

THE ROLE OF URBAN AGRICULTURE IN ENHANCING PUBLIC SPACE;  
AN EVALUATION OF TYPES

A THESIS SUBMITTED TO  
THE GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES  
OF  
MIDDLE EAST TECHNICAL UNIVERSITY

BY

SADAF AMINOLESAMI OSKOUEI

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR  
THE DEGREE OF MASTER OF ARCHITECTURE  
IN  
ARCHITECTURE

DECEMBER 2019



Approval of the thesis:

**THE ROLE OF URBAN AGRICULTURE IN ENHANCING PUBLIC  
SPACE; AN EVALUATION OF TYPES**

submitted by **SADAF AMINOLESAMI OSKOU EI** in partial fulfillment of the requirements for the degree of **Master of Architecture in Architecture, Middle East Technical University** by,

Prof. Dr. Halil Kalıpçılar  
Dean, Graduate School of **Natural and Applied Sciences**

\_\_\_\_\_

Prof. Dr. Cânâ Bilsel  
Head of the Department, **Architecture**

\_\_\_\_\_

Assoc. Prof. Dr. Ela Alanyalı Aral  
Supervisor, **Architecture, METU**

\_\_\_\_\_

**Examining Committee Members:**

Prof. Dr. Güven Arif Sargın  
Architecture, METU

\_\_\_\_\_

Assoc. Prof. Dr. Ela Alanyalı Aral  
Architecture, METU

\_\_\_\_\_

Assist. Prof. Dr. Zeki Kamil Ülkenli  
City and Regional Planning, TED University

\_\_\_\_\_

Date: 04.12.2019

**I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.**

Name, Last name : Sadaf Aminoleslami Oskouei

Signature :

## **ABSTRACT**

### **THE ROLE OF URBAN AGRICULTURE IN ENHANCING PUBLIC SPACE; AN EVALUATION OF TYPES**

Aminoleslami Oskouei, Sadaf  
Master of Architecture, Architecture  
Supervisor: Assoc. Prof. Dr. Ela Alanyalı Aral

December 2019, 166 pages

Food is the essential element of human existence; thus the growing, distribution and providing access to food for citizens is one of the most important issues of the cities. World's population has been escalating rapidly in the last decades, and many cities still witness a flow of migration from rural areas. One of the major problems of cities is the decrease in the amount of open public spaces and the quality of social and public life of inhabitants; which also causes the lack of experience of outdoor spaces and togetherness. Recently Urban Agriculture has emerged and gained importance as a phenomenon that addresses these problems besides other issues such as economic problems.

This thesis is dedicated to studying Urban Agriculture as a place-making activity that produces productive public spaces in cities. The thesis defines and further evaluates the contributions of different types of these spaces to the quality of public life. In this respect, in addition to reviewing the historical emergence and the transformation of the role and functions of Urban Agricultural spaces, an evaluation of different types of this practice is done within the framework of successful place-making theories. The practice of Urban Agriculture is also studied

in the Turkish context to further assess the potentials and qualities of the practice for the future of Turkish cities.

Keywords: Urban Agriculture, Public Space, Public Life, Types of Urban Agricultural Spaces.

## ÖZ

### **KAMUSAL MEKÂNIN GELİŞTİRİLMESİNDE KENTSEL TARIMIN ROLÜ; ÇEŞİTLERİN DEĞERLENDİRİLMESİ**

Aminoleslami Oskouei, Sadaf  
Yüksek Lisans, Mimarlık  
Tez Yöneticisi: Doç. Dr. Ela Alanyalı Aral

Aralık 2019, 166 sayfa

Gıda, insan varlığının temel ögesidir; dolayısıyla gıdaların yetiştirilmesi, dağıtılması ve gıdaya erişiminin sağlanması kentlerin en önemli sorunlarından biridir. Dünya nüfusu son yıllarda hızla artmaktadır ve dünyadaki birçok şehir hâlâ kırsal alanlardan göç almaktadır. Sonuç olarak, açık kamusal alanların miktarı azalmakta ve bu insanların sosyal ve kamusal yaşam kalitesini olumsuz yönde etkilemektedir. Kentsel Tarım, ekonomik sorunlar gibi diğer sorunların yanı sıra bu sorunları da ele alan bir olgu olarak son zamanlarda daha da önem kazanmıştır.

Bu tez, kentsel tarımı, şehirlerde üretken kamusal alanlar yaratan bir mekân üretme aracı olarak incelemektedir. Bu araştırma kentsel tarım alanlarının farklı türlerinin kamusal yaşam kalitesine katkılarını daha da değerlendirmek için dünyadaki başarılı örnekleri incelemeye almıştır. Bu bağlamda, Kentsel Tarımsal alanların rol ve işlevlerinin tarihsel dönüşümünün incelenmesinin yanı sıra farklı uygulama türlerinin değerlendirilmesi de yer üretme teorileri çerçevesinde yapılmıştır. Ayrıca kentsel tarım uygulaması, Türk şehirlerine de katkı sağlayabilmesi için geçmişten kalan önemli kentsel tarım mekânlarının potansiyel ve nitelikleri bağlamında da ele alınmıştır.

Anahtar Kelimeler: Kentsel Tarım, Kamusal Alan, Kamusal Yaşam, Kentsel Tarım  
Mekân Tipleri



To my family...

## ACKNOWLEDGMENTS

First and foremost, I want to thank my supervisor, Assoc. Prof. Dr. Ela Alanyalı Aral for her valuable guidance, kind support, and incredible patience.

I wish to thank the jury members, Prof. Dr. Güven Arif Sargın and Assist.Prof.Dr. Zeki Kamil Ülkenli for their constructive critics and effectual comments.

I want to express my gratitude to my friends who helped and supported me through the period of this study. My Iranian friends, Melika Seyyed Akefi, Farbod Norouzian pour, Kimia Kamrava for their precious contributions and moral support, my Turkish friends, Incifer Karnak for being there for me, and Ece Müjen Gürkan for her cheerful encouragements and help, when most needed. Especial thanks to my dear sister, Shabnam, for also supporting me in every possible way.

I want to express my deepest gratitude to my parents, Mohammad Taghi, and Nesrin; without their unconditional love and support I would not have been able to be here.

At last I want to denote my profound love and gratitude to the memory of Anneanne and Bababuci, my beloved grandparents who did not live to see me graduate, but have always encouraged and supported me in every stage of my personal life and educations.

## TABLE OF CONTENTS

ABSTRACT.....	v
ÖZ.....	vii
ACKNOWLEDGMENTS .....	x
TABLE OF CONTENTS.....	xi
LIST OF TABLES .....	xiv
LIST OF FIGURES .....	xv
1 INTRODUCTION .....	17
1.1 Problem Definition.....	17
1.2 Aim and Objectives.....	21
1.3 Structure of the Thesis .....	22
2 THE HISTORY OF AGRICULTURE AND PUBLIC URBAN SPACES.....	23
2.1 Agriculture and the City.....	23
2.2 Open Space and Public Space .....	24
2.2.1 Public Space .....	25
2.2.2 Qualities Enhancing Public Space.....	28
2.3 Urban Agriculture Spaces as Public Open Spaces.....	31
2.4 Open Green Spaces and Urban Agriculture before the 1900s .....	35
2.5 Public Open Spaces and Urban Agricultural Spaces after the 1900s .....	38
2.5.1 Urban Planning Theories on Integration of Agriculture Into the City .....	38
2.5.2 Social Situations Affecting Urban Agriculture and Public Open Spaces ...	46
3 TYPES OF URBAN AGRICULTURE; DEFINITION, AIM, MOTIVATION	55
3.1 Urban Agriculture Definition.....	55

3.2	The Significance and Benefits of Urban Agriculture .....	56
3.2.1	Environmental Benefits .....	57
3.2.2	Social Benefits .....	58
3.2.3	Economic Benefits .....	59
3.2.4	Spatial Contributions .....	59
3.3	Urban Agriculture Spaces in the City.....	60
3.3.1	Core Zone .....	61
3.3.2	Corridor Zone .....	62
3.3.3	Wedge Zone.....	63
3.3.4	Periphery Zone.....	64
3.4	Challenges .....	65
3.4.1	Land Problem.....	65
3.5	Types of Urban Agriculture Practices .....	66
3.5.1	Urban Farms; Definition, Size, Location, and Products .....	66
3.5.2	Community Gardens; Definition, Size, Location, and Products.....	76
3.5.3	Allotment Gardens; Definition, Size, Location, and Products .....	90
3.5.4	Guerilla Gardening; Definition, Size, Location, and Products.....	100
3.5.5	Vertical Farming; Definition, Size, Location, and Products.....	103
3.6	Analytic Table of Different Types of Urban Agriculture.....	108
3.7	Conclusion.....	111
4	SPECIFIC TYPES OF URBAN AGRICULTURE IN TURKEY .....	113
4.1	Agriculture and Public Space in Turkish Cities before the Republican Era	113
4.1.1	Historical Types of Open Public Spaces and Agricultural Lands in Turkish Cities .....	117

4.2	Bostans .....	120
4.2.1	Definition, Size, Location, and products.....	120
4.2.2	History of Bostans .....	121
4.2.3	Management and Motivation .....	125
4.2.4	Public Characteristics and Potentialities of “Bostans” .....	125
4.3	Urban Agriculture and Public Open Space in Turkey in the Republican Era.....	128
4.3.1	AOÇ, History, Size, Location, and Products.....	132
4.3.2	Management .....	140
4.3.3	Public Characteristics .....	141
4.4	Conclusion .....	145
5	CONCLUSION.....	149
5.1	Suggestions for Improving the Condition of Bostans and AOÇ.....	152
5.2	Further Studies .....	156
	REFERENCES .....	157

## LIST OF TABLES

### TABLES

Table 1 Qualification criteria- based on place-making principles.....	108
Table 2 Analytical table of different types of Urban Agriculture .....	109
Table 3 Evaluating Urban Agriculture in developed countries and in Turkey.....	146
Table 4 Comparison of AOÇ and Bostan in the past and present.. .....	147
Table 5 Significant qualities of Bostans and Atatürk Orman Çiftliği.based on principles of place-making .....	153

## LIST OF FIGURES

### FIGURES

Figure 2-1 principles of place-making .....	29
Figure 2-2 Ebenezer Howard Garden City model .....	41
Figure 2-3 Le Corbusier La Ville Radieuse plan proposal .....	43
Figure 2-4 Le Corbuier La Ville Radieuse plan proposal .....	43
Figure 2-5 Frank Lloyd Wright Broadacre City model .....	46
Figure 3-1 The urban food system. ....	57
Figure 3-2 The four-zone model. ....	61
Figure 3-3 Agriculture in the Core Zone of Nicaragua.....	62
Figure 3-4 Agriculture in the Wedge Zone of Beirut.....	64
Figure 3-5 Map of city farms in New York City. ....	70
Figure 3-6 Kentish Town City Farm.....	72
Figure 3-7 Kentish Town City Farm features .....	73
Figure 3-8 Educational activities held in the farm.....	73
Figure 3-9 Heeley City Farm. ....	74
Figure 3-10 The Green Roof of Heeley City Farm.....	75
Figure 3-11 Public events and festivals at Heeley City Farm.....	75
Figure 3-12 the wind tribune and the waste composting plant of Heeley City farm .....	76
Figure 3-13 First picture of Liz Christy Garden, 1973. The construction process .	82
Figure 3-14 Activities in Liz Christy Garden, 2012 .....	82
Figure 3-15 The Eagle Heights Community Garden .....	83
Figure 3-16 The Eagle Heights Community Garden cultivation activities.....	84
Figure 3-17The Can Masdeu Community Garden.....	85
Figure 3-18 The Can Masdeu Community Garden Festival .....	86
Figure 3-19 L’Hortet del Forat.....	87
Figure 3-20 Agriculture workshops at L’Hortet del Forat.....	87
Figure 3-21 Agriculture activities at L’Hortet del Xino .....	88

Figure 3-22 Taipei 101 Gardens 2013 on the map .....	89
Figure 3-23 Taipei 101 Gardens 2013 .....	90
Figure 3-24 The map showing Allotment Gardens of Sheffield .....	94
Figure 3-25 Firth Park Community Allotment .....	95
Figure 3-26 The growing festivals in Firth Park Community Allotment .....	95
Figure 3-27 Heeley and Meersbrook Allotment .....	96
Figure 3-28 The Archer Lane allotment homes .....	97
Figure 3-29 Solvang Kolonihager .....	98
Figure 3-30 Solvang Kolonihager general view .....	99
Figure 3-31 Naerum Allotments .....	100
Figure 3-32 Naerum Allotments plan .....	100
Figure 3-33 The Netherland Pavilion in Expo 2000 of Hanover .....	106
Figure 3-34 The USA Pavilion in Expo 2015 of Milan .....	107
Figure 3-35 the Pasona O2 building in Tokyo .....	107
Figure 4-1 Map of Istanbul's Market Gardens .....	123
Figure 4-2 Plan proposal of Ernst Egli for Atatürk Orman Çiftliği .....	135
Figure 4-3 Herman Jansen's approved master plan for Ankara 1932 .....	136
Figure 4-4 Hermann Jansen's allotment garden proposal .....	137
Figure 4-5 Hermann Jansen's development plan proposal for AOÇ in 1936 .....	137
Figure 4-6 Crowd of people using the Marmara pool .....	139
Figure 4-7 Land use pattern of AOÇ in 1957 and 2013 .....	140
Figure 4-8 Atatürk personally engaging in cultivation .....	143
Figure 4-9 introducing farming machines and involvement of people .....	144
Figure 4-10 people in AOÇ .....	145



## CHAPTER 1

### INTRODUCTION

#### 1.1 Problem Definition

The recent century has witnessed a rapidly escalating number in the world's population. Accordingly, urbanization rates accelerated hastily. As reported by the "United Nations", "In 1950, only 30 percent of the world's population lived in urban areas, a proportion that grew to 55 percent by 2018. And by 2050 nearly 80 percent of the global population will live in cities<sup>1</sup>". In addition to this, the expansion of cities invades the fertile lands and disrupts the life of rural farmers supplying the city with the existential element of 'food'.

The shift to urbanization brings a set of challenges for the cities; in terms of environmental, social, and economic issues. The most prominent environmental issues are namely, providing the population with sufficient food, water, energy, transportation, and waste management systems in a sustainable manner. In the scope of social challenges in cities, here Aristotle is quoted;

"Man is by nature a social animal; an individual who is unsocial naturally and not accidentally is either beneath our notice or more than human. Society is something that precedes the individual. Anyone who either

---

<sup>1</sup> United Nations, "World Urbanization Prospects: The 2018 Revision" (Department of Economic and Social Affairs, Population Division, 2018), <https://population.un.org/wup/Publications/>.

cannot lead the common life or is so self-sufficient as not to need to and therefore does not partake of society is either a beast or a god<sup>2</sup>.”

Subsistent on this matter, through the course of the history of urbanization, public life and public spaces have been issues of concern and debated by scholars. The density of contemporary cities has resulted in a lack of sufficient ‘public space’ especially ‘open public space’. The absence of adequate public space results in the decline of public life and social relations and further degrades the quality of life. In this respect, Urban Agriculture, as a connecting concept for the two prominent concerns of environmental issues and social life, comes forth.

From the earliest stages of the emergence of urban settlements, the encounter among natural and built environments has been an issue in need of resolving. The attempts in this process have religious, symbolic and natural roots in every different context. Conversely, through and after the industrial revolution, the relationship of built and natural environments re-appeared as using and producing urban green areas for the purpose of curing illnesses of industrialized cities. This redefinition changed the concept of urban open green space from being a natural element to being an open space in planning literature; later in that process, these spaces became public spaces, which was beyond their natural content and planning objectives.

It is crucial to mention that, Agriculture has been the existential element of the history of urbanization and it has remained an integral part of many cities that have been originated from agrarian cultures. Yet creating and designing spaces to produce food in the cities are newer concerns.

It is also necessary to mention that urban and agriculture are two non-mixable concepts in the city planning literature. Agriculture happens in rural areas and cities

---

<sup>2</sup> Aristotle, *Politics vol.1* 1253a, 350 BC. Whole book available in : <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0058%3Abook%3D1%3Asection%3D1253a>

function differently. Some scholars such as Jane Jacobs reject the idea that agriculture existed before the formation of cities. Discussing these issues is not the concern of this thesis. Yet, when Agricultural techniques were developed and storing food for longer periods of time became available, the stocking and protecting the surplus products became an issue. Walls, protection towers and castles were built and division of labor became crucial for cities. Production, protection and distribution of food were done by different groups of people. Later with the development of transportation systems and the industrial revolution, cities started to face several problems and seek to find a solution.

Urban Agriculture which briefly refers to growing food in the city is a multi-disciplinary and multi-faceted phenomenon that entered the professional fields of city planning, urban design and architecture in late 19<sup>th</sup> by the works of Ebenezer Howard and followed furthered by many influential architects.

By its versatile nature, Urban Agriculture, besides addressing the aforementioned issues, impacts not only the third important challenge of the cities, economy but alludes to politic issues and governance.

The relationship between food production and the city has witnessed different approaches very much affected by social and economic situations. Wars, depressions, and politics all affected the way people access their food and also the way they perceive and use open urban spaces.

Public spaces have been and are the essential elements of cities. They support achieving a sense of community, social identity and attaining culture. The liveliness and continuous use of public space as a public place leads to urban environments that are well maintained, healthy and safe, gives inhabitants a sense of belonging and makes the city a desirable place in which to live and work.

In recent years, a new emerging environmental culture has posed new challenges to the function and meaning of public space. It has been observed that social situations in urban areas, in the past few years, resulted in land-reclamation movements by people. These claims have diverse concerns in different countries,

but the roots are traced to the sustainability of income and environmental concerns. People started to use food growing activities to appropriate their living conditions and improve the quality of their living environment. From Guerrilla Gardeners to the diverse practices of collaborative urban agriculture, a wide range of initiatives are experimenting and enacting– with different degrees of legality – new ways of sharing and producing spaces while producing food and experiencing conviviality in public spaces. In some cities, these initiatives start and evolve within marginal/liminal spaces on a temporary basis, while other groups and organizations are seeking more systematic management and support from local institutions or authorities.

Within this perspective, this study evaluates Urban Agricultural areas as new forms of public spaces and Urban Agriculture as a place-making activity. These evaluations are undertaken within the framework of Lefebvrian thinking. Here three schemes for critically observing space and its public character by Lefebvre are referred;

1. “Every society produces a space, its own space”<sup>3</sup>
2. “If space is a product, our knowledge of it must be expected to reproduce and expound the process of production”<sup>4</sup>
3. “A social space contains, relations of reproduction and relations of production”<sup>5</sup>

In this retrospective, this study follows as such;

---

<sup>3</sup>Henri Lefebvre, Trans. Donald Nicholson-Smith, *The Production Of Space* (Oxford: Basil Blackwell, 1991), 31.

<sup>4</sup> Ibid, 36.

<sup>5</sup> Ibid, 32.

## 1.2 Aim and Objectives

With the growing actions and attention towards the necessity of integrating agriculture into the urban fabric, this study aims to signify the role of Urban Agriculture as a public space, in enhancing the quality of public life of the urbanite. This study aims to evaluate the public characteristics of such spaces and their role for enhancing the quality of life - which further expands to reach social equity, environmental justice, and sustainable society.

The main questions of this research are listed below;

- What was the role of Urban Agriculture in the history of cities, and how it changed in history?
- What is the role of Urban Agriculture in the cities today?

These questions will be answered by reviewing the history of such spaces.

- How do Urban Agricultural spaces function as public spaces and what are their qualities and contributions?

This question will be answered based on the principles of place makings and theoretical discussion about the qualities and roles of public spaces.

- How is Urban Agriculture practiced around the world and what conditions are effective in the continuity and success of these spaces?
- What is the place of Urban Agriculture in Turkey's urban context?
- How do traditional Urban Agriculture activities in Turkey relate to the existing types in the world?

The later questions will be answered by evaluating different types of Urban Agriculture in different contexts. Successful Urban Agriculture activities around the world are selected for this analysis. For achieving a more comprehensive and useful outcome, an observation on Urban Agriculture and public spaces of Turkey seemed necessary. Therefore the focus was canalized towards studying two typical

examples of Urban Agricultural space in Turkey- “Bostan” and “AOÇ-Atatürk Orman Çiftliği”. The two examples are selected regarding their cultural and historical significance in order to explore their contributions as typical Urban Agricultural spaces to the Urban Agriculture literature.

### **1.3 Structure of the Thesis**

Following the Introduction chapter, the second chapter of this thesis constructs the basic framework for evaluating the public qualities of Urban Agricultural spaces. The theoretical framework of evaluating the Urban Agricultural spaces as public spaces has been based on theories evaluating the quality of public spaces and place-making theories which enable further interpretation of the contributions of Urban Agriculture to public life. This has been done by a critical review of urbanization history and dynamics of public spaces from ancient times to the present -in relation to food production. The third chapter is devoted to an in-depth study of Urban Agriculture practice. Its different types, characteristics, challenges, and benefits in different aspects are outlined. An inclusive examination of global examples for each type of Urban Agriculture is conducted to acquire the potentials, qualities, and contributions of each type of these activities to public space, and render their contributions to public life. The fourth chapter deals with Urban Agriculture in Turkey. The traditional public space use patterns of Turkish people are studied to further define the characteristics of typical Urban Agriculture practices of the country. By studying two large-scale and historically significant models of Urban Agriculture in Turkey, it has been aimed to identify their character in the Urban Agriculture literature. The thesis concludes with the general classification and comparison of the traditional Turkish Urban Agriculture models with the existing types in the world. Their potentials, qualities and possible contributions are outlined and a general suggestion is proposed for enhancing their future contributions as productive public open spaces to the public life of the citizens.

## **CHAPTER 2**

### **THE HISTORY OF AGRICULTURE AND PUBLIC URBAN SPACES**

As mentioned in the introduction, this chapter deals with evaluating Urban Agriculture as a place-making practice that transforms urban open space into a productive public place. First of all the relationship between agriculture and cities will be discussed briefly. Then the importance and role of open public spaces are drawn briefly by historic review and theoretical discussions about the qualities of successful public spaces. The third sub-chapter draws the link between agriculture and open space by introducing urban agriculture as a place-making activity. It further studies the changes that the relation of agriculture and urban open space witnessed through history; how it affected the public and how people perceived and used public spaces. Then the fourth subchapter reviews how after the 19<sup>th</sup> century, urban agriculture concept emerged as a solution for numerous problems which cities witnessed; theories and practices are studied to evaluate the role of Urban Agriculture in the city as public spaces.

#### **2.1 Agriculture and the City**

In his book “The Natural History of Urbanization”, Lewis Mumford (1970), defines three stages of urbanization. The first urbanization stage was dependent upon the availability and productivity of agricultural land. Cities were restrained to valleys and flood plains and the size and population were defined and limited by the explained factors. The cultivation of hard grains that could be produced in abundance and kept year after year without spoiling, which came from the Neolithic culture, made possible for cities to emerge from villages. This form of food not only offered indemnity against starvation in the lean years but also made it possible to raise and support a larger population not committed to food-raising.

Although the man-power of Neolithic man was enough to let people do other forms of work and service, such as management, warfare, religion, and etc., they were still in core agricultural towns. The city's tie with its surrounding lands was directed by the interrelation of food production and urban growth. With the development of large-scale river and sea transportation, the second stage of urbanization begun. Although in this new economy the village and the town sustained the environmental balance, with specializing in the production of grain and oil which enabled export, they began to grow beyond limits of their agricultural vicinities. In this period increased concentration on mining and industry caused destructive use of natural resources. As a result, the city proceeded to make large-scale transformations of the environment. The loosened cohesion of the cities with nature deprived the dwellers of many compulsory elements supplied by nature; for both physical and mental well-being. The third stage of urbanization began with the industrial revolution of the 19<sup>th</sup> century. Industries were grouped together in cities to benefit from the surplus labor that was accumulated there. Cities reached their grow limit by converting all the farmlands into constructed lots. Before this point, the existing economy forced the largest part of the population towards agriculture. With the exceeding population, the manpower for maintaining agricultural productivity decreased and the agricultural needs increased.

## **2.2 Open Space and Public Space**

Open space can be defined as any urban space that is not enclosed and roofed by an architectural structure, regardless of accessibility by the public<sup>6</sup>. Urban open spaces have been always present in cities and undergone critical socio-politic, economic

---

<sup>6</sup> Benjamin W. Stanley et al., "Urban Open Spaces In Historical Perspective: A Trans-disciplinary Typology and Analysis", *Urban Geography* 33, no. 8 (2012): 1089-1117, doi:10.2747/0272-3638.33.8.1089.



and cultural changes from early times to the day with a variety of outcomes for the population.

Theorists such as Habermas (1962), Carr et al. (1992) and Madanipour (2003) evaluated open spaces from a political viewpoint. For Habermas, urban space enables encounters and coactions between diverse cultural groups and helps to the formation of a “public sphere” where democracy is developed. Theorists such as Sennett (1971) argued that socio-spatial interaction between people from different social classes or cultures engenders the healthy psychological, social, and political development of urban citizens.

Open spaces have been evaluated in their relation to the physical health of citizens besides the abovementioned aspects; the public accessibility of open spaces has been discussed to play a crucial role in this respect. Theoreticians such as Jacobs (1961), Whyte (1980) and Tibbalds (1992) outlined the positive social interaction that a high-quality pedestrian-friendly neighborhood open space can encounter. From the Garden City movement to more recent sustainability discourses, access to green open spaces has been linked with positive health outcomes. Equal access to public space, adjacency to open green spaces and the equitable access to affordable fresh food are also being discussed as environmental justice concerns in the past decades.

It has to be mentioned that the open spaces which encompass the scope of this study are green open spaces.

### **2.2.1 Public Space**

Carr et al. (1992) define public space as “open, publicly accessible places.<sup>7</sup>” that facilitate the general activities necessary for community building.

---

<sup>7</sup> Stephen Carr et al., *Public Space* (London: SAGE Publications, 1992),50.

Carmona et al. (2008) describe public space as places either built or un-built that are freely accessible by the public. In his definition, all the streets, squares and passages, parks and green areas with unrestricted public access are public spaces. As it is understood, public spaces are not always open spaces. Some roofed spaces like “civic institutions” or “religious buildings” are also considered public spaces. The concern of this thesis is the open public spaces.

Referring to Arendt(1969); public space is where people express themselves and aspire to be seen by the different groups of people and make their voice heard; in precise, to use Arendt’s words, it is “the space of *vita activa*<sup>8</sup>”.

As claimed by Sennet(1977), the public sphere is formed in the city. Notably, outdoor public spaces that play a crucial role in the formation of cities are where people from different cultures, social classes, and characteristics come together. To be specific, it is in these places where by interacting with all echelons, people observe and perceive the society in which they are living. Besides, they express themselves before the public eyes. This interaction plays a crucial role in the cohesion of society; otherwise, secluded individuals become unmindful of one another and estranged from the society which results in the emergence of inharmonious communities.<sup>9</sup>

First major public open spaces can be traced back to ancient Greek agoras, Roman forums and religious plazas. In medieval Europe, plazas hosted a multitude of social and economic functions<sup>10</sup>. As Stanley et al (2012) discussed, with the changes accompanying Renaissance and Enlightenment, private values became emphasized, and accordingly public open spaces reflected this paradigm shift. Planned urban squares, surrounding residential uses appeared first in this period.

Later on, with the separation of home and workplaces and the wave of changes caused by the escalation of capitalism and the societal events of the 18<sup>th</sup> Century,

---

<sup>8</sup> Hannah Arendt, *The Human Condition* (Chicago: University of Chicago Press, 1969), 70.

<sup>9</sup> Richard Sennett, *The Fall Of Public Man* (London: PENGUIN BOOKS, 1977).

<sup>10</sup> Stephen Carr et al., *Public Space* .

the urban spaces became the stage of public life. Cities providing more job opportunities resulted in the escalation of immigration rates and they witnessed a more heterogeneous society. According to Sennett, These proceedings are the origins of the present meaning of public life and public space. As Iveson (2007) argues, cities started to take shape and expand based on labor force needs, so they could offer sustainable production which the modern lifestyle required. As a result, legal organizations became in charge of urban spaces. This system controlled where citizens would live, what they would do on the weekends and how they will spend their incomes. In other words, it dictates the urban citizen, specifically the working class, to adopt a capitalist lifestyle and therefore guarantees the sustainability of manufacture.

Before continuing on the history of public spaces, it has to be mentioned that, the industrial revolution also changed the correlation between natural and built environments in addition to the dynamics of urban space and social life. Up until the industrial revolution, nature was spread out in the city yet it was not specifically used as a public space. The emergence of Capitalism and rapid urbanization, in the 19<sup>th</sup> Century, disrupted people's bond with nature. In the fore of mid-nineteenth Century, "parks"; "playgrounds" and "malls" developed to perform as public spaces alongside the central squares which until then, were the only major public spaces of the towns.<sup>11</sup> The surfacing of big parks and open green recreational spaces can be traced back to this time. Carr et al. express that, these spaces were artificially implemented natural spaces representing the rural nature of the suburbs.

As a consequence of an isolated private life, individuals obtained the new public behavioral pattern to express themselves. People started to use urban parks as gathering areas, as they did in outdoor areas, squares, and streets. Therefore spaces that were designed specifically for the use of aristocrats became open to the usage of all social classes; they were no longer under the domination of small groups of

---

<sup>11</sup> Ibid, 50.

elites. Sennett (1977) asserts that, with the disbanded social system, the public awareness of individuals arose and people matured into social beings.

In the past era, public spaces became spaces of consumption because of the spread of capital to urban space. Public spaces have begun to be privatized as capitalism was effectual in transforming public space. The decline of public spaces as a consequence of this privatization caused publicness to spread into multiple new spheres<sup>12</sup>; such as digital publicness.

By studying public proceedings over the past decades, it can be comprehended that public spaces have become the arena of resistance where the society attempts to hear their voice to the authorities. Therefore states managed to functionalize and redefine these public open spaces in order to establish control. These actions surfaced in different forms such as destruction of the space or limiting the access of the public by building gates and walls. However, open green spaces continued to exist as spaces uncontrollable by a single agent. Urban green spaces, parks and Urban Agricultural lands are examples of such arenas.

### **2.2.2 Qualities Enhancing Public Space**

There are a number of factors effective in defining the quality of space. Montgomery (1998) argues that evaluating the quality of spaces cannot solely be based on physical attributes – planning, architecture, location, etc.; it is also tied to social, cultural and psychological dynamics.

Furthermore, Jane Jacobs (1961) argues that activity is the key condition for quality of space; it both provides quality and reflects it<sup>13</sup>. Montgomery therefore asserts that successful urban places have combined qualities of physical space, the sensory experience (meaning), and activity. These qualities altogether create a sense of place.

---

<sup>12</sup> Margaret Kohn, “The Mauling of Public Space”, *Dissent* 48, no.2 (2001).

<sup>13</sup> Jane Jacobs, *The Death And Life Of Great American Cities* (New York: Vintage books, 1961).

