, activists.** Therefore, public park project **doesn't create an appropriate level of use for all different groups in Yedikule, and doesn't meet the demands of different target groups**.

7.3.3 REFLECTION AND IMPLICATION

The centralized planning authorities concerning Yedikule case make interventions on urban open spaces with the lack of consideration of existing qualities of open space, interrupting them, and putting a new value to make some new expression on the open space. What is the best strategy to preserve urban open spaces? The way of preserving: ***establishing new values and ignoring the existing values***, meanings, identities by top down planning policies, lack of public participation in policy making process; and just focusing making a public park with artificial designs. Or exploring the meanings, values, identities of the existing "open spaces" (bostans) ***as a whole*** to ensure the continuation of daily life, and experiencing space with its cultural traces from bottom up planning policies?

The destruction of bostans to make a public park with artificial designs will damage the natural characteristic of Yedikule. It will ***damage the habitats of plants and animal species*** *in bostans*. Although open spaces represent a low level intervention that don't let change intrinsic naturalness, compared to build-up areas that represent a high level intervention into the ecosystem, altering the landscape; concerning Yedikule case, the destruction of bostans for *making public park with artificial-nature designs let also a high level intervention into the ecosystem i*n Yedikule. It lets to change intrinsic naturalness, altering the landscape, ***losing the habitats of plants and animal species in bostans*****,** and loosing the characteristic landscape value in Yedikule. **Does it really need an urban park with artificial designs**? It seems cliché planning approaches. The proposed urban park project is a stereotype park. It should **be *considered designing with respect to minimum spaces for turning***, not like Yedikule case to ***designing with disrespect to all spaces for turning*** **into** *urban park with artificial designs***.** **Both are open spaces**, existing bostans and the proposed urban park project; but the ***artificial-nature interventions*** into the area make to *lose its natural character*. Both help to preserve urban open spaces, but what's the best strategy? Finding the best strategy to make **a good plan in urban open spaces, it will help to preserve urban open spaces in the best way.** In Yedikule, it's necessary to **make near-natural innervations into the space, with respect to minimum spaces for turning**, it should be considered designing with minimum damages into its natural character.

There are different target groups and their different demands of food production, conservation of historic cultural landscape and recreation. The proposed public park project focuses only to supply the interests of recreation and leisure; it doesn't supply the demands of food production and conservation. It seems one-sided project, filling the demands of recreation, and ignoring the demands of interests for conservation and food production. Urban open spaces should be much more than providing recreation and leisure.. Different groups may value the same space-*Yedikule Bostans*- in different ways. The different layers of meaning have been challenging extremely to react to open space in planning process in Yedikule case; ***the different layers of meanings have been clashing for the function of open spaces*****.** The destruction of bostans for making recreational urban park with artificial designs, the existing planning context **is needed a considerable care**. The municipal park project is a stereotype urban park project with artificial designs, it's necessary to avoid the **clichés** planning approaches. It is important to clearly consideration in Yedikule context, the way of planning

of the municipal urban park project, *and the lack of involvement of different groups in planning process of the project* to make a public park. Involvement of different target groups in policy making process from the beginning may help to make a compromise solution between conservation, food production and recreation and therefore balancing different demands of different groups in an appropriate level of use of space in Yedikule may help to find the best way on making a good plan for preserving urban open space in Yedikule.

The actions of municipality seem to increase land values in Yedikule. Because, after the decision in 2005, Yedikule Bostans in conservation area are became 'renewal areas'. Firstly is built luxury Yedikule Villas by the replacement of existing bostan to increase the value of land in Yedikule neighborhood. The municipal public park with modern artificial designs seems as a frontage of Yedikule Villas, is placed in front of the villas, and **promoting new high income residents to access recreational park,** and to increase land value. The planned park seems as **a kind of backward of the envisioned housing development**. The project involves cliché facilities; it provides specific facilities to appropriate for specific user groups, and seems promoting specific facilities to appropriate for new high income residents' users to access the land for recreation and leisure activities. The municipality intends that organizing the Bostans as **a stereotype park** would increase the land rent in the area and make easier to **change the image and sell the properties much easier at higher values. Is making Public Park with artificial designs the only one way to increase land values in Yedikule or is there any another ways to explore land values and make benefit not only for property owners, but <u>also for all neighborhoods in Yedikule?</u>** The municipal park project is missing that urban bostans are an opportunity for recreation and leisure activities; exploring the bostans with complementary activities as source for urban activities may also provide recreation and leisure activities in the public park, exploring its identity, meanings and values may help to increase land values as well, and exploring its potential to meet the contemporary needs may also provide explore the land values and benefit all neighborhoods in Yedikule.

The proposed municipal urban park project is *missing to be the best strategy to preserve urban open spaces, **making a good plan for public access and a legitimate use of open spaces***; it makes all people access to urban park compared to Yedikule Bostans, *but was the proposed municipal project **a good plan for public access?*** This is a question ***for inquiring a legitimate use of open spaces***. Yedikule neighborhood is a densely urban settlement area, and meets the needs of publicly accessible open spaces to fill the demands of recreation and leisure. What could be a good plan to preserve urban open spaces in the best way? The proposed municipal park project ***is missing a legitimate use of open spaces in an historic urban context.*** Because the proposed project is **<u>missing conservation issue</u>** of bostans, and it foresees replacing of existing historic bostan plots with urban park. The municipal park project will be publicly accessible for all people in Yedikule; but **<u>if there are some losers and winners for producing accessible public open spaces, how could it be a good plan for public access,</u>** for preserving urban open spaces? What about making a legitimate use of open space to balance the demands of different target groups in Yedikule?

The municipal park project is **<u>missing keeping bostans for recreation and leisure use.</u>** If there is a demand for recreational need, bostans are also an opportunity to provide recreation

and leisure activities. Because, existing Yedikule Bostans are **not directly open to public, semi-public open spaces,** but they have **the opportunity to act as land use elements of open spaces**, and to convert into multi functional land uses. Yedikule Bostans could be converted from restricted use that provide only food production and conservation, into multi functional land uses that provide recreation and leisure, and this contributes to keep ongoing food production on the bostan plots; the historic bostans will be protected as well. In this way, Public Park can fill the demands of conservation, food production and recreation groups. All citizens can utilize from the bostan plots as public open spaces, **if the city stakeholders have right to use Yedikule Bostans as publicly accessible urban park**, the local dwellers may more likely to preserve this historic vegetable gardens. This helps to enhance the awareness of public about the significance of the Yedikule Bostans.

The proposed municipal park project meets the interests of recreation and leisure, excluding the interests of conservation and food production. Finding the best strategy to make a good plan for preserving urban open spaces is not just a matter of personal taste, filling the demands of only one group, ignoring the wishes of other groups; it needs to meet functional criteria too. Considering the possible functions of open spaces may help to make a good plan to preserve urban open space.

Yedikule bostans are **structural and symbolic functions of open spaces** in Yedikule. They are at the perception of local knowledge for years, 1600-year-old, and keeping production on bostan plots is significant to conservation of them. They are over hundreds years used for vegetable producing at the same production plot. Although Istanbul is growing rapidly and has the pressure of urbanization, Yedikule bostans are still existing, and continuing production practices as in the past centuries. Yedikule Bostans carry on the connection of Byzantine, Ottoman, and Republican Period agrarian traces on the space and the perception of local dwellers. So, they carry historic cultural landscape value; and they are a part of Istanbul's identity, a part of topography of Historic Peninsula, they are also livable reminders. **Yedikule Bostans are carrier of identity, meanings and values**; they are carrier of ***cultural heritage*** and cultural landscape, which need to be conserved. Historic aspect of bostans is widely explained before.

The involvement to an active public participation in policy making and plan decisions processes from the beginning in Yedikule case, it will help to make to resisting with a ***sense of ownership***. Feeling of ownership by participants would increase the sustainability of the public park, because it lets to pay attention to conservation of cultural heritage of Yedikule Bostans. Therefore, the public awareness of conservation of cultural heritage of bostans would be increased. The sense of ownership of local residents about bostans will create to pay attention to maintain, surveillance, and protection by frequently using the bostan plots. The consideration of all possible function of open space through converting land into multiple land use functions with complementary activities in public park project, it makes possible keeping bostans to make a public park with complementary activities in Yedikule. Participation in policy making process will help to balance all target groups in an appropriate level of usage of bostans in urban park. Therefore, it would help to create an open space-***productive urban park***- for all.

If local residents really demand a recreation need, keeping bostans for recreation and leisure use could be the opportunity to meet the needs of local residents. Supporting with government funds, it could provide educational activities for schools, for visitors. Participating local dwellers into policy-making process makes **a sense-of-place** and empowers the locality in Yedikule. Yedikule bostans can gain value with educational activities.

'Establishing a sense of place' is one of the most important strategies to preserve urban open spaces. Taking into account the history and geography of the place, and its significance for the people, conceiving for everyday life, besides that, an active public participation in policy making, involving various groups in the planning process from the beginning **creates a feeling of ownership of the area.** All these provide frequently use of space and increasing responsibility in neighborhood, increasing the maintenance of the space, therefore, these steps create safe spaces[250]. The way of preserving urban open spaces is very important to the consideration of existing qualities of open space, besides of that, it is necessary to pay attention to answer contemporary demands, adapt new urban garden models to manage fix and changeable elements as **a whole,** from bottom up planning policies, this way helps to make a sense of place.

Considering the significance of bostans with taking into account the history and geography of the place will help to pay attention to keep bostans for making a public park in the best way. If the existing bostan plots don't be destroyed to make an urban park, and it would help to keep, preserve historic vegetable gardens and consider the conservation aspect on historic vegetables gardens during making plans on urban open spaces. It helps to keep ongoing food production on the same plots to meet recreation needs with complementary, multi functional urban activities. Multi functional activities that can take place at urban bostans such as health, economic, social and environmental activities. *Health activities* could be cooking and nutrition classes; *social activities* such as producing together vegetables, public kitchens, social gathering spaces (for example watching movie), university or school based research and organizing, food justice/social justice education; *activities* such as rainwater harvesting, composting, environmental education. Therefore, the produced publicly accessible outdoors and green areas at the Land Walls will help to make productive urban park for everybody. Taking into account managing of the fixed and changeable elements will help to find the best way for preserving urban open spaces.

Making a good plan on open space in Yedikule case, it has potential *designing with respect to its conservation of historic cultural landscape* value and *designing with respect of food production* that would help to make building communities, increasing solidarity between neighborhoods, and also *designing with respect to near-natural designs will* help to preserve urban open spaces in the best way, the bostans as urban activities will provide recreation and leisure ***activities in productive way***, such as providing education activities. As a result, the inclusion of these in Yedikule bostan case would provide a good plan for open space. Because it would be a ***productive urban park in Yedikule*** with ***balancing different legal rights to use***

[250] R. Stiles, 2013, Characteristics of Good Urban Open Spaces, In: A Guideline for Making Space: Joint Strategy, pp. 19-20.

of bostans and ***different interests of different users***, *the interests of food production, recreation and leisure, conservation of historic cultural landscape value in an historic urban context.* Therefore, t**he sophisticated and complex methods would be recognized, and integrated**; existing bostans would be converted into multi functional land uses; and in this way the consensus of the interests of different users and a legitimate land usage in Yedikule would be realized.

They have also **potential *to make meaningful contributions for its future use through multifunctional land uses***. It's important to consider the contributions of bostans for livability -the world's most livable cities- consider Vienna in Austria, Vienna is took place second at the Global Livability Ranking in 2014[251]- The livability factors are organized in five broad categories: stability, healthcare, culture and environment, education and infrastructure [252] . The productive innovation on the space is very important, to provide multiple functions on the space. Therefore, it would be gained a value on the open spaces, increased the value of space, and it would make highly valued spaces.

7.3.3.1 Conclusion & the decision on revision of the proposed municipal park project in Yedikule

Although bostans are **under the protection of national laws** as well as mentioned the guidelines in SMP before, but **the monitoring mechanisms are not working well to control the implementation** of municipal public park project. It means there is law related to landscape policy about Yedikule case, but it is not working between the control institutions. It seems that local authorities make the projects in easy way, and there are no responsible institutions to control projects in conservation areas that the project follows the guideline of SMP or not. It highlights, there is no connection such as control mechanisms between national level, city level and local level institutions. The national laws ***are implemented from top down,*** but they are not followed exactly to the considerations of guidelines of SMP in conservation areas.

The state function is not enough, it brings out to need informing people. Who will inform? Experts? The Yedikule Historic Vegetable Gardens Preservation Initiative organized a Forum-public meeting in Yedikule Bostans; and one month after the Forum, the mayor of Fatih Municipality Mustafa Demir in August 2013 was explained that *"We will preserve 800 square meters of Yedikule Bostans"*, by a newspaper it is announced that they have revised the project as a result of reactions of Yedikule Bostans Preservation Initiative. It shows how important to come to attention landscape issues to give information about the significance of

[251] Accessed on February 5, 2015, from http://www.economist.com/blogs/graphicdetail

[252] Accessed on February 5, 2015, from http://store.eiu.com/product.aspx?pid=455217630&gid=0&pubid=465217631

bostans in relation to landscape protection by ***the experts***. As a result, the Mayor of Fatih Municipality told[253]:

"After the start of the project, inland and foreign lecturers are explained, that bostans are the inherited gardens from Byzantine era, they are a rare examples of agriculture in the city, and they are a part of the city's flora. There is also Ismail Pasha Bostan, and water wells inside the border of park project area, Ismail Pasha was the vizier of Sultan Selim. The park project has been revised, and added Ismail Pasha Bostan to the project. We have planned 8 units of 100 square meters of bostans".

According to explanation of the mayor of local municipality of Fatih, it seems still the lack of perception of bostans in narrow mind by city authorities, concerning conservation perspective.

The demand of first group is to **conservation of the historic cultural landscape,** and to build a public park by preserving bostans and to support gardeners. This group contains academicians, intellectuals, students specifically from Yedikule Bostans Preservation Initiative. It seems that their demand also to keep ongoing production activity on bostans by showing solidarity with gardeners.

There are recent developments about Yedikule historic bostans. In December 12th, 2014, it's announced by a newspaper that the Council of Greater Municipality of Istanbul was cancelled the project proposal of the firm of Kutup Planlama due to being tender irregularities. There is confusion between Conservation Council and Local City Council of Fatih about the permission of construction in conservation area. The prepared park project by Local City Council of Fatih was approved before by City Council of Greater Municipality of Istanbul in 2013. But **in December, 2014**, the mayor of Istanbul Metropolitan Municipality is Kadir Topbaş, he refused the municipal park project, due to the necessity of reevaluating the project, then it is returned back to Local City Council of Fatih, and stopped the local municipality's acts and then he suggested to refer to the views of local residents and to organize workshop for preservation of historic bostans in Yedikule. The mayor of Istanbul Metropolitan Municipality is Kadir Topbaş, he refused the project and suggested to refer to the views of local residents and to organize workshop for preservation of historic bostans in Yedikule[254].

City activists and bostan keepers have struggled with city authorities for one and a half year to make understanding the significance of bostans in Yedikule. The mayor of local municipality of Fatih is Mustafa Demir, he explained that he didn't have knowledge about the history of bostans in Yedikule, and he learnt it during the press conference of the Historic Yedikule Bostans Preservation Initiative. Unfortunately, it seems still the lack of perception of bostans in narrow mind by local city authorities. Stopping the local municipal acts by the Council of Greater Municipality of Istanbul shows the role of experts on landscape issues in specifically to landscape protection in Yedikule.

[253] Accessed on December, 2014, from http://www.yapi.com.tr/haberler/yedikule-bostanlari-hobi-bahcesi-mi-oluyor_111546.html.

[254] Accessed from a newspaper on January, 2015, from http://www.hurriyet.com.tr/gundem/27762771.asp.

The formulation of authorities brings out to regard landscape features. Landscape quality object and landscape policy is dependent each other. Because landscape policy is important to pay attention for implementing own landscape policies in line to the suggestions of the Convention by public authorities, but it is not enough without landscape quality object. Because it needs informing people about landscape. Then the public could regard their surroundings. Making a good plan on open spaces is necessary to design with regard to its landscape quality objective. Because ***the landscape quality of place*** brings out through **considering all possible functions of open space** to make a plan, and then it can promote to balance the different demands of different land user/actors of different groups. Do the competent public authorities pay attention to inform the public about landscape issues or plans? Such as involving an active public participation process is to make landscape policies. Making a plan with public participation process, it makes a sense of ownership about the place/landscape between the city actors. Therefore the city actors will take care of landscape features of their surroundings, because the awareness of public about the specific landscape issues will be increased through the active participation. The informed publics how act on landscape in everyday practice. The informing about landscape could be change or bring on state policy to pay attention landscape **from bottom up** or make a landscape policy by state authorities could be bring out public to regarding landscape issues from top down?

As a result as explained in regard to landscape policy, the intends of experts to inform the public about the historic cultural landscape value of bostans by public meetings or press explanations, and other demonstration activities, are **came into effect to consider the necessity of revision of the proposed park projects** by the mayor of IMM, despite the absence of an active public participation to make a recreation park. Since December 2014, the acts of the local municipality are stopped. The mayor of IMM proposes to take into account the demands of local residents and designing a public park with considering the demands of different groups, as well designing with respect to historic vegetable gardens. He suggests also organizing a workshop about the preservation of bostans. At the beginning of the project process in 2013, the competent public authorities didn't pay attention to inform any local residents about the public park project, even they didn't make any public participation for making a park project in Yedikule, it was from top down project, the proposed park project doesn't involve unique **landscape quality**, because it intends the destruction of historic bostans, and make a park with modern artificial designs, not near natural designs, the proposed design solutions will destroy the cultural heritage as well it doesn't bring on the space ***any quality*** from the social and ecological perspective. It is a stereotype park; but then the resisting of the experts specifically the conservation groups-*the demands of the conservation of historic landscape value*- came into effect after one and half year (from July 2013 to December 2014).

The necessity is to take into account the suggestions of the ELC during the revision of the proposed municipal park project. Informing public, well-working institutions from bottom up and from top to down, well-working monitoring mechanisms, open and transparent public participations in policy-making process are necessary to making good plans for open spaces, as well as the consideration of the principles of ecological, historic, social, economic

sustainability during the making plans is important. They are the requirement steps (guideline) to take into account the suggestions of the ELC.

The actions of the Council of Greater Municipality show that there's a consideration of the significance of Yedikule Bostans and keeping bostans in regard to urban park project by the authorities of the Greater Municipality of Istanbul. The demonstrations by the city activists against the interventions of the local municipality of Fatih seem will have an opportunity to produce a solution to balancing different interests of different land users/city actors with keeping bostans for recreation and leisure use in Yedikule Neighborhood.

PART 4:
CASE STUDY: DESIGN PROPOSALS

Balancing the demands of the different land users-actors- in Yedikule

Consideration of Bostans in Yedikule Public Park Project
(from bottom up),
Keeping bostans to make a recreational public park
with complementary urban activities,
The consensus of the interests of different users
Through converting land into multifunctional land uses

"A Productive Public Park in Yedikule"

8 PROPOSALS: Balancing the demands of the different land users-actors- in Yedikule

8.1 Consideration of Bostans in Yedikule Public Park Project

8.1.1 Keeping bostans to make a recreational public park with complementary activities

Ensuring the design of good urban open space in Yedikule, there are three inputs to consider, firstly it is necessary to understanding the potential of the site, the potential of existing Yedikule Bostans, as well as the role of Bostans in Yedikule neighborhood with its surroundings, in a broad sense its urban and landscape context, its physical features as well as its meanings and values that occurs from its historical and social context. This is widely investigated in the status quo chapter. Secondly, the needs of Yedikule neighborhood, the aspirations of users, local residents, existing users of gardens-*Bostancis*- in Yedikule and also currently proposed recreational park project, they are deeply investigated at the chapter of planning proposal of local district of municipality. Thirdly, integrating these two factors in narrative tying together the history and geography of the proposed project area with its functional requirements, that includes Yedikule Bostans, and to provide the basis to identify the users with new space, creating a coherent mix, a legitimate use of space, between the potential of the site, and the requirements and expectations of local residents, and gardeners, the demands of different groups. In this way, it will help to balance the different demand of land users; it brings out to keep bostans to make a recreational public park with complementary activities. Keeping bostans but allowing more public access in the public park project will help to create a compromise design.

Keeping urban bostans to a legitimate use of public open spaces in an historic urban context meet the demands of different interests of different groups concerning Yedikule case balancing the demands of food production, recreation and leisure and conservation of different land users-*actors*- in an appropriate level of use, in Yedikule. Finding a right way use of public open spaces, it needs an active public participation in plan decisions process.

As above explained the significance of keeping bostans, the benefit groups of bostans such as bostancıs, customers, sellers, buyers; advantages and disadvantages of keeping bostans are widely explained with social, environmental, health dimensions in *status quo chapter to keep bostans for food production and conservation*. As well the demands for recreation and leisure use have been widely explained with the proposal of local district of municipality. The municipal park project is explained as well. It focuses to meet the needs of particular group, only meets the demands of recreation and leisure; and the municipal project doesn't fill the gaps of other demands of groups such as food production and conservation. A good plan for public open space is necessary to involve all target groups, and an active public participation

to understand the wishes of different users of the space, and then it lets to produce a clear public participation plan. It creates a sense of ownership and therefore it provides to use for all. The lack of involvement of the demands of other two groups, the demands of food production and conservation, it creates the necessity of balancing all demands of different three groups to provide an appropriate level for keeping bostans to a legitimate use of public open space in an historic urban context in Yedikule.

Yedikule bostans are the carries of historical and cultural symbols of Istanbul. They are carrier of cultural heritage and cultural landscape as before widely explained. The historical monumental value-*Land Walls*- which is presently protected; but also the historic cultural landscape value which need to be protected. Making a good plan, it is necessary designing ***with respect to structural and symbolic functions of space***, but as seen the proposed public park project, the competent authorities ignores and interrupts the symbolic and structural functions of Yedikule Bostan area. ***The proposed project area should not only a public park with artificial designs to meet the demands of only one particular group for recreation and leisure***; because Yedikule bostans are carrier of cultural landscape between Byzantine, Ottoman and Turkish Republic Periods, they provide observational farming activities from Ottoman times, and there are historic water wells, water pools, barns, gardener cottage as before explained. The proposed project area should not be allowed only urban bostans in status quo to meet the demands of two groups for food production and conservation; because it lacks to meet the demands of the third group for recreation and leisure and it needs to fill contemporary requirements.

In order to keep bostans' historic cultural landscape value and observable analysis of both open space uses as *status quo* and *the municipal park project* in above explained; providing a good plan for preserving urban open space in a best way, in Yedikule case, it is necessary to meet the demands of all three groups for recreation and leisure, conservation and food production in an appropriate level of use. It is also necessary an active public participation in plan decisions to understand the demands of three groups, and to produce a clear public participation plan in Yedikule.

Balancing the demands of three different groups to make a good plan in the project area is necessary **the consideration of Bostans in Yedikule Public Park Project area**. As R. Stiles, 2013 claims to making a good plan with ***a functional approach***, it includes considering all possible functions of open space concerning it brings out the necessity of the recognition of Yedikule Bostans in the park project, as well ***considering all possible functions*** of the open space, it is necessary ***designing with respect to structural and symbolic functions of space,*** *its conservation of historic cultural landscape* value and *designing with respect to still survive food production activities and ensuring the continuity farming practices on bostans,* ***designing with considering the potential of environmental, social and societal functions of open space, designing with respect to minimum spaces for turning, making near-natural innervations into the space, designing with minimum damages into its natural character, making near-natural designs, integrating activities into bostans in productive way,*** such as educational activities, healthy food, food security activities, environmental activities to

promote social and societal functions, to meet the needs of recreation and leisure of local residents in Yedikule.

The complementary activities for keeping bostan to make a recreational public park

The broad range activities can take place at Yedikule Bostans to contribute social, health, economic, ecologic benefits, outcomes. Yedikule Bostans can contribute from local residents' healthy and fresh eating, short food miles, to sharing experiences of gardeners with participants-*local residents*- at *public kitchen* or at *experiment gardens*, access to and experience of nature actively, provide social contacts with local residents, job training to increasing the awareness about environmental issues such as air quality, storm water retention.

The possible activities: Keeping Bostans for Recreation and Leisure

-Rainwater harvesting, -Seed Saving,-Raising Livestock,-Bee Keeping,-Composting,-Land Remediation,-Planting vegetables at experimental gardens,-Ongoing producing vegetable and fruits at bostans by gardeners to sell in neighborhood bazaars or roadside stands to make a profit, -Environmental Education such as vertical wall from recycling materials to show how to use rainwater for harvesting, -Cooking and Nutrition Classes, -Food Systems Education, -Health and Wellness Education, Social regarding Food Justice Education, School Programs, -Youth leadership training, -Urban bostan Management Training, - Women focused Programs, Intergenerational programs, -Community, school or academician based Research and Organizing, Volunteer programs, -Special Events, Value-added products, -selling vegetables into neighborhood bazaars, Senior Food Access programs, Tourism attractions, open air cinemas, historic heritage education such as making exhibition studios to explain the historic background of bostans, Land Walls, and physical and social practices, farming practices to visitors, school children and others, etc…. (Source: Cohen, N., 2012: Metrics, "The Five Borough Farm", p.90-91.)

Benefits of these activities:

Health: Keeping Yedikule Bostans to make a recreational park, providing an appropriate level of use at the consensus of gardeners, it provides to access to healthy food, for low income bostan families, also local residents can buy from gardeners produced crops in bostans, it provides also the buyers to access to fresh and healthy food, educational activities concerning food at bostans, such as health-related programs, it provides the participants (school students, visitors, elders…) to improve and increase the awareness about food-health literacy[255], skills, by beginning to read food nutrition labels at the supermarket, understanding the way of eating healthy food, increase the physical activities at bostans by experimental gardens or public kitchens at the park project area including bostans as well. It engages local residents, participants in the experimental gardens to spend time in program activities.

[255] Health Literacy is defined as the capacity to obtain, process, and understand basic health information and services to make appropriate health decisions by the Centers for Disease and Prevention, from Five Borough Farm Project, 2013, Metrics, p.44.

Social: Yedikule bostans with several educational and cultural activities promote frequently usage of public park area, through bringing different social groups, all ages with the interest of educational and social activities, it creates safe spaces, as a result it provides to social connection between the participants, increase the buyers from local gardeners at the roadside stands, or at the neighborhood bazaars, increase young people's knowledge and relationships between adults and young by youth-adult partnership development programs, increase the awareness of participants about access to healthy food, food security issues, it creates temporary age integrated spaces at bostans. Consequently, ***access to and the experience of bostans actively***, it provides increasing the awareness from bottom up between the participants in the public, among the Yedikule neighborhoods. Some parts of Yedikule Bostans can let open to public access to provide environmental and health educational activities, to act as educational farm that give information about ancient and modern food production in Istanbul and the significance of fresh and health food. Learning at the experimental school gardens actively about the healthy food, food production process is more effective than learning at the school curriculum, as well as environmental issues.

Environmental: As acting educational farms of Yedikule Bostans can provide environmental activities, can establish physical facilities to increasing the awareness in the public about ecological issues from bottom up. It lets to open to public access and the experience of bostans actively. It contribute capturing the rainwater, remediating the soil, biodiversity, conservation issues, as well as urban food system, from local to city-wide food systems. Organizing food system ecology programs at the Yedikule public park project area, it contributes the increasing the awareness of the local students as well the participants about the food system ecology[256]. Some bostans still ongoing acting as commercial gardens, and Yedikule gardeners are continue to be a land managers at their bostan plots, they manage their gardens, reporting the amount of produced food at bostans, and the amount of food produced per square meters. All these activities contribute to the consideration of the significance of bostans as a part of open spaces, as a part of green infrastructure. **Publicly accessible bostans plots** help to increase the perception of the importance of bostans among the local residents at the public park; as well as it helps to keep bostans at the perception of citizens. Conservation concerning keeping bostans at the park project, *it reduces the consumption of water use, energy against the sterile and artificial designs- such as making an artificial pool inside the park-*, and *keeping bostans with complementary activities in the public park contribute to ecological cycle such as reducing food waste by turning food waste into the compost. It contributes for managing the rainwater among the gardens* as well, actually there are ***4 water wells to use irrigation of gardens***, but for the park area by well-managing rainwater collections, it can also reduce the consumption of water and energy. Existing bostans don't have farming animals like chickens. But perhaps it can be permitted again by local authorities to chickens or beehives for educational activities to introduce the kids, children of densely built up Yedikule neighborhood area. Choosing suitable animals in the habitat of space, local animal and plant species, planting vegetation varieties suitable to local conditions is important

[256]Food system ecology applies ecological concepts and principles to the design, development and management of sustainable agricultural systems, from Five Borough Farm Project, 2013, Metrics, p.105.

natural character of place. Animals can contribute to natural manure, as well using food waste for composts. They contribute reducing of the usage of synthetic pesticides, and fertilizers. As a result, they provide improving the habitat, biodiversity, and increasing the ecological connectivity of local residents, and ***access to and the experience nature actively through opening some part of bostan plots to public access with complementary urban activities.***

The evaluation of the contribution of bostans with a metrics can influence the policy from bottom up. The indicators such as the amount of tones of produced vegetables and fruits, the number of employment, the number and type of cultural and educational activities such as public kitchen programs, native planting programs, using recycling materials as plant box, the number of participants of these activities. As well as it contributes ***balancing the different demands of different land users in Yedikule, creating a coherent mix, a legitimate use of space, between the potential of the site, and the requirements and expectations of local residents, and gardeners,*** therefore it creates a legitimate use of space between the demands of food production, conservation, and recreation and leisure use and the potential of site of Yedikule Bostans. It fills the requirements of recreation and leisure, and expectations of food production and conservation, it satisfy the demands of gardeners, local residents, artists, experts, and all other groups.

As a result ***keeping some bostans but allowing more public access and making some bostans open to public access will help to fill the demands of recreation and leisure use*** concerning the consideration of bostans in Yedikule public park project provide lots of benefits as above widely explained: improving healthy eating, increasing fruits and vegetable consumption between the participants of educational and cultural activities, participating different activities that take place at Yedikule Bostans, ***increasing to connect nature*** bring out health improvements, physical and mental well being, improving the behaviors of participants, as well as physical activities between youth and adults, from bostan to school, from school to bostan initiatives provide the increasing the awareness about the strategies to the consumption of fruit and vegetables, as well environmental issues with using recycling materials.

8.1.2 Designing with respect to structural and symbolic functions of space

According to designing with the respect *to functional approach to* make a good plan for preserving urban open spaces concerning Yedikule Bostans, it is necessary to consider that all physical and social heritage of bostans as indicator to produce a good plan in the proposed open space project. As well the European Landscape Convention in Article 1defines the landscape[257] *"...as an area of land as perceived by people...",* so the perception is a part of landscape. It is necessary to take into account history and geography of Yedikule Bostans to establishing a sense of place and its significance for gardeners-*users-,* as well as to conceive everyday life to promote usability with temporary activities with involving various social groups, gardeners, local residents in planning and managing process in Yedikule; it creates

[257]Stiles, R., 2013: "A Guideline for making space, joint strategy activity 3.3, is part of the project "UrbSpace", pp. 1-60, p. 18, from http://www.le-notre.org/urban-spaces/urban-spaces.php?encyclopedia_id=256, accessed on October, 2014.

feeling ownership of place, and therefore it produces social and cultural identities, these are embedded in its context. The sense of ownership and responsibility of Yedikule neighborhoods create spontaneously to increase maintaining, security of Yedikule Bostans. Therefore, Yedikule Bostans are carrier of meanings, values, identities. Designing should be protected and represented their meanings, values, and identities of space with involving bostans in the Yedikule public park project and allowing some bostan plots publicly accessible.

Referring to ***historic report***, **historic heritage** should be protected and represented with including these days, all temporal, cultural and natural layers together. Historic heritage involves cultural and natural structures; as well it covers social-spatial, cultural practices. As being a part of the living history, it is essential to carry these cultural practices with transferring from past into the futures days. These cultural practices are inherited from generations to generations; on the one hand they represent historic process, on the other hand, these cultural practices produce self-specific local cultures and identities. These local culture and identities, and their all socio-special representations are based on creating social diversity and characteristics. In this context, Yedikule Bostans are carrier of physical and social heritage, and it is necessary to consider all physical and social heritages to make a good plan in Yedikule.

Considering the specific features of bostans in the park project, and designing with response to bostans' historic cultural heritage, with respect to conservation of historic Land Walls and historic Yedikule Bostans as a whole, and conservation of cultural heritage with *continuity cultural practices, self-specific practices, transferring from past to future days, such as farming practices on bostan, they are important to make a good plan for preserving urban open spaces in the best way. As a result*, designing with respect to **conservation** of these resources, designing with respect to these structural and symbolic functions, it fills the demands of bostancis -*food production group*- and conservation group. But it needs also to fill the demands of recreation and leisure **in an appropriate level of use of bostans**. Making some bostans open to public access and converting bostans into multi functional land uses ***promotes keeping bostans to make a recreational public park with complementary activities in Yedikule***. Therefore it provides a good plan with filling the demands of all three groups.

8.1.3 Designing with considering the potential of social and societal functions of Yedikule project area

(Integrating Yedikule Bostans into Yedikule Public Park Project)

Besides conservation of historic cultural landscape of Yedikule Bostans and to keep ongoing cultural practices, such as gardening practices for food production on bostan as above explained, these fill the demands of food production and conservation groups. As well it is necessary to make unique and quality recreation and socialization facilities, to fill the demands of recreation and leisure through allowing some bostan plots to public access and converting bostans into multi functional land use. Therefore it will promote keeping bostans to make a public park with complementary activities, and in this way it will help to produce a

good plan in Yedikule with ***balancing all demands in an appropriate level of use of bostans. Keeping bostans with allowing some bostan plots to public access and using bostans as a land use of open spaces promote to integrate bostans into the public park. Therefore, it will be produced a productive public park in Yedikule.*** Designing with respect to an active public participation plan for policy-making at the beginning of plan decisions process, it helps to ***create a sense of ownership*** in the project area, accurate information of public by public meetings, understanding the wishes, the demands of different groups, such as the demands of conservation, food production and recreation and leisure of the potential land users, it produces openness on decision maker's side, and then produce clear public participation plan. In this way can be find an appropriate level of use of bostans. As a result, the sense of ownership at the proposed ***space makes attractive, favorable spaces for using frequently*** by the local residents and visitors at the *Yedikule public park with involving bostans*. So, this ***prevents safe and neglected problems of bostans,*** as mentioned in Public Meeting (Box 6). Thus, it helps to create attractive a large number of policies to promote unceasing users with complementary activities at the Yedikule project area, and then a good plan in Yedikule ***from bottom up*** will be produced. The competent authorities are responsible to promote good open spaces to ***usable for all,*** with considering promoting to ***increase the quality of space by social, ecological, cultural*** and ***economical indicators***, to promote ***increasing the life quality in the cities***.