Montgomery further specifies the dynamics of place-making activities that result in creating a sense of place.

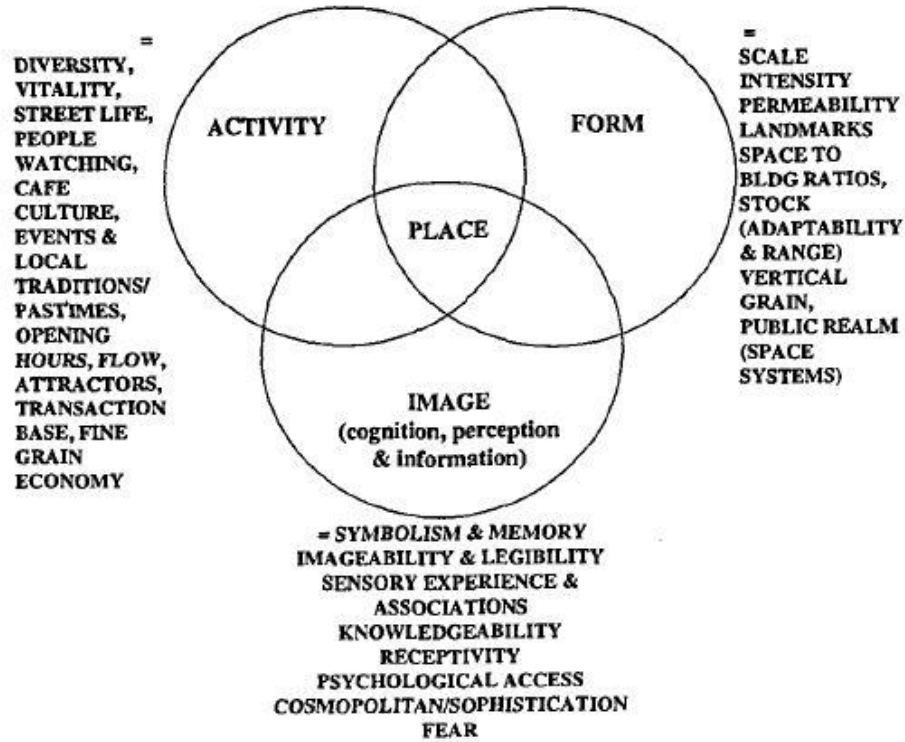


Figure 2-1 principles of place-making. Source: John Montgomery, "Making A City: Urbanity, Vitality And Urban Design", *Journal Of Urban Design* 3, no. 1 (1998): 93-116, doi:10.1080/13574809808724418.

It becomes obvious that vitality and diversity of activities (mix use) are important measures of quality of space. Another primary success indicator is a transaction base. This does not solely imply monetary transaction, but also a transaction of social and cultural values. Yet without an economic transaction at any scale, success won't be fully accomplished<sup>14</sup>. For all these factors to be possible space

---

<sup>14</sup> John Montgomery, "Making A City: Urbanity, Vitality And Urban Design", *Journal Of Urban Design* 3, no. 1 (1998): 93-116, doi:10.1080/13574809808724418.

has to be accessible to the public; as without a public realm- people watching, or communicating- none of the mentioned determinants would be achieved.

Based on Montgomery's discussion, a successful urban place has a strong and active public realm. On the other hand, the strength of the public realm is tied to shared memories, customs and traditions, cultural values, and beliefs. These lead the discussion towards the image of space, which means how space is perceived. The image of space is formed by feelings and impressions of individuals about the place. Montgomery states that:

“Places come to represent memory, meaning and association for individuals, groups, and societies [...] over time, successful places come to represent a sense of identity for their users in sense of identifying with a place. This often results in a sense of belonging to a place, of feeling involved and taking an interest or perhaps even an active part in its affair.<sup>15</sup>”

According to Lynch (1960), a person's knowledge of the urban environment is based on the factor of imageability. Montgomery describes this factor as the extent to which the attributes of a place leaves a strong impression on the individual.

The form of space also has to provide some qualities for it to be successful. Access and movement are primary factors of vitality and activity. Besides accessibility, Montgomery (1998) argues that adaptability is critical; as the socio-economic settings, technological improvements and cultural values change over time, places have to adapt to the circumstances to be able to survive. This can be achieved from the mixed-use of the space.

The factors defining the quality of space are described in this section to build the framework of evaluating the role and qualities of Urban Agriculture as a place-making activity to produce productive public spaces or enhance public spaces of

---

<sup>15</sup> Ibid, 101-102.

the city. In the next chapter, after studying different types of Urban Agriculture practice, their enhancing qualities of each type will be explored in this theoretical framework.

### **2.3 Urban Agriculture Spaces as Public Open Spaces**

This sub-section aims to discuss how Urban Agriculture is considered a type of place-making activity. Accordingly, how ‘the public’ use, produce, appropriate, or change the space in order to respond their existential needs are described to draw the link between urban agriculture with public space and social life to further investigate the impacts and contributions of urban agricultural activities as open public spaces of the cities to the public life.

In this sense, this section relies on arguments of Lefebvre about “the production of space”. As claimed by Lefebvre (1991), social interactions are spatial and connected to “social space”; yet most often, social relations are not considered in spatial studies. Human activities shape and vitalize the physical space- which is part of the social world- according to their socio-economic contexts<sup>16</sup>.

Lefebvre’s general thesis is that

“space must be considered alongside raw materials, instruments of production and labor power as belonging to a set of productive forces that are the basis for the capitalist mode of production...space is not a thing but rather a set of relations between things (objects and products)”<sup>17</sup> as well as human beings and the earth.

It is a reflexive relationship that is both changed and changes with transactions and relations through historical time.

---

<sup>16</sup> Derek Kerr, "The Time Of Trial By Space? Critical Reflections On Henri Lefebvre’s Epoch Of Space", *Common Sense* 15 (1994): 18-33.

<sup>17</sup> Henry Lefebvre, *Production Of Space* ( Oxford: Blackwell, 1991),83.

In his book “The Production of Space”, Lefebvre, analytically conceptualizes and classifies different processes in “production of space” with a triad;

1. “Spatial practice”

Perceived space is defined as of production and reproduction of planned and designed spaces by the actions and needs of the people. It is experimentally observed and perceived, and it reflects the characteristics of each social formation.

2. “Representations of space”

This notion refers to conceptualized space that is the designed space by planners, urban designers, or technocrats. Through the design process, space is formed, systematized and attributed functions in accordance with the social orders imposed by the dominant power. In other words, it is where everyday life and defined actions are supposed to happen.

3. “Spaces of representation”

“spaces of representation” or “Lived space” is space that is in direct interaction with personal imagination and experiences; Lived space is shaped by the needs and desires of the people. In this context, people become place-makers. These spaces are a representation of socio-cultural aspects of the public and an embodiment of their desires and claims. Space “is not a theatre or setting but a social production, a concrete abstraction—simultaneously mental and material, work and product—such that social relations have no real existence except in and through space.<sup>18</sup>”. These mediations to the physical and social creation of spaces by “everyday users” are seen as the actions that make an urban space a “living entity” in a given community.

By this triad of dynamics of space, Lefebvre highlights the ‘appropriation of space<sup>19</sup>’ as the essential symbiosis of people and space. Accordingly, spaces can be

---

<sup>18</sup> Ian Borden et al., *The Unknown City* (Cambridge, Mass.: MIT Press, 2001), 34.

<sup>19</sup>“Appropriation is introduced as the type of behavior which promotes the identification of the individual with space(s), and thus makes possible the expression of his / her self in the city. Appropriation, in that regard, emerges as a concept through the understanding of which the behavior



appropriated and changed as opposed to their proposed conception. Inhabitants, encounter spatial solutions for altering the socio-economic, politic and cultural contexts.

Furthermore, it is necessary to indicate that, space is not only defined and formed by those who use it but also, space shapes the actions of those within it. Accordingly, in compliance with Lefebvre's triad, the effects of socio-economic and political situations on shaping public (urban) space and vice versa can be analyzed.

For normal citizens, lived space carries a crucial significance in the quality of their economic and social life whereas the same space is a functional planning area for the decision-makers.

The plans and policies of the government bare legal, political, and economic mode of production of space; in this regard, the informal practices of people are disregarded and in some cases ignored. This exclusion of people from the space which is based on conflicts in the comprehension of space, between people and the state, sometimes gives rise to negotiations, especially by the ones who struggle and appropriate their claim to use particular places. This is the case for many Urban Agriculture activities around the world and it's further discussed in the upcoming chapter.

People accentuate numerous "spatial manifestations" while searching for a foundation to support their life; mostly with the incentives to fulfill their essential needs such as food, shelter, security, socializing, and a healthy environment. In this context, it can be claimed that the essential element of Lefebvre's theory supports food as the mundane variable for performing a structured examination of the production of space because; food and our interaction with it are the main parts of

---

and preferences of users may be evaluated and adopted in new projects for urban spaces. Thus, if well understood and intended / implemented by designers of urban public space, appropriation may become a tool in making urban spaces which contribute to (re-)enhancing the public realm." Ela Alanyalı Aral, "Leftover Space as a Value and Potentiality for The Public Realm in The City" (PhD, METU, 2003), 8.

our everyday lives according to both our individual sensory and collective social experiences. Supporting this claim, food and agricultural production are the sources of tremendous social experience in human life; socially, physiologically, and ecologically.

On the other hand, many of the theoreticians, philosophers, and professionals defined the relationship of humankind with nature as a substantial need. To reword Marx, humankind needs to have a bond with nature to be able to continue its existence<sup>20</sup>. The aspiration of people to create agricultural spaces inside urban areas can also be traced to their internal desire for interacting with nature. The possession of empty public lands for agriculture or even placing plant boxes on the window of their houses are apparent examples of such appropriations. Except for the social compulsions, such appropriation activities have roots in the cultural heritage of people. In present time cities, with their heterogeneous nature, the diversity of cultural contexts causes diverse appropriation actions. However, as the scale of appropriation expands to the public spaces of the cities they become increasingly visible. This causes them to be declared as “informal sites” and prone to demolition. This situation is observed in the various cases of urban agriculture activities explained in the third chapter. Henri Lefebvre explained urban agriculture within the framework of “right to the city<sup>21</sup>” movement. David Harvey describes the “right to the city movement” purposes “to shape [the city] more in accord with our heart’s desire”<sup>22</sup>. These quotes are in line with motives of urban agriculture.

---

<sup>20</sup> Andy Merrifield, "Flexible Marxism and the Metropolis", in *A Companion to The City*, 2nd ed. (Oxford: Blackwell Publisher Ltd., 2003), 130-133.

<sup>21</sup> “The right to the city is far more than the individual liberty to access urban resources: it is a right to change ourselves by changing the city. It is, moreover, a common rather than an individual right since this transformation inevitably depends upon the exercise of a collective power to reshape the processes of urbanization. The freedom to make and remake our cities and ourselves is, I want to argue, one of the most precious yet most neglected of our human rights.” David Harvey, "The Right To The City", *New Left Review* no. 53 (2008): 23-40, p 23-24.

<sup>22</sup> David Harvey, "The Right To The City", *New Left Review* no. 53 (2008): 23-40, p 23.

It is necessary to mention that according to Marx, nature is also a space of equality and liberty and does not belong to anyone. Habermas's definition of "democratic publicness" overlaps with Marx's proposition. Therefore, open green areas such as parks and urban agricultural lands as indications of nature in the city, are considered "democratic public spaces" as they are not in the ownership of anybody and because they are spaces symbolizing equality and liberty. Accordingly, it is safe to say that urban green areas are ideological spaces produced to fulfill essential social, psychological, and physical needs of urbanites'. The liberality and freedom of expression quality of the open green spaces, which limits the predomination of the authorities, has often caused problems for the state as it became prone to protests and resistance in times of social unrest. This is caused by the fact that even though people are in constant communication with the state through daily practices, an effective debate can only be possible over collective action and reactions.

The study of emergence and development of cities through time reveals the actual impression of alterations made on the built environment – "conceived space"- by its inhabitants. In the following subchapter, Urban Agriculture practices' role-as a space appropriating manifestation –in shaping the public spaces of cities through history is studied. As this interaction is mutual, public circumstances and policies which led the public to engage in cultivation, either formally or informally are weighed. Throughout this research, what is questioned, exemplified and approached is the "lived space", which is a significant determinant of the image of the place; an enhancing quality of public space.

#### **2.4 Open Green Spaces and Urban Agriculture before the 1900s**

How people use and perceive open public space has changed in the past centuries in accordance with political, social, economic and environmental factors. In this subchapter, the evolutions of open green spaces that have been used for agriculture in relation to their public character are overviewed.

As discussed, food production areas were always present in cities in different cultures and geographies. Referring to “Mares and Peña (2010)”, maximizing the accessibility of urban spaces for gardening and agriculture in common areas was a prime concern of Mesoamerican ancestral civilizations of America, like Maya, Toltec, Mexico (Aztec). This heritage left its influences on the ethnic culture and background of American people, particularly in the case of natives and immigrants. Both in Western Europe in middle age and Near East in ancient times, cities farsightedly reserved some portions of the land in their walls for gardens and the harboring of animals for food in case of a military blockade.

Desire and need for bonding with nature caused the creation of urban green areas such as gardens in ancient times. Besides the need for nature, Galen Cranz (1978) states that in many diverse cultures and geographies, from the East to the West, the origin of green spaces such as gardens lies in a myth of heaven. “Japanese gardens”, “Persian gardens”, “the first gardens of Babylon”, “ancient gardens of Rome”, “Greek gardens”, and so on, there sits the philosophy and depiction of “Eden” on earth. Reviewing early gardens and urban green areas reveals that in ancient cities; namely “Nimrud”, “Khorsabad” and “Nineveh”, the construction of royal gardens were rooted in their long garden design heritage. The city of “Morocco” is designed surrounding orchards, temple gardens, and public gardens. Later examples show the emergence of the gardens and neighborhood parks adjacent to the civic or religious settlements.

In Ephesus, Roman urban urbanization (30-95 AD), wealthy citizens had terrace houses with large, densely vegetated gardens, pergolas, and colonnades. Gardens were highly desired and the villa houses were in demand, but as Roman cities were very overcrowded, only new residential units and the more fortunate could live in houses in gardens<sup>23</sup>.

---

<sup>23</sup> E. Malkoç Yiğit and H. Sönmez Türel, “İlkçağlardan Günümüze Anadolu’da Açık Mekanın Evrimi”, *Journal Of Tekirdag Agricultural Faculty* 3, no. 2 (2006): 187-194.

In their book, *Rethinking Urban Parks*, Low, et al. (2005), defines various types of green areas before the modern era. Those of which that are important in the scope of this thesis as they have been used later for agricultural activities are, “pleasure grounds” and “commons”. Pleasure grounds were a type of park provided for a group of nobility in the 1600s in England, which were opened to public use after the industrial revolution<sup>24</sup>.

“Commons” were the traditional recreational spaces before the emergence of designed green spaces. These lands were typical “wastelands”, in the ownership of a Mansion or a Palace. With the growth of population and lack of sufficient recreational spaces, these “commons” began to be used by citizens. Many public events started to be held in “commons”; Fairs, religious gatherings, political meetings, and sports events<sup>25</sup>.

Through the end of the 1500s, “Elizabeth I”, the queen of Britain, allowed the usage of commons for cultivation and keeping animals for the poor intending to put the spare land in productive use. In return, allotments of cultivated land became part of the property of the Cottage. This was the first allusion of “allotments” in England<sup>26</sup>.

Later on, people recommended that “commons” become parks. Three years after the Charist Meeting (1848)<sup>27</sup> which gathered 25,000 people the idea of turning the “commons” into a park was accepted. “Hyde Park”, “St James Park”, and “Kensington Gardens” were the first commons opened to public use as gardens by the royalty in England. According to Carr et al.(1992), in Paris, after the “French

---

<sup>24</sup> Seta M Low, Dana Taplin and Suzanne Scheld, *Rethinking Urban Parks* (Austin, Tex.: University of Texas Press, 2005), 21-30.

<sup>25</sup> Galen Cranz, *The Politics Of Park Design* (Cambridge (Mass.): MIT Press, 1989).

<sup>26</sup> Tania Burchardt, Julian Le Grand and David Piachaud, *Degrees Of Exclusion: Developing A Dynamic, Multi-Dimensional Measure* (Oxford University Press, 2002).

<sup>27</sup> Chartism was a [working-class](#) movement for political reform in Britain that existed from 1838 to 1857. It was a national protest movement, with particular strongholds of support in [Northern England](#); The strategy employed was to use the scale of support of petitions to put pressure on politicians to concede manhood [suffrage](#). Source: "Chartism", En.Wikipedia.Org, 2019, <https://en.wikipedia.org/wiki/Chartism>.

Revolution”, the royal gardens had also been open to public. These landscape gardens, which had been the property of nobility or royalty, were only open for the public to walk through in certain cases and restricted periods.

Carr et al (1992) assert that unimproved commons were also first urban parks in USA; which were used for “grazing livestock” and “training militaries”. New York’s original common is “City Hall Park”, which is now heavily gated and closed to public. But commons that are still functionin as public spaces also exist in New York namely, “Boston Common” with its recreational facilities such as sports fields and children's playgrounds.

## **2.5 Public Open Spaces and Urban Agricultural Spaces after the 1900s**

In this subchapter major urban planning theories and social situations that were effective in changing the relationship between Urban Agriculture and public open spaces are reviewed.

### **2.5.1 Urban Planning Theories on Integration of Agriculture Into the City**

The following section measures the history of the perceived space, “the space of planners”, in relation to informal activities- in the case of this thesis Urban Agriculture.

It is understood that the leading element of large-scale urbanization was adjacency to fertile agricultural land and yet ironically the growth of most cities was by building upon this very lands which made the growth of the city possible in the first place.

After the Industrial Revolution, the mechanization agents created their own environment and pioneered a pattern for the growth of existing cities. The previous districts both as topological features and political units flowed together and formed urban areas with dense population masses, bigger than any previous city which was

much different than its rural prototype. This new urban tissue featured a destitute institutional life showing fewer signs of a social core and tended to grow without any specific form or size limit<sup>28</sup>.

The economy of the western world changed from a rural base to a metropolitan base in a century. The urban expansions absorbed the rural vicinities and became threatening for natural elements that previously balanced off against depletions in the urban environs. This growing problem awakened a need for a new approach towards urban areas. Without natural controls and limitations, a man-made pattern was necessary to once again balance the built environment and nature.

Here, theoretical solutions proposed by Howard, Le Corbusier, and Wright are studied.

In his book “To-morrow: A Peaceful Path to Real Reform.”<sup>29</sup>(1898), Howard envisaged a planned dispersal of the population from great industrial cities of Britain to new towns, called Garden cities. In his plan each of the cities would have a population of approximately 30000 residents and would be grouped around a larger central city, creating a whole as a ‘social city’ which included major public facilities. Food production was integrated within and around garden cities. In each city five-sixths of the area was devoted to agriculture. The residential areas were divided to 12\*130 feet (equal to approximately 6\*40 m) plots, which Howard considered would be enough to feed a family of at least five. In addition to plots, the settlement was circled with allotments. Furthermore, he proposed construction of a green belt encircling the city which would prevent further growth. The first garden cities were Letchworth and Welwyn.

In spite of the Garden City scheme being most commonly understood through its spatial/environmental planning dimensions, according to many scholars (Ward, 1992; Foldvary, 1994; Brunetta and Moroni, 2012), Howard’s initial goal was to

---

<sup>28</sup> Patrick Geddes, *Cities In Evolution* (London: Routledge/Thoemmes Press, 1998).

<sup>29</sup> The book was reprinted in 1902 as: “Garden Cities of To-morrow”

reform the economic arrangement rather than an architectural approach. His emphasis rather than the “garden”, was towards decentralizing the government. Brunetta and Moroni assert that,

“The fulcrum of Howard’s proposal (1898) is a particular form of organization of life in common. Garden City is original not so much for the presence of the green areas as, above all, for the organizational model that was proposed. Howard (1898) imagined that a group of people would buy uninhabited farm areas in order to found a settlement characterised as particular organizations, throughout a special financial mechanism that involved a financial exposure to debt [...] The areas were to be entrusted to four ‘trustees’, who held the property ‘on behalf’ of the citizens [...]in Howard’s theoretical proposal, Land was to be owned in common by the citizens; this was just a particular form of private property.<sup>30</sup>”

Garden cities were reluctant to resist the massive population growth and their functionality deteriorated. High expenses and economic pressure were other reasons that these cities failed their initiative goal. They meant to be affordable, but they became luxurious places to live instead. Yet Garden City influenced many urban planning approaches since. The most significant input of Howard’s “Garden city” to urban planning can be considered his suggestion of integrating Agriculture in the city. His “Green-belt” and “allotment” proposals were implemented by many city planners as a crucial element of maintaining the balance between natural and built environments besides other ecological concerns.

---

<sup>30</sup> Grazia Brunetta and Stefano Moroni, *Contractual Communities In The Self-Organising City* (Paises Bajos: Springer Netherlands, 2012), 67.



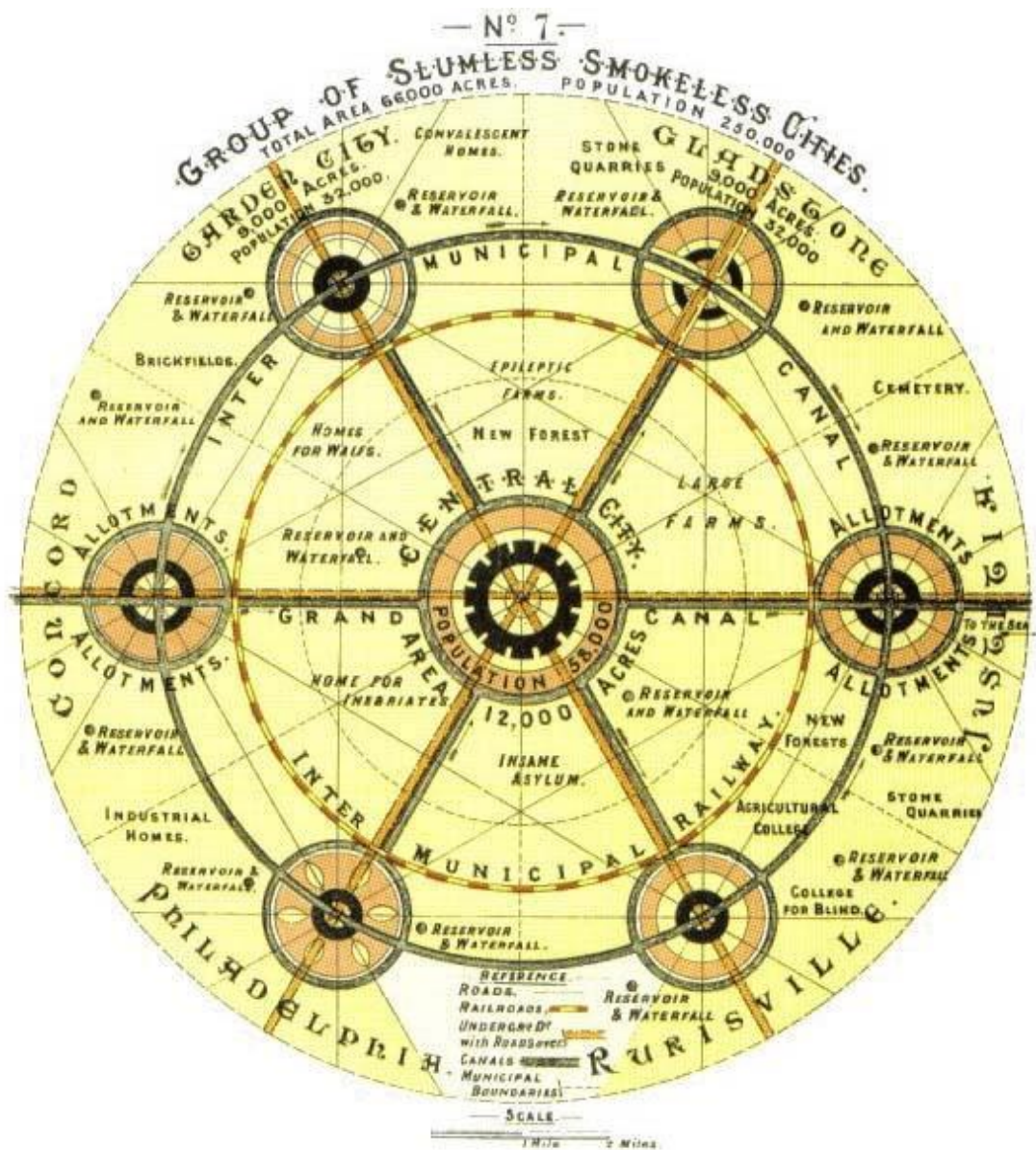


Figure 2-2 Ebenezer Howard Garden City model. Source: [https://upload.wikimedia.org/wikipedia/commons/thumb/3/3d/Garden\\_City\\_Concept\\_by\\_Howard.jpg/250px-Garden\\_City\\_Concept\\_by\\_Howard.jpg](https://upload.wikimedia.org/wikipedia/commons/thumb/3/3d/Garden_City_Concept_by_Howard.jpg/250px-Garden_City_Concept_by_Howard.jpg)

While *To-morrow* and Howard's theories were affecting town planning in Europe, town planning theories of Le Corbusier, published in his book *The City of*

*Tomorrow and its Planning*<sup>31</sup> (1929) had a great international impact on urban planning and architecture in the 20<sup>th</sup> century.

Le Corbusier in “The City of To-morrow” criticized Garden Cities of Howard for having a de-urbanizing effect and resulting in isolation of the individuals. He proposed his plan vision for Paris. Le Corbusier believed that the individual gardening suggested by Howard was hard to implement and that in industrialization era which gave more free time to people, individuals could engage in other activities rather than farming. He instead proposed assigning fruit orchards and vegetable gardens around building blocks cultivated by professional farmers. This way, people while accessing their food, would fulfill the need for social gathering and bonding with nature and also would have time for other activities. Later in his second master plan, “la ville radieuse” he completely separated agriculture from the city and designed the “village radieuse” providing the “farm radieuse” with infrastructures of a modern, mechanized agriculture system.

Meanwhile, the gardening movement of Britain ( influenced by Howard) spread to France. This movement was meant for creating a better quality of life for the working class. Monks in Paris started to provide allotments “*Jardins*” for people in need<sup>32</sup>.

---

<sup>31</sup> The book was written originally in French in 1929 and translated to English in 1971.

<sup>32</sup> Bahar Aktuna and Carla Brisotto, "Agripoetic Resistance In Urban Architecture And Planning In The European World", in *The Urban Book Series*, 1st ed. (Springer International Publishing AG, part of Springer Nature, 2016).

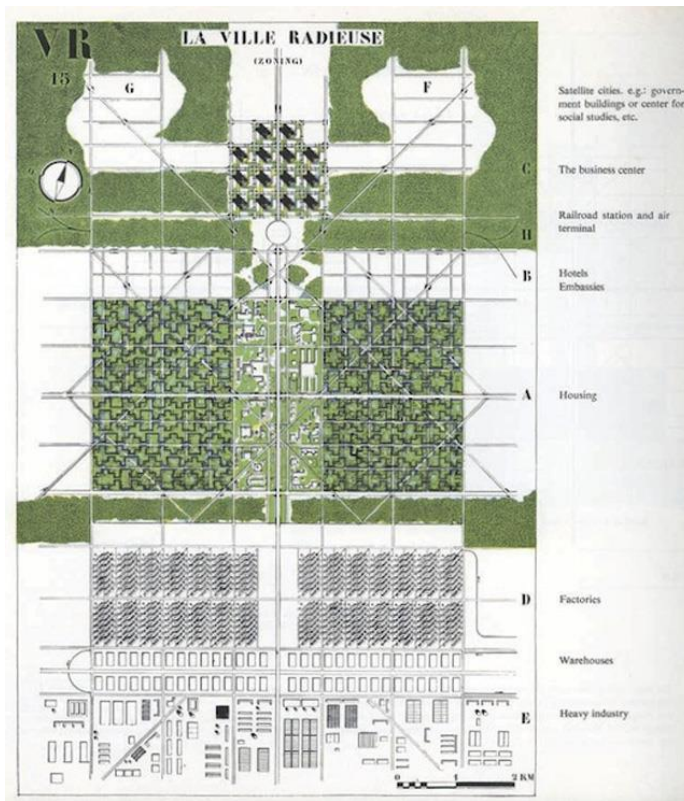


Figure 2-3 Le Corbusier La Ville Radieuse plan proposal. Source: <https://galeri3.arkitera.com/var/albums/Haber/2013/01/09/10-Diyagramda-%C5%9Eehir-Planlaman%C4%B1n-Evrimi/2.jpg>

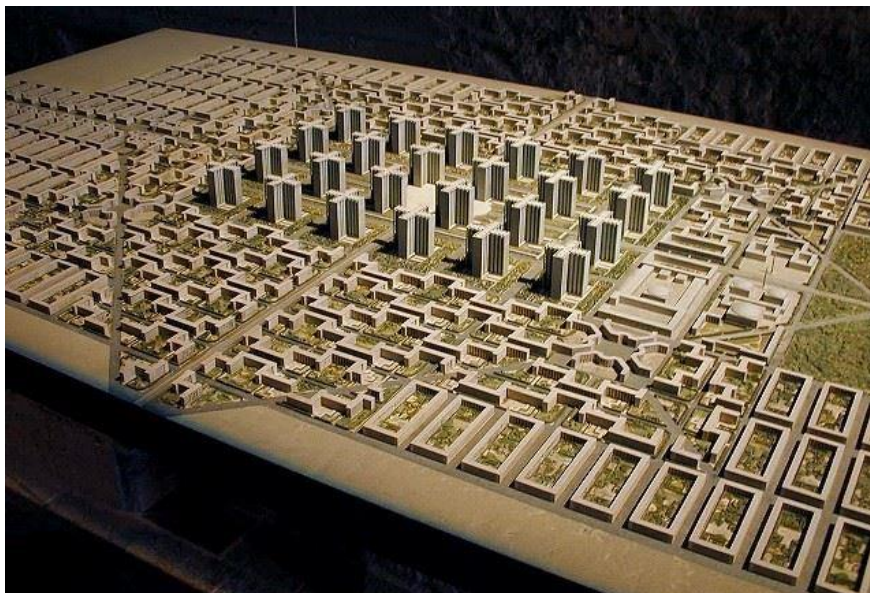


Figure 2-4 Le Corbusier La Ville Radieuse plan proposal. Source: <http://www.arkitektuel.com/wp-content/uploads/2018/03/ville-radieuse.jpg>

Aktuna and Brisotto (2016) believe that Le Corbusier failed to acknowledge the fact that agriculture was a means of sustainment for urban habitats and instead concentrated on commercial food production in the village.

In America, a few years later than Le Corbusier, in 1932, Fran Lloyd Wright, the North American architect, described his Broadacre city model. His proposal was a sub-urban development in which every individual was to have at least acre of land for food production and also own a car. Communities were to be connected by vast highways which would facilitate transportation and also the distribution of food. Wright believed that decentralization left cities deprived of quality air, light, and space; which in his words left the city as a “soulless machines of capital accumulation”. This concept eliminates the defined boundaries between suburban and urban areas besides it visions the co-existence of natural landscapes and built environment which creates an ecologically sustainable picture of the city.