8.1.4 Designing with considering the potential environmental and ecological functions of Yedikule project area

(Integrating Yedikule Bostans into Yedikule Public Park Project)

Urban bostans promotes to make near-natural open spaces in densely built up areas like Yedikule. The municipal urban park project promotes to produce artificial designs by the demolition of Yedikule Bostans, and creates a landscape that not contributes to production. Ensuring the continuity on the created landscape in Public Park, it brings out a sterile design concept lacking the originality, lacking near-naturally, as a result increases the necessity of using chemical sprays, and it causes to increase water and energy consumption. Making a good plan in the proposed project area, it is necessary to be beneficial to humans***;*** *the different ecological cycles support each other mutually in the processes of ecosystem chains*, such as hydrological cycle, using rainwater for harvesting; promoting a habitat to animals and plant species, promoting food for the people, using produced compost from bostans for harvesting, rainwater for harvesting (Karls Garten)…etc. It is necessary to consider using suitable species to its local cultivation conditions. Making a good plan for open space remarks *environmental functions of open space to quality defining parameters* (Stiles, 2013, p. 16), it is necessary to consider the biodiversity of the local space. It is necessary to consider spontaneously occurring plants and animals, their networks with proper distribution in the green belts such as bostans at the Land Walls, it is necessary proper attractions for inhabitants. Using new species should be suitable for new or changed climatic conditions, choosing avoid planting of invasive woody (e.g. Ailanthus).

Sustainability of environmental functions in Yedikule to make project is necessary to consider functional approach, it promotes *keeping bostans to make a recreational public park with complementary activities*. Firstly it provides i***ncreasing the amount of directly accessible outdoors and green areas per citizens in Yedikul*e** as before explained. Secondly, supporting to ***use native flora and fauna*** and other inputs in the Yedikule project area promotes the ***lower maintenance costs versus the significance of*** Y***edikule*** with using regionally produced compost or using produced compost from Yedikule bostans. Therefore it ceases using mineral fertilizers and pesticides. Thirdly, using local materials and characteristic vegetation promotes lower maintenance costs, suitable space for habitats, suitable network with its surroundings; using recycled/renewable materials in the bostans such as using Pet-bottles to pick up rainwater to grow vegetables as the example of vertical wall from Karls garten, it provides increasing the environmental awareness over the public, As a result all of these, they contribute to ensure the sustainability of environmental functions in Yedikule.

Considering the functional approach in open space planning, bostans **as urban infrastructure element**, allowing more public access in the bostan plots and converting bostans into multi functional land uses with complementary activities in productive way, as *different ecological cycles support each other mutually in the processes of ecosystem chains* such as using rainwater for harvesting, space for animal and plant species, as well the local residents benefit from bostans that are integrated into different cycles, and into complementary activities. The complementary activities that take place at urban bostans to the purpose of benefit the local residents with social, economic, ecologic and health outcomes, therefore the ***local residents are integrated into the different cycles and they are integrated into activities*** through ***the functional open space planning models***. As a result, it meets the demands of recreation and leisure of local residents, because Yedikule bostans have potential to provide ***recreation and leisure use for All citizens*** with complementary activities, such as educational, cultural, social activities as well establishing physical facilities such as experimental gardens or neighborhood library, and all of them provide health, social, economic, cultural, ecological benefits as before explained. Urban bostans with complementary activities involve **public access into gardens with recreational purposes**, it converts the open spaces into attractive spaces; *as a result* it makes ***a sense of ownership, give the rights to common use of gardens in an appropriate level of using bostans by local residents with the consensus of gardeners***, then it occurs frequently visiting the bostan areas, access to the experience of nature actively, to get different benefits, it creates ***safe spaces*** against open spaces with security problems. As well it is mentioned before, the complaints of local residents about the security problems around the Yedikule bostans; this approach provides also a solution to solve security problems in Yedikule bostans.

As a result, if there is a demand on recreation needs and the necessity for public accessible outdoors and green areas; considering the all possible functions of Yedikule bostan area as above widely explained, ***regard to functional approach*** to make a good urban open space and ***the integration of Yedikule Bostans into public park project*** have potential much more than to facilitate recreation and leisure functions, this project provides also conservation and food production, and lots of benefits on economic, social, ecological, health dimension. It meets

the demands of conservation, food production and recreation and leisure of different land users, different social groups. Balancing all demands of different groups in an appropriate level of use will provide the best strategy to preserving urban open spaces. What kind of designs can answer the functional approach of open spaces in Yedikule?

8.2 Keeping bostans to make a recreational public park

A good plan involves *making near natural spaces, and designing with respect to minimum spaces to turn, and considering the significance of Yedikule Bostans, designing with respect to cultural heritage in the perspective of history to being* ***carrier of historic cultural landscape value,*** **how should it be better to design?** ***Let bostans to stay in the public park with allowing some traditional Yedikule bostan plots to public access with respect to its carrier of historic cultural landscape value.*** Keeping bostans with conservation and recreation and leisure and food production purposes; one way of designing, let all citizens to access to Yedikule bostans with the condition ***only to look at bostans***, by providing only walking or running activity around the bostans, or perhaps promoting seating benches for sitting around the bostans and to look at them, but it doesn't allow the local residents to access to bostans to produce vegetables at gardens, all citizens can access to recreational and conservation purposes; as well attracting tourism, perhaps by payment at the entrance in certain times to get access into bostans and look at them, such as being semi-public space. But it provides only the gardeners to produce vegetables at bostans, only a particular group of society. For this reason, it seems ***restricted use of bostans,*** **it doesn't** ***let to access to experience of nature actively, and it lets to experience of bostans passively for citizens*****.** This project doesn't contribute the local residents to use bostans actively, in a productive way. However, Yedikule Bostans have potential to let experience of nature actively ***in a productive way***, with educational, social, cultural activities that take place at Yedikule Bostans. Keeping bostans to make a recreational public park with complementary activities provides **a productive public park** with lots of benefits on health, social, ecological and economic dimensions. On the one hand, some Yedikule gardeners keep ongoing food production at some bostan plots as acting commercial farms but allowing public access in a certain times, on the other hand some bostan plots with complementary urban activities are open to public access in every time, acting as land use elements of open spaces, facilitate experimental gardens, public kitchen, community gardens, education farms, and in this way it provides the experience of nature actively. Yedikule Bostans have potential to considering into the Yedikule public park and producing **the Yedikule productive public park**, **such as acting as educational farm** ***that give information about ancient and modern food production in Istanbul and the significance of fresh and health food*****,** as well providing environmental education, getting experience on food productions, or to provide tourism attractions with guided visitors. Therefore, it meets the demands of gardeners to keep ongoing food production to make income, and at the same time it provides access to the experience nature in productive way, such as educational activities about environmental awareness, and conservation awareness of cultural landscape value of Yedikule Bostans. In this way, it helps to increase heath awareness about good nutrition and health through providing cooking and nutrition classes, providing food justice and social justice education programs.

Providing ***space and facilities physically*** **as permanent spaces**, such *as experimental gardens, educational farm, community garden and farm, commercial gardens, amphitheater, neighborhood library, public kitchen, and children play grounds, vertical wall from recycling materials* and it can also promote ***complementary activities***, educational, social and cultural activities, these ***temporary activities*** such *as concert, events, open air cinemas,* exhibitions,…etc. Therefore keeping bostans for recreation and leisure provide ***social and societal communication facilities***.

Yedikule Bostans have potential with ***keeping bostans to make a recreational public park with complementary activities*** in educational way. The broad range of activities can take place at Yedikule bostans to contribute ***to health, social, economic, and ecological outcomes***, benefits. Yedikule Bostans have potential to let local residents to access to bostans and participate into broad range activities that take place at bostans. The participants get into activities in the bostan plots. As a result, integrating bostan plots into the public park will contribute ***different ecological cycles to support each other mutually in the processes of ecosystem chains.*** Increasing the awareness of different groups of society about healthy nutrition and environmental issues; storing the rainwater to use with different purposes, such as rainwater harvesting or explaining traditional irrigation techniques by using historic water well, water pools to irrigating bostans; food leftovers turning into compost to use gardening activities, educating young people about environmental issues, ancient and modern food production in Istanbul, the significance of healthy nutrition, social/food justice education, as well the significance of bostan with historic aspect about the necessity to conservation of historic cultural value of bostans, and how can keep bostans survive to transferring their cultural heritage to future generations,…etc. Therefore, some Bostancıs keep their job, continue their commercial gardens and sell produced vegetables from bostans into local food bazaar at the park, or restaurants as working together, or roadside stands to make income.. As well as some facilities for other functions to promote recreation and leisure can be also integrated into Yedikule Bostans in an appropriate level, with the consideration of the consensus of gardeners. The public park can facilitate permanent spaces for recreation and leisure activities to promote safe and useful spaces for using frequently by local residents, such as ***neighborhood libraries, children play grounds, local food bazaar at the park,*** as well facilitating ***public kitchens*** contribute using fresh produced vegetables and fruits from community gardens or community farms, this promotes activities such as cooking and nutrition classes, cooking together, sharing experiences between the participants, it creates strong social connections.

Moreover, besides facilitating the physical **consistent functions** in the public park area, it can also promote cultural and social activities with a regular management model of the public park per a year. These temporary cultural and social activities can be integrated into specific spaces in the public park area as well in the bostan area; therefore it creates **temporary spaces** for these temporary activities, such as concerts, conferences, film screenings, events, exhibitions, workshops will be performed by the artists with local public together, educational activities, the studies and meetings of local groups,…etc.

The Yedikule School Bostan is created through converting existing commercial bostan plots into educational farm, from semi-public open space to public open space on the third bostan plot. This contributes the experience of nature actively, in a productive way**. It contributes to educate environmental and healthy food issues** by partnerships with local schools, informal visitors, within local school curriculum. Local school students can visit and get information about food production processes for courses, as well environmental issues such as using rainwater for harvesting, access to and experience of nature actively as seen ***Karls-Garten*** in Vienna (Box 10, Image 8-12). It provides as well literally get their hands dirty and learn about lots of information related to growing plants, healthy food issues, modern and ancient food production issues, or the importance of conservation of bostans about the historic cultural landscape value of bostans. It contributes an opportunity for educating students about capturing rainwater to grow plants; turning food waste into compost reduces the amount of trash that the local municipality of Fatih pays to haul to landfills.

Keeping bostans for making a recreational public park with complementary activities provides ***ecological benefits, as well as environmental education***, capturing and reusing rainwater for harvesting, and turning food waste into compost. It contributes to improve the environmental conditions of the local residents. These practices provide gardeners to grow food and reduce the amount of rainwater that floods in Yedikule's sewer system. The complementary urban activities on bostan plots such as community gardens provide engaging local residents more ***active in maintaining gardens in public park***, maintain open spaces in the local neighborhood, and therefore it *makes increasingly public aware of environmental issues* such as urban infrastructure element through collecting rainwater and waste, that impact Yedikule's environment.

As a result, the experiencing nature actively in the Yedikule bostans makes an important contribution to promoting ***environmental awareness in*** public ***by converting bostans into multi functional land uses such as keeping bostans with complementary activities to make*** **the Yedikule productive public park**. This will be contributing to be a good plan with considering all possible functions of open spaces. Therefore, it meets the demands of food production, recreation and leisure, and conservation, in a productive way. It lets citizens to use bostans an appropriate level with complementary activities. All three groups can benefit from bostans mutually in different ways.

"To be faithful to a tradition means to be faithful to its flame and not its ashes."

Jean Jaures

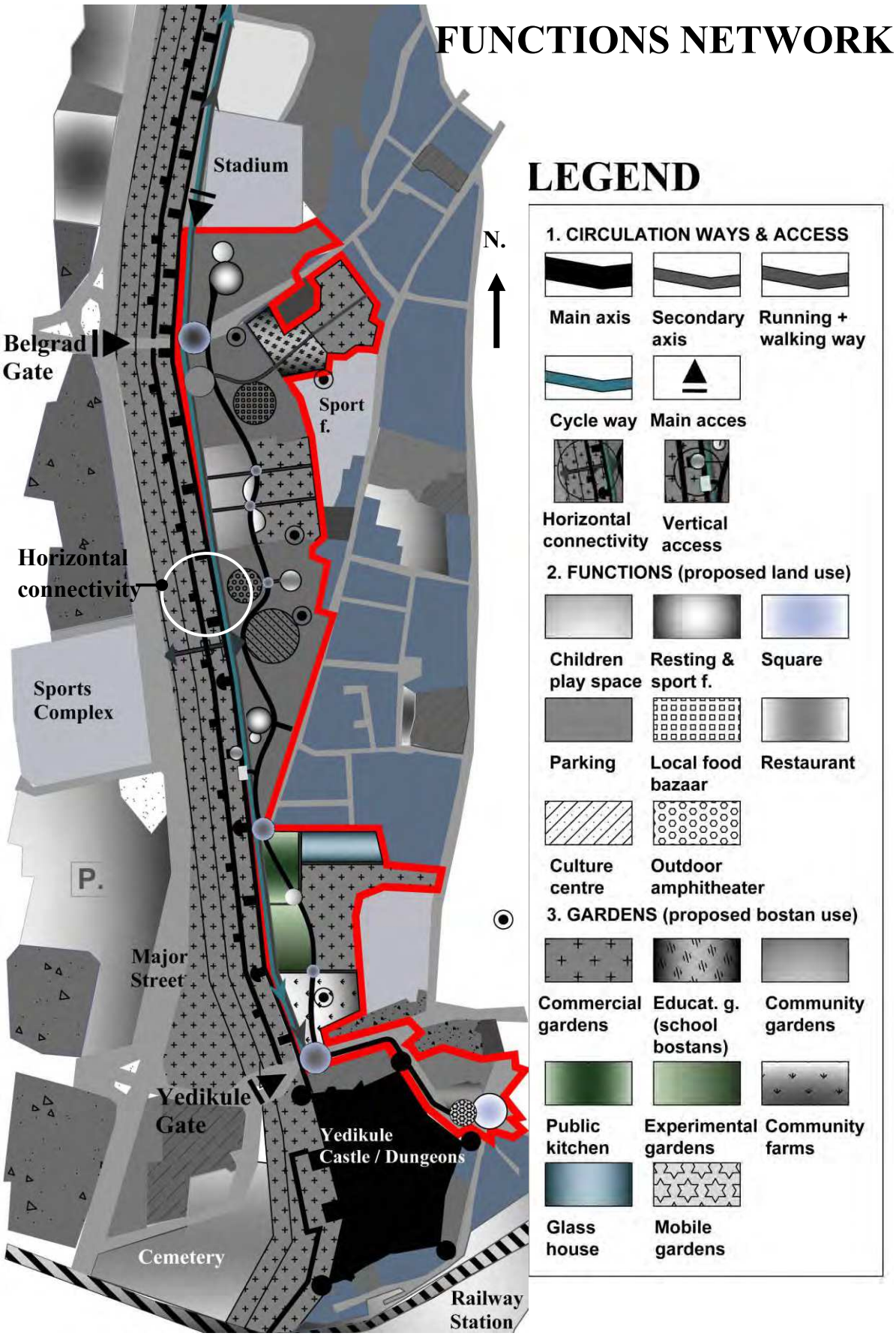
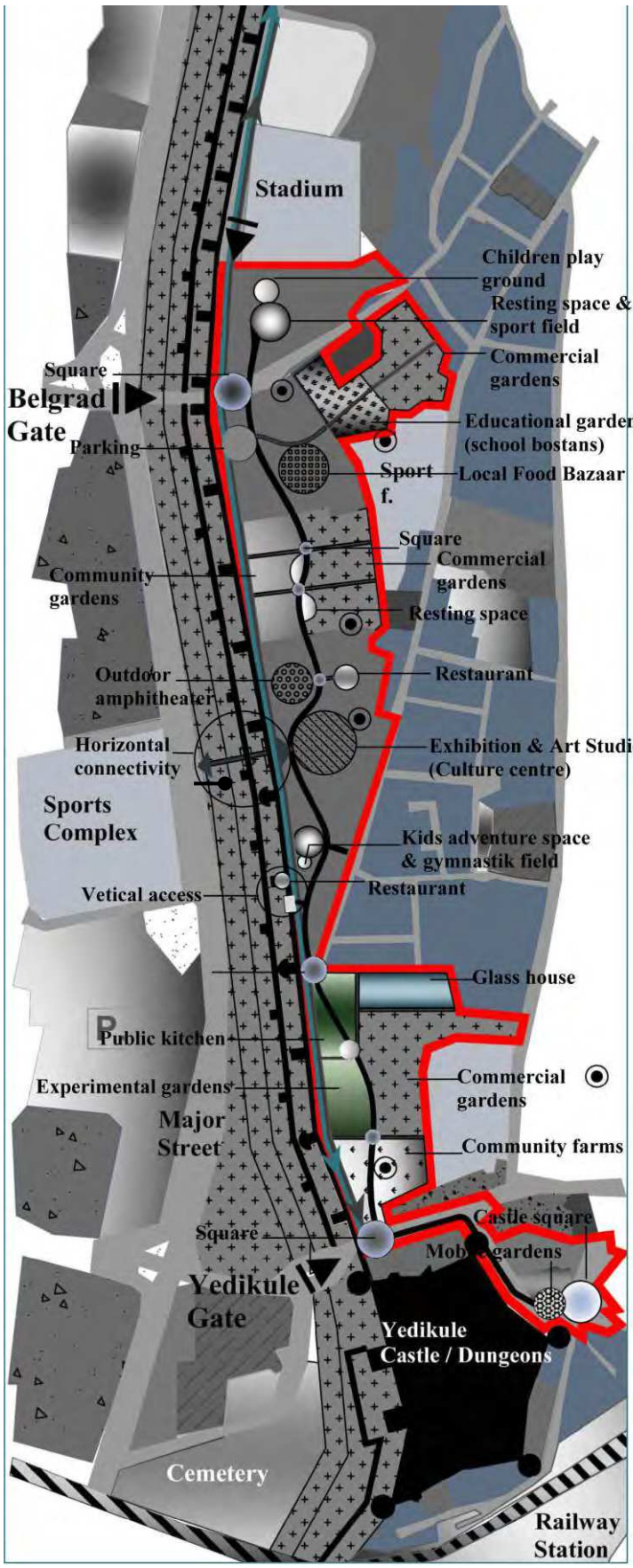


Image 8-1: Functions Network, self drawing.(The report of Kutup Planlama, 2013).