The tangible architecture visible in Frank Lloyd Wright's design of the Broadacre City can be traced back to the previous century and to “Jefferson’s” vision of a “non-federated country” comprised of “self-sustaining households”<sup>33</sup>. Private house of President “Thomas Jefferson (1743-1826)”, “Monticello” in Virginia, was perhaps one of the first perceptible examples of the connection between community, architecture, and food.

Jefferson’s farming family background and his Anti-federalist democracy principles depicted a version of centralized and self-sustaining America in which localized farming and business would be internally managed<sup>34</sup>. According to Kassman(1997) Jefferson’s “Monticello” was intended to be a non-federal, hence centralized idea of the state, and formed on a political institution, interest groups, and public opinion. “Monticello’s” architecture arbitrated family life and space within farming and architectural expression. The house was surrounded by a large

---

<sup>33</sup> Henry A. Wallace, "Thomas Jefferson's Farm Book: A Review Essay." *Agricultural History* 28, no. 4 (1954): 133-38. <http://www.jstor.org/stable/3740507>.

<sup>34</sup> Kenn Kassman, *Envisioning Ecotopia* (Westport, Conn: Praeger, 1997).

agricultural land, accountable to nurture Jefferson's household, especially to farm products for French cuisine, which Jefferson liked during his time in Paris (1784-1794) as US minister.<sup>35</sup>

Frank Lloyd Wright took a different position to Le Corbusier's approach. Wright believed that the "purism" of both Howard's and Le Corbusier's theories had a dehumanizing aspect. A significant point of Frank Lloyd Wright's proposal which is one of the major concerns of city planning today is,

"Architecture and acreage (agricultural land) will be seen together as landscape, as was the best in antique architecture, and will become more essential to each other."<sup>36</sup>

His most influential input "Architecture and acreage, seen together as landscape" is derived from his belief that human rights include a "right to the land" which means a "right to the ground itself", not as a property but to have a working relationship with it. Further, the vision of Wright was undeniably a new system, gratifying all the people, especially the poor; by being able to produce their own food and own a piece of land. Wright argues that they would feel a sense of freedom- in relation to space, nature, and community. His plan influenced many American cities.

---

<sup>35</sup> Henry A. Wallace, "Thomas Jefferson's Farm Book: A Review Essay."

<sup>36</sup> Frank Lloyd Wright, *The Living City* (New York: New American Library, 1958).

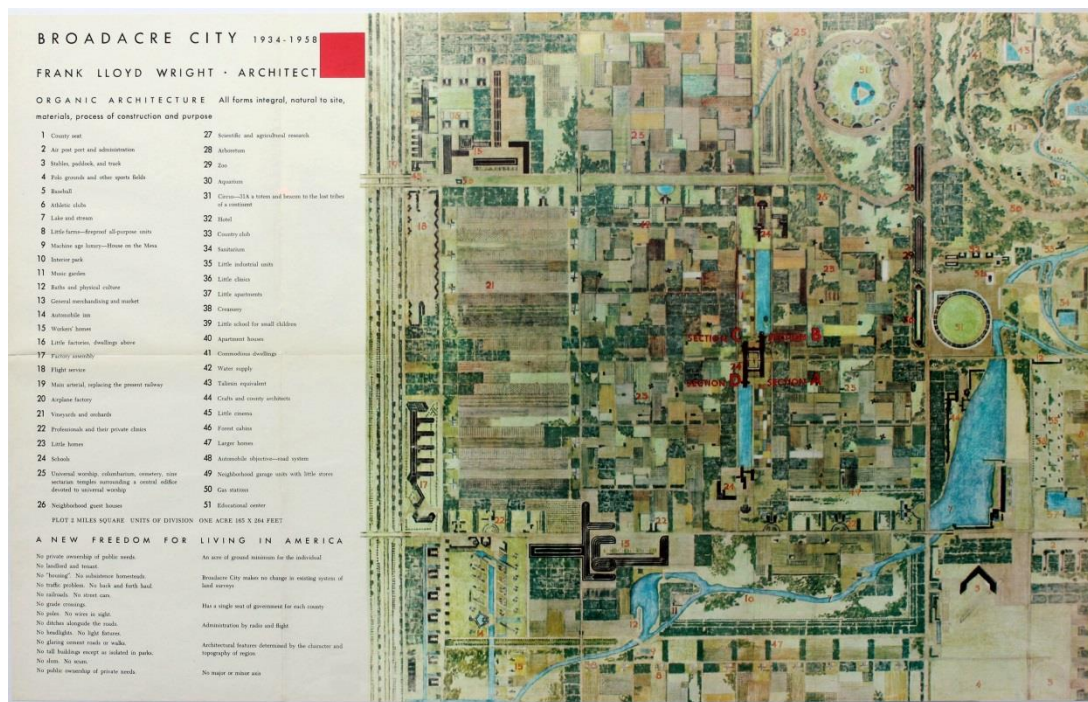


Figure 2-5 Frank Lloyd Wright Broadacre City model. Source: [https://www.reddit.com/r/MapPorn/comments/3wnygy/1958\\_broadacre\\_city\\_by\\_frank\\_lloyd\\_wright\\_his/](https://www.reddit.com/r/MapPorn/comments/3wnygy/1958_broadacre_city_by_frank_lloyd_wright_his/)

## 2.5.2 Social Situations Affecting Urban Agriculture and Public Open Spaces

Urban greens and urban agricultural lands witnessed four major changing points in their role and significance after the 1900s.

### 2.5.2.1 World War I (1914-1918) and World War II (1939-1945)

In these periods, the use of open green spaces as cultivation areas became crucial for the survival of the cities as the military blockades and war interrupted food transportation.

In the USA, the demand for domestic food caused the formation of War Food Administration. They published numerous flyers showing how to cultivate food. At the end of World War I, war gardens were gloriously renamed victory gardens,

as a new embodiment of agriculture that was brought back through World War II to urban areas. There is a record that in 1944, “victory gardens produced 44 percent of the fresh vegetables eaten in the United States”<sup>37</sup>.

Moreover, the War Food Administration established a Victory Garden Program on a national level, with 5 goals;

1. “Lessen demand on commercial vegetable supplies and thus make more available to the Armed Forces and lend-lease programs”
2. “Reduce demand on strategic materials used in food processing and canning”
3. “Ease the burden on railroads transporting war munitions by releasing produce carriers”
4. “Maintain the vitality and morale of Americans on the home front through the production of nutritious vegetables outdoors”
5. “Preserve fruit and vegetables for future use when shortages might become worse”<sup>38</sup>

According to Warner and Durlach(1987) Victory gardens also illustrated a more clear connection between urban gardening, partisanship, and citizenship duties. Urban dwellers who were “formerly thought of as poor people in want of food and instruction, became full-fledged patriotic citizens”<sup>39</sup> by participating in the war labors as manufacturers of food for noncombatants to devour. According to Bassett(1981), the National War Garden Commission tried tremendously to encourage patriotism through urban agriculture.

In Europe, the “dig for victory” campaign was established by The Minister of Agriculture of Britain in 1939 at the beginnings of the Second World War. By the midst of the war, many parks became agriculture fields alongside allotment sites and food gardens which resulted in the production of more than half of the

---

<sup>37</sup> H. Patricia Hynes, *A Patch of Eden* (White River Junction, VT: Chelsea Green Pub., 1996), xii.

<sup>38</sup> Thomas Bassett, "Reaping On The Margins: A Century Of Community Gardening In America", *Journal Of Landscape* 25, no. 2 (1981).

<sup>39</sup> Sam Bass Warner and Hansi Durlach, *To Dwell Is To Garden* , 17.

country's fruit and vegetable needs. Consequently, green spaces became an accentuated matter in urban planning; a situation which was also emphasized by the urban planning ideas in that time; described in the previous sub-section.

After the World Wars, urban gardens lost their political significance and therefore there was a decline in the number of Urban Agricultural fields. Although more factors were involved, many scholars associate this recession to the development of a greater scale and degree of food production and distribution<sup>40</sup>.

### **2.5.2.2 The Great Depression of 1929**

According to Cranz (1978), in 1929, throughout the Great depression in between two wars, organizing activities in gardens and open spaces for recreation became common. Cranz contends that in the 19<sup>th</sup> century, higher revenues, briefer working times, earlier retirements and lengthier time-offs let people have more free time. Two issues were targeted to be set especially after the Great Depression of 1929 in the USA; first to fulfill the recreational needs of people who now have more free time and secondly to organize the boundaries and limits of leisure activities in open areas<sup>41</sup>.

In addition, once again, urban agricultural activities, in form of community gardening and allotments gained significance in order to manage the urban citizens' need for food and also acted as a valuable way to address ecological, social, and economic problems.

After the Great Depression, in 1933 Franklin Delano Roosevelt has inaugurated the president of the U.S. Roosevelt was determined to change the governmental system to establish control over the economic and social situations. U.S. citizens suffered

---

<sup>40</sup>Laura Saldivar-Tanaka and Marianne E. Krasny, "Culturing Community Development, Neighborhood Open Space, And Civic Agriculture: The Case Of Latino Community Gardens In New York City", *Agriculture And Human Values* 21, no. 4 (2004): 399-412,

<sup>41</sup>Galen Cranz, *Changing Roles of Urban Parks* (Berkeley: Institute of Urban & Regional Development, University of California, Berkeley, 1978).236.



from the War and economic depression and the overall economic and social situation of the country had declined. Roosevelt's aim was to encourage employment, increase the investments, and enhance the productivity and to implement optimism and improve determination among the society. Roosevelt believed that the decline in agriculture production especially in rural areas was unhealthy for the society, but his greater concern was the overflow of migration towards cities caused from decline in number of farmers. He authorized widespread employment in America. The new workforces were commissioned to reclaim arid and wastelands of the country and appropriate those areas using scientific and efficient agricultural methods. These actions led to widespread cultivation of land, production of crops and animals. His biggest project was the Tennessee Valley Authority. He engaged U.S. Department of Agriculture, Tennessee's Agriculture school and the local authorities to educate people in order to fertilize the soil and increase production. The project was highly successful as it improved the condition of the valley by supplying numerous jobs for the locals and improving the social well-being of them. Tennessee Valley became a "model village" for the rest of the nation. Similar "Model Towns" were organized in other states of U.S. such as Virginia. These projects mostly aimed to educate children whom believed to be the future of America<sup>42</sup>.

This was the time that open green space adopted a different meaning. From being natural and pristine, they became a place planned and designed as an answer to the health problems and recreational needs of the citizens.

---

<sup>42</sup> See: Walter L Creese, *TVA's Public Planning* (Knoxville: University of Tennessee Press, 1990); Bryan Ward, *A New Deal For America* ([Arthurdale, W. Va.]: Arthurdale Heritage, Inc., 1995); P. K. Conkin, *Arthurdale Revisited: When Subsistence Farming Made Sense*, A New Deal for America, Proceedings from a National Conference on New Deal Communities (1995), Arthurdale Heritage Inc.

### **2.5.2.3 Societal Events of the 1960s and The Great Depression of the 1970s**

The next major urban gardening wave is traced back to the 1960s and 1970s by scholars. According to “Warner and Durlach (1987)” this wave, rather than food shortage, was motivated by the proletarian emergence of civil rights movements, environmental concerns and also as a response to the deterioration of urban spaces. Rewording Mares and Peña (2010) again, these new motivations prompted new policies and culture in the ground of urban agricultural and were more related to demands for human rights and a reaction to social-economic, injustice and racial demotion.

Society now sought to be a significant part of the procedure of making urban spaces. After the Second World War With suburbanization growing in the USA, people started dwell far from each other socially; this was the result of spreading the settlement to broader areas. In consequence, when suburban people could not satisfy their social needs which they have developed in the cities, depression increased tremendously. Following the 1960s came a time in which feedbacks and disapprovals ascended against urbanization and the politics of states in American society. At this Time, “un-built zones” start to be realized as possible “physical relief” areas for the citizens. Vacant spaces between buildings and in the alleys were instances of such areas.

In those years, when urban decline caused new expectations from green spaces in cities, the modern community gardening influenced by War Gardens attained more attention. As it will be discussed further in chapter 3, local residents started to grow vegetables in vacant lots and also began to make seating areas and playgrounds in empty lands which transformed those lots into community gardens, many community gardens were created in this way. In the U.S. this vacant lots regularly were sites for drug trade and other crimes; therefore, the gardens improved the

appeal of neighborhoods and create opportunities for community progress<sup>43</sup>. Community gardening movement in America was considered as a response to changes in the economy, social relations and movement of human populations.

Socio-economic situations caused objections against state policies. The redeeming consequence of the objections of 1968 on this new social movement is indisputable. People involved in the ‘protests of 68’ are from the generation raised in the suburbanization period after World War II. The shared motive between all these protests was the request for democracy, freedom, equality, and peace. In a way, people spoke up and made themselves heard by the authority. In San Francisco, Berkeley, there was a protest against the government in the “people’s park<sup>44</sup>”. This protest, as a fight for public space in response to demolishing the park, can be acknowledged as the initial “occupy” or “reclamation of land” demonstration<sup>45</sup>.

These protests were actions against the policies of the state and their motive was to improve civil rights. This was regarded as a threat to the authority of the government, conducted through protests formed by peaceful and pacifist groups. They transformed the park to a gathering point for the public, and food was prepared and served free of charge. Different events and entertainments were arranged in the park, and the young generation planted trees and flowers. People had have shaped their own living space, which included production of plants and food.

Unifying many social dynamics around the country, namely the “Free Speech Movement”, the “Black Movement”, the “Left Socialists”, and the “Rightists”;

---

<sup>43</sup> Laura Saldivar-Tanaka and Marianne E. Krasny, "Culturing Community Development, Neighborhood Open Space, And Civic Agriculture: The Case Of Latino Community Gardens In New York City

<sup>44</sup> In 1969, a property in Berkley University (California) was turned into a park by the locals, this land was planned to be built as a dorm and parking lot. During the occupation, the effort of different groups gathered, and the community called the place the people’s park. Currently, this park is used as a shared space where homeless people live, and the local people spend time.

<sup>45</sup> Don Mitchell, "The End of Public Space? People’s Park, Definitions of The Public, and Democracy", *Annals Of The Association Of American Geographers* 85, no. 1 (1995): 108-33.

According to Mitchell (1995), the park became the symbolized area for all the protests and resistances. The mutual prospect of all these groups was “to have a better world”.

At the end of the century, the fast migration pace to cities and facing an economic depression raised up the need for cheap food. According to Saldivar and Kransy (2004), the government realized the effects of Urban Agriculture and started offering citizens’ in-need the opportunity to farm in the empty spaces owned by the city, in order to answer the abrupt need for affordable food. Just like the community gardens of today, these urban gardens were on empty urban lots where the safety of the user was reliant on the benefits of the owner and worth of the land.

#### **2.5.2.4 Environmental and Sustainability Issues of the 2000s**

It can be stated that through history, the development and improvement of urban agriculture have received more attention than other urban space developments. Conquering many challenges such as separation of food production from the city in the developing process, and post-war famine and poverty, initiated the “Back to the land” aspiration. This cognizance inspired changes in various grounds; from the lifestyle, and politics to architecture and landscape. Food was acknowledged as a primary substance of life cycle by communities and governments and became considered as a key factor of a sustainable, self –sufficient city.

Besides the concepts of nature and sustainability, the vision that open spaces should enable new lifestyles, and improve standards and behavioral patterns of the public in the spatial and social formation, was developed and the public character and political potential of urban spaces achieved more attention.

Nevertheless, in the 21<sup>st</sup> Century urban guidelines changed about designing open green spaces. Currently, open green areas in most western cities are means of renewing and enhancing cities and also inspire sustainable activities like Urban Agriculture. The “High Line” in New York, constructed on a retired and abandoned railway, is a significant example. The High Line obtains agricultural

gardens in which people; especially kids study the process of harvesting products from soil to their home<sup>46</sup>. From the last few years of the 1900s, many studies, international meetings, conferences and projects by a multiple of foundations<sup>47</sup> have been emphasizing the importance and necessity of implementing Urban Agriculture, or effective management and protection of existing Urban Agriculture areas in cities.

It can be concluded that after the 2000s, the connection between urbanism and agriculture abandons the bold city planning proposals of modernity and moves toward small scale projects of urbanism and architecture. Regardless of planned spaces for specified activities, people use the open space and appropriate it according to their needs.

The next chapter classifies the Urban Agricultural activities that are being practiced today and examines their characteristics

---

<sup>46</sup>See <https://www.thehighline.org/blog/2016/06/17/families-on-the-high-line-learning-from-nature/>

<sup>47</sup> FAO (the Food and Agriculture Organization), RUAF (Resource Centers on Urban Agriculture and Food Security Foundation), UNDP (United Nations Development Program), UNICEF (United Nations Children's Fund), and WHO (the World Health Organization), in association with other organizations around the globe.



## CHAPTER 3

### TYPES OF URBAN AGRICULTURE; DEFINITION, AIM, MOTIVATION

This chapter is dedicated to study Urban Agriculture and to discuss the challenges of incorporating such spaces into the city in our day. The benefits of Urban Agriculture, concerns and motivations of involvers are discussed. A typological study based on reviewing multiple examples for each type of the practice- fifteen of which are explained in this chapter-, is included in order to define each type's contribution to the public life of the city as a public space.

#### 3.1 Urban Agriculture Definition

Urban Agriculture is a multi-disciplinary and multi-dimensional issue, without a definitely agreed definition. It also embraces many diverse purposes and motivations. The expression “urban agriculture”, initially alludes to agriculture which takes place within the city in different shapes and sizes. Mougeot describes urban agriculture markedly in his research;

“Urban agriculture is an industry located within (intra-urban) or on the fringe (peri-urban) 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 area, and in turn supplying human and material resources, products and services largely to that urban area.”<sup>48</sup>

---

<sup>48</sup> Luc J. A. Mugeot, *Urban Agriculture: Definition, Presence, Potentials and Risks* (Ottawa: International Development Research Centre (IDRC), 2000), 10.

According to Mugeot (2000) the diversity of production systems and the ways urban agriculture can be practiced makes it suitable for incorporating with a broad variety of urban activities by meshing with the urban fabric at different scales (big, small, horizontal, on greenfield sites, brownfield sites, reclaimed roads, ample planes, meadows and vacant lots or squeezed corners). Urban agriculture can be planned as an individual separate land-use or can be integrated with other land-uses on a temporary or permanent basis.

### **3.2 The Significance and Benefits of Urban Agriculture**

Food is one of the most essential life-sustaining matters in human life. As discussed in the previous chapter, cities took shape around fertile lands. With the advancement in technology and means of transportation, roads changed the face of cities and how cities reached their food. Food paths are easily recognizable in old plans and pervitiches of the cities. Today, this path is not so clear. Food is transferred from long distances and through complex networks to reach the plate. The number of people living in cities has drastically increased. This increase in population generated a number of problems to deal with in terms of creating resilient sustainable cities such as transportation demand, housing needs, recreational interests, and food supply. Urban agriculture comes across as one of the key solutions for decreasing urban footprint besides supporting urban sustainability which has been the main issue in recent years as the population growth increased significantly.

Urban agriculture is a multi-faceted and multi-disciplinary phenomenon; therefore its benefits are widespread and also overlapping. These merits can be summarized in four categories as seen below on the diagram (Fig.3.1). The four aspects of the urban food system are overlapping in their benefits and relations to the city. The concern of this thesis is the social and spatial relevance of food spaces to the city but other benefits are also briefly discussed in this sub-chapter.



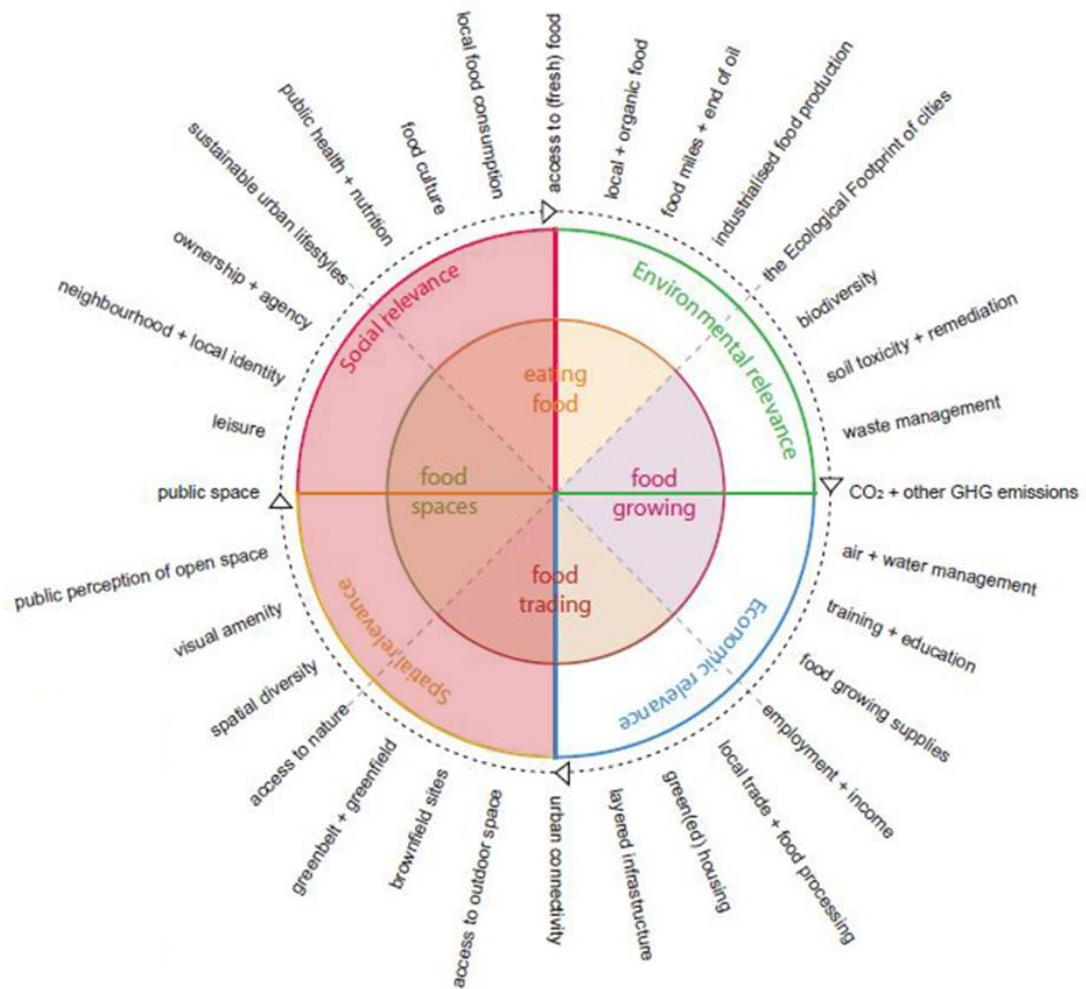


Figure 3-1 The urban food system. Source: André Viljoen and Katrin Bohn, "Urban Agriculture On The Map", in *Second Nature Urban Agriculture, Designing Productive Cities* (London: Routledge, 2019), 9. The red highlights are added by the author to emphasize the main concern of this thesis.

### 3.2.1 Environmental Benefits

According to the urban food system model of Viljoen and Bohn (2019) (fig. 3-1) the “environmental benefits” of Urban Agriculture is related to food growing and eating food in Urban food system - Renewal of deserted urban land, variegating urban land-use pattern, reducing the “ecological footprint of cities” besides increasing biodiversity, creation of more open green spaces and waste management

and increasing food miles. Urban Agriculture has become a significant facet of the broader context of urban sustainability as it can provide food for neighborhoods and feed the city without the need for fuel-based transportation of food.

### **3.2.2 Social Benefits**

Social benefits are among the non-agricultural motivations of Urban Agriculture projects. Viljoen et al (2005), states that “food growing projects can act as a focus for the community to come together, generate a sense of ‘can-do’, and also help create a sense of local distinctiveness, a sense that each particular place, however ordinary, is unique and has value”<sup>49</sup>.

As it can be conferred from Figure.3-1 social benefits of Urban Agriculture is connected with food production spaces and eating habits - providing leisurely activities, accrediting local groups of people such as women or people of color, providing therapy for people with special needs, purveying rehabilitation for offenders and prisoners. Besides raising awareness and providing local fresh food they improve public health and the eating culture of residents.

Urban Agricultural projects help to prevent “space segregation” and “social ghettos<sup>50</sup>” by providing interactive public spaces. Urban Agriculture, therefore, is an agent of urban regeneration by reducing discrimination and tackling crime. According to Viljoen (2005), intercepting crime is seen as one of the prime achievements of community garden movement in USA.

---

<sup>49</sup> André Viljoen, Katrin Bohn and Joe Howe, *Continuous Productive Urban Landscapes* (London: Routledge, Taylor & Francis, 2005), 57.

<sup>50</sup> Rute Susa Matos and Desidério Sales Batista, "Urban Agriculture: The Allotment Gardens As Structures Of Urban Sustainability", in *Advances In Landscape Architecture* (IntechOpen, 2013),2.

### **3.2.3 Economic Benefits**

Economic benefits of Urban Agriculture are associated with food trading and food growing aspects of the urban food system according to the model shown in Figure 3-1 Providing jobs, access to fresh cheap food, stimulating local economics are among those benefits. As the costs of maintaining and creating the parks and new green spaces are high, integration of Urban Agriculture into open spaces of the city and letting the citizens take care of those spaces will be financially relieving.

### **3.2.4 Spatial Contributions**

Food production spaces and local markets are the basis of spatial benefits. Changing the public perception of open space, visual amiability and spatial diversity are among some of the contributions of Urban Agriculture spaces. One of the most prominent benefits of Urban Agriculture is how it establishes a bond between people and nature; a bond that was detached with the separation of “rural” and “urban”, especially in capitalist systems.<sup>51</sup> According to Viljoen et al (2005) with the “collective loss of environmental memory” city dwellers have become “passive observers” of seasons and weather.<sup>52</sup> Viljoen et al (2005) asserts that Urban Agricultural spaces provide a pause and a touch of nature in the monotonous everyday life of citizens and allows them to realize ‘the real dimension of time’. In addition, Urban Agricultural spaces may intensify the connection of involvers with nature; touching the ground, smell of watered soil, fresh air and the satisfaction of producing one’s own food are some virtues improving the mental health and personal sense of well-being and happiness. They also boost physical wellness by encouraging physical activity.

---

<sup>51</sup> Luc J. A. Mugeot, *Urban Agriculture: Definition, Presence, Potentials And Risks* (Ottawa: International Development Research Centre (IDRC), 2000)

<sup>52</sup> André Viljoen, Katrin Bohn and Joe Howe, *Continuous Productive Urban Landscapes*, 266.

Considering the above-mentioned points it can be understood that by involving the city and the citizens in the urban food cycle, bearing in mind the impacts of it on the environment, social, economic, and spatial attributes of the city, the outcome of it will be visible in many aspects of urban life. This means a focused urban and architectural planning besides communal support and in some cases might be costly, but both as a part of an urban food system and a broader open urban space strategy, it is crucial to comprehend urban agriculture.

### **3.3 Urban Agriculture Spaces in the City**

As mentioned in the first section of this chapter, urban agriculture can occur anywhere in urban areas; this means any available or appropriated land. In order to classify the categories of land on which agriculture takes place in the cities, Smit et- al developed a “Four-zone”<sup>53</sup> model that creates a framework for the broad types of land uses related to agriculture. The nature of each zone is effective in the type of urban agriculture that can take place. It has to be mentioned that this is a simplified model and cannot be applied to all types of Urban Agriculture practices in cities across the world.

---

<sup>53</sup> Jac Smit, Annu Ratta and Joe Nasr, *Urban Agriculture Food, Jobs And Sustainable Cities* (New York: United Nations Development Programme (UNDP), 1996).

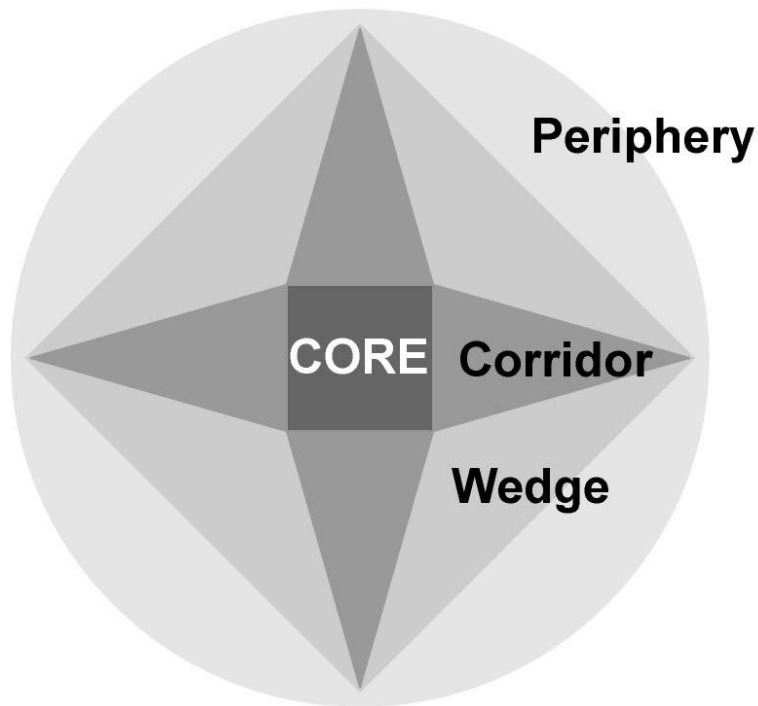


Figure 3-2 The four-zone model. Source: Jac Smit, Annu Ratta and Joe Nasr, *Urban Agriculture Food, Jobs And Sustainable Cities* (New York: United Nations Development Programme (UNDP), 1996).

### 3.3.1 Core Zone

It can be seen by the darker color in the diagram that the “Core zones” have the highest concentration and the greatest mixture of land uses, followed by “corridor zones”. According to Smit et al, because of the density of the core area, Urban Agriculture mostly takes place on balconies, lots that are vacated temporarily, in abandoned buildings, and sometimes in public parks. Also, examples of small-scale greenhouse farming systems, including hydroponics.<sup>54</sup> can be seen in these zones. With the increasing need for housing and etc. the focus and attention towards

---

<sup>54</sup> Growing of vegetables in water instead of soil.

building in the vacant lands of the core areas is inclining, therefore big scale urban agriculture activities are being pushed to other areas in cities, and most of Urban Agricultural activities in this zone are short-term activities due to the urban renewal pace of the core zone. This type of land use has more social and environmental welfare than using the empty sites of the core zone for parking cars and etc. Besides short-term uses of redevelopment sites such as empty lands, there are some permanent open spaces found in core zones, namely parks and “unbuildable surfaces” such as water bodies. In Calcutta /India and Amiens in France cultivated areas in the wetlands of the center can be seen. Another example is Managua/ Nicaragua where after the earthquake of 1972 the unstable parts in the central section of the city have been used for agricultural activities.

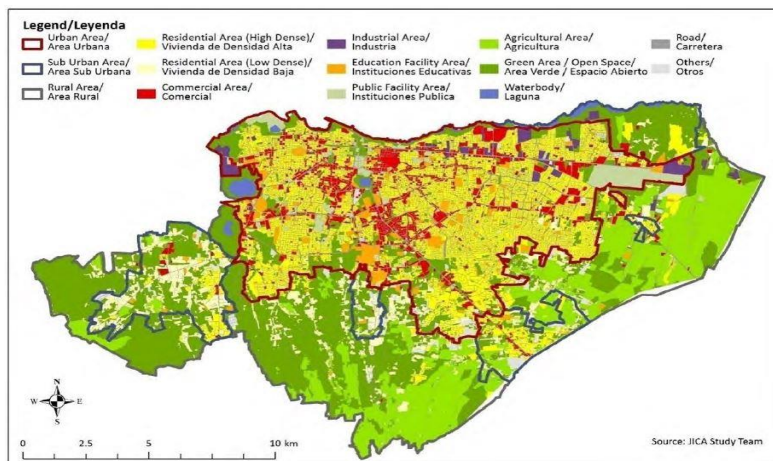


Figure 3-3 Agriculture in the Core Zone of Nicaragua. The diagram above shows the agricultural sites' dispersal in the city. Source: JICA Study Team.

### 3.3.2 Corridor Zone

Corridor zones are also affected by the density; as such they have the same characteristics of core zones. Farming in corridor zones mostly occurs along railway lines and main roads as there are still large vacant lots which have not been

constructed yet. The advantage of the Corridor zone is the easier access to markets by means of more developed transportation systems yet due to the insecurity of land tenure or the longitude of time in which cultivators can engage in farming activities the practices are interim. This zone typically contains all sorts of Ornamental horticulture, market gardening, greenhouse practices including vegetable and flowers, small livestock, grazing, and poultry.

### **3.3.3 Wedge Zone**

Wedge zones which usually have a great number of un-built lands like wetland and steep slopes are classified as unsuitable land for development which provides opportunities for specific types of Urban Agriculture. In a large number of cities, these areas contain cemeteries, military use areas, forest parks, waste dump plants or universities, so they have a large area of underused or unutilized lands that can be put into more productive uses such as Urban Agriculture. In some cities, Wedge zones are also reserved for construction because built use profits higher rents. Despite that, these zones are typically used for Urban Agricultural purposes due to their roles in environmental sustainability. Aside from vegetable and fruit production, fish ponds, orchards, egg, and milk production can take place in this area. Despite the fact that wedges are disposed to construction over time, patches of land which are sometimes considerable in size left un-built and act as “lungs of the city”. For instance in Beirut, a linear patch of land which follows the Beirut River is used for Urban Agriculture and created an agricultural belt in the wedge zone of the city. This river was once the periphery of the city of Beirut.



Figure 3-4 Agriculture in the Wedge Zone of Beirut. The red highlights show the main agriculture area and the line shows the river. Image source: Google Earth. Highlight by the author.

### 3.3.4 Periphery Zone

The rural-urban edge is called the periphery zone and is characterized by medium and small-size farms aimed for the metropolitan market which are more divergent than rural farms. The agricultural products in this zone differ according to the new demands of the urban market. The size of the agricultural industry on the fringe also depends on transportation efficacy and landscape attributes. Because of its adjacency to the city- based on time and distance- which means lower transportation costs in comparison with rural areas, these zones are reserved for intensive vegetable production.

It is conferred that the type of urban agriculture activity that takes place in the city is dependent on the availability of land and density. According to the “four-zone”



model of the city (Figure 3.2), core zones and corridor zones have the least amount of available lands for urban agriculture. Therefore the types of urban agricultural activities are more temporary due to the shortage of access and obtainability.

Wedge zones and periphery zones have more available land for urban agriculture. Lands those are further inappropriate for construction can be reserved for agricultural activities.

### **3.4 Challenges**

As discussed Urban Agriculture activities can crucially appeal not only to the city but also people's lives. It is important to study the challenges of incorporating such spaces into the city fabric.

#### **3.4.1 Land Problem**

In a given city, inhabitants are provided with urban open spaces to use publicly in a variety of ways. In a legal context, this usage is limited to a number of activities. Cultivating and gardening include changing the physical features of the land and it basically means that the cultivators are creating their own space by appropriating the space according to their own desire or need. This situation typically falls out of the allowance for public use of urban land. Therefore, especially in core zones which are more condensed and it is harder to find vacant land, non-traditional urban agriculture types occur more commonly; for instance, hydroponic farming, gardening alongside railroads or highways, vertical gardening, building-integrated gardening such as cultivating in storeys of buildings, and also guerillas.

It is obvious that land is the chief component of urban agriculture and access to land is vital for the continuation of farming activities. Yet, in many countries, the question of 'How to handle Urban Agriculture?' in urban planning policies is unanswered. Therefore many urban agricultural activities taking place in most cities – especially developing countries- are informal and usually, the cultivators or

communities involved have no legal rights. In most of the American cities, gardening is permitted as temporary land use. Yet the main argument seems to be about ‘Who exactly is responsible for urban agriculture policymaking’ which can be a result of the cross-disciplinary nature of urban agriculture. This issue has been studied by different researchers<sup>55</sup> and a set of solutions are suggested. The latter issue is not the concern of this thesis but it is mentioned briefly here as a factor affecting the spatial and social aspects of urban agriculture.

### **3.5 Types of Urban Agriculture Practices**

It has been explained that Urban Agriculture occurs in numerous forms and in many types of places. In this sub-section, a generally accepted typology of Urban Agricultural activities is introduced. It has to be mentioned that urban agriculture types are not restricted to these types and not every type of Urban Agriculture fits under a single category, the types overlap or sometimes combine together. In this typology, the size and location of lands, managements, motivations, challenges and public characteristics of the urban agricultural activities are investigated.

#### **3.5.1 Urban Farms; Definition, Size, Location, and Products**

Urban Farms are large areas of land accredited for food growing, raising livestock and animals. Urban farms vary widely in form, size, and scale. Not surprisingly, finding sufficient area for a farm is a major problem. Some may be located in vacant city lots with a few raised beds, and the others may have several acres in vegetable production. Besides the size and some facilities, the distinguishing factor of urban farms from Community Gardens is raising animals and livestock.

---

<sup>55</sup> See: Richard Felsing, *The Pros And Cons Of Zoning For Community Gardens* 2002. and Axel Drescher, *Urban And Periurban Agriculture And Urban Planning* 2015. And Jac Smit, Annu Ratta and Joe Nasr, *Urban Agriculture Food, Jobs And Sustainable Cities* ( New York: United Nations Development Programme (UNDP), 1996).

Ease of access is an important factor for maximizing the contribution of urban farms to the public. Therefore urban farms are mostly located adjacent to railroads or in areas with developed road systems; these locations facilitate the distribution of products and also the access of the public.

Following the unavailability of vast lands, in the West, some cities attempted to create urban farms on the roofs of huge buildings. In Paris, an urban farm on the roof of Pavilion 6 of “Paris Expo Porte de Versailles” is being built and will be opened to the public in the spring of 2020.<sup>56</sup> In Chicago’s Pullman neighborhood the rooftop of a manufacturing facility is devoted to urban agriculture. This urban farm relies on sustainable energy production and features 7000 m<sup>2</sup> of cultivated area alongside a number of greenhouses.

Urban farms and major food production zones have always existed in many cities in the world even in some pre-modern cities. Some of these farms were once rural farms until the city expanded around them. In Arabic-Islamic cities, food was obtained from private walled orchards. In the Byzantine time Istanbul and in Tang-period Chang’an – both of these cities alongside Baghdad, where the largest cities in years 618-907.<sup>57</sup> - city walls contained large areas for food production. Some of these spaces still exist today and are known as ‘Bostans’ in Turkey. However, most of the urban farms are destroyed, lost their functions or shredded to smaller sizes because of the increasing need for housing and facilities. A number of historic farms, such as “L’Orto di Monaci” in Italy which belonged to churches and was devoted to food production for Monks or “Kitchen Gardens” which produced food

---

<sup>56</sup> "World's Largest Urban Farm To Open – On A Paris Rooftop", The Guardian, 2019, <https://www.theguardian.com/cities/2019/aug/13/worlds-largest-urban-farm-to-open-on-a-paris-rooftop>.

<sup>57</sup> Benjamin W. Stanley et al., "Urban Open Spaces In Historical Perspective: A Trans disciplinary Typology And Analysis", *Urban Geography* 33, no. 8 (2012): 1089-1117, doi:10.2747/0272-3638.33.8.1089.

for the palace and royals in France, are preserved and opened to public; some of which still feature food production, yet in smaller amounts.<sup>58</sup>

The products of Urban Farms range from Ornamental plants, vegetables, fruits, medical plants, to foresting and raising animals. Urban farms typically have features like Open and undercover cultivation areas, Accommodation, Recreational and resting areas, Compost area, Education activity places (for school children, and students), sports facilities (horse riding club) and sales area (for selling products).

### **3.5.1.1 Management and Motivation**

Urban Farms can be categorized by their management style and motivations. “Institutional farms” are associated with institutions such as hospitals, prisons, schools and universities, public housing complexes or churches, some of these “institutional farms” are also known as “Children’s farms”. “Commercial farms” are profit-based farms and farmers work on exploiting crop production. “Community farms” are farms managed by nonprofit organizations that aim to enhance the public health and social and communal aspects of inhabitants by food-growing projects.

Most of Urban Farms are typically managed by local groups and institutions and rely on volunteer participation. People can involve in Urban Farms by cultivating or raising livestock. Besides voluntary participants, Urban Farms have professional employees. The ownership of Urban Farms can belong to the state, associations, local authorities or individuals.

Urban farms’ prominent concern is supplying food for the city. Urban farms also aim to make a profit by selling the products. Building sustainable communities is a scheme of Urban farms. Besides these, urban farms intend to implement awareness

---

<sup>58</sup> Bostans, Kitchen Gardens and monetary Gardens have usually smaller scales than current Urban Farms, yet because of their ownership, management style and employee types are here categorized as Urban Farms. These areas are sometimes named as city gardens by different authors.

in environmental issues and the necessity of Urban Agriculture by providing educational programs, especially for youngsters. In addition, Urban farms aspire people to rebound their lost connection with nature and rural life. Urban farms also feature sports and leisure and recreational facilities for citizens.

### **3.5.1.2 Public Characteristics**

Besides the social benefits which are mentioned before, the Farm-to-school programs in the West can be named as the most significant contribution of Urban Farms to the public and public spaces of the cities in the current time. Back in 1995, the chef of a restaurant in Berkeley/California started a program at “Martin Luther King, Jr. Middle School”. In this program children were taught to prepare plant beds, plant and harvest vegetables and fruits and compost waste in the schoolyard, which was an abandoned lot. Children were also taught meal preparing with the harvested products of the yard. After the success of the program, many schools and universities adopted farms and gardens. There are more than 200 schools engaging in urban farming and approximately 120 public school farms in New York City (fig.3-5). New York City also holds farming areas for public housing residents, which are managed by New York City Housing Authority (NYCHA). Reportedly the residents uphold approximately 250 farms.<sup>59</sup>

---

<sup>59</sup> *New York City Community Gardens Neighborhood Directory* ( NYC: NY, 2002).

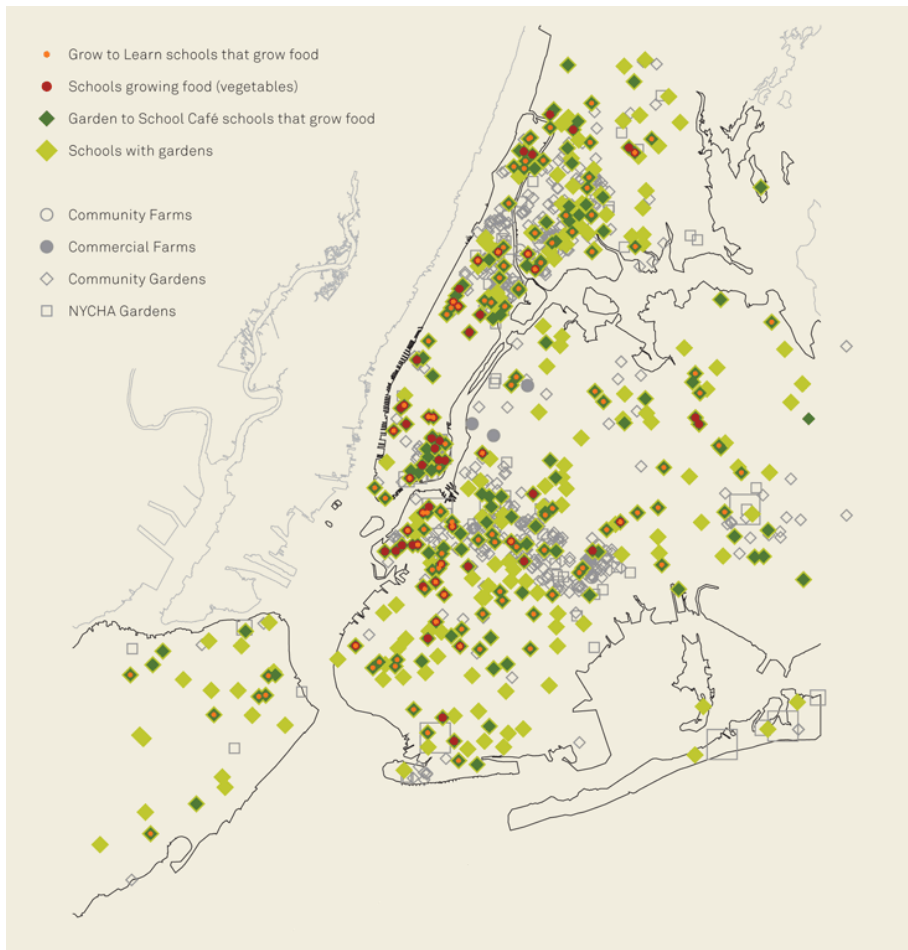


Figure 3-5 Map of city farms in New York City. Source: New York City Community Gardens Neighborhood Directory ( NYC: NY, 2002), 40.

### 3.5.1.3 Examples

There are significant examples of urban farms around the world. Here, to fulfill the scope of this thesis, Kentish Town City Farm and Heeley City farm are selected as their contributions to the public spaces of their cities in numerous aspects.

### **3.5.1.3.1 Kentish Town City Farm**

In 1972, the Kentish Town City Farm was initiated by a community group. Formerly called the Fun Art Farm, Kentish Town City Farm was the first of its kind to be established. Thus it acted as a model for other city farms in England.

Located in the core of the city and near the railway of Kentish Town (fig.3.5), the farm covers 50000 m<sup>2</sup> in area and is a rather small Urban Farm –also compared to the open green spaces such as Regent Park in the southern west of the map and the sport facility and the Parliament Hill parks on the north side the farm, the farm covers a small portion of land- yet it consists of cultivation areas, husbandry, educational facilities, livestock (chickens, cows, ducks, geese, goats and etc.) besides being the habitat for some rare breeds of birds.

The farm upholds activity rooms and classrooms for children under age 5, training rooms, kitchens for preparing meals from harvested products, non-food gardens for events and socializing gathering areas.



Figure 3-6 Kentish Town City Farm. The red highlights show the Farm area and the line shows the railway. Image source: Google Earth. Highlight by the author.

The basis and thinking behind the farm is wholly educational. The primary aim of the farm was to address the educational and recreational needs of local people with special emphasis being placed on children and young people coming from economic or socially disadvantaged backgrounds and young people with special needs.

Kentish Town City Farm also features family gardens and a pond, which is preferred for leisure, relaxing and enjoying nature.

The farm is open to the public for a large portion of the day and entrance to the farm is free for the public which attracts more people to participate in the farm.





Figure 3-7 Kentish Town City Farm features. The above-left picture is from educational tours for elderly people, the above-right picture is from the horse riding program and the below picture shows the railway adjacent to the farm. Source: <http://kcityfarm.org.uk/>



Figure 3-8 Educational activities held in the farm. Source: [http://www.londontown.com/LondonInformation/Recreation/Kentish Town City Farm/fd17/image\\_sPage/21557](http://www.londontown.com/LondonInformation/Recreation/Kentish_Town_City_Farm/fd17/image_sPage/21557)

### 3.5.1.3.2 Heeley City Farm

Heeley City Farm was established in 1981 in Sheffield and is one of the oldest community-based projects for sustainability as a city farm and public park. Heeley City Farm is a prize-winning farm for its contributions to sustainable development.

The farm consists of vegetable beds, covered cultivation areas, fields of animals, wildlife areas, duck ponds, livestock rising, vegetable beds, children's playgrounds, classrooms, cafes, and farmers market. The office and administration buildings of the farm have green roofs (fig.3-10) and all the buildings in the farm are powered by wind turbine and solar energy panels and the farm is also self-sufficient in water resources. Moreover the farm engages in recycling waste, community composting and energy conservation techniques (fig.3-12)

The farm covers 60 000 m<sup>2</sup> of land and is located in the corridor zone of the city adjacent to the main railway of Sheffield, South Yorkshire, England (fig3-9), and is privately owned and managed by Heeley City Farm Association.



Figure 3-9 Heeley City Farm. The red highlights show the Farm area and the line shows the railway. Image source: Google Earth. Highlight by the author.

Each year the educational organization of the farm provides food, health, wildlife, and environmental education to over 5000 children and families. The farm collaborates with schools for workshops and events such as environmental-based festivals. Recreational spaces, sports, and leisure facilities are also provided for the public. Besides volunteer participants, the farm has created jobs and opportunities for the locals.



Figure 3-10 The Green Roof of Heeley City Farm, Source: <https://www.greenroofs.com/projects/heeley-city-farm/>



Figure 3-11 Public events and festivals at Heeley City Farm, Source: <https://edibleschoolyard.org/program/heeley-city-farm>



Figure 3-12 the wind turbine and the waste composting plant of Heeley City farm, Source: <https://www.greenroofs.com/projects/heeley-city-farm/>

### 3.5.2 Community Gardens; Definition, Size, Location, and Products

Community gardens are pieces of land that are available for cultivation, shared by different groups of people. Community gardens usually perform on the neighborhood level. Land can be divided into smaller pieces for renting to individuals or can be cultivated communally.

As discussed in the second chapter of this thesis, Community gardening is not a newly established concept although it was known by different names around the world. In Germany, it was called, the “arbeitsgarten”, “schrebergarten”, and now it is “Kleingarten”. In England, it was called “hobby garden”, “guinea garden” and “allotment garden”. In the United States, it was “street garden” and finally community garden. In Turkey, it is known as “kent bahçesi”, “halk bahçesi”, “hobi bahçesi”.

In the previous chapter, it was stated that even though in many cities of Europe people used to cultivate their yards and balconies or even rent land to produce food, the rise of community gardens started in the wartime with the “dig for victory campaign”. Following this, Community gardens became a way of survival during the economic crisis of the 1970s. Liz Christy Community Garden is the first community garden in New York City and was founded in 1973 by an activist citizen. Later on, In Unites States, with the growing urban sprawl and densification, Community gardens became the ground of resistance towards the construction policies of the states. Following this model, in Turkey people participated in gardening activities to resist the government against destroying the “Gezi Park” and “Bostans” in 2015. Community gardens also became a place for marginalized people-i.e. refugees, homeless, people of color, women- to find their place in public and reclaim their rights.

In the mid-1990s, over a million people were elaborate in more than 15,000 planned community gardens<sup>60</sup>. At this time, New York City has one of the most vigorous community gardening movements in the USA, with over 14,000 growers working in approximately thousand gardens, and more than 15 non-profit organizations and government agencies supporting urban gardens (fig.3-4). Other cities with robust community gardening movements in the U.S. consist of Philadelphia (with about 700 gardens, Philadelphia Urban Gardening Program, pers. comm.), Boston, Chicago, Minneapolis, San Francisco, and Seattle<sup>61</sup>. Simultaneous with the development of community gardens, the economic flourishing of the 1990s raised a demand for housing and commercial expansion in cities. Missing secure land occupancy, community gardens were regarded as noticeable places for development<sup>62</sup>. With their impact on food security, recreation

---

<sup>60</sup> Autumn K. Hanna and Pikai Oh, "Rethinking Urban Poverty: A Look At Community Gardens", *Bulletin Of Science, Technology & Society* 20, no. 3 (2000): 207-216.

<sup>61</sup>Laura Saldivar-Tanaka and Marianne E. Krasny, "Culturing Community Development, Neighborhood Open Space, And Civic Agriculture: The Case Of Latino Community Gardens In New York City", 401.

<sup>62</sup>Ibid.

and sustainable urban development they have become crucial for urban living especially in western cities.

Typically these gardens are open to the public; access to the gardens might be restricted during specific hours. They depend mostly on volunteer work and participation. Community gardens vary in built features and size, from small vacant building lots to several hundred square meters (typically the size ranges from 1000m<sup>2</sup> to 5000 m<sup>2</sup>), user group, from locals, immigrants, women, children, etc.).

Community gardens are mostly seen in core zones and corridor zones of the city, according to the “four-zone” model (fig.3-2). They can feature several raised beds for increasing the cultivable area. Open and undercover cultivation areas, warehouses, lawn, community gathering squares, compost area, small recreation and leisure area (small pond or lawn with seasonal flowers) are typical properties of community gardens. Like Urban Farms, finding suitable land for cultivation is a challenge for Community Gardeners. However, unlike urban farming, community gardening activities can be temporary therefore some gardener might seize control of vacant lands which are publicly or privately owned. This kind of usage might sometimes cause legal issues. The insecurity of tenure is a burden for the continuity of gardening activities.<sup>63</sup>.

The products of these gardens range from fruit, vegetable, medical herbs to ornamental plants.

### **3.5.2.1 Management and Motivation**

Community gardens are urban green spaces which are managed and operated communally. They are communally designed, built and maintained by local residents and managed by them or the general public.

---

<sup>63</sup> Autumn K. Hanna and Pikai Oh, "Rethinking Urban Poverty: A Look At Community Gardens"

Although there is not a specific model for Community gardens, diverse organizational models were established for the gardens. The primary motivation of Community gardens, as discussed before, was to provide food during the different crises and assure the “self-sufficiency” of the occupants.

The motivation of Urban Agriculture drives from contextual characteristics that are influenced by different cultures of cities, all over the world. But in a broad sense, they share common characteristics and seek a similar goal; providing public open green spaces, in which participants can socialize, learn and enjoy nature while cultivating their own food. Community gardens create a sense of community among neighbors and provide a public space in which they can rebound their lost connectivity. Yet in recent times community gardening is outlined by its grassroots heritage and reformist motivations. Many of the gardens were run by “certain ethnic groups”. For example the “Latinos” from Puerto Rico; for those people, gardens were a comfort space and more like a public living room. The gardens managed by the white middle class were more under influence of landscape architecture, meaning they had more aesthetical concerns, “they were planned out as ‘picturesque’ gardens; appealing to the eye, which one enjoyed meditating over and stepping into – even as an outsider”<sup>64</sup>.

One of the most significant effects of community gardening both in Europe and North America has been the establishment of a new form of collaboration between diverse ethnic, cultural and social groups resulted from their mutual resistance against losing their lands and rights to the policies of the governments<sup>65</sup>.

Even though the ecological benefits of these gardens are indisputable in the ground of environmental sustainability, the focus of many researchers’ in the field of community gardens is the social, economic and political welfares of these gardens. According to Marit Rosol(2018), in neo-liberalizing cities, the devotion and the

---

<sup>64</sup> Marit Rosol, " Community gardening in Berlin and New York: A new eco-social movement", in *Second Nature Urban Agriculture, Designing Productive Cities* (London: Routledge, 2019).

<sup>65</sup> Marit Rosol, "Politics Of Urban Gardening", in *The Routledge Handbook On Spaces Of Urban Politics* (repr., Routledge, 2018).

freewill work has the prospect to function as a resource for mitigating the outsourcing of former local state responsibilities.

### **3.5.2.2 Public Characteristics**

By providing a public service through community work and community organizing, community gardens profit more than just the gardeners. While most community gardens are based on food production, some of them are serving the community as non-commercial green socializing spaces. Community gardens are contingent on voluntary work, but as Marit Rosol points out, “different to other forms of voluntary engagement as, for example, stewardship for existing green spaces or sporadic volunteers’ days, the involved residents create new green areas according to their own ideas”<sup>66</sup>.

As it was seen during the economic crisis of the 1970s in the USA, letting local residents and organizations take care and manage the open green areas of the neighborhood according to their needs will cut the budget which is used for maintaining the parks and green spaces. Creating jobs, rehabilitation and opportunities for poor people to eat healthy fresh food are other contributions of community gardens for the public. By providing a wide range of social, educational and recreational opportunities, community gardens are devoted to fulfilling the needs of the local neighborhoods.

Rethinking urban space and reshaping the everyday life, Cultivating and creating one’s own public space, earns urban gardeners a unique experience. Through community gardening, local people can make positive contributions to regenerate their living space and neighborhood.

---

<sup>66</sup> Ibid,134.



### **3.5.2.3 Examples**

From the numerous Community gardens around the globe, four examples are selected due to their significant public characteristics. The United States has the highest number of community gardens. As mentioned in 3.4.2.1 section, the Liz Christy garden was the first Community garden of New York City. As seen in fig.3.4, today there are about 390 community gardens in New York City. Eagle High Gardens in Madison/ Wisconsin are one of the oldest and largest Community Gardens in the United States. In Europe, Barcelona obtains the highest number of Community gardens. L'Hortet del Forat, L'Hort del Xino, and Can Masadeu Community gardens are selected for review in this sub-section. In Taipei/ Taiwan Community gardens started as a platform for social regeneration and became the symbol of anarchy. 101 Community gardens in Taipei is selected as an example from Asia.

#### **3.5.2.3.1 Liz Christy Garden**

Established in 1973, Liz Christy Garden is a 1350 m<sup>2</sup> Community Garden located on the Northeast corner of Bowery and Houston Streets in Manhattan/ New York City.

The site of the garden is a patch of land that remained from a privately owned farm from the 17<sup>th</sup> century. During years, with urban development patches of the farm were destroyed and constructed. In 1970 only the small portion of the existing garden remained.

Liz Christy who was a gardening activist came together with a group of people and decided to create a Community Garden in this land to prevent it from being covered by buildings. After many attempts to legalize gardening activity in this land, finally, in 1990 the state voted for preserving the garden.

Today Liz Christy Garden features vegetable gardens, fruit trees, herbs and flower gardens, a fish and turtle pond and wildflower habitat. The Garden continues its

activity and is managed by a local community. Participation is free and volunteers would obtain a key to the garden after working for a certain number of hours which they spend on learning gardening techniques and rules.



Figure 3-13 First picture of Liz Christy Garden, 1973. The construction process. Source: <http://www.lizchristygarden.us/>



Figure 3-14 Activities in Liz Christy Garden, 2012. Source: <http://www.ecotippingpoints.org/our-stories/indepth/usa-new-york-community-garden-urban-renewal.html>

### 3.5.2.3.2 The Eagle Heights Community Gardens

The establishment of the Eagle Heights Community Gardens dates back to the late 1950s. The aim of the garden was to feed and offer public open green space for the students of University of Wisconsin Madison and Madison community members. The garden started with approximately 43 000 m<sup>2</sup> in area and has been actively cultivated since 1950. The site is located on the southern coast of Lake Mendota, which can be categorized as a wedge zone according to the “four-zone model”.

Today the garden has participants from the faculty, staff, students and a large number of community members. Because of the international status of the university, diverse cultures and cultivating techniques can be observed in this garden.

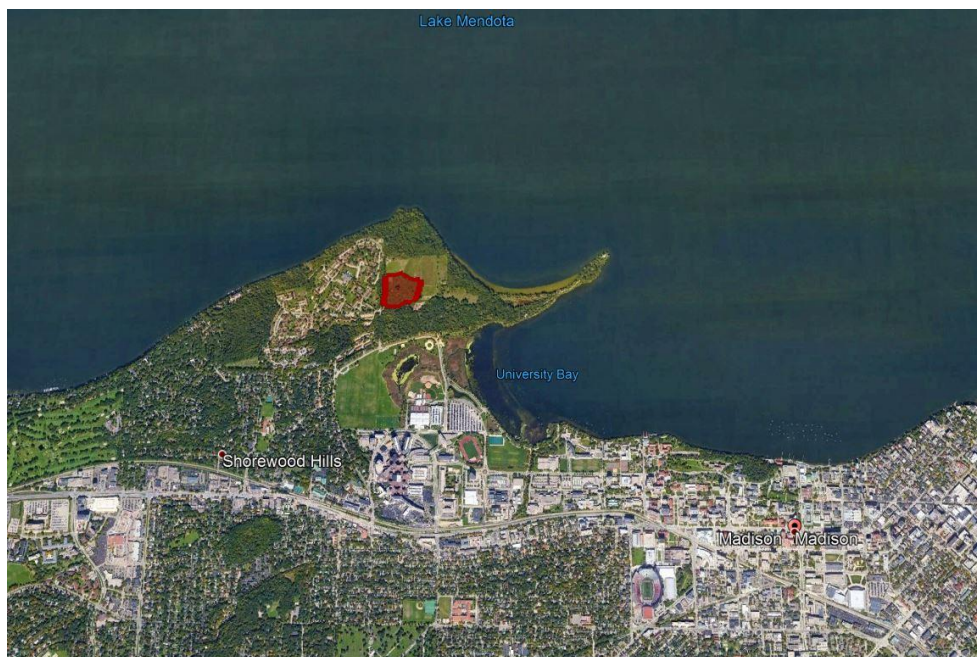


Figure 3-15 The Eagle Heights Community Garden. The red highlights show the Garden. Image source : Google Earth. Highlight by the author.



Figure 3-16 The Eagle Heights Community Garden cultivation activities. Source: A photo taken by William Cronon in <https://lakeshorepreserve.wisc.edu/visit/places/eagle-heights-community-gardens/>.

### 3.5.2.3.3 Community Gardens of Barcelona

The Community Gardens of Barcelona are located in marginal spaces of the city, like the corner of a public square, vacant lot of demolished buildings and occupied empty lots. Most of these Community gardens are associated with protests.

#### - Can Masdeu Community Garden

The garden is established in 2001 by a group of ecological activists as a protest manifestation. The activists occupied the land of an emptied hospital and started the garden. The Garden is located on the periphery zone of Barcelona and covers an area of approximately 10000 m<sup>2</sup>.

In 2002, during social unrest, the police tried to demolish the garden and empty the people. The gardeners resisted for 3 days and the case was sent to court. In 2005 the gardeners won the case and the gardening activity in Can Masdeu has continued ever since.

‘Can Masdeu’ Community Gardens is self-sufficient in energy and water supplying. The garden is maintained and managed by volunteers and it is visited by 250 (per average) participants in a week. “Can Masdeu” provides education for schools and hosts meetings and events. The garden has a shop for products that are planted and harvested by volunteers.