N.

LAND USE

(Gardens as urban infrastructure element, integrated into land use plans, into urban open spaces)

Total Area:
85 acres

Bostan used land (green areas):
60 acres

Hard structural area + ways:
20 acres

Image 8-2: The proposed Land Use (Gardens integrated into urban infrastructure), self drawing.

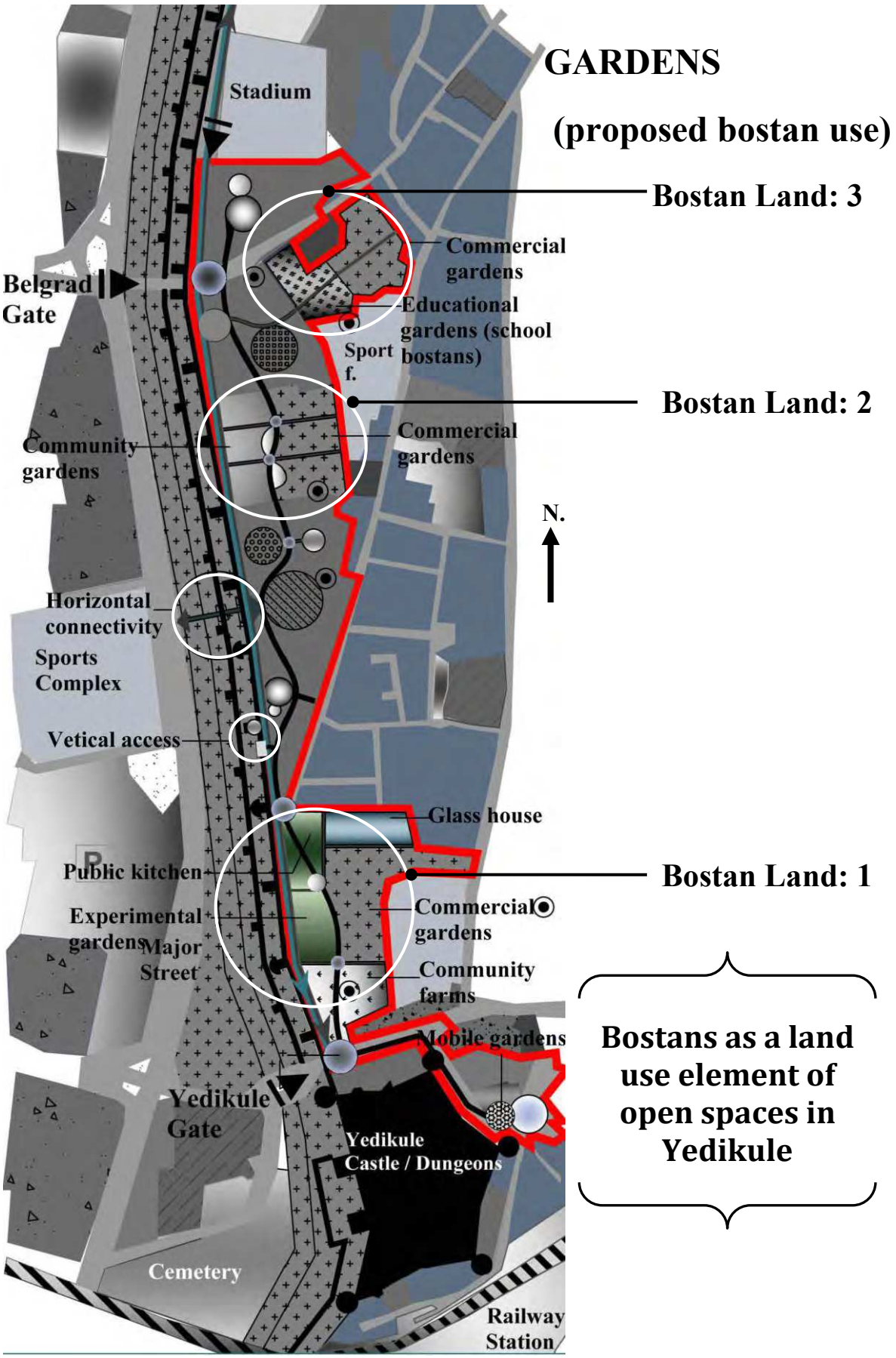
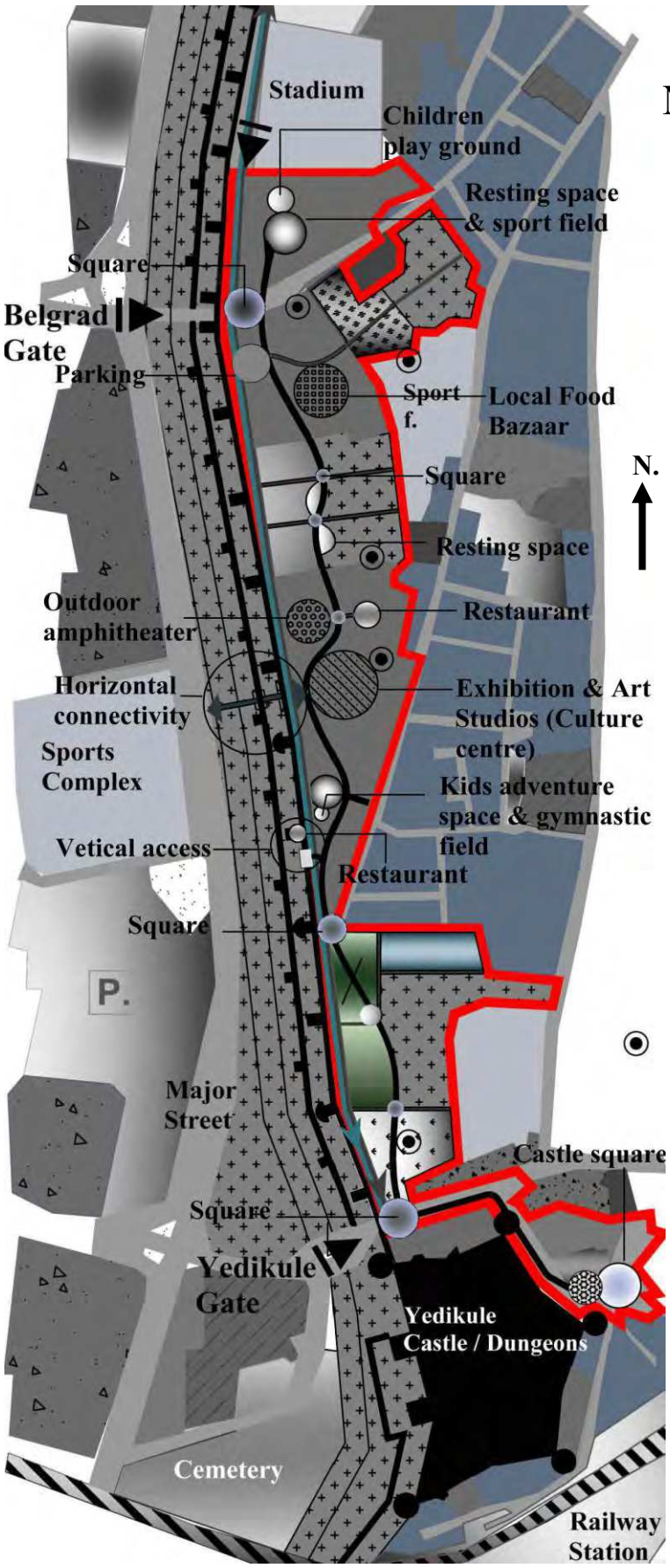


Image 8-3: The proposed bostan use, self drawing.



New structure

(Proposed land use)

Image 8-4: The proposed new structure, self drawing.

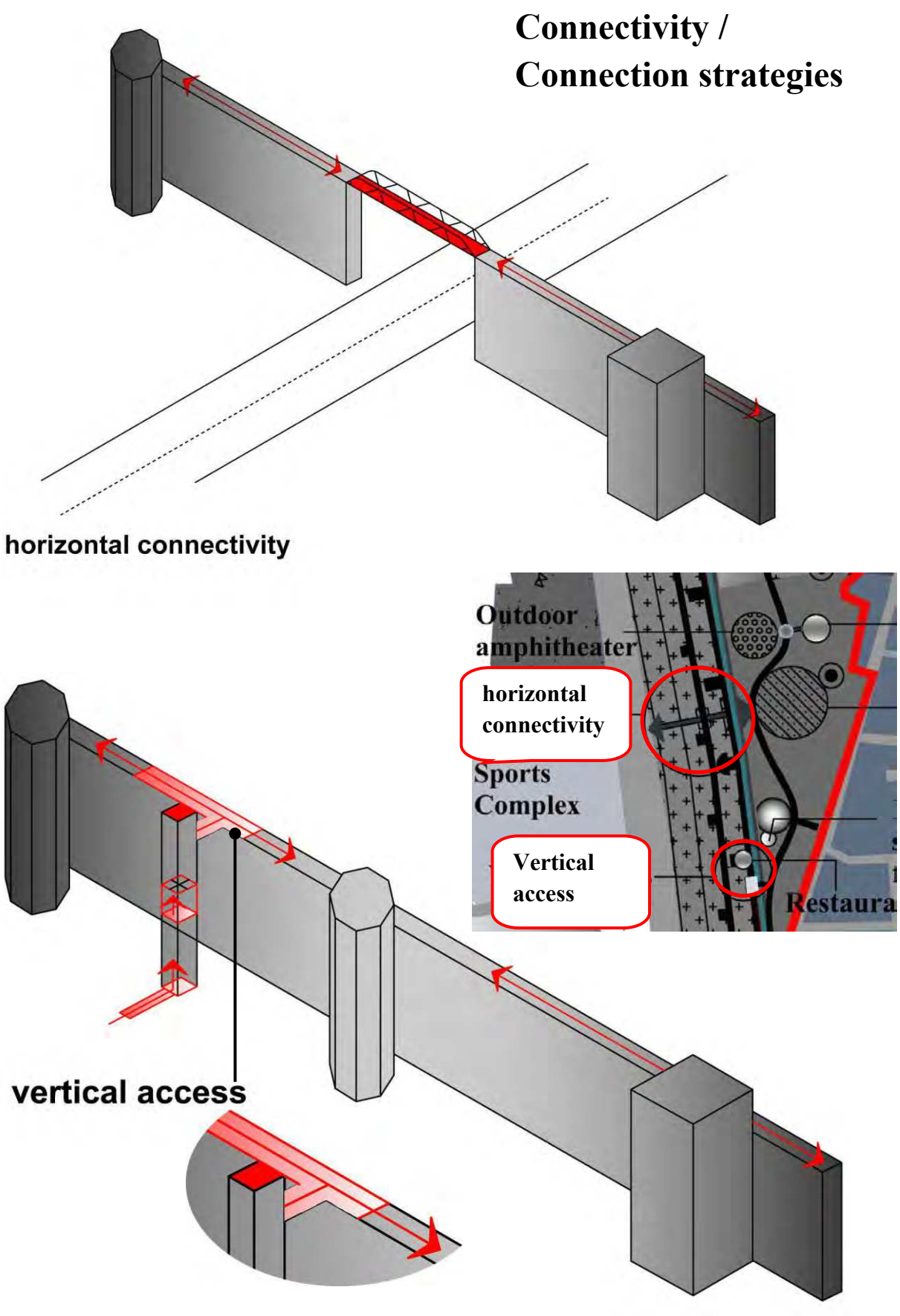


Image 8-5: Connection Strategies, horizontal and vertical access from the Land Walls, self drawing

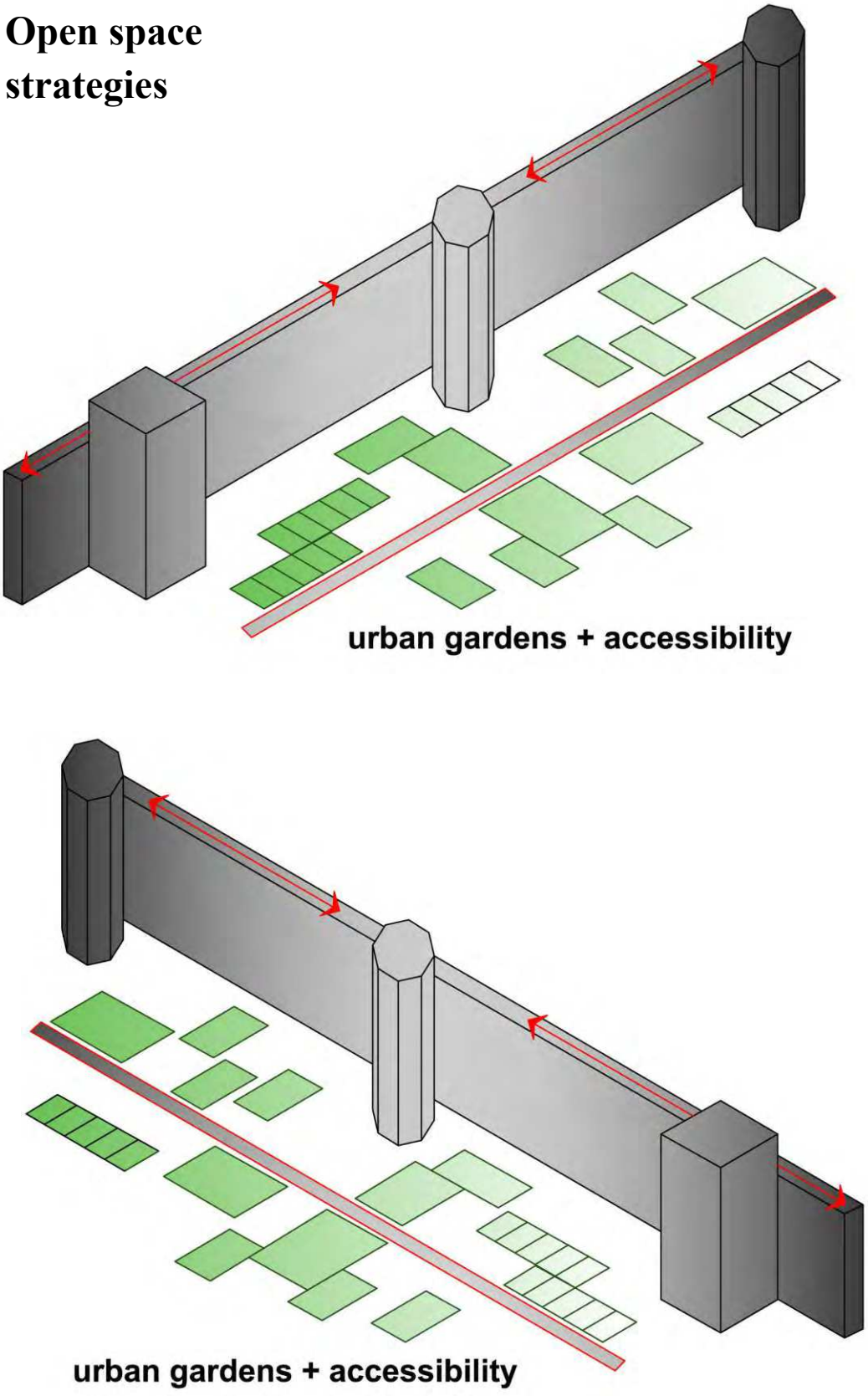


Image 8-6: Open space strategies, self drawing, self drawing.

Bostan Land: 3

Yedikule School Bostan

*An institutional garden, it is **non-profit** garden. Its primary vision to integrate into the school curriculum, therefore increasing the acknowledge of children about the climate, healthy food, using rainwater for harvesting, using recycling materials such as Pet-bottles to produce vegetables.*
The garden belongs to Yedikule neighborhood schools.
Students grow vegetables with their teachers together; per class has a small garden plot to grow.
It is used also an outdoor function, as recreation space, for visitors.
It is **long-term usable**, and **accessible for everybody,** and **semi-public open spaces**.
Classes take place: Environmental education, Food systems education, nutritious food, food miles, social / food justice education, and university based research gardens.

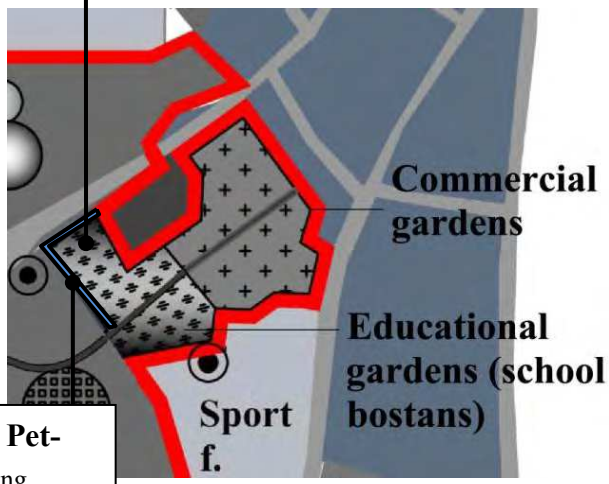


Image 8-7: The proposed bostan land 3, self drawing.