Figure 3-17The Can Masdeu Community Garden. The picture on the left shows the garden and the picture on the right shows gardenin activities in Can Masdeu Community Garden. Source: <https://www.evensi.com/disfruta-collserola-caminata-guiada-masdeu-torre-baro-salida-estacio-metro-canyelles-linea-3-13/287270468>



Figure 3-18 The Can Masdeu Community Garden Festival. Source: The Facebook page of the garden, <https://www.facebook.com/pages/Can-Masdeu/138279192867746>

### - **L'Hortet del Forat**

This garden was initiated on a demolished site of a building in the Ribera district of Barcelona. In 2009 the neighborhood was prone to an urban renewal plan, many buildings were demolished and people became furious. The public square of the neighborhood was destroyed to be replaced by a parking lot. The inhabitants started a protest by planting a pine tree in the middle of the vacated lot and continued to plant as a sign of protest. After years of negotiation, the government finally gave permission for preserving the garden. Since then the garden is managed communally and continues its existence.

The garden offers education and workshops for families and schools. And also features a dirt football pitch in a public square in the districts.



Figure 3-19 L'Hortet del Forat. The red highlights show the Garden. Image source: Google Earth. Highlight by the author.



Figure 3-20 Agriculture workshops at L'Hortet del Forat. Source: [https://huertosurbanosbarcelona.wordpress.com/00\\_huertos-urbanos-cultivando-barcelona/11-huertos-comunitarios/10-lhortet-del-forat/](https://huertosurbanosbarcelona.wordpress.com/00_huertos-urbanos-cultivando-barcelona/11-huertos-comunitarios/10-lhortet-del-forat/)

- **L'Hort del Xino**

L'Hort del Xino is a community garden was created on an abandoned lot in Rival district of Barcelona in 2009. Local residents demanded the municipality to create a public green space for the neighborhood. When their request was not fulfilled they occupied the abandoned lot and started the garden. The Garden is highly cultivated but the amount of food production is small. L'Hort del Xino is managed by the locals and the place is mostly used for social gatherings and meetings with neighbors and friends.



Figure 3-21 Agriculture activities at L'Hortet del Xino. Source: [https://huertosurbanosbarcelona.wordpress.com/00\\_huertos-urbanos-cultivando-barcelona/11-huertos-comunitarios/23-hort-del-xino/](https://huertosurbanosbarcelona.wordpress.com/00_huertos-urbanos-cultivando-barcelona/11-huertos-comunitarios/23-hort-del-xino/)

#### **3.5.2.3.4 Community gardens Taipei**

Taipei has witnessed a growing number of community gardens in the past decades. People started to cultivate degraded, vacated and abandoned lands or buildings. As occupying public land is not legally allowed, the community gardens created by citizens became a sign of anarchy. The increasing number of gardens shows the



protest of the residents against the industrialized cities<sup>67</sup>. According to the academic research supported by *National Taiwan University Department of Sociology*; although the gardens are illegal and sometimes scene of violence between the state and participants, they provided a positive social impact among citizens. Because the ownership of these lands does not belong to the occupants, most of them are short-term community gardens; they often move to other lands or discontinue their activity. For example the community garden between Taipei 101 skyscraper and the World Trade Center was built in 2009 and destroyed in 2014 being replaced by parking lots. The random existence of a community garden in different places of the city contradicts the concrete image of modern urbanism.

The community gardens are managed and maintained by local residents. They offer education for volunteers. They provide healthy food for the poor and job opportunities.



Figure 3-22 Taipei 101 Gardens 2013 on the map. The red highlights show the Garden. Image source : Google Earth. Highlight by the author.

---

<sup>67</sup> Ruin Academy research (2010) in co-operation with the National Taiwan University Department of Sociology. <https://blog.p2pfoundation.net/the-community-gardens-of-taipei/2010/12/04>



Figure 3-23 Taipei 101 Gardens 2013. Source: Photo taken by Isis Kang in <https://blog.p2pfoundation.net/the-community-gardens-of-taipei/>

### **3.5.3 Allotment Gardens; Definition, Size, Location, and Products**

Allotment gardens are pieces of land, rented to individuals by local authorities for the non-commercial growing of food and flowers. Allotment gardens are mostly found in Europe especially Germany and England. The presence of allotments dates back to the 17<sup>th</sup> century, Britain. As previously mentioned, allotments were introduced to urban planning policies as Urban Agricultural spaces by Ebenezer Howard and later by Frank Lloyd Wright. Similar to the Community Gardens, the presence of Allotments increased in the crisis of the 1970s which affected the working groups.

Similar to other types of Urban Agriculture, the allotments are highly flexible and adaptive to the needs of the local community. “They have in common the encouragement of social participation and of the creation of sustainable communities”<sup>68</sup>.

---

<sup>68</sup> Rute Susa Matos and Desidério Sales Batista, "Urban Agriculture: The Allotment Gardens As Structures Of Urban Sustainability".

Some of the European cities; Amsterdam, Berlin, London and Copenhagen to name a few, have the tradition and culture of gardening and cultivating their own fruit and vegetable on small plots. The number of allotment garden plots with public use in Berlin exceeds 80,000.<sup>69</sup> One of the important factors for the continuation of the traditional gardening in the aforementioned cities is the provision for gardening which can be seen especially in new development areas. For instance in Helsinki, besides the provision of the gardening plot, facilities such as lending tools and giving information are available for the volunteers.<sup>70</sup>

Allotments usually have clustered lands which are divided into smaller plots for rent. A small allotment garden on average contains 20 plots as a large Allotment garden consists of several hundred plots available for cultivation for requesting individuals. Like other types of Urban Agriculture, allotments face the challenge of finding suitable land. But in recent years many cities acknowledged the significance of these spaces and municipalities started providing land for renting to the individual for cultivation.

Allotment gardens usually happen to be in dense areas of the city, such as the core zone or the corridor zone according to “the four-zone model of the city”. Their existence in these areas can be understood as the reaction of the community to the inefficiency and lack of satisfactory supervision of the open spaces.

### **3.5.3.1 Management and Motivation**

The Allotment Gardens which are aimed for agriculture are typically managed by authorities or municipalities, but recently there has been a growing tendency towards forming an association that practices decentralized management from local authorities. This is done with the aim of moving from the ‘statuary’<sup>71</sup> sector (with

---

<sup>69</sup> Timothy Beatley, *Green Urbanism* (Washington DC: Island Press, 2000).

<sup>70</sup> Ibid.

<sup>71</sup> Jeremy Iles, "The social role of community farms and gardens in the city", in *CPULs Continuous Productive Urban Landscapes* (London: Routledge, Taylor & Francis, 2005),82.

preserving the legal rights) towards a ‘community-run’ sector. These groups are knowingly founding works ran by communities with innovating arrangements to raise more communal provision.

For defining the motivation of allotment gardening, it has to be mentioned that it was originated in rural areas, where today’s major metropolitans arose. The spirit to conserve and keep this cultural heritage can be traced in most cities in Europe. As the European Union’s population is a mixture of people coming from the rural culture and from a variety of ethnics, this population when settled in the city, kept alive their bond with their origin by using all their open spaces and patios for cultivating vegetables for sustaining themselves. Cities leave most of citizens reluctant of a bond with nature with their diffuse and dense land use. The practices carried on by ethnic groups in Europe<sup>72</sup> can set an example of an open space usage that not only breaks the standardized open space perception and re-attaches people with nature but also benefits the city in many aspects.

Allotment gardens are exceptional in their contribution to urban space as these spaces challenge the accustomed notion of urban space and open space design. Matos and Batista (2013:2) state that, “These spaces are an echo and a memory of how the countryside might have been— a humanized *landscape* but with a peaceful feeling, a shared space with a touch of inner silence.”<sup>73</sup>.

### **3.5.3.2 Public Characteristics**

The majority of Allotment gardens are centered on food production activities, providing educational workshops on the field and co-operating with schools.

---

<sup>72</sup> See: Rute Susa Matos and Desidério Sales Batista, "Urban Agriculture: The Allotment Gardens As Structures Of Urban Sustainability" and Jeremy Iles, "The social role of community farms and gardens in the city", in *CPULs Continuous Productive Urban Landscapes* (London: Routledge, Taylor & Francis, 2005)

<sup>73</sup> Rute Susa Matos and Desidério Sales Batista, "Urban Agriculture: The Allotment Gardens As Structures Of Urban Sustainability", in *Advances In Landscape Architecture* (IntechOpen, 2013),2

Allotment garden projects contribute to community development and social participation through various aspects, they produce more open green spaces in an urban environment, formal and informal prospects, they provide awareness about food consumption and animal production and they help to build the knowledge in farming, horticulture, and livestock.

Allotments also provide open space games and sports activities on special occasions. Most of the allotments feature leisure occupations and social programs are organized by local authorities to integrate people with deficiencies in the process of socializing and learning about farming.

### **3.5.3.3 Examples**

The examples of Allotment Gardens are selected according to their scale of influence, continuity of the practice, and level of participation and attraction.

#### **3.5.3.3.1 Sheffield Allotments**

According to Sheffield's official Municipality website, Sheffield has about 70 Allotment garden sites.<sup>74</sup> Some of the plots are designed especially for disabled people.

---

<sup>74</sup> "Allotments", Sheffield.Gov.Uk, 2019, <https://www.sheffield.gov.uk/home/parks-sport-recreation/allotments>.



Figure 3-24 The map showing Allotment Gardens of Sheffield. Source: <https://www.sheffield.gov.uk/home/parks-sport-recreation/allotments>

### - Firth Park Community Allotment

In sub-section 3.5.1.3.2 the Urban Farm of Sheffield; Heeley City Farm was mentioned. The Firth Park Community Allotments are allotment gardens associated with the Heeley City Farm and managed by community members of the Farm. Located a few miles away from the farm in a residential neighborhood, the allotment started its activity in 2005 when the Heeley City Farm received positive outcomes from school kids and their families. According to the “four-zone model,” the Site’s location can be categorized as wedge zone.

Just like the Farm, the allotment hosts schools, workshops, festivals and educational courses for schools, families, and individuals.



Figure 3-25 Firth Park Community Allotment. The red highlight on the top of the map shows Firth park Community Allotment and the red highlight on the bottom is Heeley City Farm. Image source: Google Earth. Highlight by the author.



Figure 3-26 The growing festivals in Firth Park Community Allotment. Source: <http://www.seedsofeden.org/places/england/sheffield/community-gardens/firth-park-sure-start-community-allotment/>

### - Heeley and Meersbrook Allotment

Heeley and Meersbrook Allotment site were initiated by a society<sup>75</sup> trying to protect the neighborhood with the same name in 1911.<sup>76</sup> Since then, the vision of the allotment was to provide a multitude of services to the growing local community and support urban gardeners and allotment holders.

The Site is located in the southeast of the City Farm and inside a dense neighborhood on the Corridor zone of the City of Sheffield. The Allotment hosts event, festivals and provides different facilities for the gardeners.



Figure 3-27 Heeley and Meersbrook Allotment. The orange highlight on the right shows Heeley and Meersbrook Allotment and the other orange highlight shows the Archer Lane Allotments. The white line shows the railway. Image source: Google Earth. Highlight by the author.

---

<sup>75</sup> Many allotment sites in Sheffield have their own society. Allotment societies often bring benefits to an allotment site such as reduced price seed for tenants, opportunities to meet and share knowledge with other tenants, plant swaps, fundraising and events. Source: <https://www.sheffield.gov.uk/home/parks-sport-recreation/allotments>

<sup>76</sup> Heeley And Meersbrook Allotments Protection Society, 2019, <http://heeleyandmeersbrookallotment.simplesite.com/>.



### **- Archer Lane Allotments**

This linear site of allotments (fig.3-25) contains about 250 plots available for cultivation. Located adjacent to main roads and the railway, in a housing neighborhood, the Allotment was established by Archer Lane allotment homes and Garden society, based on the high demands of the locals. Because of the ease of access and facilities, the Allotment has participants from all across the city.<sup>77</sup>.



Figure 3-28 The Archer Lane allotment homes. Source: <https://www.sheffield.gov.uk/home/parks-sport-recreation/allotments>

### **3.5.3.3.2 Solvang Kolonihager**

The Solvang Kolonihager in Oslo/Norway is one of the largest allotments in Norway. Established by the Oslo City Council in 1928, the Allotment sites are divided into 5 departments and contain about 550 patches of land. The management

---

<sup>77</sup> "Allotments", Sheffield.Gov.Uk, 2019, <https://www.sheffield.gov.uk/home/parks-sport-recreation/allotments>.

of each parcel belongs to different boards of directors of the City Council. The Allotments zoning plan was created by architect Eyvind Strøm. Since 1957 the Allotment became associated with the “Norwegian Colony Garden Association”<sup>78</sup>.

The site of the allotments is located adjacent to a housing zone in the periphery of Oslo. There is also a Student resident area near the Site. Access to the Allotment is available by bus from the city center.

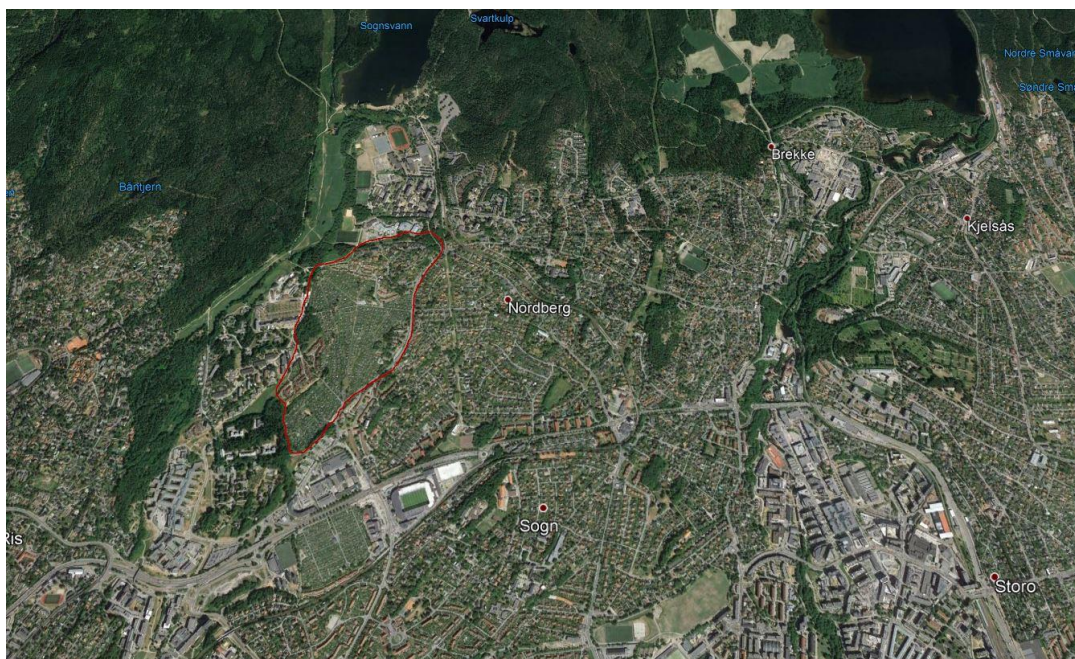


Figure 3-29 Solvang Kolonihager. The red highlights show the garden. Image source: Google Earth. Highlight by the author.

---

<sup>78</sup> Erik Bolstad and Henrik Christensen, "Solvang Kolonihager", Solvang Kolonihager, 2019, <https://solvang1.no/>.



Figure 3-30 Solvang Kolonihager general view. Source: <https://digitaltmuseum.no/011012642818/solvang-kolonihager-ovre-del-avdeling-3-nedenfor-nordbergveien-og-avdeling>

### 3.5.3.3.3 Naerum Allotments, Denmark

Designed by the architect Carl Theodor Sorensen and established in 1948, Naerum Allotments differ from typical Allotment in shape; the Naerum site consists of 40 oval plots, each one is about 375 m<sup>2</sup> in area. Each plot has a cottage and is surrounded by hedges. The enclosed plots create private areas; therefore in comparison to regular allotment Naerum Allotment has a more private character. Yet they are actively used by the local residents

The site is located near a public housing scheme and an urban forest, on the fringe of the wedge and periphery zone on Naerum.

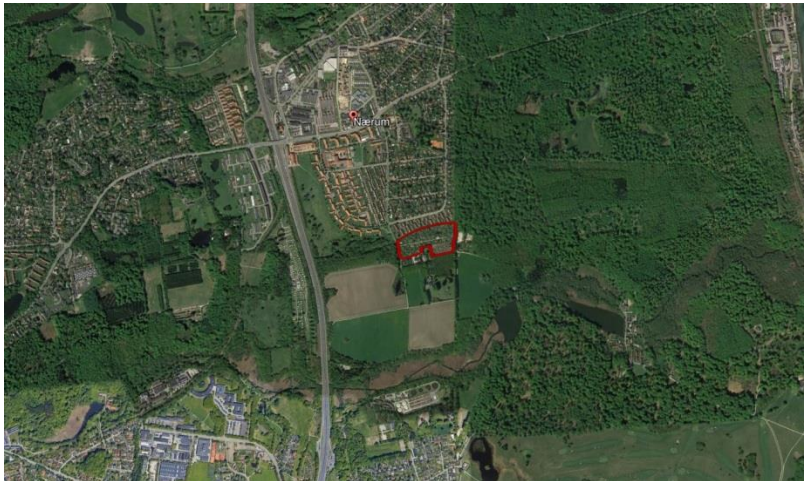


Figure 3-31 Naerum Allotments. The red highlights show the garden. Image source: Google Earth. Highlight by the author.

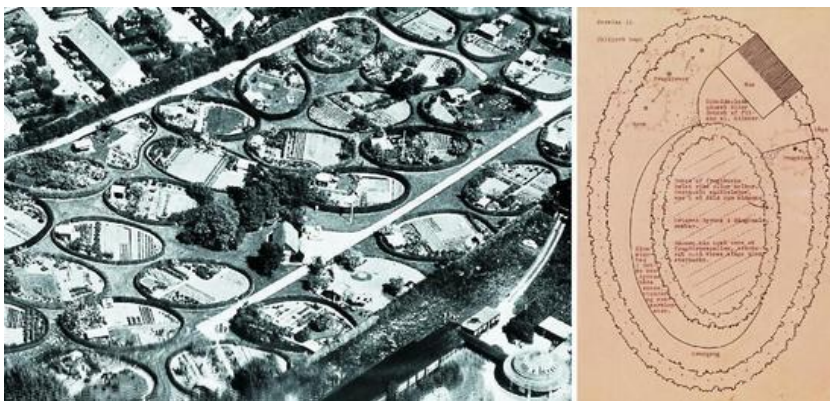


Figure 3-32 Naerum Allotments plan. Source: <http://alessandrocca.blogspot.com/2011/01/naerum-allotment-gardens.html?m=1>

### 3.5.4 Guerilla Gardening; Definition, Size, Location, and Products

For better defining Guerilla Gardening, the meaning of “Guerilla” needs to be explained. According to the Oxford Online Dictionary, Guerilla means: “A member of a small independent group taking part in irregular fighting, typically

against larger regular forces.<sup>79</sup>” and “Referring to actions or activities performed in an impromptu way, often without authorization”.<sup>80</sup> The word Guerilla has its roots in the Spanish language, meaning “little war”. As it is understood from these definitions, guerilla is a taken position against a regular and systematic power.

The term “guerilla” is associated with actions that happen without any authorization or permission, to change the existing system or situation. In New York City, the founders of the Liz Christy Community Garden used the term “Green Guerillas” to define their illegal cultivation. Therefore the Liz Charity garden was established as a guerilla gardening activity at the beginning.

As discussed by Tracey (2007), Guerilla Gardening can be defined as cultivation and gardening activity in a public space (or visible to public) without permission. This type of Urban Agriculture has become a widespread medium of acting against the politics of land speculation.<sup>81</sup> Guerilla Gardening is distinguished from other types of Urban Agriculture by means of its meaning and practice. Guerilla Gardening comes together with invasion and intruding of law.

Guerilla gardening, different from previously discussed types, does not happen in a specific location or size and it does not necessarily produce food. The scales of Guerilla gardening activity can differ from a window flower box or a corner of a sidewalk to the scale of a city farm. According to Tracey(2007), The Guerilla gardeners challenge property rights and how people are permitted to use public spaces.

#### **3.5.4.1 Management, Motivation, and Challenges**

Guerilla gardening activities are empowered by groups or individuals. Due to their illicit context, they are usually short-term activities.

---

<sup>79</sup> <https://languages.oup.com/oed>

<sup>80</sup> Ibid.

<sup>81</sup> David Tracey, *Guerrilla Gardening* (Gabriola Island, BC: New Society Publishers, 2007).

Most of the Guerilla Gardening activities are performed with the aim of a battle against environmental degradation, poverty, insufficient open public spaces or unfair living conditions. The primary motivation of Guerilla Gardeners is “change”; this can be a change towards obtaining the right of freedom of expression or rebounding lost community cohesion<sup>82</sup>.

#### **3.5.4.2 Public characteristics**

Guerilla Gardening happens at the core of public spaces, therefore, it directly addresses the public. By constantly having to fight for their reclaimed lands, and to keep the existing community gardens, people who had previously been marginalized become citizens again. Tracey (2007) asserts that the new gardeners see themselves as active members of a society taking action towards reaching a common goal. Guerilla gardening is a movement fighting for democracy and the food independence that is threatened by commercial interests, for a more sustainable environment and for preventing more damages to nature.

#### **3.5.4.3 Examples**

Because of the nature of Guerilla Gardening, any type of Urban Agriculture that takes place without permission and authorization is counted as guerilla gardens. So the aforementioned examples of Liz Christy Garden, the Community Gardens of Barcelona and Taipei are all originally Guerilla Gardens. Some of these gardens, such as the ones in Barcelona became legalized after the struggles of the gardeners.

There are examples of Urban Agricultural spaces which were initiated and maintained legally but because of the state’s development and construction

---

<sup>82</sup> Burcu Ateş, "A Spatial Impromptu: Green Resistance by Guerrilla Gardening" (Master of Architecture in Architecture, Middle East Technical University, 2015)

policies, their motivation and aim shifted from food production towards fighting for their lands.

### **3.5.5 Vertical Farming; Definition, Size, Location, and Products**

In dense cities, in which land is a highly valuable asset, finding vacant lots for Urban Agriculture is a challenge and sometimes it is impossible. Despite the fact that Urban Agriculture contributes significantly to the cities in multiple aspects, very few landowners grant their lands for agricultural activities.

On the other hand, in 2000's, Dickson Despommier, the Professor of Microbiology and Public Health at Columbia University - who was the first person to publish and conduct research on the concept of Vertical Gardening- argues that to feed the future population of the world - which is estimated to reach 9.5 billion people by 2050- an area equal to Brazil's area is required<sup>83</sup>.

Despommier suggested using vertical surfaces and elevated storeys of buildings specifically designed for farming.

In the last few years, there has been an emerging body of literature and designs in this field. There are organizations and associations specifically dedicated to research and educate people, especially the young about techniques and requirements of vertical farming.

Aside from vertical farming, roof gardens<sup>84</sup> are also becoming widespread. Roof garden implies cultivating plants and vegetables on the rooftops or elevated surfaces of buildings. They have become increasingly common in European cities namely Germany and Netherland and the USA, especially in New York City.

---

<sup>83</sup> Dickson Despommier, "The Vertical Farm: Controlled Environment Agriculture Carried Out In Tall Buildings Would Create Greater Food Safety And Security For Large Urban Populations", *Journal Für Verbraucherschutz Und Lebensmittelsicherheit* 6, no. 2 (2010): 233-236, doi:10.1007/s00003-010-0654-3.

<sup>84</sup> In some sources cultivating in storeys of building is sometimes referred to as vertical farming.

Roof gardens benefit the environment and also the building in various aspects; “reduce city heat island effect”, “reduce CO2 impact”, “reduce heating and cooling energy consumption” besides reducing noise, and stormwater runoff<sup>85</sup>. Because of these merits, green roofs play an important role in the sustainability agenda.

The size, location, and products of vertical farms are associated with the availability and access to adequate elevated or vertical surfaces; therefore it is not possible to specifically define these parameters. Yet by use of developed techniques for cultivation, it is possible to grow plants on nearly every surface.

### **3.5.5.1 Management, Motivation, and Challenges**

Management and maintenance of the vertical farms are done by the owners of the cultivated buildings or rooftops. In some cases, vertical farming appears in the form of guerilla gardening. If farming happens on vertical surfaces of public lands then individuals or groups of participators take control of the cultivated space. There are vertical farms run by associations in some cities around the world, namely New York City, Canada, and Tokyo. These associations by different groups of students or gardeners, or even civic institutions initiate roof gardens for farming in their campuses, public building rooftops or roof tops of old factories<sup>86</sup>.

The aim and motivation of vertical farms are to provide enough cultivable lands to feed the population. Vertical farmer initiator also claims that traditional farming systems are also damaging the environment and for a more sustainable world, new techniques need to be implemented in the field of agriculture.

---

<sup>85</sup>Source : <https://agsci.psu.edu/research/areas/advanced-agricultural-and-food-systems> , last accessed on 1/7/2019

<sup>86</sup> Francesco Orsini et al., *Rooftop Urban Agriculture* (SPRINGER INTERNATIONAL PU, 2017).



### **3.5.5.2 Public characteristics**

Because of the nature of vertical farming, these gardens are not as accessible to the public as other types of Urban Agriculture. So their contribution to the public is limited in comparison to other types. Some Agricultural roof gardens are open to public access, mostly those of larger scales. The smaller scale ones serve a restricted group of participants.

In addition, cultivated vertical facades of buildings can enhance the visual and environmental quality of their surroundings.

### **3.5.5.3 Examples**

Although this is a concept yet to be conquered, there are a few examples of farm towers or vertical farms around the world. Cultivating in undercover areas is not a new concept, growing crops year-round in greenhouses have been increasing in the last years but cultivating in vertical is a rather new practice.

In the Expo 2000 of Hanover, the Netherland Pavilion was a self-sustainable building with cultivated storeys.



Figure 3-33 The Netherland Pavilion in Expo 2000 of Hanover. Source: <https://www.mvrdiv.nl/projects/158/expo-2000>

In the Expo 2015 of Milan, the USA Pavilion featured vertical surfaces covered by vegetables. Harvested products were served to the visitors.



Figure 3-34 The USA Pavilion in Expo 2015 of Milan. Source: <https://www.archdaily.com/628092/usa-pavilion-milan-expo-2015-biber-architects>

In Tokyo, the “Pasona O2” company office building obtains farms in its storeys and products which are harvested are used for prepared meals in the office.



Figure 3-35 the Pasona O2 building in Tokyo. Source: <https://www.dezeen.com/2013/09/12/pasona-urban-farm-by-kono-designs/>

### 3.6 Analytic Table of Different Types of Urban Agriculture

The criteria's in evaluating the qualities of Urban Agricultural spaces which are shown in the table below are selected from Montgomery's (1998) principles of place-making (fig 1-1).

Table 1 Qualification criteria- based on place-making principles. Drawn by the author.

Qualities selected for evaluating Types of Urban Agriculture						
Activity	Accessibility	Vitality	Flow of people	Events, Local traditions, Culture	Attractors	Transaction
Image	Imageability	Symbolism and Memory	Psychological access	Sensory experience	knowledgeability	
Form	Scale	Diversity of primary uses/Mix-use	public realm	permeability (footfall)	Adaptability / Continuity of activity	Street Contact, Visibility

Multiple Examples of different types of Urban Agriculture were studied in this section. An evaluation of each type's characteristics is presented in the table below.

Table 2 Analytical table of different types of Urban Agriculture. Drawn by the author.

	Purpose/Motivation	Access to Public	Features	History	Products	Range of influence/ Size/Form	Location and access	Continuity	Ownership	Management	Contributions to the Public	
	<b>City Farm</b>	To Supply Food for Community, Trade, Education, Social Gathering, Sports and Recreation	Open (Access Hours Depend on Community Rules)	Open and Undercover Cultivation Areas, Accommodation, Recreational and Resting Areas, Compost Area, Educational Activity Areas, Sports and Social Club Facilities, Market Place Areas	Form the earliest city emergences	Vegetable, Fruit, Ornamental Plants, Animal products	City scale/ Large scales usually More than 10h /United Patches of Land	Urban Fringe/ Alongside Train Railways - Usually Public Transportation is available	Permanent	Individual, Associations, State, Local Authorities	Voluntary Workers, Paid Employees	Educational Public Events, Strolling, Picnic, Socializing
	<b>Community Garden</b>	To Supply Food for Community, Hobby, Social Gathering	Open (Access Hours Depend on Community Rules)	Open and Undercover Cultivation Areas, Warehouses, Lawn, Community Gathering Squares, Compost and Recreational Areas (small ponds or lawn with seasonal flowers)	After financial crisis of 1970	Vegetable, Fruit, Ornamental Plants	Neighborhood and district scale/ Medium scale, on average 1000-5000 m2/ Patches of Land in Different Neighborhoods	Urban-Urban Fringe (Vacant Lots, Unexploited Areas in Educational Activity Areas or Health Facilities, Abandoned Building Lots, Open Spaces in the City)/	Mostly temporary	State, Associations, Religious institutions	Organizations or Communities, Groups of Voluntary Individuals	Improved Sense of Neighborhood, Educational Activities for Children, Schools, Universities, Public Events, Socializing, Public Platform for Communities and Charities
	<b>Allotment Garden</b>	To Supply Food for Family or Individual, Hobby	Limited (Access Restricted by the Holder During Rental Period)	Raised Beds, Warehouse, Compost areas, Hedges as Boundaries (optional).	17th Century	Vegetable, Fruit, Ornamental Plants	Neighborhood and household/ small to medium scale on average 250 m2 to 1000 m2/ Patches of Land in Different Neighborhoods	Inner-City, Neighborhoods	Mostly temporary	Local Authorities, Association Groups, Individuals	Local Authority, Lease Holders (Individuals, Families)	Improved Sense of Neighborhood, Educational Activities for Children, Schools, Universities, Public Events, Socializing, Public Platform for Communities and Charities
<b>Vertical Farms</b>	<b>Roof/ Balcony Garden</b>	To Supply Food for Family or Individual, Hobby	Limited (Access Restricted to Residents, Families and Friends)	Sitting-Gathering Areas, Greenhouse	Roof gardens being used for farming emerged mainly after 1980's	Vegetable, Fruit, Ornamental Plants	Building or street scale/ Depends on Size and Availability of Buildings/Scattered Elevated Green Areas Anywhere in the City	Roofs and Balconies of Buildings	Varies	Shared by Building Residents and Individuals	Building Management, Individuals	Because of the Lack of Public Access They Contribute to the City by their Environmental and Visual Aspects to Enhance the Quality of Life
	<b>Vertical Surfaces</b>	Environmental and Visual Enhancement, Supplementing Food for Small Cafe's, Restaurants and Offices	Restricted (Visual Access Only)	Visual appeal, Enhancing environmental qualities	After the 2000s	Vegetable, Fruit, Ornamental Plants	Building or street scale/ Depends on Size and Availability of Vertical Surfaces/Scattered Elevated Green Areas Anywhere in the City	Any Vertical Surface	Varies	Owners, Individuals	Owners, Individuals	Because of the Lack of Public Access They Contribute to the City by their Environmental and Visual Aspects to Enhance the Quality of Life



### 3.7 Conclusion

Though Urban Agriculture, at first glance, may appear to be a quite simple topic; scattering a few plots in the city and let residents start gardening, in reality, however, it impacts and challenges a community in a variety of ways and encompasses a multitude of professions. Different factors and reasons affecting the appearance and growth of Urban Agriculture in contemporary cities have been studied in this chapter. The study of several examples shows that all types of Urban Agriculture practices within different contexts and with various motivations have a positive enhancing effect on the quality of public life as productive public spaces (table 2). Besides, looking at the potentials of urban agriculture, it's clear that it can play at least a partial role in solving many of the problems that urban areas are currently suffering from. Scholars discuss that as a “public interest natural infrastructure<sup>87</sup>”, a city should be equipped with farming areas as it is provided with roads, schools, etc. and farming areas have to be present in a broader sense for social, economic and ecological reasons. In this order, it's necessary that governments develop the proper systems to implement and cope with Urban Agriculture.

In order to start such projects a public platform is essential, the platforms might be different according to their context but the mutual objective is “environmentally sustainable development” and raising awareness about different aspects and multiple benefits of the integration of urban agriculture in the cities. For enhancing these projects, and improving their contribution, two key factors have to be considered; first, the decision-makers need to approve and support Urban Agricultural activities and second, the professionals need to consider multitude of factors for enhancing the function and contribution of such spaces.

---

<sup>87</sup> André Viljoen and Katrin Bohn, " Utilitarian Dreams: Productive life in the city", in *Second Nature Urban Agriculture, Designing Productive Cities* (London: Routledge, 2019).

Based on size and scale, accessibility, continuity, mixed used, and transactions criteria's, different types of Urban Agriculture have different levels of contribution to the public but the sensory experience in all the types is food. City farms can have the most contribution, but in most cities such vast areas are not available. Community gardens in many cases have more imegeability and symbolism. Yet they have less continuity due to temporary land use and the monetary transaction is low. But in many cases as mentioned, community gardens are tied to different ethnic or marginalized groups therefore, their socio-cultural transactions are powerful. They are also mixed used; for educational events, and etc. Allotment gardens are smaller in scale and because of their management and ownership style are less public. Yet, in recent years, with adapting new functions, such as organizing events and hands-on educational activities they have been attracting more people. The transaction volume is house-scale. Yet they are highly desired in Europe. Their character has been shifting toward community gardening in recent years. Vertical farms as newer concepts and the least accessible ones have the less characteristics of successful public spaces. The level of participation is lower due to the physical settings of the practice. Their publicness is even negotiable. But they can be highly attractive because of their visual appearance; therefore they can encourage permeability of the place. In this practice people might not exactly be participating in cultivation, but it certainly does attract interest and therefore vitalizes the public spaces in or around the hosting surface or building. With the situation of high density in our day, the practice of vertical farming-rather on vertical or elevated surfaces- is escalating, and the studied examples seem to be successful in satisfying needs of participants; food wise and space-wise.



## CHAPTER 4

### SPECIFIC TYPES OF URBAN AGRICULTURE IN TURKEY

For better evaluating Urban Agriculture in Turkey's context, it seems necessary to elaborate a brief history of public open space and open green space usage of old Anatolian cities. To meet the purpose of this section, first, the characteristics and physical properties of the public open spaces of Anatolian cities are reviewed. After this review, two specific types of Urban Agriculture in Turkey are discussed. First Bostans as the traditional urban gardens of Turkey and then AOC-Atatürk Orman Çiftliği- as the planned and designed Urban Farm of Ankara are discussed. The chapter concludes with categorization of these two examples and the evaluation of their contributions to the public life of citizens.

#### 4.1 Agriculture and Public Space in Turkish Cities before the Republican Era

Turks come from a nomadic culture. They migrated from land to land searching for suitable living conditions. Until a group of tribes settled in Anatolia around 11<sup>th</sup> Century their livelihood was based on agriculture and shepherding<sup>88</sup>. Even after settling down, they kept open lands near their houses for agriculture and daily life activities. They also continued their migrating habit by creating summer and winter habitations; sometimes these summer and winter habitations were attached by wide

---

<sup>88</sup> Uğur Tanyeli, *Anadolu-Türk Kentinde Fiziksel Yapının Evrim Süreci (11.-15. Yy)* ([Istanbul]: İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, 1987); Maurice M. Cerasi, "Open Space, Water And Trees In Ottoman Urban Culture In The Xviiiith - Xixth Centures", *Environmental Design-Journal Of Islamic Environmental Design Research Centre*, no. 2 (1986): 37, [http://www.archnet.org/library/documents/one-document.jsp?document\\_id=4857](http://www.archnet.org/library/documents/one-document.jsp?document_id=4857); Gönül Aslanoğlu Evyapan, "The Intrinsic Values Of The Traditional Anatolian Turkish Garden", *In Environmental Design: Journal Of The Islamic Environmental Design Research Centre 2*, Edited By Attilio Petruccioli, 1986, 10-15, <https://archnet.org/publications/4355>.

gardens and vineyards. Therefore, earlier Anatolian cities were not defined by fort walls; rather they were open cities with no clear boundary between rural areas and the city. Mosques were located in the outer surroundings of the city, and new districts were formed around these areas; assumingly by nomads and former villagers.<sup>89</sup>.

As Alanyalı Aral (2008) discussed, this growth arrangement, with its fragmented and loose pattern, caused the formation of vast empty areas in between neighborhoods. In these grand areas, unclassified public open spaces, harmonious with the natural character of their surroundings, were embodied; typically not planned nor arranged public spaces, rather pieces of land left in their own natural characteristics. Public spaces like schools, baths, and mosques with their courtyards (used as community gathering places), existed in the nucleus of fragmented neighborhood groups as public spaces designed for more formal uses. Conversely, on the fringes of the fragmented districts and sometimes even in between the urban layout, another group of open spaces with recreational and social activities emerged. These vast areas mainly involved four types of activities:

- “supplementary areas like agricultural and breeding land”
- “spaces for sport and military activities (*at meydanı, ok meydanı*)”
- “social / meeting activities (*bayram yeri*)”
- “recreational activities (*dere boyu/mesire yerleri*)”<sup>90</sup>

These spaces were typically informal in character. Alanyalı Aral(2008) mentions that researches show the main important factors in the establishment of these informal “public open spaces” are first, the location and natural qualities of places, and second, their relationship with the city.

---

<sup>89</sup> Maurice M. Cerasi, "Open Space, Water And Trees In Ottoman Urban Culture In The Xviiiith - Xixth Centures".

<sup>90</sup> Cansever 1996:382, in Ela Alanyalı Aral, "Peripheral Public Spaces. Types in Progress", *Public Istanbul : Spaces And Spheres Of The Urban*(Wetzlar: Transaction Publishers, 2008),119.

According to Cerasi (1986) and Aslanoğlu Evyapan(1986), because of their nomadic heritage, appreciation and love for nature were important qualities for Ottomans, they shaped up their cities by the prevailing form of the natural space, both in open space formation and urbanization schemes. Therefore, in typical Ottoman cities, urban public experienced living in a natural environment. As mentioned, Turks, regardless of their socio-economic status, aspired to have a piece of open space near their habitations, such as a yard or a garden for daily activities.

Regarding this preserved natural features in most public spaces, Aslanoğlu Evyapan(1975) argues that the inherent qualities appear to have been inspirational for the dwellers; in exhilaration for certain activities as in the case of gardening. The houses, palaces, and gardens were built according to optimum environmental conditions and without much attention to formal aesthetics<sup>91</sup>. The economy was mainly based on peasants but agriculture was also an integrated part of the city.

Due to land laws of the Ottoman Empire in the late 16<sup>th</sup> century, there was a high tax burden on the peasants which caused a flow of migration towards cities. The decreased productivity of agriculture caused by this migration gave way to policies to reverse this flow<sup>92</sup>. Yet even in that time, the cities carried agricultural characteristics, it is mentioned by Faroqhi (1981) that during the “Celali” uprising of the time which forced many of these immigrant peasants to return to their villages, some stayed in the city. These new urban citizens earned their living by cultivating in gardens, fields, and vineyards. Faroqhi (1981) by referring to Planhol points out that, cities such as Denizli and Malatya, Kırşehir, were cities including a Çarşı – public center and residents were spread among gardens and vineyards<sup>93</sup>.

---

<sup>91</sup> Gönül Aslanoğlu Evyapan. "Anatolian Turkish Gardens". *METU Journal Of Faculty Of Architecture* 1, no. 1 (1975), 5-21

<sup>92</sup> Suraiya Faroqhi, "Urban Development In Ottoman Anatolia (16.-17. Centuries)", *M.E.T.U. Journal Of The Faculty Of Architecture* 7, no. 1 (1981): 35-51.

<sup>93</sup> Xavier De Planhol, (1969) “Le cadre géographique: le pays de Laodicée-Denizli (De Laodicée A Denizli), *Laodicée Du Lycos : Le Nymphée, Campagnes (1961-1963)*”, (ed.) Jean Des Gagniers-Pierre Devambeze-Lilly Kahil-René Ginouves, *E. de Boccard Les Presses De L’Université, Québec.*,

It was not until the “Tulip period (1718-1730)<sup>94</sup>” that the influence of French gardens and open spaces design came to Istanbul. In the Tulip period some open spaces, namely promenades which were open to public, were built for the urban habitats.

Many palaces and mansions with huge gardens have been built in the “Golden Horn” on the Bosphorus. The most important one of which was the Palace of “Sadabad” located at “Kağıthane” and its gardens. These arrangements in “Kağıthane” had a new concept of design and brought innovations to the everyday city life. As in Western examples, ceremonies and recreational activities with the participation of members of the palace, foreign guests and also public began to be organized in these open Spaces.

“The Ottoman Capital in the 18<sup>th</sup> century was a perpetual source of sensory pleasures [...] public gardens where age, gender, rank, and status mixed; [...] by the 18<sup>th</sup> century, these transformations had become integral to the social landscape of the capital”<sup>95</sup>.

Like any other city in the world, social, political and economic changes affected the need and role of public spaces. In the “Tulip period”, the growing interest in public spaces and especially in gardens firstly affected the urban fabric of Istanbul in the transformation process; it changed the urban life and urban pattern of Istanbul at that period.

According to Aslanoğlu Evyapan (1986), Westernization affected the open space usage pattern of ottomans. Especially the tendency towards outdoor living in the gardens decreased. Gardens became more formal and carefully designed.

The nineteenth century was the era that the concept of Public Park was well developed in the major cities of Europe and in this sense; its reflections in social

---

no.6 (1969), 391-413 Cited in Suraiya Faroqhi, "Urban Development In Ottoman Anatolia ( 16.-17. Centuries)"

<sup>94</sup> “Tulip period” was a time of significant changes, innovations and improvements especially in poetry, literature music and architecture besides gardening art.

<sup>95</sup> Shirine Hamadeh, *The City's Pleasures* (Seattle: University of Washington Press, 2008) Quoted in Ebru Erbaş Gürlü, "Westernized Oriental Turkish Landscape: The Gardens Of Istanbul",139

life and gardens were seen again in Istanbul. The concept of designed public open spaces that entered the Ottoman's life with “Kağıthane” promenade consolidated by the arrangements of “Taksim” and “Tepebaşı” gardens in this century. These parks in the “Pera” region were the first landscape arrangements open to the public and at that time carnivals, holiday entertainments, concerts, theaters, such as a variety of social events have been organized in those spaces.<sup>96</sup>.

#### 4.1.1 Historical Types of Open Public Spaces and Agricultural Lands in Turkish Cities

Categorizing public open spaces of Ottoman cities, primarily “*meydan*”, “*Pazar Meydans*” (public squares), “*mesire*”, “*çayırlık*”, and “*Bostan*” come forth. These places extant from earlier periods as open spaces serving the entire city for social functions in urban areas were rather different from their equivalents in Europe<sup>97</sup>- since Renaissance- in case of not being defined by a geometrical order or being bordered by buildings in at least three sides<sup>98</sup>. “*Meydan*”, “*mesire*”, and “*çayırlık*”, which are considered as main “public open spaces”, were typically encountered in their natural features as mentioned before.

“*Meydans*” were usually unoccupied, wide open, broad areas sited on the peripheries of communities. In contrast with the Western cities in use patterns and potentials, the main function of “*meydans*” in Ottoman cities was to bring numerous people to gather for public interface. According to Alanyalı Aral(2008), “*Meydans*”, while informal in character, showed unimaginable use patterns in the context of western plazas – embracing shelters and huts, groups of people sitting in

---

<sup>96</sup> Ebru Erbaş Gürler, "Westernized Oriental Turkish Landscape: The Gardens Of Istanbul", In 7. Uluslararası Türk Kültürü Kongresi Bildiriler IV İstanbul'da Sanat: Mimari, El Sanati, Resim, Müzik (Ankara: Atatürk Kültür Merkezi, 2011)

<sup>97</sup> Maurice M. Cerasi, "Open Space, Water And Trees In Ottoman Urban Culture In The Xviiiith - Xixth Centures", *Environmental Design-Journal Of Islamic Environmental Design Research Centre*, no. 2 (1985): 37, [http://www.archnet.org/library/documents/one-document.jsp?document\\_id=4857](http://www.archnet.org/library/documents/one-document.jsp?document_id=4857).

<sup>98</sup> Ela Alanyalı Aral, "Peripheral Public Spaces. Types in Progress",

circles, eating, playing games, even meditating. As explained by Tanyeli (1987), “*meydans*” had flexible usage whereas they were also used as a bazaar, horse riding arena besides ceremonies and festivities, subsequently they were located on the periphery and outskirts of the cities. Another public open space type of Ottoman cities was “*Pazar*” (bazaar). There existed at least one grain or animal bazaar in every city’s periphery.

As mentioned before, large areas amidst fragmented patterns of neighborhoods were a typical location of public open spaces in the Ottoman city. As Alanyalı Aral(2008) discussed, “*Çayırlık*”, or cemeteries, which were used as strolling areas, with their specific public spatial typologies, were situated at the exits of the abovementioned neighborhood clusters; mostly having a panoramic view above a hill. The “*çayırılık*”s as one of the main types of open public spaces, were areas left in their natural layout and used publicly as ambling places and they were outspread in cities in the 18th century. According to Cerasi (1999), there was a “*çayırılık*” with trees in every commune in western and eastern Turkey. The Sports games and public entertainment festivities on special days were held in these spaces.

In Ottoman tradition, green open spaces called “*mesire*” existed which served a similar purpose as parks- which entered Turkish urban areas as a western concept-. “*Mesires*” which had a significant role in the public lives of Ottomans, were physically similar to parks however their “public” aspect differed. “*Mesires*” which are named after the Arabic word meaning “picnic”<sup>99</sup>, were considered attractive and popular open urban spaces, particularly through spring and summer. Therefore “*mesire*” had the characteristics of a “recreational public space” in which citizens could wander around, do leisure activities and enjoy spending time in nature. “*Mesires*” were also spaces where individuals addressed their need to hear from each other, watch each other and socialize.

---

<sup>99</sup> Türk Sözlük, "Türk Dil Kurumu|Sözlük", Sozluk.Gov.Tr, 2019, <https://sozluk.gov.tr/?kelime=MES%C4%B0RE>.

Cerasi designates to *çayırlıks* as *mesire*, asserting that “they represent the attempts to appropriate or re-appropriate a natural environment of the city, the materiality of a place with its meadows, ambiance, and panorama<sup>100</sup>”. From this aspect, it can be conferred that the same types of use patterns can be detected in many “public open spaces” which are meant for enjoying nature. Referring to Cerasi (1985), the specific character of Ottoman cities was formed by precise qualities derived from features like the informality of public open spaces in physical terms and the use of “cemeteries”, “*çayırlıks*”, and “*Bostans*”, in addition to “*meydans*”, for recreational purposes. All these typologies had some common characteristics in their formal and programmed essences; the overlapping of activities and composure and “holding a place as behavioral patterns” in public open spaces are to name a few.<sup>101</sup>

Even though urban ‘open public spaces’ had natural characteristics, they were maintained and received consistent care. There were groups responsible for the upkeep and care of these spaces. “*Bostancıs*” were originally responsible for the upkeep and maintaining *Bostans* in 16<sup>th</sup> century<sup>102</sup>, their task later extended to the keeping order and maintaining of *Mesire*’s. Later on, they were responsible for public order of all open spaces until the 1830s. This shows the importance and role of “*Bostan*” and “*Bostancı*” culture in Istanbul.

The way Ottomans used open spaces was disparate from how European did; as it was more inert and constituted multi-functional activities. It can be concluded that “urban open public spaces” were not specifically defined for a certain number of activities in Turkish cities. People occupied and appropriated the place according to their desired use and so on. The activities were more informal in character and the

---

<sup>100</sup> Maurice M. Cerasi, "Open Space, Water And Trees In Ottoman Urban Culture In The Xviiith - Xixth Centures", *Environmental Design-Journal Of Islamic Environmental Design Research Centre*,37.

<sup>101</sup> Ela Alanyalı Aral, "Peripheral Public Spaces. Types in Progress",122.

<sup>102</sup> Maurice M. Cerasi, *Osmanlı Kenti Osmanlı İmparatorluğu'nda 18. Ve 19. Yüzyıllarda Kent Uygarlığı Ve Mimarisi* ( Istanbul: YKY. Altan Yayıncılık, 1999),199.

public spaces which were specified for certain reasons accordingly were more formal.

## **4.2 Bostans**

Bostans are traditional urban gardens of Turkish cities. In the case of Istanbul, the number of bostans alongside their history and cultural importance, and the fact that some Bostans are still being cultivated makes them a case worth of study. Istanbul's Bostans are now among a few productive urban open spaces left in the city. It has to be mentioned that this thesis only seeks to classify the place of Bostans in Urban Agriculture literature and highlight their public space qualities to evaluate their potential contribution to public life- in case of successful preservation.

### **4.2.1 Definition, Size, Location, and products**

The traditional vegetable gardens and orchards named as "Bostan" were the characteristic structures of the urban landscape. Although Bostans were spread throughout the city, they were always gathered around reliable sources of water. According to K m rciyan's descriptions not only people used Bostans, but also Sultans obtained Bostans in the palaces for food production.<sup>103</sup>

As Kaldjian (2004) asserts, a typical "Bostan" produced 15-20 types of vegetables and had 5 or 6 harvests in a year; capable to feed several hundreds of people. Some Bostans also had fruit trees, chickens and cows for agriculture sideline products. It has been mentioned by Kaldjian that some *bostancıs* kept horses, for the manures and for the transportation of products to the *pazar meydani*. According to Kaldjian, "Bostan's" products were sold in the garden market (*Pazar meydani*) and in this

---

<sup>103</sup> Eremya elebi K m rciyan cited in, Bahar Bařer and Hayriye Eřbah Tunay, "Understanding The Spatial And Historical Characteristics Of Agricultural Landscapes In Istanbul", *A|Z IT * 7, no. 2 (2010): 106-120.



manner; agricultural production was an integrated part of the city.<sup>104</sup> Every neighborhood was famous for a specific type of its “Bostan’s” product.

Different kinds of these urban gardens existed in Istanbul such as Wall Bostans, Çukur Bostans, and Bostan. There are similar examples of “wall Bostans” around the world, as mentioned in the second chapter, cities kept agricultural lands inside the walls in case of a military blockade; In Tang-period Chang’an, as previously mentioned in chapter 3, and in Ancient Greek. Among the registered sites in the “World Heritage List (WHL)”, there is “Stari Grad Plain” in Croatia, which has been continuously cultivated since 2400 years ago.<sup>105</sup>

Besides, some Bostans existed in the valleys of Ankara, such as Bent deresi and Kazakiçi Bostanları which no longer exist; therefore they are not a subject of this evaluation.

Istanbul Bostan’s historic character is different from the current types of Urban Agriculture described in the third chapter. Yet, in our day Bostans’ character has changed and transformed; this will be explained in the following subchapters.

#### **4.2.2 History of Bostans**

There are numerous historical documents mentioning the existence and the importance of the *Bostans* in Byzantine and Ottoman periods.

Çorakbaş (2014) informs about early agricultural practices in the “Byzantine period” by referring to “Byzantine Monastic Foundation Document”;

“Though there is no direct testimony, it would appear that the monastery itself was supported by the income from a landed endowment[...]worked evidently, by free labor, since both agricultural and personal slaves are

---

<sup>104</sup> Paul J. Kaldjian, "Istanbul's Bostans: A Millennium of Market Gardens", *Geographical Review* 94, no. 3 (2004): 284

<sup>105</sup> UNESCO, “Stari Grad Plain”, accessed August 27th, 2019, <http://whc.unesco.org/en/list/1240>.

explicitly forbidden. Nothing is said about any manual labor engaged in by the monks, though we know from other sources that monks were engaged in agricultural labor at the ‘Studite monasteries’ outside Constantinople, though not at Studios itself.<sup>106</sup>”

As mentioned in the third chapter, p65, a similar agricultural activity by “Monks” was happening in Italy (L’Orto di Monaci) around the same periods.

Historically, “Theodosius Walls” was firstly designed in the 4<sup>th</sup>-5<sup>th</sup> century on the western edge of “Constantinople” to protect the city from attackers. Although the locations of the gardens in “Constantinople” aren’t exactly defined, it is confident that they existed both outside the walls and inside them during the “Byzantine Period”. They were also an integrated quality of socio-economic everyday life. Ricci (2008) describes the dimensions of the vegetable gardens, by referring to Koder,

“Bostans developed on the interior of the Land Walls for some 2 or 3 square kilometers with a range of 2 square kilometers on the exterior of the same, totaling an average of 13 square kilometers. The Land Walls, therefore, must have been surrounded by active and extended orchards and palaces` parks. It is worth reminding that when the city of Constantinople was taken over by the Latins in the Fourth Crusade of 1204, its population count must have been around 100.000 units. The orchards along the Land Walls must have in part fed the city’s population”<sup>107</sup>.

These “Theodosius walls” once formed a strong barrier to the city were remained mostly unharmed during the Ottoman Period and agricultural activities around the wall were encouraged by the emperor. In the proceeding time, in 1453, when

---

<sup>106</sup> Figen Kıvılcım Çorakbaşı, Asu Aksoy and Alessandra Ricci, "A Report Of Concern On The Conservation Issues Of The Istanbul Land Walls World Heritage Site", 39.

<sup>107</sup> Alessandra Ricci, “Intangible Cultural Heritage in Istanbul: the Case of the Land Wall’s Byzantine Orchards”, 3. Uluslararası Tarihi Yarımada Sempozyumu,( 2008), İstanbul, 66.

“Fatih Sultan Mehmet” conquered “Istanbul”, he created a settlement for a number of people in the neighborhood of “Yedikule” to engage in agricultural activity.<sup>108</sup>

According to Kaldjian(2004), in the 1900s, more than 1,200 vegetable (about 207 hectare) gardens were reported in a larger area on both sides of Bosphorus with 102 of them being located within the old city.<sup>109</sup> At the beginning of the Republican era (in the 1920s), the main areas of vegetable production were “Bakirköy, Yedikule and Langa” on the European side, and “Kartal, Maltepe and Kadiköy” on the Asian side.<sup>110</sup>

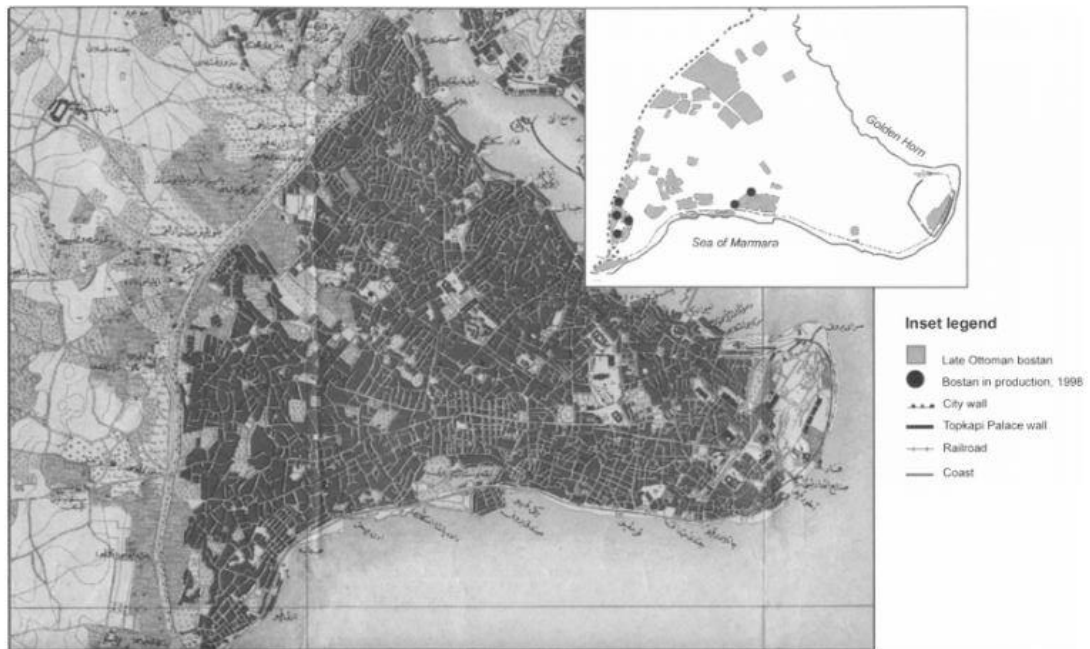


Figure 4-1 “Map of “Istanbul’s Market Gardens” (bostans) analyzed by Paul J. Kaldjian. Bostans in the Old city are shown in the upper right corner with gray and the ones still in use by 1998 are marked with a black dot. Source: Paul J. Kaldjian, “Istanbul's Bostans: A Millennium of Market Gardens”, 289).”

---

<sup>108</sup> See : Alessandra Ricci, “Intangible Cultural Heritage in Istanbul: the Case of the Land Wall’s ByzantineOrchards”

<sup>109</sup>Paul J. Kaldjian, "Urban Food Security And Contemporary Istanbul: Gardens, Bazaars And The Countryside" (PhD,The University of Arizona, 2000),248.

<sup>110</sup> Paul J. Kaldjian, "Istanbul's Bostans: A Millennium of Market Gardens"

A huge number of these “Bostans” have been lost since the capitalist transformation of agriculture took place, and today the few remaining urban agricultural areas such as, “Kuzguncuk” and some patches of “Yedikule Bostanlari” are under threat of extinction because of neoliberal policies.

In addition to “Wall Bostans”, after the 15<sup>th</sup> Century, some of the “open-air cisterns” of the “Byzantine” period, after losing their functions, were converted to “Bostan”; these “Bostans” were named as “Çukurbostanı”- sunken gardens. “Karagümruk Çukurbostanı (Aetius), Çarsamba Çukurbostanı (Aspar) and Altımermer Çukurbostanı (Mokios)” are the most prominent examples according to Çorakbaş (2014).

As reported by Maguire (2000), the agricultural use of “Karagümruk Çukurbostanı” was determined in the year 1940 by being transformed into a soccer field. Similarly, the others were destroyed in the 1980s, “Çarsamba Çukurbostanı” was replaced by a pavement intended for a market place and, “Altımermer Çukurbostanı” has been transformed into a social complex and urban park by “Fatih Municipality”.

Although the “Çukurbostans” constituted significant components of the urban vegetable garden and watering systems of the historic city, they were not evaluated as cultural heritage like Wall Bostans and they were destroyed and transformed into soccer fields, market places or parks between the 1940s and 1970s<sup>111</sup>. Likewise, “Bostans” between the “Marble Tower” and “Yedikule Castle” were removed in between 1966-1982.

With the process of industrialization and the massive population boom of the 1980s which was accompanied by political issues and land speculation policies, the existence of Bostans became truly endangered.

---

<sup>111</sup> Henry Maguire, "Gardens And Parks In Constantinople", *Dumbarton Oaks Papers* 54 (2000): 251, doi:10.2307/1291843.

It may be said that the “Bostans” around the “Land Walls” have been mostly endangered by the projects implemented after the 2000s, such as “Yedikule Konakları” Project, the “Yedikule Urban Park Project”, and “Sulukule Project”.

#### **4.2.3 Management and Motivation**

As asserted by Kaldjian (2000), in the Ottoman times, the ownership of the land belonged to the state (*padişah*). Some portions of land were regulated by religious foundations named “*vakıf*”. Generals (*paşa*) and some wealthy people also had lands with rights to cultivation, but not trade<sup>112</sup>. Accordingly, most bostans did not belong to the *bostancı*s. Their ownership was based on the life rent agreement as discussed by Kaldjian (2000).

Even after the privatization of land, the ownership of some patches still belongs to *vakıf*s or is in dispute. This situation actually prevented the demolition of a number of bostans, in which their land ownership was as described. Today some bostans (Theodesian Wall bostans) are sitting in a cultural heritage site. Some bostans have private owners (mostly Greek families) who keep *bostancı*s in their land and let them cultivate there; mostly by the intention of protecting the land from illegal constructions. Some other bostans belong to the state, or banks and holding companies; *bostancı*s pay rent for occupying the land.

#### **4.2.4 Public Characteristics and Potentialities of “Bostans”**

According to records, Bostans functioned as public open spaces and public strolling areas<sup>113</sup> in neighborhood scales. Yet the network of bostans was a public realm. They were gathering areas for people to socialize and talk about their

---

<sup>112</sup> Paul Kaldjian, "Urban Food Security And Contemporary Istanbul: Gardens, Bazaars And The Countryside" (PhD, The University of Arizona, 2000).

<sup>113</sup> Maurice M. Cerasi, "Open Space, Water And Trees In Ottoman Urban Culture In The Xviiiith - Xixth Centures"

common concerns. An interesting feature of bostans is that fences or walls were not usually installed to separate bostans or to protect them. Some of the bostans were naturally more enclosed, namely the “wall bostans”. As elaborated by Kaldjian (2000), even in more recent times, few bostans have installed fences to protect the space of the bostan from pollution or illegal construction rather than protecting the products. Therefore bostans are highly accessible and have a strong public character. Kaldjian (2000) by interviewing *bostancis* reported that local residents pass by bostans on a daily basis. He also asserts that besides a few numbers of times, the products of bostans were not damaged or stolen by the passerby's or thieves; people in need would sometimes come and ask for free food. This situation shows a rich culture of bostans which lives in the behavior of Istanbul citizen even until the day.