Vertical wall with Pet-bottles: using recycling materials to produce vegetables and as a tool to collect rainwater for harvesting

Image 8-8: Vertical wall with Pet-bottles, the photo is taken by Elis.

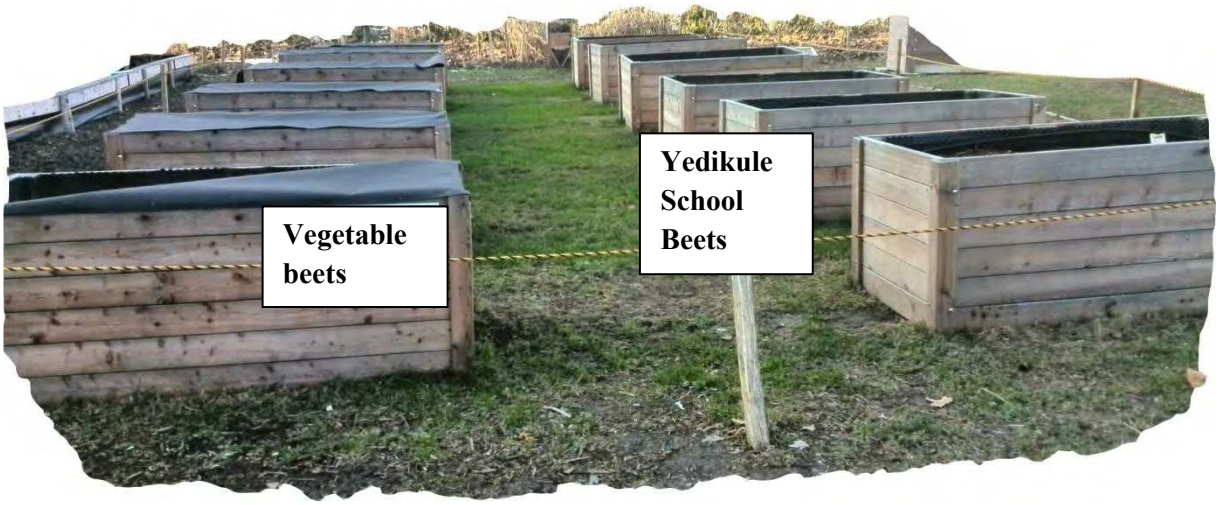
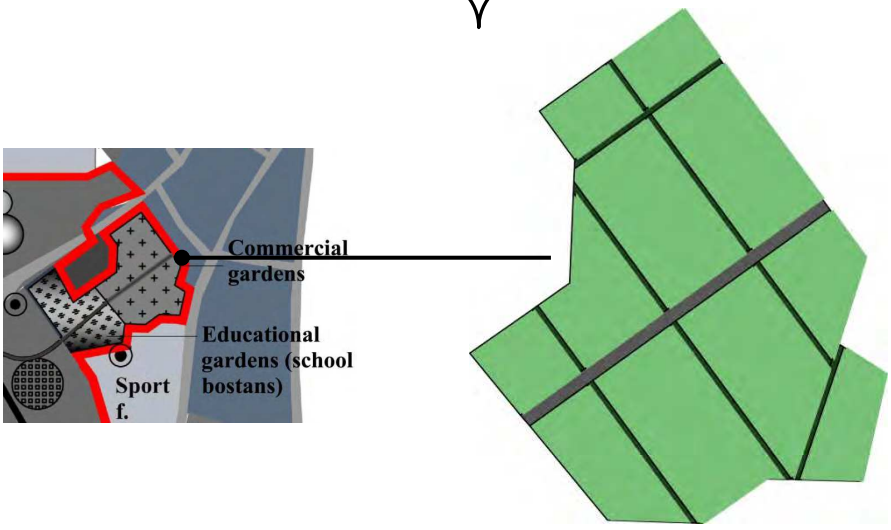


Image 8-9: The propesed Yedikule School Beets, self drawing.

Yedikule Commercial Bostan (gardens)

Managed as business for profit by Cideli gardeners

A privately owned public open space, gardeners pay municipality for renting plots to produce vegetables.
Primary goal is to make profit, to maximize crops performance in order to increase profit, sell vegetables at the street stands, local food bazaar or to restaurants in the park that work together with the bostancis serving local and fresh vegetables from gardens to customers at the restaurants with traditional dishes.
Exiting Yedikule Bostans are commercial gardens, and these are ongoing in these plots, in the Yedikule productive park.



Bostan Land: 3

Contributing ***experiencing nature actively*** through environmental education by partnerships with local schools and providing environmental education to informal visitors; or within local school curriculum; local school students can visit and get information about food production processes for courses. Using rainwater for harvesting, access to and experience of nature such as seen ***Karls-Garten*** in Vienna (Box 8,Image 8-12) or getting their hands dirty and learn about lots of information related to growing plants, or ancient and historic food production of Istanbul, the importance of conservation of bostans about the historic cultural landscape value. Experiencing nature actively in the Yedikule bostans can make an important contribution to promoting environmental awareness in public ***through allowing some plots of bostans to public access and converting bostans into multi functional land uses with complementary to promote urban activities in the public park***. This will be contributing to be a good plan for the functions of open spaces. Therefore it will promote the replacing of ***artificial-nature*** designed Public Park of the local municipality with ***near-natural designed*** open spaces such as ***seen on the Yedikule School Bostans*** at the Yedikule Productive Park ***(***Image 8-10**,** Image 8-11**,** Image 8-12***)***.

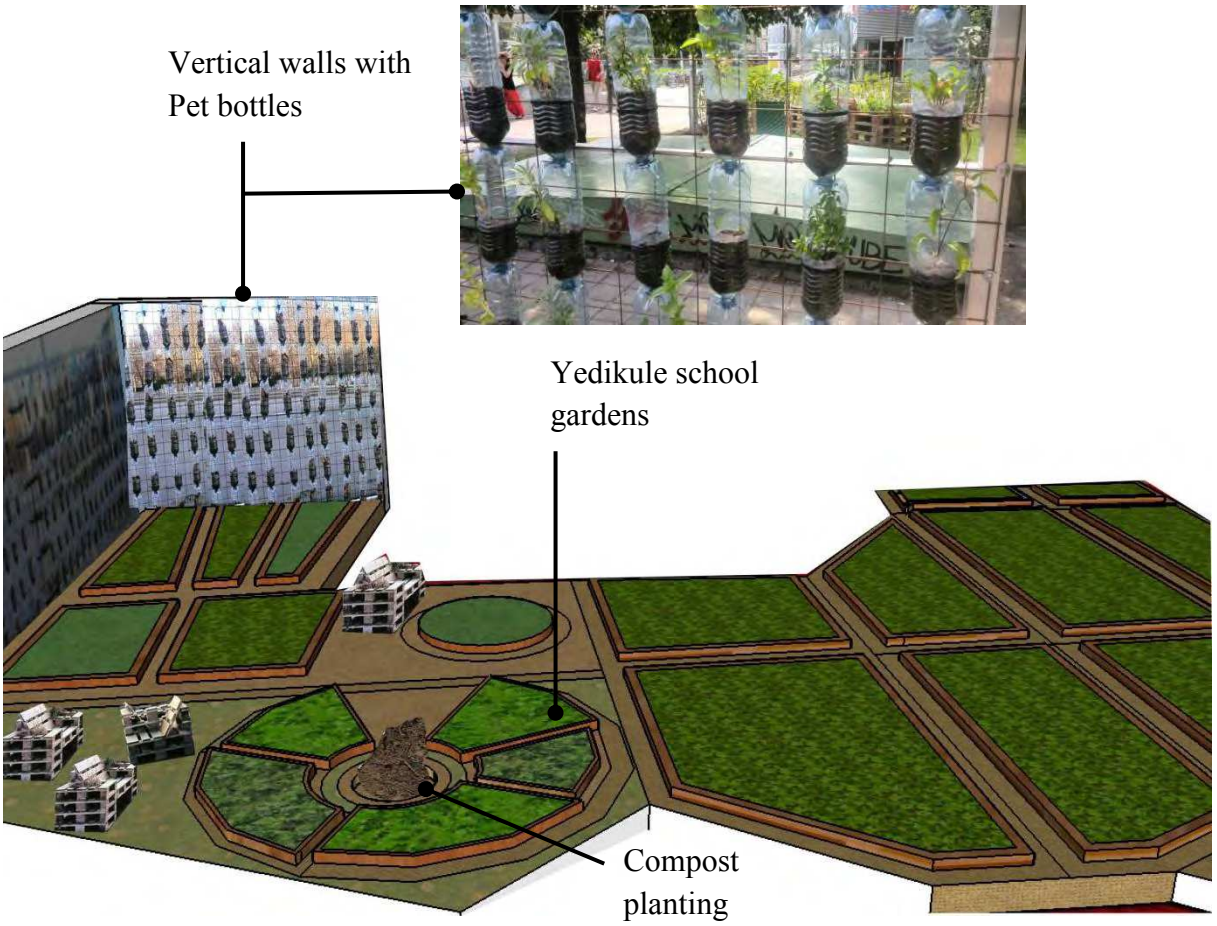


Image 8-10: Yedikule School Bostans, self drawing

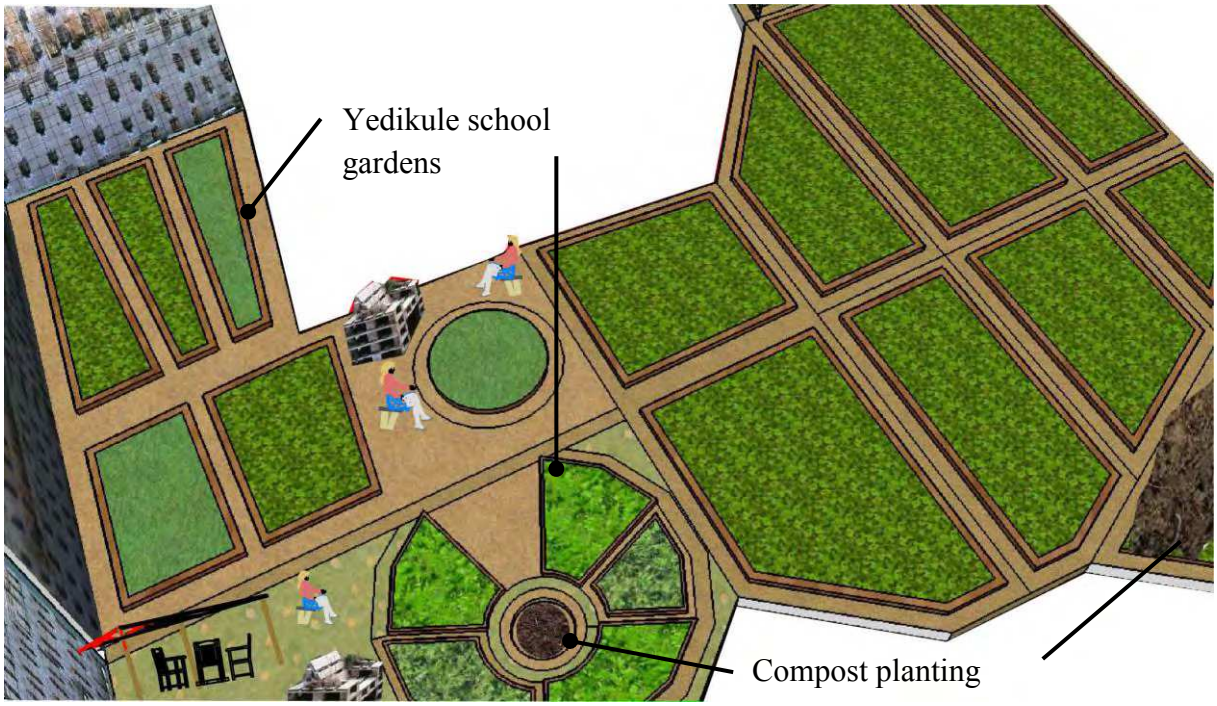


Image 8-11: Yedikule School Bostans, self drawing

Image 8-12: The proposed vertical wall, the photos from Karls Garten..

Bostan Land: 3

On Box 8 is explained, Yedikule Bostans are placed in a densely built up areas. Making vertical wall, and integrating bostans in the urban park project, it fills the gaps of near-natural open space. This contributes **all citizens the legal right to use bostans**, **access to and to experience of nature**. It keeps the habitat of animals and plants; enhance the aesthetic appreciation of Land Walls, awareness of environment issues; it provides positive impact on urban microclimate in Yedikule, making vertical wall in urban park contribute to saving space, and promoting educational opportunities such as showing school students to collecting rainwater for harvesting, using recycling materials such PET-bottles to serve as a container. There is high vehicle traffic in Yedikule, and it can be counteracted in the traffic related emissions such as reducing noise and fine dust. It promotes also to change urban heat island effect through heat insulation and windbreak effects.

BOX 10. A vertical wall-*vertikale Wand*- in Karls Garten in Vienna (Schau-und Forschungsgarten)

In densely built up areas, it is often lack near-natural open spaces. It provides the aesthetic appreciation of cityscape, as well as positive impact on urban microclimate. Vertical wall facilitates that the plants or a whole garden to take place perpendicularly; and thus it provides to save space in specifically densely built up areas such as Yedikule neighborhood.

On the one hand, it provides this new created ecosystem for birds, insects and bees, and on the other hands it provides an improvement of climate and ecological conditions. Thus, it changes the urban heat island effect (heating of the city through densely built up areas, and lesser cooling at night), rain water is related; heat insulation and windbreaks are created. Also the traffic related emissions, such as fine dust-particulate matter-, and noise, can be counteracted.

The used recycling materials, such as PET-bottles, serve as containers for the substrate-reduced plants. The installation of vertical wall is also well suited for private balconies and terraces.

Source: A placard of ***vertikale Wand*** in Karls Garten in Vienna, the writing of placard is translated into English language by Elis M., and the placard image is taken by Elis M., in August, 2014, (http://www.karlsgarten.at/beschreibung.html).

Bostan Land: 2

Yedikule Community Bostans (gardens)

Do it yourself crops

Typically run by a group of neighborhoods in Yedikule. Neighborhoods maintain individual plots.
Primary goal is to produce vegetables for household, non-profit gardens.
They involve various activities for socialization and recreation such as meeting, celebrating spaces.
They have host open hours for the general public, accessible for public at certain times.
They are rented by neighborhoods, located public properties.
They **are long term usable, semi public open spaces**.