Bostans were at first city farms, in un-unified patches of land across the city. This categorization is based on their ownership by the state (emperor), the scale of trade, their mixed-use character, and animal keeping. Besides the type of cultivation of bostans is fairly similar to city farms which are cultivated by paid employees; the economy of *bostanci's* household was based on product sales. In other words, cultivating in those lands was their occupation. Big bostans were occupied by 2 or 3 families living in a neighborhood. Smaller bostans had fewer occupants. Throughout the years in Turkey, industrialization, mechanization, and improvements of agricultural technics, in addition to the increased pollution and the negative effects of artificial manures, have affected the agricultural productivity of bostans. The changes in the distribution network have caused a decrease in the transactions; therefore bostans are no longer a source of income for *bostancis* or the main producer of urban food.

After the Gezi incident in 2013<sup>114</sup>, as a reaction to the policies of the Municipality, people reclaimed these spaces and started to cultivate and gather in bostans,

---

<sup>114</sup> “A wave of demonstrations and civil unrest in Turkey began on 28 May 2013, initially to contest the urban development plan for Istanbul's Taksim Gezi Park. The protests were sparked by outrage

sometimes they illegally occupied the land. In addition to guerilla activities, Community Gardening in Istanbul has received a lot of attention in the past six years, after the Gezi, a number of interesting initiatives took place across the city: “Roma Bostani in Cihangir”, “Imrahor in Uskudar”, “Tarlataban at Bogazici University”, “Vefa Bostani near Istanbul Technical University”, “Fenerbahce Community Garden” , and “Moda Gezi Bostan”. There is also the bostans project (in its sixth year) organized by “Yeryüzü Derneği” which facilitates seed and seedling exchanges for people who are interested in growing vegetables either in bostans or their private gardens or balconies.<sup>115</sup> Kuzguncuk Bostani became a municipality managed hobby gardening site.

Even new bostans have been created in Ankara, “*Berkin Elvan bostanı*” and “*METU yalnızlık bostanı*”<sup>116</sup> are some examples. Because of the conditions that occurred in Bostans during the Gezi, bostans became associated with grassroots activities and became symbols of resistance; this created imageability and a psychological bound with these places. Communities and organizations started to care about Bostans and managed different activities there. People started to participate in cultivation activities. With introducing new uses such as hands-on learning, Traditional festivals, and art events to bostans, the mixed usage of the space vitalized these places. These actions can be categorized as “right to the land” or production of “lived space”<sup>117</sup>.

With these changes in the character, today bostans can be considered similar to community gardens; which as described in the third chapter also have a symbolic

---

at the violent eviction of a sit-in at the park protesting the plan. Three and a half million people (out of Turkey's population of 80 million) are estimated to have taken an active part in almost 5,000 demonstrations across Turkey connected with the original Gezi Park protest.” Source : [https://en.wikipedia.org/wiki/Gezi\\_Park\\_protests](https://en.wikipedia.org/wiki/Gezi_Park_protests)

<sup>115</sup> See <https://yeryuzudernegi.org/2019/03/21/kent-bahceleri-2019-basladi/>,

<sup>116</sup> Burcu Ateş, "A Spatial Impromptu: Green Resistance by Guerrilla Gardening" (Master of Architecture in Architecture, Middle East Technical University, 2015).

<sup>117</sup> See Elçin Turan, "Gardens Of Resistance Urban Agriculture in The Yedikule Market Gardens" (Master of Cultural Studies, Istanbul Bilgi University, 2015); Burcu Ateş, "A Spatial Impromptu: Green Resistance by Guerrilla Gardening" (Master of Architecture in Architecture, Middle East Technical University, 2015).

image of guerilla gardening activities and land reclamation by people. Besides, the ownership and occupation of bostans today, is similar to Community Gardens in the west.

In addition to the economic, environmental and social benefits of Bostans as Community Gardens, they carry traditional techniques and traditions of agriculture from centuries; therefore they reflect the cultural context and everyday life of the people who used to live in Bostans and the neighborhood surrounding them.

With Bostans, city-dwellers in Istanbul can have a place where they could re-establish their relationship with the soil and the food grown in it in both physical and emotional ways and create their “own space”. It has been observed that growing food is already part of a social movement, by encouraging environmental awareness and creating social relationships. By re-evaluating its assets, and strengthening the inherent qualities, “Bostans” can play a significant role in the enhancement of the quality of life of the Metropolitan dwellers.

### **4.3 Urban Agriculture and Public Open Space in Turkey in the Republican Era**

When the new era in the politics and life of Turkey began after the independence war and the announcement of the Republic in 1923, Mustafa Kemal Atatürk, the founder of the Turkish Republic, was determined to free the country from being reliant on the western countries; especially in terms of food importing.

Towards the end of the Ottoman reign, about 80% of people lived in rural areas and earned their living by agriculture. The numerous wars that Ottoman emperors were engaged in those years deprived people of the time and opportunity to develop knowledge of agriculture. Besides, the decrease in population costed vast amounts of fertile lands to stay uncultivated, so the Turkish economy was highly dependent on foreign countries. After the Independence War, Atatürk meant to build a modern nation and a self-sufficient Turkey. The process of industrialization in Turkey started in this period.



With the selection of Ankara as the new Capital of Turkey, the process of changes began. Atatürk believed that agriculture was the base of the Turkish economy. As most of the population consisted of peasants and rural inhabitants, he decided to establish a model farm to educate a new urban generation. In 1925 Atatürk established his “model farm” AOÇ<sup>118</sup>, with the aim of creating an innovative self-sufficient farm with efficient agricultural production, and a role model for other cities. It can be said that AOÇ was a model farm showing the power and ideologies of the newly established state.

In addition to educating the peasants and rural inhabitants to become modern citizens, his prominent aim was to educate the future generation. In this respect, he also established agriculture schools ‘Ziraat Mektebi<sup>119</sup>’; educating children and young people with modern scientific techniques and hands-on education method was a remarkable feature of his model farm.

In that period of time- after World War I-, some western countries such as Italy and America also were dealing with multiple crises of food shortage, besides experiencing reforms and changes in the economic system. After WWI, Mussolini's fascist national party rose in Italy. With his main focus being on self-sufficiency, Mussolini wanted to free the newly united Italy from the need for food import. There was a “land reclamation” movement back in the beginnings of the 19<sup>th</sup> century in Italy<sup>120</sup>. Leopoldo II proclaimed “Maremma’s” marshy lands in the Tuscany region. After draining and appropriating the land he started large agricultural activities which besides boosting the area’s economy, also helped to eliminate malaria and bandits from the area. A hundred years after, Mussolini passed the “land reclamation law” again and drained many marshy lands in different regions of Italy. He built large settlement areas with the aim of improving

---

<sup>118</sup> AOÇ is an abbreviation for Atatürk Orman Çiftliği, also known as Atatürk Forest Farm or Atatürk Experimental Farm.

<sup>119</sup> Attendees of ziraat mektebi had to participate in different processes of cultivation and farming for a year in order to graduate.

<sup>120</sup> Emilio Sereni, and R. Burr Litchfield. *History of the Italian Agricultural Landscape*. Princeton University Press, 1997, 349-353.

agriculture and building new towns. Agro Pontino (in Lazio, Southeast of Rome) was the largest and most successful of his projects. After the expropriations and physical enhancements, about 2000 families mostly War veterans and families from northern Italy's Veneto region (who are known as hardworking people) settled there and were given farming tools and animals. The Agro Pontino was very successful and still continues its activity, just like its model, Maremma. They are now highly desired living regions in Italy with continuous Urban Agriculture activity.

According to Tvennereim (2007), Mussolini's Agro Pontino was described as a symbol of fascism and an attempt to use agriculture to maintain socio-politic situations in order to resist industrial urbanism<sup>121</sup>. Therefore these new urban environments are control mechanisms to prevent the flow of migration towards the city by keeping people occupied and satisfied in the rural areas.

Meanwhile in America also transformations were happening described in the second chapter, p 48, Roosevelt was doing a similar thing.

Similar to Agro Pontino, AOÇ was built on unfertile lands. Using scientific fertilizing technics, large scale agriculture production was started on the land. The Idea of AOÇ might be similar to the actions taken in Italy or America, but what made it different and unique was that it was not solely a production place; it was a public open space offering recreational and educational opportunities. It was not also an attempt to stop the urbanizing of rural folks. In reverse as Turkey was not industrialized before this time, Ataturk meant to educate peasants and rural farmers to become urbanized.

---

<sup>121</sup> Helga Stave Tvinnereim, *Agro Pontino: Urbanism and Regional Development in Lazio Under Benito Mossolini*, (Oslo: Solum, 2007), 162.

Mustafa Kemal also established a number of state farms in Anatolia (Ankara, Mersin-Silifke and Tarsus, and Yalova) to support mechanized production in agriculture, which later they were unified under one organization<sup>122</sup>.

AOÇ is studied in the next subchapter as the first planned public open space of this size in modern Turkey in its first planned city. The aim of this thesis is not to define or discuss the problems of AOÇ but to identify its place in Urban Agriculture literature of the world and specify its potential contribution to public life; if proper actions are taken. Before evaluating AOÇ, it is necessary to continue the brief history of the situation of its time.

In brief, during the Early Republican Period, urban green areas served as representational spaces of the social-spatial reforms of the newly established nation-state. Moreover, modern examples of new Turkish planning and political systems in line with the objectives of the Republic were attempted to be created.

Even though Turkey did not participate in the Second World War, she suffered from economic and social repercussions. The unforeseen growth of the population in big cities caused problems in applying new development plans. In the years following the World War II, as a result of inefficiencies of the municipal services, urban green space policies were neglected by the central government due to land speculations, the increase in population density<sup>123</sup>, and the scale of constructions was dispersed to these areas.

During the 1970s, similar to the West, the chaotic political atmosphere affected the use of public spaces such as parks and open green spaces by the citizens and accordingly it changed policies of the state in accordance with the open green areas.

---

<sup>122</sup>Zeki Kamil Ülkenli, "Two Engaged Utopias Of Young Turkish Republic And Their Transformations; Ankara And Atatürk Experimental Farm", *Journal Of Ankara Studies* 5, no. 1 (2017): 27-72, doi:10.5505/jas.2017.91300, 27.

<sup>123</sup> Volkan Müftüoğlu, "Kentsel Açık Yeşil Alan Karar Ve Uygulamalarının İmar Mevzuatı Kapsamında Ankara Kenti Örneğinde İrdelenmesi"

Especially after the 1980s, most of the green areas and natural features of major cities such as Istanbul and Ankara were either transformed into urban parks or have been constructed; a situation which still continues today.

#### **4.3.1 AOÇ, History, Size, Location, and Products**

A brief history of the foundation and activities of the farm in the time period through 1925-1937 forms the basis of this evaluation. This is the time period in which the founder of the Farm, Mustafa Kemal Atatürk, directly managed it. Therefore it best reflects its initial goals and contributions. This is significant to highlight the powerful symbolism and image of the farm.

AOÇ was founded in 1925 by Atatürk on his privately owned lands which he purchased in the mid-1920s. The 2000 hectares land extended through the periphery of Ankara and was adjacent to “Balgat, Etimesgut, Cakırlar, Macun, Güvercinlik, Tahar, Yagmur Baba districts”<sup>124</sup>. The Farm expanded to 5200 hectares in the following years until 1937.<sup>125</sup> Atatürk specifically chose wastelands of Ankara for founding his farm. He commissioned scientists to start the process of fertilizing the soil. He was determined to show the possibility of success with hard work and knowledge.

The initial intention of the founding of AOÇ was to create a self-sustainable model of production for the Capital of the newly established Turkish Republic. AOÇ was an Urban Farm model, aimed to perform as a sustainable, innovative agricultural space using national resources, to educate peasants alongside urban dwellers and encourage a self-determined productive society and a modern social life.

---

<sup>124</sup> Atatürk Forest Farm, An Evaluation on 5524 Numbered Law and Conservation Development Plan, online. [http://www.mimarlarodasi\\_ankara.org/index.php?Did=2652](http://www.mimarlarodasi_ankara.org/index.php?Did=2652)

<sup>125</sup> Ayşe Duygu Kaçar, "Cultivating the Nation: Atatürk's Experimental Farm as an Agent of Social and Cultural Transformation" (Ph.D in Architecture, METU, 2010), 23.

Approximately 890 hectares of AOÇ lands were assigned to agricultural production. The citizens would meet their needs of crops and further products from animals such as milk, beer, cheese, butter, and yogurt for a cheap price.<sup>126</sup>

Furthermore, in various farmland of AOÇ, a number of gardens, vineyards, orchards, nursery gardens, and “Bostans” and even more water-based agricultural fields were developed by modern scientific applications.

It has to be mentioned that, Atatürk assigned Ernst Egli for designing and planning of the farm in 1934. Many of the buildings on the farm (the brewery, Marmara köşk, dwellings of workers, the dwelling of Ülkü Atatürk's adopted daughter, the public bath, and the 10<sup>th</sup> year school) are the works of Egli. He also proposed a general proposal plan for the farm. The significant point of his proposal in the scope of this thesis is his proposal for Halk bahçeleri.

Egli's design is known for its glorious vision and powerful symbolism for the Farm.<sup>127</sup> Studying his plan proposal is out of the scope of this thesis, but it is important to note that although his plans were not fully implemented they had a prominent role in shaping the public realm of the farm.

In 1936 Hermann Jansen who was in charge of designing Ankara's master plan was asked to create a development plan for the farm. The German architect was inspired by Ebenezer Howard's Garden City idea which was gaining attention in Europe in that time. Jansen implemented green strips and green belts alongside Allotment gardens.<sup>128</sup> in Ankara's master plan. He also used this idea for AOÇ. He

---

<sup>126</sup> Derya Yıldırım, "Design Problems Of AOÇ As A Public Property" (Master of Science in Urban Design, METU, 2004).

<sup>127</sup> For further information see: Leyla Alpagut, "Atatürk Orman Çiftliği'Nde Ernst Egli'Nin İzleri: Planlama, Bira Fabrikası, Konutlar Ve “Geleneksel” Bir Hamam", *METU Journal Of Faculty Of Architecture* 27, no. 2 (2010): 239-264, doi:10.4305/metu.jfa.2010.2.13.

<sup>128</sup> The most significant aspect of Jansen's 1928 plan from the perspective of this thesis is his open spaces proposal; “vineyards”, the “orchards” and the “vegetable gardens” surrounding the city were considered as parts of a greenbelt and “The allotment gardens area (Küçük Bahçeler Sahası)” for agricultural production. “Kazikiçi Vegetable Gardens (Kazikiçi Bostanlari)” are proposed as “allotment gardens” to keep the urban population engaged in agricultural activity and cultivation

proposed using green axes “*büyük yeşil mihver*” to link the farm to the green spaces of the city and also to regulate the pedestrian and vehicle traffic flow to the farm<sup>129</sup>. In addition these axes would preserve the silhouette of the farm. In his 1937 master plan for Ankara, a comprehensive connection between the farm and the city can be read.

---

(Ali Cengizkan, *Ankara'nın İlk Planı ; 1924-25 Lörcher Planı* (Ankara: Arkadaş Yayıncılık Ltd, 2004), 47.)

<sup>129</sup> Selin Çavdar Sert, "Tangible And Intangible Values Of Atatürk Forest Farm As A Heritage Of Ideas", *Journal Of Ankara Studies* 5, no. 2 (2017): 225-256, doi:10.5505/jas.2017.97269, 235.

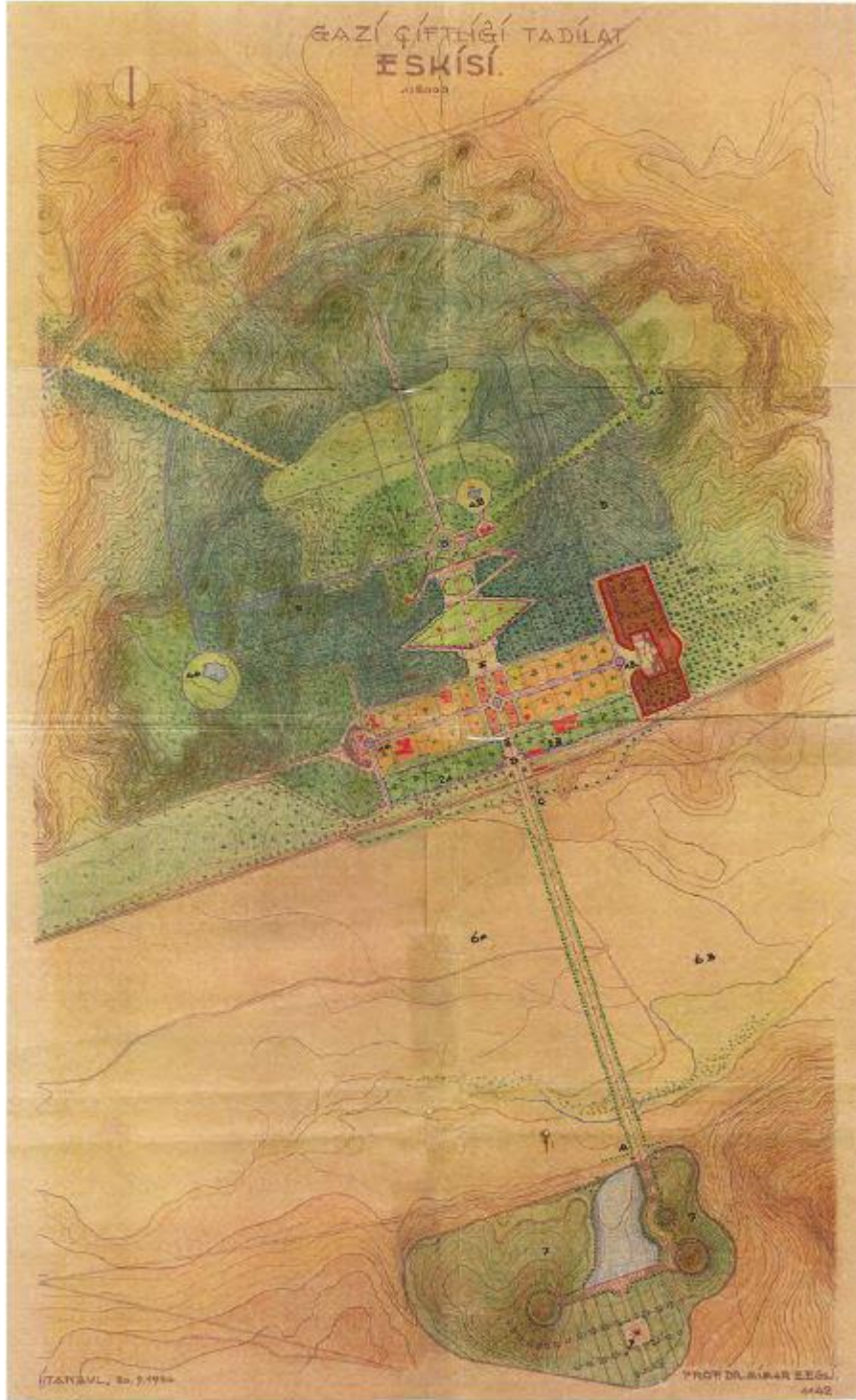


Figure 4-2 Plan proposal of Ernst Egli for Atatürk Orman Çiftliği. The highlighted region was proposed for Halk Bahçeleri, Source: Leyla Alpagut, "Atatürk Orman Çiftliği'nde Ernst Egli'nin İzleri: Planlama, Bira Fabrikası, Konutlar Ve "Geleneksel" Bir Hamam", METU Journal Of Faculty Of Architecture 27, no. 2 (2010): 239-264, doi:10.4305/metu.jfa.2010.2.13.highlight by the author.

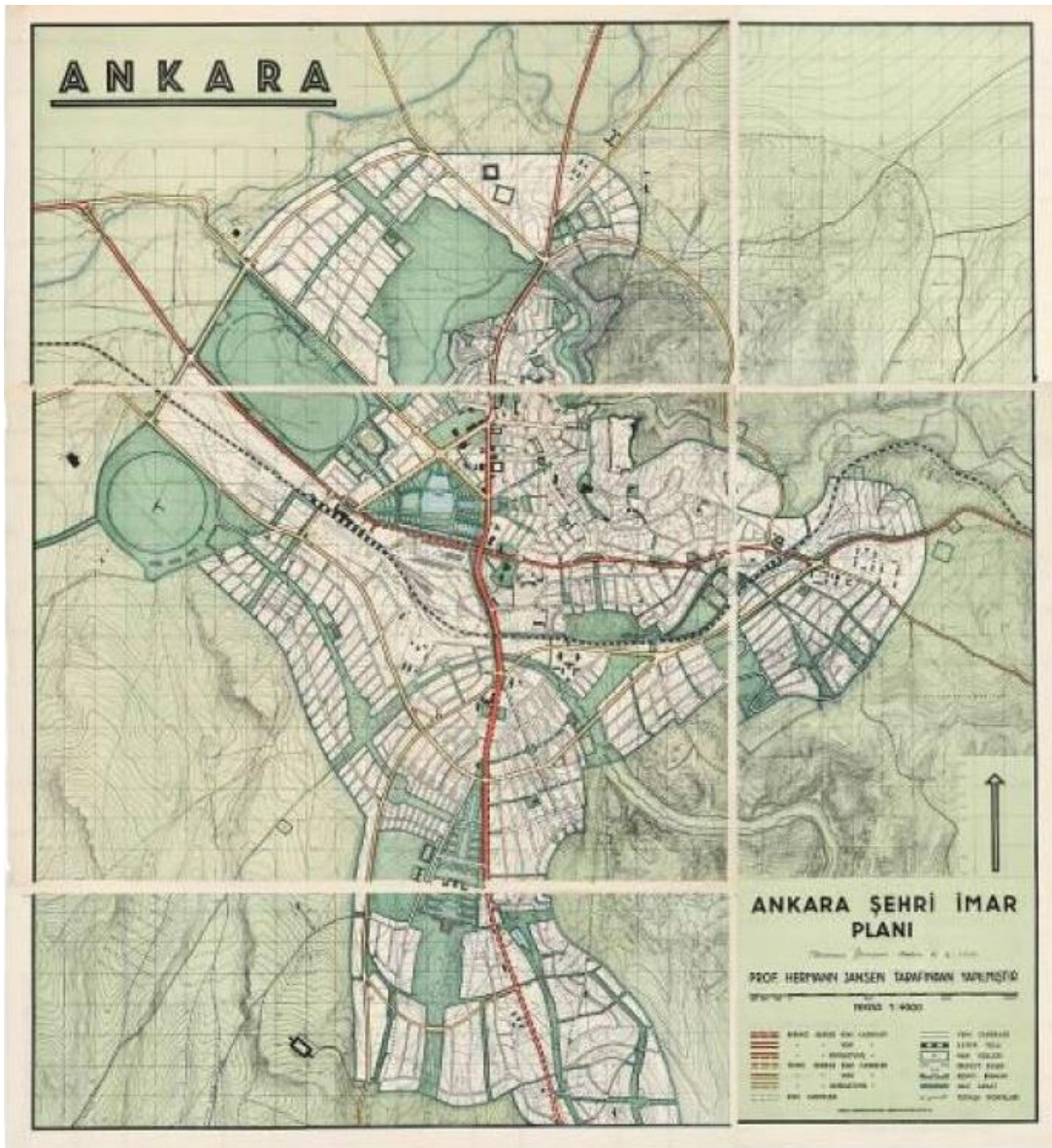


Figure 4-3 Herman Jansen's approved master plan for Ankara 1932. Source: Sinan Burat, "The Changing Morphology Of Urban Greenways" (PhD. in City and Regional Planning, METU, 2008),58.



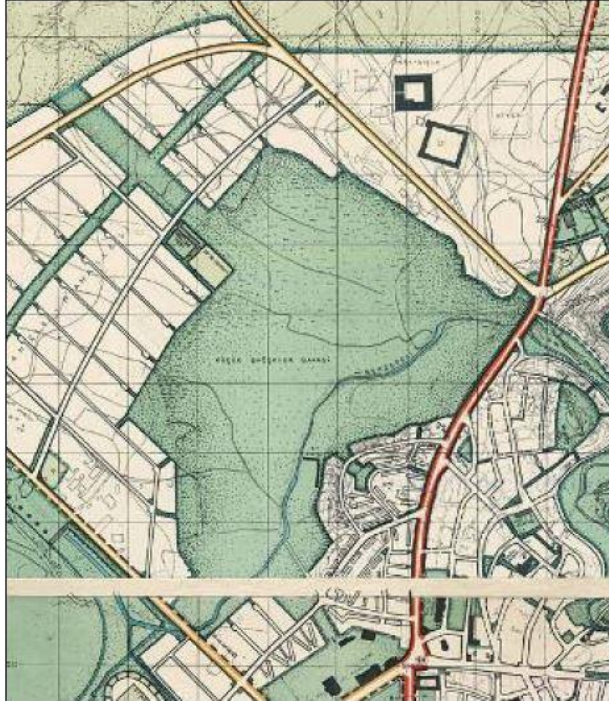


Figure 4-4 Hermann Jansen's allotment garden proposal. Source: cut out from fig.4-3

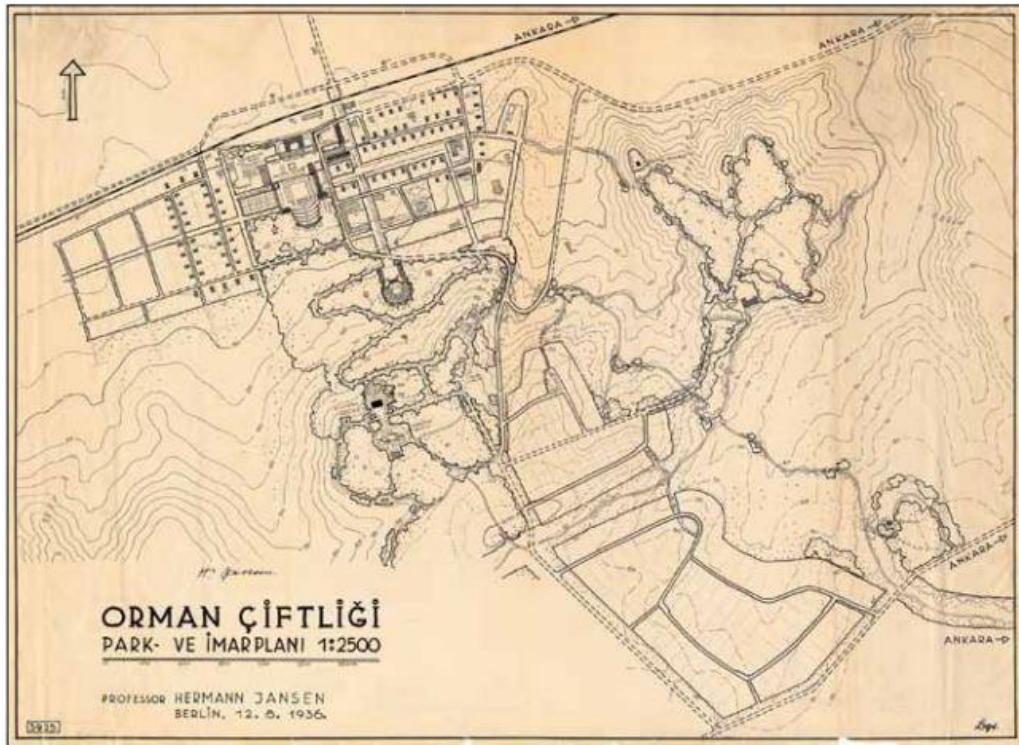


Figure 4-5 Hermann Jansen's development plan proposal for AOÇ in 1936. Source: Selin Çavdar Sert, "Tangible And Intangible Values Of Atatürk Forest Farm As A Heritage Of Ideas", 235.

AOÇ besides its numerous farmsteads obtained numerous social facilities and leisure times activities in addition to educational programs and schools. As it was mentioned, Educating people especially children was a prime concern of Atatürk.

The main objective of education provided in this “model Farmland” – mainly by agriculture engineers and alumni of “ziraat mektebi”- was to implement hands-on learning techniques. Many of the children habiting in this Farmland attended this school and had a chance to practice their learned agricultural techniques in AOÇ’s farmlands.<sup>130</sup>.

Besides agricultural functions of AOÇ, the Farmland was known for its leisure, sports and excursion areas. According to Kaçar (2010) these areas, with their “modern” and “natural” characteristics, in addition to being a place for inhabitants to taste the farm’s products, become intact with the production process, and establish a “dialogue with nature”; were aimed to implement modern ways of recreations; Beer Factory’s park, Farm restaurant, picnic, and “*mesire*” areas, AOÇ zoo and several other parks are examples of this.

AOÇ also included Marmara and Black sea pools. These pools, according to Çavdar (2017), were intended to create waterfronts for the citizens of Ankara with the primary aim of changing the standardized perception of public space and public life, especially for women. Atatürk wanted to break the gender inequality and the defined public appearances of women.

In fact, AOÇ was very active during the time of Atatürk, between 1925 and 1938. There was proper public transportation to the farm in order to ease the access of people. It that period, AOÇ was the most important recreational public open space in Ankara.

---

<sup>130</sup>Ayşe Duygu Kaçar, "Cultivating the Nation: Atatürk's Experimental Farm as an Agent of Social and Cultural Transformation", 25-28.

Unfortunately, these pools and open spaces functioned only until the 1960s. The process of leaving back some facilities especially recreational ones started after the passing of Atatürk.



Figure 4-6 Crowd of people using the Marmara pool. Selin Çavdar Sert, "Tangible And Intangible Values Of Atatürk Forest Farm As A Heritage Of Ideas", Journal Of Ankara Studies 5, no. 2 (2017): 225-256, doi:10.5505/jas.2017.97269

The recreational facilities of the Farm are now limited to “AOÇ Sığircik Tesisleri ve Göl”, “Söğütözü Mesiresi”, “AOÇ Müzesi”, “Atatürk Müze Evi”, “Devlet Mezarlığı Açık Hava Heykel Müzesi”, “Milli Botanik Parkı”, and some historical buildings in the central area<sup>131</sup>. Some other functions contrary to basic principles of AOÇ are; “Ankara Cement Factory, Cartridge Factory, Freight Train Station Stock and Atelier, Military areas, TMO Silo and Stocks, Housing and Transportation functions”<sup>132</sup>.

The division of AOÇ still continues today and the farm is highly endangered by division and privatization of ownership and construction undertaking. The

---

<sup>131</sup> <http://aocarastirmalari.arch.metu.edu.tr/>

<sup>132</sup> Derya Yıldırım, "Design Problems Of AOÇ As A Public Property",106.

Presidential Complex (2014) and Ankapark (2019) are two large projects built in recent years on large portions of AOÇ's land. At last, on the contrary to Atatürk's testament<sup>133</sup> AOÇ become a vacant land far away from the utilization of public. Recent news has been released about selling more portions of the Farmland.