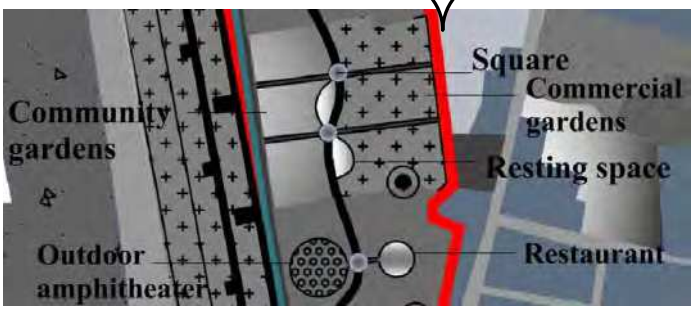


Image 8-13: The proposed bostan land 2, self drawing

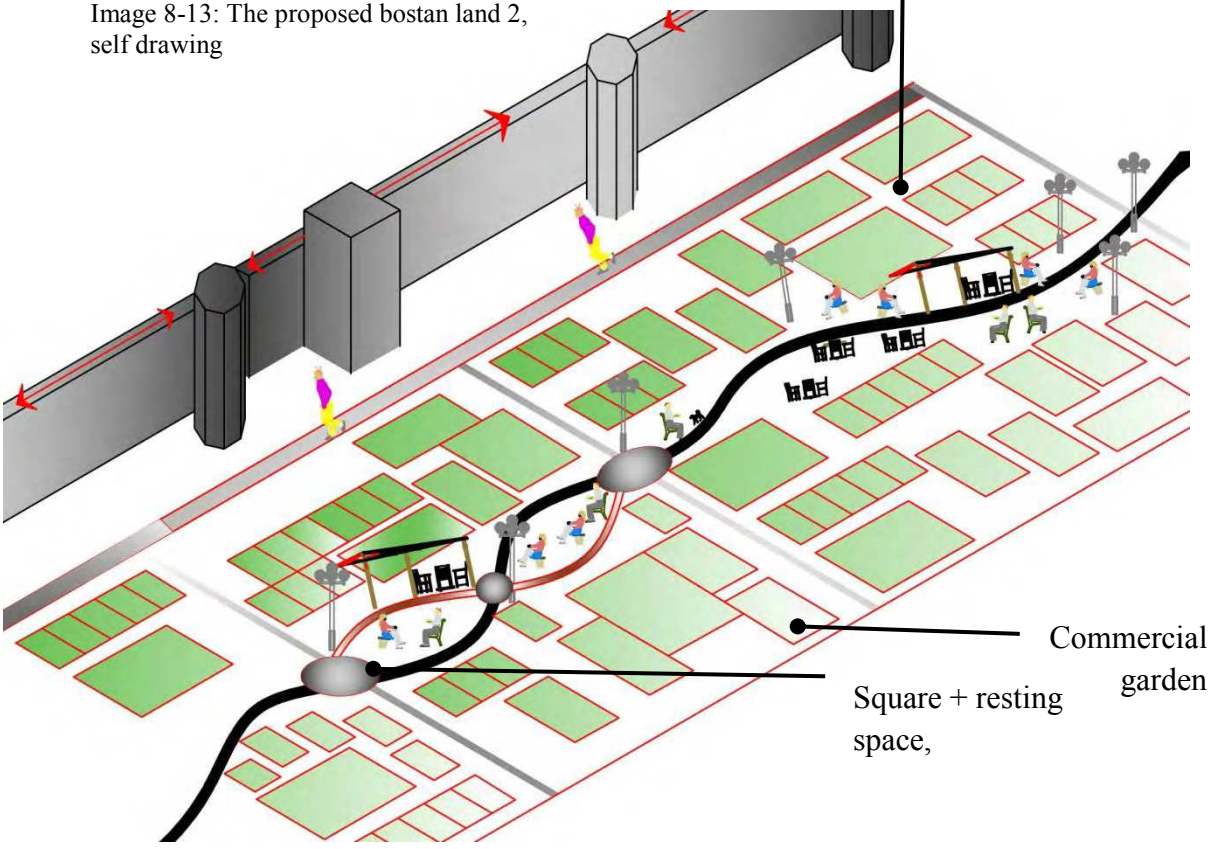


Image 8-14: Bostan Land 2, Commercial & Community gardens, self drawing

Bostan Land: 2

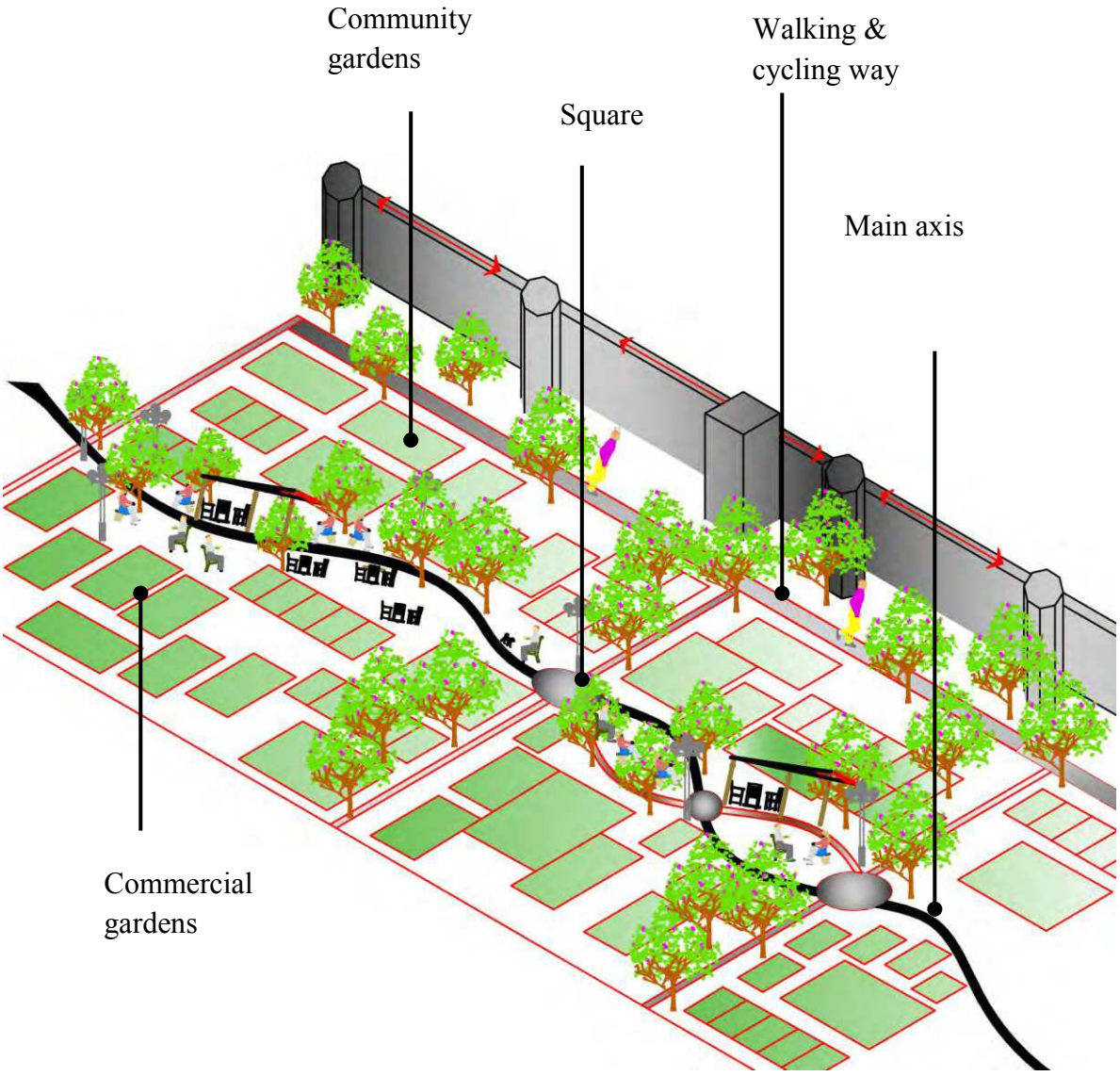


Image 8-15: Bostan Land 2, Commercial & Community gardens with trees, self drawing

Bostan Land: 1

Yedikule Community Farms (gardens)

Typically run by a non-profit organization in Yedikule. They are **communal growing spaces**.
Mostly focus on community building, development, social programs for social weak groups, children, unemployed youth, various disability groups.
They improve youth leadership skills, job readiness, educating people with cooking and nutritious education
They are open to the general public, accessible for public.
Their primary goal is to engagement with surrounding Yedikule neighborhoods.
They **are temporary usable open spaces**

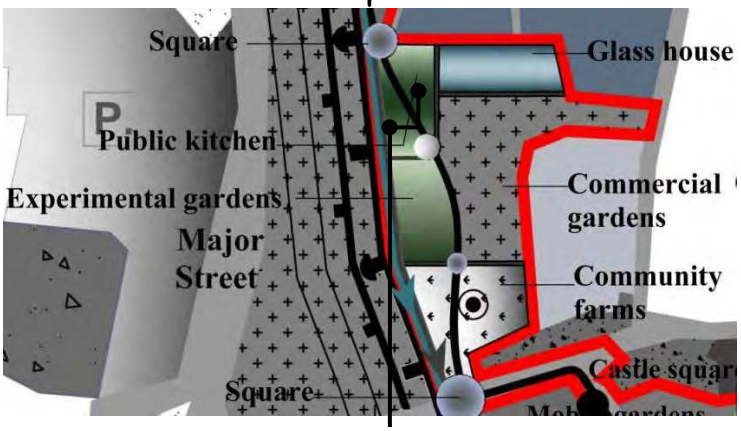


Image 8-16: The proposed bostan land 3, self drawing.

Public Kitchen

- Using produced fruits and vegetables from bostans to share cooking experience of residents, participants, or running by non-profit organization to community building for unemployed people, children , various disability group
- Cooking and nutrition classes, or to cook together with residents on certain days.
- giving responsible to professionals-*experts*- to inform visitors about history of bostans, ancient and modern food production of Istanbul
- Informing historic background of bostans to school-children and historic farming practices.
- Constructed with transparent materials, open to the public

Bostan Land: 1

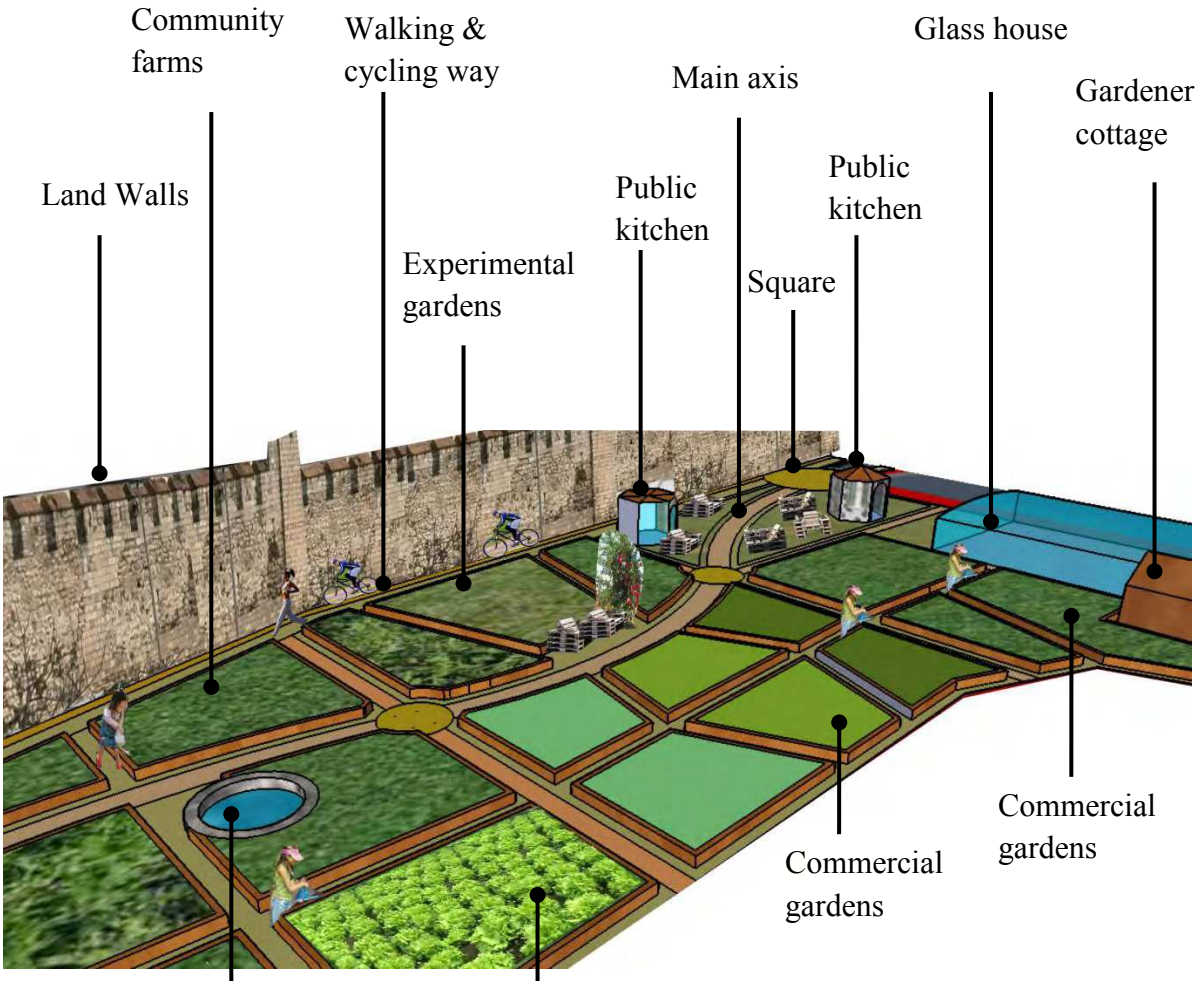


Image 8-17: Bostan Land 1, Community gardens and farms, commercial gardens, water well, self drawing

Bostan Land: 1

Experimental garden

- Participants dig up lands to prepare the planting and to pick up the crops, to water the harvest… etc.
- it provides more than food production, as well as it provides education opportunities for visitors, school children, getting experience about food production process
- Engaging local residents, participant, children in the experimental gardens to spend time in program activities

Experimental gardens

Producimg famous **Yedikule lettuce** at the Yedikule community farms

Image 8-18: Bostan Land 1, Experimental gardens, historic water well,, community farms, self drawing

Bostan Land: 1

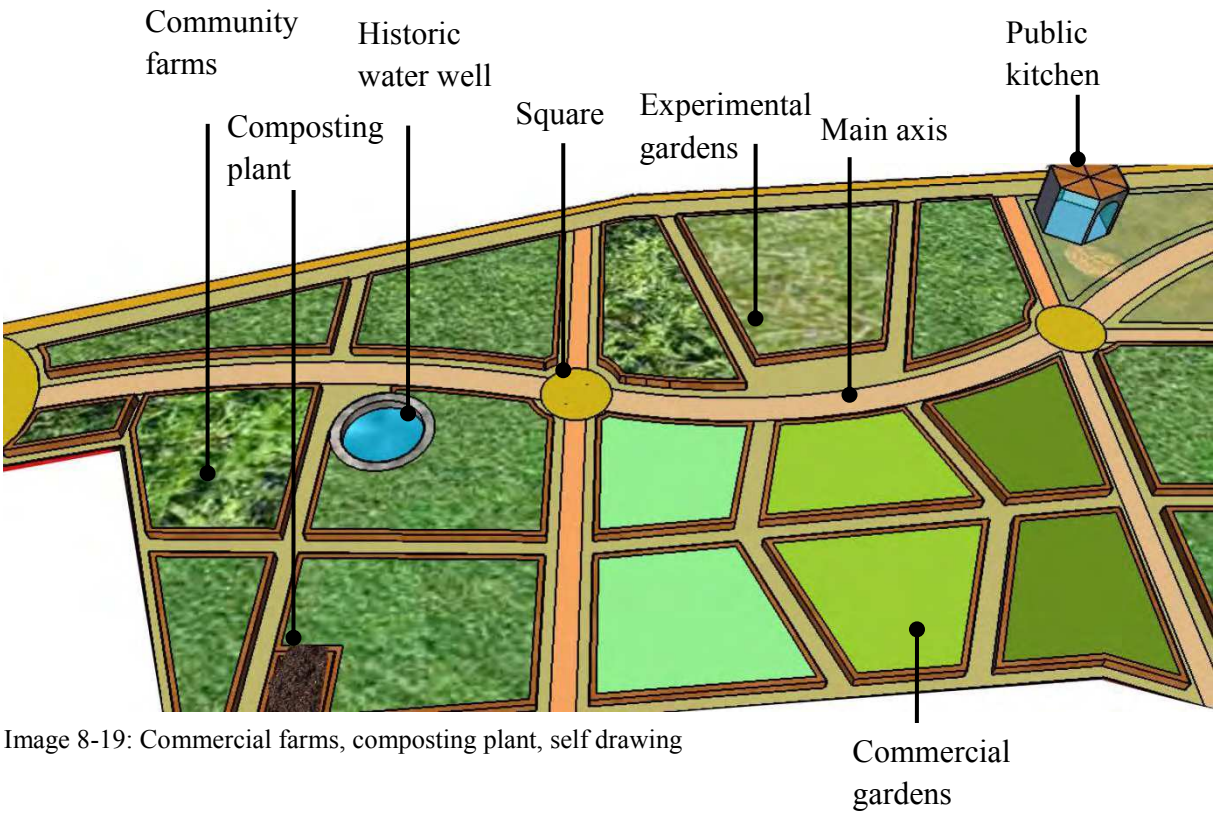


Image 8-19: Commercial farms, composting plant, self drawing

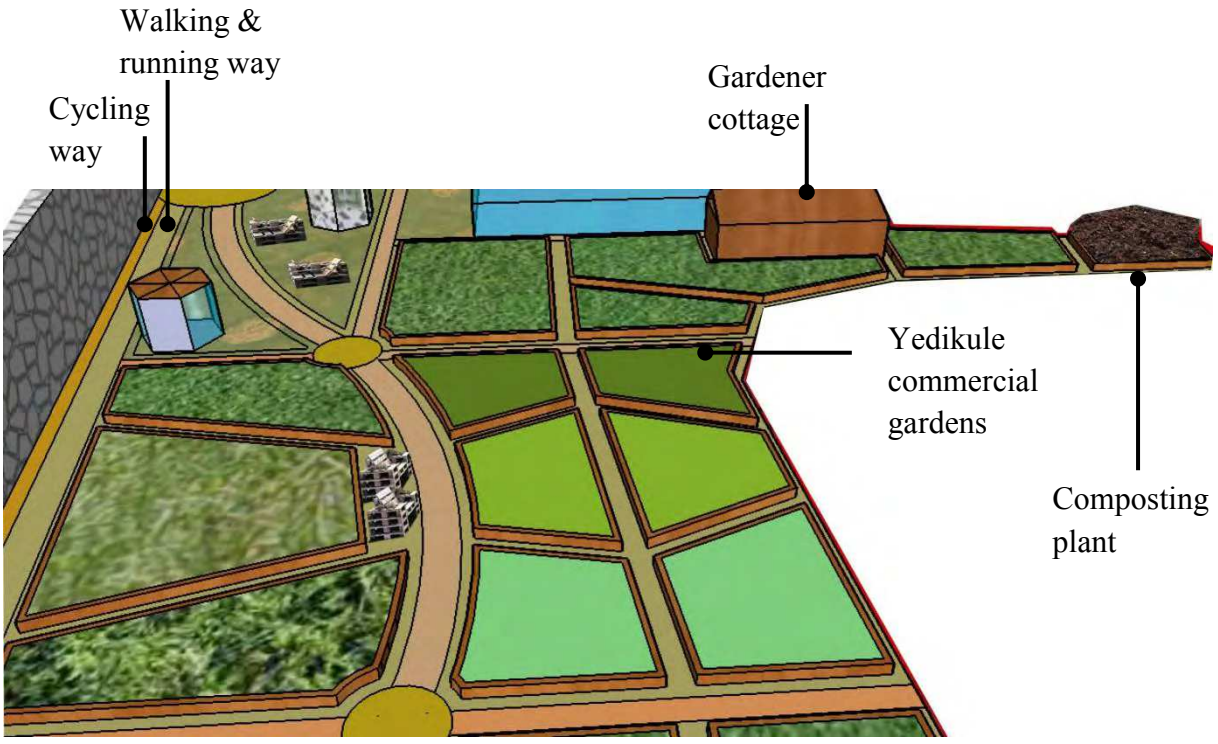


Image 8-20: Commercial gardens amd experimental gardens, composting plant, gardener cottage, self drawing

Bostan Land: 1

Glass House

- Vegetable production, selling local produced fresh vegetables, seeds to costumer.
- Selling stands
- Equipment collection space
- Selling produced vegetables from the bostan plots, specifically from commercial gardens at the urban park.
- Seating, meeting spaces
- Kitchen, using traditional vegetables to serve customers' dishes.

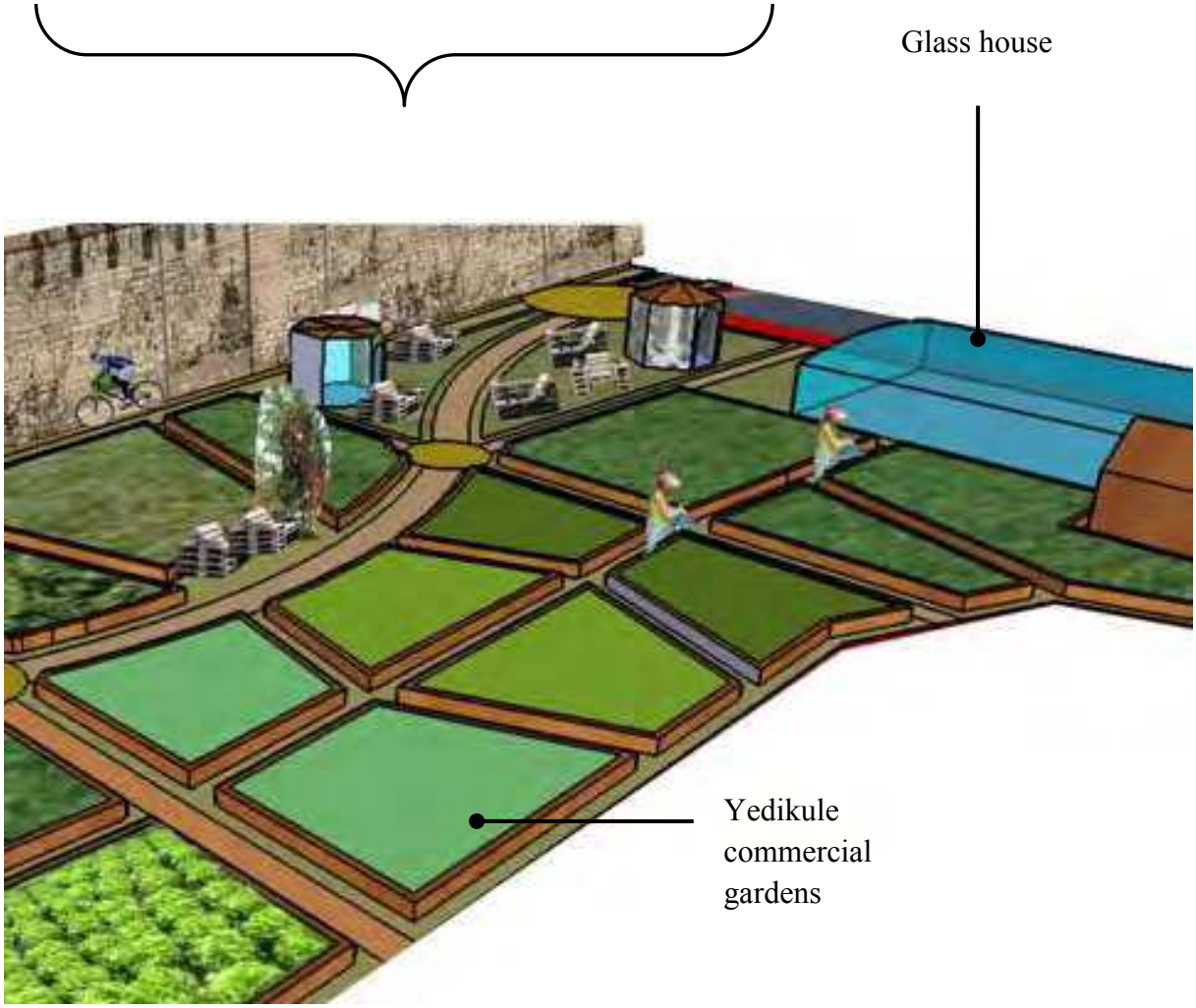


Image 8-21: Glass house, commercial gardens, gardener cottage, public kitchen, self drawing

Image 8-22: Local food bazaar, gardeners can sell their crops at the bazaar, specifically owners of commercial gardens

8.3 The Yedikule Productive Public Park

Considering all possible functions of project area with ***a functional approach*** as Stiles explained before, it gives the opportunity to enhance existing quality of open space, how to go **to protect existed** open spaces such as keeping bostans for recreation and leisure use and ***make a good plan*** in the proposed project area in Yedikule. Vacant and underused lands of open spaces have opportunity to converting into multifunctional land uses; therefore it will provide protecting open spaces against to vandalism or other negativities such as against to becoming dump area and etc. Designing with the respect to a functional approach in open spaces, it will provide to fill the demands of different groups in an appropriate level of use. As a result, balancing the demands of different groups is possible with considering all possible functions in Yedikule, and it brings out the *landscape quality* of Yedikule.

Converting bostans into multi functional land uses, it will not only meet the demands of food production and conservation, it will also meet the demands of recreation and leisure use in a ***productive way*** such as ***educational way*** in Yedikule. Keeping bostans for recreation and leisure could provide; educating young people and improving job readiness, providing safe spaces for local residents, cleaning and reclamation of vacant and underused open spaces, connecting residents to nature, and ***keeping ongoing gardening practices for bostancıs to earn income*** and create opportunities for residents to get experience of nature with different activities, may helping gardeners and to earn income or to improve leadership skills of young people. Community gardens such as Five Borough Farm Project in New York, it provides

food production and recreation and leisure activities with education opportunities; but in Yedikule case we need to find an appropriate level of use to meet the demands of conservation, too. We need to keep gardeners with everyday practices, ongoing food production process to earn income, but perhaps with complementary activities to provide educational, cultural, social activities. Yedikule bostans can also provide recreation and leisure activities in educational way, not like community gardening approach, a bit different, residents can get hands also dirty in bostan areas, but they will not have the right to produce their own food on bostans to earn income, but the residents can access to bostans and learn about food production processes; or to facilitate ***a public kitchen*** in the public park project area to use produced fruits and vegetables from bostans in the public kitchen and to make 'cooking and nutrition classes or to cook together with residents on certain days. Perhaps, giving responsible to professionals-*experts*- to inform visitors about history of bostans that being as a carrier of cultural heritage, cultural landscape; perhaps establishing an exhibition studio in public park area to provide education to the importance of conservation of bostans, to inform historic background of bostans to school-children, and to attract tourists as well as visitors, to present historic farming technologies and may to give information about biological food production processes, environmental educations to use rainwater for harvesting or using recycling materials like vertical walls, or guided tours. It can also provide walking around bostans by established facilities, and seating benches in bostans to access to experience of nature passively, but in educational way with complementary activities, bostans will provide to access to experience of nature actively, in productive way, such as making a ***vertical wall like Karls Garten***, or making a ***public kitchen;*** and let all people to access to space for sitting at the benches or walking around bostans, or in the observation of bostancıs to give residents the right to use gardens in an appropriate level, such as to touch vegetables or to help gardeners to pick up the crops, to dig up lands to prepare the planting… etc. As a result, it provides more than food production, as well as it provides education opportunities for visitors, increasing the public awareness of environmental issues by using recycling materials such as Karls garten example, using rainwater for harvesting, turning food waste into compost, as well as increasing the public awareness of conservation bostans, such as providing experts to inform visitors about the history of bostans; social spaces to residents to meet and get into contact with each others, or ***sharing spaces*** such as ***public kitchen to share cooking experience*** of residents with each other, or to learn about healthy food and nutrition, therefore bostans could be converted into multi functional land to create a productive park in Yedikule with balancing the demands of different groups.

Community gardens issue involves food production with non-profit or to make income with participants to sell in farmer markets as well providing educational opportunities. These gardens are typically run by a core group of volunteers in generally from the surrounding Yedikule neighborhood; the volunteers maintain their individual bostan plots or communal growing spaces. Gardens are city owned lands-*public property*-, and required to host open hours for the general public.

Balancing the demands of three different groups, allowing some parts of bostans to public access and converting them into urban activity, this contribute residents to get hands dirty into

bostans, to be a voluntary to help gardeners to dig up lands, to prepare lands for planting at the seasons, to help irrigation of bostans. It provides residents to access to and experience of bostans ***actively***; it lets residents to inform about food production process, how to produce healthy food, therefore this contributes an active participation on vegetable producing process. Residents can participate in food production process with non-profit as volunteers; commercial gardeners may offer the helpers in return to sell vegetables of bostan with low costs.

As a result, the Yedikule productive public park provides a good plan with considering all possible functions of open space in a productive way, with balancing the demands of different groups for recreation and leisure, food production and conservation of historic landscape value in the historic Yedikule context. It provides increasing the awareness of environmental, health, cultural, social issues and the awareness of historic heritage. In this way, it indicates the importance of bottom up designing steps to provide a good plan. Making a good plan helps to increase the quality of space and the quality of life in Yedikule neighborhood.

8.4 Bostans in sustainable Yedikule neighborhood relating Istanbul

Bostans in Yedikule are remarkable examples to contribute environmental, social, economic benefits; they are a significant part of urban infrastructure network. Yedikule bostans are a land use element in urban open space plans for using recreation and leisure. They are valuable for a wide variety of urban social, cultural, economic and environmental contributions. Valuation of the space is not only individual or business, but for building communities, developing neighborhoods in Yedikule, and after all, the bostans are integral part of the city as a whole.

The traditional bostans seem faces urban development, modernization, globalization, and so shrinking the size of bostans all across the city of Istanbul. Food from other sources within Turkey or international agro business feed citizens in Istanbul.

Historic bostans have opportunity to be used preserving urban open spaces, enhancing green areas and maintain cultural values. They can contribute social solidarity and creative community building. The contributions of bostans should be considered a model for sustainable development in Istanbul. Considering the contributions of bostans to preserve urban open spaces as a best open space preservation strategy, the government will have an opportunity to create a sustainable bostan model, help to produce healthy environment for the citizens. The encouragement to urban bostans by policies and programs will explore bostans as urban activity, making social, cultural, economic benefits in urban life in Istanbul.

An active government's support for urban bostans will help to recognize the contributions of urban bostans as urban activity, and therefore this can be an example model for a sustainable Istanbul.

The Yedikule Bostans carry historic cultural landscape and they are carrier of identity, meanings and values in Istanbul. They contribute to make unique neighborhoods through creating a sense of space in Istanbul. Yedikule neighborhood is one of them. Traditional bostans and bostancılık activities can be source for new urban activities. This helps to make a sustainable urban life with keeping old values of bostans. Filling the contemporary demands, urban needs, such as recreation needs, based on traditional bostans provides many opportunities for creating sustainable communities, urban life, neighborhood development, preserving the space safe and clean. The historic Yedikule Bostans have potential to produce productive urban open spaces through integrating traditional values and contemporary opportunities together in a coherent mix of space.

8.5 Conclusion, Recommendations and Outlook

Urban gardens as a means of preserving urban open spaces and their integration into urban landscape has been explored. Urban gardens are very good strategy to preserve urban open spaces and to make a legitimate use of public open spaces.

Urban gardens are the significant component of urban infrastructure, a part of urban open space system and urban life. Urban gardens are significant land use elements of open spaces; multi functional use of urban gardens creates **'productive urban open spaces'**. Multi functional use of urban gardens is possibly the best strategy to preserve urban open spaces.

Consideration of all possible functions of urban open spaces helps to find a coherent use of space between traditional functions of bostans and the contemporary new urban garden models and the expectation of different city dwellers.

Consideration of all possible functions of urban open spaces in order to adapt traditional bostan functions into new urban garden models creates **'a new urban park'**, which is integrated into urban infrastructure and urban life. This identifies a productive public park. The **'productive public park'** means integrating the *multifunctional use of urban gardens* into urban open space plans, as a land use element, as a significant component of urban infrastructure. In this way, real communities get produced, neighborhoods get developed, sustainable communities become created, finally 'a productive public park' becomes identified. A productive public park is a component of urban infrastructure and urban life.

All possible functions of open space help to make a legitimate use of public open spaces. Considering all possible functions of open spaces in order to balance different rights of different users of open space, an appropriate level of use of space through an active public participation should be found in policy making from the beginning. **An active public participation,** involvement of all potential target groups in policy making process from the beginning, involvement of local neighborhoods will endure as a functioning team with a sense of 'ownership'. These steps help to understand the demands of different target groups; accurate information of public on decision makers' side, and in this way, different demands will be balanced in an appropriate level of use of space. **A sense of ownership** will be created, after frequently usage in those lovely spaces. Finding an appropriate level of use of space between different demands of different target groups reduces the risk of crime, creates a sense of safety. These spaces increase the responsibility of local neighborhoods to improve maintenance and cleanliness of the space. '**Creating a sense of ownership'** is one of the most important strategies to preserve urban open spaces.

Firstly, the potential of the site, the potential of the bostans in Yedikule is explored in order to find their contributions to urban open spaces and to the neighborhood; their potential to meet requirements of different groups, in a broad sense its urban and landscape context, its meanings and values occur from its historical and social context as widely explained in historic aspect chapter. Secondly, the demands for recreation, conservation and food production, the needs of Yedikule neighborhood, the aspirations of users, experts, local residents, and existing users of gardens, and currently proposed municipal park project are explained. The municipal park project doesn't satisfy the expectations and requirements of the different groups, because it intends to demolish traditional bostans, and satisfy only the demands of recreation group. Considering the contribution of the existing potential of urban bostans, considering multi functional use of bostans and the expectations of different groups, the demands for food production, recreation and leisure, and conservation of the historic cultural landscape are integrated together, and they find a coherent mix on the space.

As a result, converting bostans into multifunctional land use, considering the contribution of urban bostans for recreation and leisure, keeping some bostans but allowing more public access would satisfy the demands for recreation, and keeping ongoing food production on the bostans plots would satisfy the demands for conservation. Keeping some bostan plots as acting commercial gardens let existing gardeners to keep ongoing food production to make profit from them, selling in the restaurants or local bazaar at the public park; and making commercial gardens open to public in certain times would satisfy the expectation of gardeners and the demands of recreation. In this way, the project would balances the interests of food production, recreation and leisure and conservation; therefore integrating bostans into the public park as a whole would be probably the best strategy to preserve urban open space in Yedikule. It would identify **'a productive public park in Yedikule'.**

Regarding the plan in municipality, the local municipality of Fatih should recognize the historic Yedikule Bostans are under the conservation of national laws and the municipality should design with respect to conservation of the historic Yedikule Bostans. The local municipality should follow the guide of conservation plans of the Historic Site Management Plan, and design with respect to the indicated historic Yedikule Bostans in conservation plans. The control mechanisms should work effectively to examine the implementation projects in conservation areas. The requirements of the European Landscape Convention should be sufficiently considered before creating a project plan for Yedikule. The local authorities should intend integrating the nostalgic image, traditional values of bostans with contemporary demands to create a productive public park in Yedikule.

RECOMMENDATIONS:

A. Formalizing City Government's Support for Urban Bostans

1. Establish a clear urban bostan policy (A policy statement should support urban gardens as open space preservation strategy for underserved neighborhoods, supporting economic development for low-income groups at urban gardens, creating new gardens on unused or vacant open spaces, it creates new jobs.)
2. Develop an urban garden plan (-Create an urban garden land use map, -Document all existing urban garden fields. –Document available city-owned properties (identifying and activating vacant lands), -Identify available private property, -Develop criteria to evaluate the suitability of vacant land for urban gardens, -Evaluate the availability and sustainability of city-owned sites for urban gardens)
3. Explore appropriate land tenure and garden preservation (City should consider a range of license for some urban bostans)
4. Strengthen the role of Food Policy Coordinator
5. Increase the capacity of Green Thumb staff
6. Establish an urban garden ombudsman

B. Integrate Urban Garden into Existing City and District Policies and Plans

1. Expand support for urban garden in the city's green infrastructure program
2. Establish a municipal soil conservation and distribution program
3. Design a program to collect and compost organic matter, and distribute compost to gardens
4. Include urban garden in the City's review process
5. Incorporate urban gardens into neighborhood planning

C. Identify Innovative Opportunities to Build Urban Garden into the Cityscape

1. Support project-level urban garden planning and design
2. Encourage rooftop urban garden
3. Support 'interim use' urban garden project
4. Encourage gardening in small plots
5. Strengthen infrastructure for food distribution and production

D. Address Disparities in Istanbul's Urban Garden Community

1. Increase access to information about available resources
2. Support capacity building for underserved urban garden groups
3. Provide resources and assistance with community development and outreach
4. Establish equitable and transparent participation in policy making
5. Engage the urban garden in the budget process

Source: N. Cohen, K. Reynolds & R. Shanghvi, 2012: "The Five Borough Farm" Seeding the future of urban agriculture in New York, published by the Design Trust for Public Space, pp. 147-152.

6. Commit to improving agency-level capacities to address race- and class-based disparities

7. **Establish a clear urban garden policy** (A policy statement should support urban gardens as open space preservation strategy for underserved neighborhoods, supporting economic development for low-income groups at urban gardens, creating new gardens on unused or vacant open spaces, it creates new jobs.)

8. **Develop an urban garden plan (-Create an urban garden land use map, -** Document capacities to address race- and class- based disparities

E. Urban Garden Grant making

1. Equalize grant opportunities throughout the urban garden community
2. Explore a sustainable funding source for urban garden
3. Provide support for more networking among gardeners

Neighborhood Level Planning related to urban gardens:

- Identify sites for farmer markets and community gardens
- Addressing the compatibility of rooftop gardens with neighborhood characteristics
- Determining the desirability of integrating gardens into new residential buildings
- Locating green houses and identifying land for food processing facilities
- Allocating capital money for municipal food processing facilities
- Considering the use of parkland for growing and selling food

Source: N. Cohen, K. Reynolds & R. Shanghvi, 2012: "The Five Borough Farm" Seeding the future of urban agriculture in New York, published by the Design Trust for Public Space, pp. 147-152.

OUTLOOK

Identifying potential vacant and underused open spaces to convert urban bostans in Istanbul could give an information about how many people can benefit from urban bostans as using community, commercial, educational or institutional gardens. Volunteer groups can use this vacant land and underused land and rooftops as temporary space in short or long term with official agreement among government institutions.

Increasing the urban gardens in the city provide to expand green areas in specifically high densely settlements in Istanbul, therefore the amount of green areas per capita in Istanbul will be increased, where the constructions are ongoing rapidly on the open spaces, and where the open spaces have been converting into built up areas. Making a well working garden model that integrated into land use plans in Istanbul may the best way for creating a sustainable urban garden model.

Many contributions of urban bostans as educating people, connecting neighborhoods to nature, and reinforce weak neighborhoods, enhance the awareness of public on urban environment issues and therefore this creates sustainable communities. If government policies support and give funds to convert vacant, underused lands and rooftops, this will encourage to enhance the desires of volunteers to attend urban gardens. The volunteers will make official agreements without worry.

If the identified potential open spaces in order to convert into urban gardens on the land use plans and transferred to jurisdiction of the Department of Parks and Gardens in Istanbul may encourage the volunteers to be a part of urban garden system.

The following issues can be investigated for further research;

- Identifying the potential vacant and underused open spaces (rooftops, lands) that can be converted into urban gardens in order to preserve urban open spaces and to make a sustainable garden model in Istanbul. How many vacant and underused open spaces have potential to preserve urban open spaces in Istanbul and how impact urban environment?
- Under which conditions and how urban bostans can be integrated into land use maps from neighborhood level to citywide level and how can be coordinated among the citywide institutions, users and other urban stakeholders? Identify an integrated urban bostan land use map and give an example for a district in Istanbul.
- What kind of urban policies can encourage urban bostans and how impact rapidly urbanization process in Istanbul?

i. Bibliography

ARMAR-KLEMSU, M. (1999): "Urban Agriculture and Food Security, Nurition and Health", Thematic Paper 4. [Accessed on November, 2014, from http://www.ruaf.org/sites/default/files/Theme4_1_1.PDF].

BARTHEL, S. & ISENDHAL C., (2013): "Urban gardens, agriculture, and water management: Sources of resilience for long-term food security in cities", Ecological Economics 86, pp.224-234.

BASER, B. / ESBAH TUNCAY H. (2010): "*Understanding the spatial and historical characteristics of agricultural landscapes in Istanbul",* ITU A | Z Vol.7, 106-120.

B**ASER-KALYONCUOGLU, B. / KALYONCUOGLU, B. (2013):**, Metropollesme Sürecinde Kent Disina Itilen Tarimin Kentle Bütünlestirilmesinde Yeni Bir Strateji: Kentsel Tarim, Peyzaj Mimarligi Adana, 5.Kongresi / 14-17 Kasim 2013-Adana pp. 82-95.. [Accessed on August, from http://www.academia.edu/6387117/].

BILGIN, A., (2010): "Osmanlı Dönemi Istanbul Bostanları (bir giris denemesi)" [Market Gardens of Istanbul in the Ottoman Times], Yemek ve Kültür Vol. 20, Çiya Yayınları, Istanbul, pp. 86-97. [Accessed on January, 2015, from http://www.academia.edu/3067858].

BOCK, S. / HINZEN, A. / LIBBE, J. / PREUSS, T. / SIMON, A. / ZWICKER-SCHWARM, D. (2013): Urbanes Landmanagement in Stadt und Region: Urbane Landwirtschaft, urbanes Gärtnern und Agrobusiness, Berlin, Deutsches Institut für Urbanistik (Difu-Impulse).

BORNMANN, F., ERBELDING, D. & FROESSLER, D., (2008): *"Zwischennutzungen: Temporäre Nutzungen als Instrument der Stadtentwicklung"*, pp.1-99-, p.11, Innovationsagentur Stadtumbau NRW, Düsseldorf. [Accessed on August, 2014, from http://www.stadtumbaunrw.de/pdf/dokumente/zwischennutzungen.pdf].

BOURQUE, M. (2000): Policy Options for Urban Agriculture. In: In: BAKKER, N. / DUBBELING, M. / GUNDEL, S. / SABEL-KOSCHELLA, U. / ZEEUW, H. De (Eds.): Growing Cities, Growing Food, Urban Agriculture on the Policy Agenda, DSE, SEL, pp.119-145.

CABANNES, Y., (2012): "Pro-poor legal and institutional frameworks for urban and peri-urban agriculture", FAO Legislative Study: 108, Rome. [Accessed on November, 2014, from http://www.fao.org/docrep/017/i3021e/i3021e.pdf].

CAKMAKCI, E., SOPOV, A. (2013): "Yedikule Rekreasyon Uygulama Projesi, Sosyal Etki Değerlendirme Raporu, (Yedikule Recreation Implementation Project, Urban Design and Social Impact Report). [Accessed on January, 2015, from http://yedikulebostanlari.tumblr.com/tagged/Raporlar].

COHEN N. / REYNOLDS K. / SHANGVI R., (2012): "The Five Borough Farm" Seeding the future of urban agriculture in New York, published by the Design Trust for Public Space, pp. 1-169.

CORREA, C. (1989): „The new landscape: Urbanization in the third world", Butterworth Architecture.

DOKMECI V., OZUS E., TURK SENCE S. (2011): Urban Restructuring of Istanbul. In: ALBRECHTS, L. / COOKE, P. (Eds.), European Planning Studies, Routledge Publishing, Taylor &Francis, USA/Canada, pp. 331-356, p.333.

DUBBELING, M., de ZEEUW, H., VEENHUIZEN, van R. (2010): "Cities, Poverty, and Food: Multi-Stakeholder Policy and Planning in Urban Agriculture, RUAF Foundation, Warwicks hire. Practical Action Publishing Ch.1.

European Landscape Convention and reference documents. [Accessed on January, 2015 from http://www.coe.int/t/dg4/cultureheritage/heritage/Landscape/Publications/Convention-Txt-Ref_en.pdf].

HOWARD E., 1902: „Garden Cities of To-morrow", Swan Sonnenschein & Co., London.

FORMAN, R.T.T., (2008): „*Urban Regions: Ecology and Planning Beyond the City",* Cambridge University Press.

HAUSER, S. / KAMLEITNER, C. (2006): Ästhetik der Agglomeration, Wuppertal: Müller und Busmann.

HELMING, K. / WIGGERING, H. (2003): Sustainable Development of Multifunctional Landscapes. In: HELMING K., MÜLLER K., WERNER A., WIGGERING H. (Eds.): The Concept of Multifunctionality in Sustainable Land Development, Springer-Publishers, Berlin, pp. 3-18.

HOWARD, E. (1991): Garden Cities of To-morrow, Publisher: Swan Sonnenschein & Co Ltd., London, accessed in 6th August, 2014, [http://de.scribd.com/doc/223631136/gardencitiestom00howagoog-pdf]

HUHN, W. / KNIEVEL, M. / KRETSCHMANN, S. /VOSS, J. (2002): Freiraumschutz und landwirtschaftliche Nutzung in Verdichtungsräumen-Wiederspruch oder gemeinsame Zielsetzung? Final Report. Im Auftrag des Sächsischen Staatsministeriums für Umwelt und Landwirtschaft. Sächsische Landsiedlung GmbH.

Istanbul Historic Site Management Plan, 2011. [Accessed on January, 2015, from http://www.alanbaskanligi.gov.tr/files/Management_Plan_090312_TUM.pdf].

JACOBI, P., AXEL, W., AMEND, J., (2000): "Urban Agriculture-Justification and Planning Guidelines", City Farmer, Canada's Office of Urban Agriculture, Canada. [Accessed on November, 2014, from http://www.cityfarmer.org/uajustification.html].

JOHANSSON, R. (2005): "On Case Study Methodology". In: VESTBRO et al. (eds.), "Methodology in Housing Research, The Urban International Press, UK.

KALDJIAN, Paul J. (2004):*"Istanbul's Bostans: A Millennium of Market Gardens*"; Geographical View, Vol.94, No.3, People, Places and Gardens (Jul., 2004), pp. 284-304.

KESKIN, S. / BIRCAN, M. (2002): Aydin agricultural master plan. In Turkish: Tarim Il Mudurlugu, Aydin, p.172

KEYDER, C. (1999): Istanbul: Between the Global and the Local, Rowman and Littlefield.

KIVILCIM-CORAKBAS F. / AKSOY, A. / RICCI, A. (2014): "*A Report of Concern on the Conservation Issues of the Istanbul Land Walls World Heritage Site*" with a special focus on the Historic Yedikule Vegetable Gardens. [Accessed on August, 2014, from http://dspace.princeton.edu/jspui/bitstream/88435/dsp0108612n667/1/report_land_walls_whs.pdf].

Koder J, 1995: "*Fresh Vegetables for the Capital, In Constantinople and Its Hinterland*", pp.49-56

LEINFELDER, H. (2005): The impact of the alternative concept of "public open space" on the planning of agriculture in rural areas and urbanized and urbanizing regions. In: Technische Universität Wien (Eds): AESOP Congress, Book of Abstracts, pp. 289-290. Publisher: Österreichischer Kunst-und Kulturverlag, Vienna.

LICKA, L. (2007): Public Open Spaces in Suburbia: Investigating the Implication of a Landscape driven Approach. In: Landscape Assessment - From Theory to Practice: Applications in Planning and Design, 18th International Annual ECLAS Conference, issued by: Univ. Belgrade; Eigenverlag, Belgrade, 2007, ISBN: 978-86-7299-137-6, pp. 241-247.

LOHRBERG, F. (2001): Stadtnahe Landwirtschaft in der Stad- und Freiraumplanung. Ideengeschichte, Kategorisierung von Konzepten und Hinweise für die zukünftige Planung, Dissertation am Institut für Landschaftsplanung und Ökologie an der Fakultät für Architektur und Stadtplanung an der Universität Stuttgart, Stuttgart.

MEYER-CHECH, K., SEHER, W. (2013): "*Preservation of Farmland in the Urban Fringe"*. In: HEPPERLE, E., DIXON-GOUGH, R., MALIENE V., MANSBERGER, R., PAULSSON, J., PÖDÖR, A. (Eds.), "Land Management: Potential, Problems and Stumbling Blocks", vdf Hochschulverlag AG an der ETH Zürich, pp. 297-307.

MOUGET, L. J.A., (2000): "Urban Agriculture: Definition, Presence, Potentials and Risks. In: BAKKER, N. / DUBBELING, M. / GUNDEL, S. / SABEL-KOSCHELLA, U. / ZEEUW, H. De (Eds.): Growing Cities, Growing Food, Urban Agriculture on the Policy Agenda, A reader on urban agriculture, Deutsche Stiftung für internationale Entwicklung (DSE) and Zentralstelle für Ernáhrung und Landwirtschaft (ZEL), Germany, pp.1-42. [Available to access http://www.ruaf.org/sites/default/files/Theme1_1_1.PDF].

MOUGET, L. J.A., (2005): "*Agropolis: The Social, Political, and Environmental Dimensions of Urban Agriculture*", Publishers: Earthscan and International Development Research Center: IDRC/CRDI, Ottowa, ON, Canada, pp. 1-24: p.2, p.5-6.

MULLER, C., (2011): Urban Gardening. Grüne Signaturen neuer urbaner Zivilisation, in: Müller, C. (Ed.): " Urban Gardening: Über die Rückkehr der Gärten in die Stadt", München, oekom, pp. 19-52.

PHILLIPS A., (2013): *"Designing Urban Agriculture: A complete guide to the planning, design, construction, maintenance, and management of edible landscapes"*, published by John Wiley and Sons, Inc., Hoboken, New Jersey.

QUON, S. (1999): Planning for Urban Agriculture, A Review of Tools and Strategies for Urban Planners, International Development Research Centre, Cities Feeding People Series Report 28.

REDWOOD, M., (2009): "Introduction, Conclusion". In: REDWOOD, M. (eds.), Agriculture in Urban Planning, Generating Livelihoods and Food Security, Earthscan, London.

Senatsverwaltung für Stadtentwicklung und Umwelt (20102): Berlin.

RONGITSCH S. (2012): "Urbane Landwirtschaft in Buenos Aires", Masterarbeit, Fakultät für Architektur und Raumplanung, Wien.

SHARMA, J. P. (2007): "The British Treatment of Historic Gardens in the Indian Subcontinent: The transformation of Delhi's Nawab Safdarjung's Tomb Complex from a funerary garden into a public park"; Garden History, Vol. 35, No. 2 (winter, 2007), pp. 210-228, p.225

SHOPOV, A. / HAN A. (2013): "Osmanlı Istanbul'unda Kent Içi Tarımsal Toprak Kullanımı ve Dönüşümleri-: Yedikule Bostanları", Toplumsal Tarih 236, August 2013, 34-38p.

SIEVERTS, T. (1997): Zwischen Stadt, Zwischen Ort und Welt, Raum und Zeit, Stadt und Land. Bauwelt Fundamente 118, Braunschweig, Wiesbaden: Wiesweg. l.

SMIT J., NASR, J. and RATTA, A (2001): "Urban Agriculture; Food, Jobs and Sustainable Cities", the Urban Agriculture Network, Washington D.C.

STILES, R., (2013): A Guideline for Making Space: Joint Strategy Activity 3.3, A part pf the project "UrbSpace", pp. 1-48. [Accessed on November, 2014 from, http://www.central2013.eu/fileadmin/user_upload/Downloads/outputlib/Urbspace_Guideline_for_makingSpace.pdf].

THE REPORT (2013): concerning the project entitled "Recreation and Conservation of inside the Land Walls between Yedikule Gate and Belgrad Gate", prepared by Kutup Planlama, pp. 1-71. [Accessed from the Department of Parks and Gardens of Fatih District].

UN, (2013): UN Press Release: World population projected at reach 9.6 billion by 2050 with most growth in developing countries, pp. 1-4, accessed in 2014 [http://esa.un.org/wpp/documentation/pdf/wpp2012_press_release.pdf].

UNDP, (2014): The Challenge of Slums: Global Report on Human Settlements 2003, accessed in 2014, UN-HABITAT Publisher, Earthscan Publications Ltd, London and Sterling VA, [http://mirror.unhabitat.org/pmss/listItemDetails.aspx?publicationID=1156]

VAN VEENHUIZEN, (RUAF Magazine), (2007): "Building Communities through Urban Agriculture", accessed November, 2014, http://www.ruaf.org/sites/default/files/UAM_18.pdf, p.1-48., p.1.

VEENHUIZEN, V.R. (2006): "Cities Farming for the Future: Urban Agriculture for Green and Productive Cities, In: Chapter 1, Introduction, RUAF Foundation.

VESTBRO, D. U. 2011: "Impacts of Urbanization in Low-Income Countries", the second International Conference on Advances in Engineering and Technology, Uganda, 2011.

VILJOEN, A. / Bohn, K., (2005): "An introductory glossary". In: Viljoen, A. ed., Continuous Urban Productive Landscape, Burlington, Architectural Press.

WOOLLEY H., 2003: Urban Open Spaces, Taylor & Francis.

World Cities Culture, 2013. [Accessed on January, 2015, from http://www.worldcitiesculturefforum.com/sites/all/themes/wccr/assets/pdfs/WCCR2013_low.pdf].

XIA, D., DONG, Y. (2013): "Bostans: Agricultural Generators for Istanbul's Urbanization", Harvard University, Graduate School of Design. [Accessed on January, 2015, from isites.harvard.edu/fs/docs/icb.topic1225278.files//yao_dong_di_xia_pdf_submission_.pdf]

YIGIT-TURAN B. (2013): "Yedikule Rekreasyon Uygulama Projesi Kentsel Tasarım ve Peyzaj Değerlendirme Raporu", (Yedikule Recreation Implementation Project, Urban Design and Landscape Assessment Report). [Accessed on January, 2015, from http://yedikulebostanlari.tumblr.com/tagged/Raporlar].

ZIEGLER, R. (2009): Stadtfrucht: Urbane Landwirtschaft und Gärtnern als Raumnutzungsstrategie. Masterarbeit, Fakultät für Architektur und Raumplanung, Wien.

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The main types and categories of urban open spaces: [258]

- Parks, public gardens, and green spaces : local, neighborhood, district, city, linear;
- Other green spaces: Playgrounds, allotment gardens, cemeteries, sport grounds, camp sites;
- Roads and other transport routes: urban squares and plazas, pedestrian street, residential streets, other roads, urban motorway corridors, car parks, cycle routes, railway lines and embankments;
- Residential open space and Housing landscape: private gardens, incidental open spaces in low rise residential areas, communal open spaces in multi storey housing, Children's playgrounds, roofs and balconies;
- Historic open spaces: formerly private parks and gardens associated with historic buildings, early examples of public parks which may have been restored and are protected for conservation reasons, important protected view axes or corridors with historic significance
- Water bodies and water courses: rivers, canals, lakes, ponds, wetlands;
- External spaces in relation to buildings: school and other educational institutions, offices, business parks, and administrative buildings, hospitals and care homes, industrial estates and commercial buildings, other public buildings;
- Urban fringe: left over agricultural land, forests and woodlands, waste disposal and excavation areas, unplanned open spaces.

[258] From http://www.le-notre.org/urban-spaces/urban-spaces.php?encyclopedia_id=358, accessed in October, 2014.