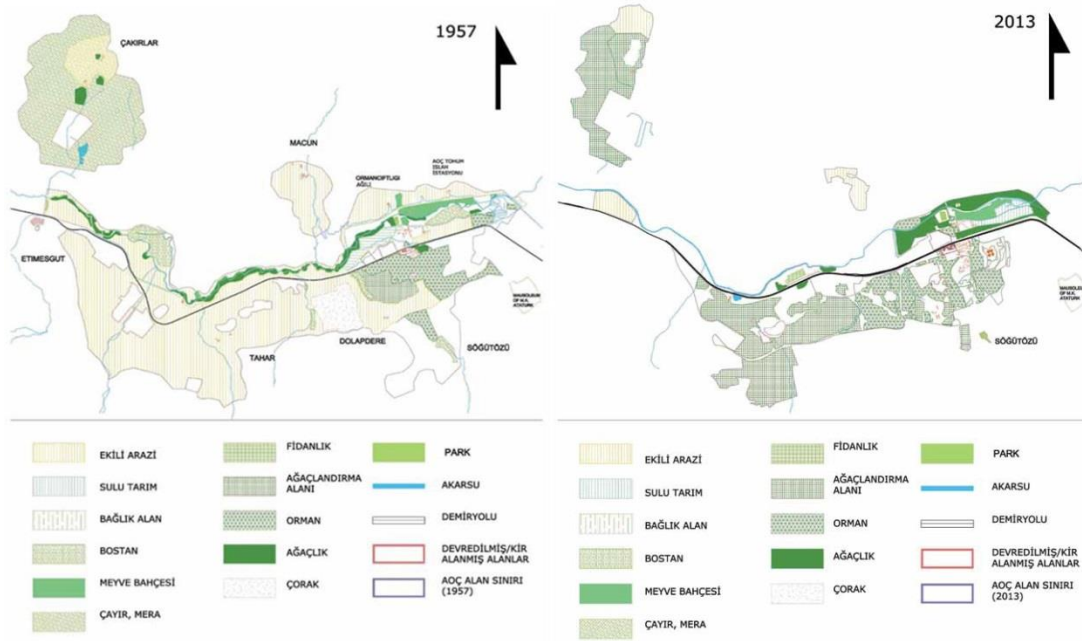


Figure 4-7 Land use pattern of AOÇ in 1957 and 2013. Source: Selin Çavdar Sert, "Tangible And Intangible Values Of Atatürk Forest Farm As A Heritage Of Ideas", *Journal Of Ankara Studies* 5, no. 2 (2017): 225-256, doi:10.5505/jas.2017.97269, 246-247.

### 4.3.2 Management

AOÇ was directly owned and managed by Atatürk until 1937. In his will, he donated the farm to the “Republic of Turkey Treasury”. In 1938, as AOÇ has reached its largest boundaries, the “Government Agricultural Management

<sup>133</sup> Selin Çavdar Sert, "Tangible And Intangible Values Of Atatürk Forest Farm As A Heritage Of Ideas", *Journal Of Ankara Studies* 5, no. 2 (2017): 225-256, doi:10.5505/jas.2017.97269.

Association” was established to manage the farm<sup>134</sup>. In the present time, the Ministry of Food, Agriculture, and Livestock (Gıda, Tarım ve Hayvancılık Bakanlığı) is in charge of the Farm.

### 4.3.3 Public Characteristics

AOÇ, in the time of its establishment, was located on the periphery of the city. In the course of time with the development of Ankara, AOÇ became an open space in the heart of the city. According to Ülkenli (2017), AOÇ and Ankara are substantially shaped together from the early years of the Republic; therefore the farm must be evaluated as an urban entity which affected Ankara’s macro-form. Any evaluation that overtakes AOÇ solely as a recreational space or an agricultural land would be incomplete. The farm was a “model production space” with national resources, which had a prominent role in the industrialization of Turkey and the civilization of the people especially the Ankara citizens. The transformation of everyday lives of the people in that time and AOÇ’s image in the memory of Ankara citizens shows that the farm was a successful example demonstrating the role of Urban Agricultural spaces in the enhancement of public life. AOÇ’s role in the socio-cultural “place-making” process was defined as a model of “lived space” and constitutes the collective memory of Ankara’s citizens. This point was emphasized in the 1999 Historic-Cultural Agreement of “ICOMOS”<sup>135</sup>.

Even though AOÇ has been subjected to fragmentations and lost large portions of its land, its socio-cultural status and identity have been depreciated, and its structural unity was corrupted, the Farm still has a great significance among the open space resources in the metropolitan city of Ankara, which highlights the greatest potential of utilization for urban agricultural purposes and for recreation.

---

<sup>134</sup> Eser Atak and Zafer Şahin, "Atatürk Orman Çiftliği'nin 79 Yılı Ve Çiftliğin Korunmasına Yönelik Politika Arayışları", *Planlama* 3 (2004): 80-88.

<sup>135</sup> Selin Çavdar Sert, "Tangible And Intangible Values Of Atatürk Forest Farm As A Heritage Of Ideas"

Its location in the city is suitable for creating an open public space that is accessible from multiple districts.

Many of the aforementioned characteristics and features of functioning successful City Farms in Chapter 3 are contingent in AOÇ's context.

The scale of agricultural products, educational and scientific research intentions which were the basis of the foundation of AOÇ are critical issues in analyzing and developing future suggestions and strategies; albeit with the initial aim of preserving its historical heritage and "nature". AOÇ was a multi-purpose and mixed-use farm. Examples in the previous chapter show that the initial concerns of its establishment are still valid, therefore the contributions of such place to the public life of the city are undeniable.

Even so, AOÇ with its great potentials lacked sufficient public access, therefore through the years, because of the fragmentations and irrelevant constructions; the farm has lost most of its remaining accessibility. Although in the time of presence of Atatürk, based on the photographs, people were somehow involved in agriculture production – especially the hands-on education of children-, a large scale active participation in cultivation was lacking. The farm was mostly used as a public open space by citizens. A few years after the passing of Atatürk, younger people became estranged to the agricultural activities of the farm. Although Ernst Egli in his proposed plan had suggested building Halk Bahçeleri for people to cultivate, as far as this research goes, no records of creating Halk Bahçeleri are found. In 2001 directory of AOC provided some Hobby gardens in unused lands of AOÇ. Citizens could rent these plots from the municipality at a reasonable price. In 2002 the project was shut down because of the number of temporary settlements built on the site by occupants the project had more than 1000 participants. They also featured cafes, book reading areas, TV watching rooms, volleyball courts, and

kid's playgrounds<sup>136</sup>. In 2004 the ministry re-opened these gardens to people. This time, probably due to the previous experience; the participation rate was lower, yet about 700 people rented plots. The project was again demolished in 2008 by Municipality of Ankara, to build an attraction area such as Hyde Park or Central Park.



Figure 4-8 Atatürk personally engaging in cultivation. Source: Selin Çavdar Sert, "Tangible And Intangible Values Of Atatürk Forest Farm As A Heritage Of Ideas", *Journal Of Ankara Studies* 5, no. 2 (2017): 225-256, doi:10.5505/jas.2017.97269

---

<sup>136</sup> Hürriyet, "Hobi Bahçeleri Tarih Oldu", 2008, <http://www.hurriyet.com.tr/hobi-bahceleri-tarih-oldu-8247516>.



Figure 4-9 introducing farming machines and involvement of people. Source: Selin Çavdar Sert, "Tangible And Intangible Values Of Atatürk Forest Farm As A Heritage Of Ideas", Journal Of Ankara Studies 5, no. 2 (2017): 225-256, doi:10.5505/jas.2017.97269

AOÇ was quite vital during its first years. Mix- use was a great factor. As it is seen, by eliminating uses over time the farm has lost its vitality. The discontinuity of agricultural activities also was an important factor in its demise. Yet the farm still has a great scale and a powerful image and still obtains the flexibility to adopt new functions.





Figure 4-10 people in AOÇ. Source: Selin Çavdar Sert, "Tangible And Intangible Values Of Atatürk Forest Farm As A Heritage Of Ideas", Journal Of Ankara Studies 5, no. 2 (2017): 225-256, doi:10.5505/jas.2017.97269

#### 4.4 Conclusion

Turkey was industrialized later than western countries. Therefore for many years it was dependent on traditional agriculture, both in urban areas and in rural areas. Even years after the industrialization, the economy was highly reliant on agriculture production.

There are numerous factors affecting Urban Agriculture especially bostans in Turkey; namely the monetary transaction volume in garden market policies and distribution challenges, which are not the concern of this thesis. This thesis talks about agricultural spaces in urban areas as public spaces. Most of the Turkish people desire to live in their summer houses '*yazlık*' or on peripheries of the cities to have their own gardens. They even rent "*çiftlik evi*"- farmhouse to go at the weekends and grow some vegetables or enjoy their gardens. This can be traced in their cultural heritage and their inner desire of living in a more natural area.

In spite of some planning approaches such as Jansen’s allotment gardens proposal for Ankara in the early Republican years and the halk bahçeleri proposal of Egli for AOC (both of which were not implemented), it seems like the use of public open spaces in that time, is mostly recreational with objectives of socializing and encouraging modern lifestyle until social unrest of the 1970s and Gezi incident in 2013.

In a number of developed countries, Urban Agriculture has received the attention of policymakers in recent years. Yet in developing countries because of the high financial yield of the built environment, finding suitable land for Urban Agriculture is an issue for urban gardeners who already existed in those cities or people who wish to engage in such activities. So, it becomes obvious that preserving the existing agricultural lands in cities is of paramount importance.

As it has been elaborated, the motivation and character of Urban Agriculture are different in each context. Table 3 represents a comparison between Turkish traditional Urban Agriculture practice and western types.

Table 3 Evaluating Urban Agriculture in developed countries and in Turkey. Drawn by the author.

Urban Agriculture	In the World	Turkey
Purpose/Motivation	Environmental concerns, Social platform, Healthy cheap food, income, rehabilitation	Food security, social platforms in recent years
Participants	Voluntary, Land owner, Entrepreneurs	Migrants from rural areas, individual
Scale/Location	variable/urban farms, community and allotment gardens, House gardens	Small/allotment gardens, house gardens, Bostan
Products and Marketing	Vegetable, Fruit, Animals, Ornamental plants/ sale and own consumption	Vegetable, Fruit, Small livestock/ Mostly own Consumption, Sale
Management and Support	Local administrations, public institutions, Schools, Voluntary Organizations, governmental support	Some Local administrations, Public Institutions, Voluntary Architects, planners, social workers
Challenges	Finding Suitable land, High density	Finding Suitable land, High density, Security of tenure, Lack of public awareness and governmental support

Table 4 Comparison of AOÇ and Bostan in the past and present. Drawn by the author.

TODAY	Category	Purpose/Motivation	Access to Public	Features	History	Products	Range of influence/ Size/Form	Location and access	Continuity	Ownership	Management	Contributions to the Public
Bostan	Community Garden	Reconnect Metropolitan dwellers with nature, reviving collective memory.To Supply organic cheap Food for Neighborhoods, Hobby, leisure, Social Gathering	Open (Access Hours Depend on Community Rules)	Cultivation Areas	since 5th century	Vegetable, Fruit	Neighborhood scale/not defined /patches of land in Different Neighborhoods	In core zones of Istanbul.	Temporary, due to Ownership issues	Individual, State , Institutions	Organizations or Communities, Groups of Voluntary Individuals	Improved Sense of Neighborhood, Educational Activities, Public Events such as marul bayrami, Socializing, Public Platform for Communities
Atatürk Orman Çiftliği	City Farm	Reconnect Metropolitan dwellers with nature, reviving collective memory.To Supply Food for the city,Education, Social Gathering, Sports and Recreation	Strolling and Park areas are open to the public. Museums and other parts access is restricted. Other areas are not accessible	Factory, Meuseum, Cultivation Areas, Recreational and Resting Areas, Market Place Areas	Form 1925	Juice and paste, dairy and animal products, honey, ornamental plants	Not active/about 30h/ semi-United Patches of Land	in the core-zone of Ankara	Can be permanent	Ministry of Food, Agriculture and Livestock	Paid Employees	Educational Public Events, Strolling, Picnic, Socializing

\* purpose and motivation of taking action

\*\* in case of proper action

IN The Beginning	Category	Purpose/Motivation	Access to Public	Features	History	Products	Range of influence/ Size/Form	Location and access	Continuity	Ownership	Management	Contributions to the Public
Bostan	City Farm	Food Production	Open (Access Hours Depend on Community Rules)	Cultivation Areas, Bostan dolabi,Water mills	since 5th century	Vegetable, Fruit, yoghurt	City scale/ Estimatedly 207 h/Patches of Land in Different Neighborhoods	In periphery and core zones of Istanbul	permanent	State, Associations, Charity	Organizations or Communities, Groups of Voluntary Individuals	cheap fresh food, Strolling
Atatürk Orman Çiftliği	City Farm	efficient agriculture, industrialization of Turkey, Modernizing social activities,Education, modernization of life style, improving everyday life	Open (Access Hours Depend on Rules)	Zoo, Factory,School, Pool, Pavilion,Open and Undercover Cultivation Areas, Accommodation, Recreational and Resting Areas, Educational Activity Areas, Sports and Social Club Facilities, Market Place Areas	Form 1925	Vegetable, Fruit, Ornamental Plants, Dairy, Seeds, Animal products	City scale/55,38 h in 1938/ United Patches of Land	on the periphery of Ankara	permanent	Individual - Atatürk (1925-1937)	Atatürk (1925-1937) with Paid Employees, alumni of Agriculture school	educating people especially children, hands-on education,shaping the interaction between the individuals and society, modern leisure activities, cheap fresh food, picnic areas



## **CHAPTER 5**

### **CONCLUSION**

The starting point of this study was the vital role of Urban Agriculture for the future of cities. As it was mentioned in the introduction, contemporary cities lack sufficient public space and are facing many social and economic problems. In addition, the environmental situation is alarming. People have become estranged from nature and from each other. They don't have enough places to interact, parks and open green areas lack the function of bringing people together for a mutual purpose- which enriches the public interaction and thus the public life.

A managed and efficiently programmed Urban Agriculture practice program may address all these situations; according to socio-cultural and economic values of its setting. This does not mean that Urban Agriculture can solve all these problems; nor does it mean that cities with more Urban Agriculture spaces are not facing such conditions. Urban Agriculture is an effective contributor to cope with these crises in smaller scales. Starting with the neighborhoods and spreading to the city.

In the past century Urban Agricultural places have become more public and attracted more people. Their character as public spaces has developed alongside social situations. Environmental concerns are also an effective factor in the rising number of Urban Agriculture spaces. This thesis was conducted to study Urban Agriculture spaces as public spaces and evaluate the effective factors in their success and identify their contributions to the public.

The study was accomplished through a multi-dimensional analysis by referring to a number of theoretical discussions to define the framework of evaluating the practice. With the information gathered from the in-depth breakdown of significant

examples of Urban Agriculture, the general characteristics of these spaces are derived.

Throughout the survey on the historical relation of cities with food, it has been observed that urban agriculture has experienced major changing points; World War I, World War II, the economic crisis of the 1920s and 1970s and the critical environmental issues increasing towards the beginning of the 2000s.

By studying the revolution of Urban Agricultural spaces in cities, it is observed that although the primary function and goal of most of them are providing cheap, accessible and healthy food, these spaces' range of function and influence has reached beyond the sole matter of food. In many cultures and countries, integration of these spaces into cities has been increased – legally or illegally - and they have become spaces for people to express themselves, to socialize and to react to a certain socio-economic or ecological situation and a refuge from the busy city life.

Aside from ecological and environmental aspects, which have been already emphasized, the characteristics and motivations although different for each context regarding cultural background, socio-economic situation, and political issues, all can be gathered under the same claim, “the right to the city”; as stated by Harvey,

“The right to the city is far more than the individual liberty to access urban resources: it is a right to change ourselves by changing the city. It is, moreover, a common rather than an individual right since this transformation inevitably depends upon the exercise of a collective power to reshape the processes of urbanization. The freedom to make and remake our cities and ourselves is, I want to argue, one of the most precious yet most neglected of our human rights.<sup>137</sup>”

Urban Agriculture is a “right to the land”, a social right to a place, and a chance to reconnect to ‘nature’; a mutual quality of a society to enhance their living

---

<sup>137</sup> David Harvey, "The Right To The City", *New Left Review* no. 53 (2008): 23-40, p 23-24.

condition, a way of reducing urban poverty, a way of achieving a healthy living environment, a chance to improve their physical well-being, a chance for people with deficiencies or marginalized people (people who have been excluded from the society for any reason; gender, color, addiction, abuse, crime, etc.) to regain their derelict status in the society, and over and above, a powerful place-making activity that creates successful public spaces.

Urban agriculture today in the west is a way of combining civic and social programs with the reclamation and enhancement of derelict urban spaces. The relation of food production to socio-economic situations and cultural values is not negotiable; neither in the West nor in Turkey.

The characteristics of each type of Urban Agriculture practices have been classified -in the framework of Activity, Form, and Image (Montgomery, 1998)- by size, location accessibility, management style, physical and natural features, range of products, motivations behind the practice, public facilities, and provided activities. All, with the aim of defining their qualities as public spaces to evaluate their contribution to public life. (table 2)

As mentioned, Urban Agriculture activities have cultural roots. Overall, in the case of Turkey, with its rich agrarian culture, and with respect to the main objectives of the founder of the Turkish Republic, Atatürk, the existing Urban Agricultural areas in two important cities (socially, economically and politically) of Ankara and Istanbul, were studied. The main Urban Agricultural spaces of Istanbul, “Bostans” with their historical value and the urban farm of “AOÇ” with its ideological and spatial value are cases worth preserving as their contributions as open public spaces to the quality of public life cannot be undermined.

Unlike western cases described in the second chapter, cultivating public open spaces such as parks did not happen in Turkey until the Gezi incident. In more developed and crowded cities such as Ankara or Istanbul, possession of public lands for agriculture only happened as a protest in times of social unrest. This seems to be results of two conditions; the agriculture-based economy and because

many people, especially in coastal regions, always practiced agriculture in their backyards or near their summer houses.

After the Gezi incident, the character of Bostans changed. People discovered a new form of Publicness. Many Bostans such as “Berkin Elvan Bostani”, “Odtu yalincik Bostani”, and many others have been created, or the existing ones in Istanbul such as “yedikule” and “kuzguncuk bostani” have been activated. People reclaimed their rights to the land and to the city. The author believes that with proper access, activity, and management, accompanied by the enthusiasm, eagerness and the sense of belonging and connection, which has surfaced recently, Bostans and AOÇ can again become productive public spaces in the urban fabric.

### **5.1 Suggestions for Improving the Condition of Bostans and AOÇ**

As it has been elaborated, both of these areas have been sacrificed for economic welfare regardless of their significance and critical role for a sustainable (environmentally, economically) city. Bostans in the past few years obtained the role of being a public space for people to protest the decisions of the state. But, AOÇ, losing its functions and large portions of land, has been one of the biggest concerns of many professionals and scholars since 1980. The role and benefits which these two spaces provide as productive public spaces for the cities—environmentally and economically- is no different from the other examples of the world.

Furthermore it has to be asserted that, Urban Agriculture, not only enhances the quality of public space, but also as a spatial practice, preserves the natural features of the city. In most cases with more historic background, it has been seen that these spaces protected rivers, water sources and other natural features of their surrounding from demise or demolishment. In case of Turkey’s examples, Bostans helped to protect some water mills, wells, and had a significant role in preservation of the Theodesian walls. AOÇ was effective in protecting “Ankara Çayı”.



The significance of these two spaces can be mentioned as below;

Table 5 Significant qualities of Bostans and Atatürk Orman Çiftliği based on principles of place-making. Drawn by the author.

		Bostan	Atatürk Orman Çiftliği
scale		local	City
significance	activity	Being the Gethering point of many diverse ethnic and cultural groups(cultural transaction)	Covering a wide variety of activities (mixed-use)
	Image	Being part of the collective memory of the city and a cultural heritage  The rich culture of Bostan and Bostancı	The ideological and initial foundation intentions  A model of lived space  Being part of the collective memory of the city and a cultural heritage
	Form	Being one of the few lands in Istanbul left in their natural characteristics  A sustainable environment mediator  A self-sustaining agriculture system	A hands-on education opportunity for the future generation  A productive public space in the city  Great potential for feeding the city  Possible City lung

In theory, the government has realized the importance of integrating Urban Agriculture to the city. Some proposed projects have been introduced. But in practice, none have been applied. And the destruction continues, regardless of the resistance and law orders.

In the municipal elections in 2019, the biggest promise of the dominant party's candidates was building Millet Bahçeleri in Ankara and Istanbul<sup>138</sup>; besides

---

<sup>138</sup> "Daha Yeşil Ankara İçin 13 Millet Bahçesi İle 13 Milyon m<sup>2</sup> Yeşil Alan | Mehmet Özhasseki - Resmi Web Sitesi",

improvements in the economy and rates of employment. These Millet Bahçeleri are described to have features like picnic areas, educational events, botanic gardens, winter gardens, seed produce, plant exhibition gardens (bitki serge bahçeleri), zoo, sports facilities, recreational areas, and etc..<sup>139</sup>. The functions and features that already existed in AOÇ. Although this accomplishes the mixed-use criteria of successful public space, a simple analysis shows that these projects (which probably won't be built as the party's candidate in Ankara and Istanbul lost the election) are not providing a space of contribution for the public-in case of Urban Agriculture. They are only for a daily basis of use- *günübirlik*. What will bring people back to observe bitki sergi bahçesi, if one is not involved in the cultivation or growth process?

In fact, most of the governments have initiated such projects in the history (i.e. Agro Pontino in Italy, Tennessee Valley in USA, and AOÇ in Turkey) to establish control over different situations (social, economic, urban density, etc.); but most importantly by using public spaces in order to share their legitimated determination with the people as a public phenomenon, they have attempted to represent their power and social ideology. In reality, not all of these projects become successful. As it is interpreted from studies in this thesis, the most important factor in the success of such spaces is proper public access and integration of the public in the process of cultivation and production.

The examples of similar practices to AOÇ around the world show that they have been very successful and are still being actively cultivated by people. Agro Pontino and Maremma are now “agri-turism” attractions especially in Italy.

Approaching these areas needs a multi-disciplinary and multi-dimensional approach. Many individuals and professionals have been giving attention and

---

<sup>139</sup> Mehmetozhaseki.com.tr, 2019, <https://mehmetozhaseki.com.tr/daha-yesil-ankara-icin-13-millet-bahcesi-ile-13-milyon-m%C2%B2-yesil-alan/>. "İstanbul Millet Bahçeleriyle Kuşatılacak! - 30-05-2018", Emlakkulisi.Com, 2019, <https://emlakkulisi.com/istanbul-millet-bahceleriyle-kusatilacak/572405>.

trying to raise public awareness about these two national assets. The author believes that the most crucial point and the first step towards preserving and regaining these spaces to the cities, is raising public awareness- most importantly for the young generation and also for the professionals in the fields of architecture, urban design, and urban planning.

As it is obvious, this study does not aim to generate solutions for a specific case, nor does it criticize any of them. It rather has aimed to signify a general qualification of different Urban Agriculture practice types as public spaces and to emphasize each type's role in enhancing public space and public life. In the end, by looking more closely at the potentials of existing Urban Agriculture lands in the city, a general suggestion can be made for the revitalizing of these lands.

In the case of AOÇ, functionalizing at least some areas of the Farmland can be the starting point. What is meant here by functionalizing is of course implementation of agricultural activities. The younger generation is foreign with the concept and the function of AOÇ. They are also alienated from the food they eat and the process in which food is produced. Relying on the information attained from studying foreign examples of Urban Agriculture in chapter 3, it seems logical to suggest that involving the schools with cultivation in AOÇ, and providing productive education to the youngsters can gradually result in the involvement of more people. Involving universities, especially the field related to agriculture, is of great importance. Students can experience unique hands-on learning techniques. This process has been proved beneficial in several cases. But what is the most important, is to consider the farm in the urban scale and in the scope of a master plan; providing proper and efficient public access and integrating the farm with the existing urban fabric will raise the rate of participation and may guarantee its success.

In the case of 'Bostans' which some of them are still being cultivated, a number of practical reactions have been conducted. Similar to the solution suggested for AOÇ, creating programs with schools and universities can play a beneficial role.

The base of success in all of these actions is undeniably an effective management and a powerful organization accompanied by an interdisciplinary approach. It has been understood from analyzing worldwide examples that those Urban Agricultural spaces managed by communities and organizations – within a legal framework though- have been more successful in maintaining their existence and their contributions.

Further action for revitalizing AOC and regaining the farmland to the city is to expand the size of productive function and restore the main recreational and educational opportunities which lie in the core of its founding ideology.

For Bostans, besides preserving their current function, this step can be taken by creating new Bostans- not in their traditional meaning, but rather spaces with the model of community gardens, which will enable the involvement of more actors.

How and where to find suitable lands for such establishment is a discussion out of scope of this thesis; but with advances in science and technology and with the great example of AOC –which was constructed on un-fertile use-less lands and appropriated using scientific techniques to become cultivable- and also by the addition of new concept of “vertical garden”, accomplishing this point might be only a matter of motivation and supply of required expertise and management.

## **5.2 Further Studies**

Future studies for these two historical Urban Agriculture spaces can be about functions that can be implemented in these areas with focus on Turkey’s culture and heritage of Agriculture. Also studies must determine the inefficiencies of present public spaces in Turkey and how the citizens use and relate themselves to these spaces. Implementing qualities which are more compatible with the culture and present situation of the society and are also in line with their demands from public spaces, will improve the contribution of these spaces to the city and to the future.

## REFERENCES

- Aktuna, Bahar, and Carla Brisotto. "Agripoetic Resistance In Urban Architecture And Planning In The European World". In *The Urban Book Series*, 1st ed. , Springer International Publishing AG, part of Springer Nature, 2016.
- Alanyalı Aral, Ela. "Peripheral Public Spaces: Types in Progress". In *Public Istanbul : Spaces And Spheres Of The Urban*, 119. Frank Eckardt and Kathrin Wildner. , Wetzlar: Transaction Publishers, 2008.
- Arendt, Hanna. *The Human Condition*. , Chicago: Univesity of Chicago Press, 1969.
- Aristotle, *Politics vol.1* 1253a, 350 BC. Whole book available in : <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0058%3Abook%3D1%3Asection%3D1253a>
- Aslanoğlu Evyapan, Gönül. "The Intrinsic Values Of The Traditional Anatolian Turkish Garden". In *Environmental Design: Journal Of The Islamic Environmental Design Research Centre 2*, Edited By Attilo Petruccioli, 1986, 10-15. <https://archnet.org/publications/4355>.
- Aslanoğlu Evyapan, Gönül. *Tarih İçinde Formel Bahçenin Gelisimi Ve Türk Bahçesinde Etkileri*. , Ankara: METU Fac. of Architecture Press, yayın no 21, 1999.
- Aslanoğlu Evyapan, Gönül. *Old Turkish Gardens*. , Ankara: METU Fac. of Architecture Press, 1999.
- Atak, Eser and Şahin, Zafer, "Atatürk Orman Çiftliği'Nin 79 Yılı Ve Çiftliğin Korunmasına Yönelik Politika Arayışları", *Planlama* 3 (2004): 80-88.

- Ateş, Burcu. " A Spatial Impromptu: Green Resistance by Guerrilla Gardening ".  
Master of Architecture in Architecture, Middle East Technical University,  
2015.
- Bassett, Thomas. "Reaping On The Margins: A Century Of Community Gardening  
In America". *Journal Of Landscape* 25, no. 2 (1981).
- Başer, Bahar and Eşbah Tunçay, Hayriye, "Understanding The Spatial And  
Historical Characteristics Of Agricultural Landscapes In Istanbul", *A/Z  
İTÜ* 7, no. 2 (2010): 106-120.
- Beatley, Timothy. *Green Urbanism.* , Washington DC: Island Press, 2000.
- Borden, Iain. *The Unknown City.* , Cambridge, Mass.: MIT Press, 2002.
- Burat, Sinan. "The Changing Morphology of Urban Greenways". Ph.D in City and  
Regional Planning, , METU, 2008.
- Burchardt, Tania, Julian Le Grand, and David Piachaud. *Degrees Of Exclusion:  
Developing A Dynamic, Multi-Dimensional Measure.* , Oxford University  
Press, 2002.
- Cansever, Turgut. *İslâm'da Şehir Ve Mimari.* , Topkapı, İstanbul: İz Yayıncılık,  
1996.
- Carr, Stephen, Mark Francis, Leanne G. Rivlin, and Andrew M. Stone. *Public  
Space.* , London: SAGE Publications, 1992.
- Cerasi, Maurice M. "Open Space, Water And Trees In Ottoman Urban Culture In  
The Xviiiith - Xixth Centures". *Environmental Design-Journal Of Islamic  
Environmental Design Research Centre,* no. 2 (1985): 37.  
[http://www.archnet.org/library/documents/one-document.jsp?document\\_id=4857](http://www.archnet.org/library/documents/one-document.jsp?document_id=4857).

- Cerasi, Maurice M. *Osmanlı Kenti Osmanlı İmparatorluğu'Nda 18. Ve 19. Yüzyıllarda Kent Uygarlığı Ve Mimarisi.* , Istanbul: YKY. Altan Yayıncılık, 1999.
- Cengizkan, Ali. *Ankara'nın İlk Planı ; 1924-25 Lörcher Planı.* , Ankara: Arkadaş Yayıncılık Ltd, 2004.
- Conway, Hazel. *People's Parks.* , Cambridge [England]: Cambridge University Press, 1991.
- Cranz, Galen. *The Politics Of Park Design.* , Cambridge (Mass.): MIT Press, 1989.
- Cranz, Galen. *Changing Roles Of Urban Parks.* , Berkeley: Institute of Urban & Regional Development, University of California, Berkeley, 1978.
- Çavdar Sert,Selin, "Tangible And Intangible Values Of Atatürk Forest Farm As A Heritage Of Ideas", *Journal Of Ankara Studies* 5, no. 2 (2017): 225-256, doi:10.5505/jas.2017.97269.
- Çorakbaş, Figen Kıvılcım, Aksoy,Asu and Ricci, Alessandra, "A Report Of Concern On The Conservation Issues Of The Istanbul Land Walls World Heritage Site", United Nations Educational, Scientific And Cultural Organization (UNESCO) World Heritage Centre (Istanbul: Istanbul Site Management Directorate, 2014).
- Despommier, Dickson. "the vertical farm: controlled environment agriculture carried out in tall buildings would create greater food safety and security for large urban populations". *Journal Für Verbraucherschutz Und Lebensmittelsicherheit* 6, no. 2 (2010): 233-236. doi:10.1007/s00003-010-0654-3.
- Erbaş Gürler, Ebru. "Westernized Oriental Turkish Landscape: The Gardens Of Istanbul". In 7. ULUSLARARASI TÜRK KÜLTÜRÜ Kongresi Bildiriler IV Isransı'oa SANAT: Mimari, EL SANATI, RESİM, Müzik. , Ankara:

- Atatürk Kültür Merkezi, 2011.  
[https://www.researchgate.net/profile/Ebru\\_Erbas\\_Guerler/publication/316644948\\_Westernized\\_Oriental\\_Turkish\\_Landscape\\_The\\_Gardens\\_of\\_Istanbul/links/59099cf7aca272f658fc4469/Westernized-Oriental-Turkish-Landscape-The-Gardens-of-Istanbul.pdf](https://www.researchgate.net/profile/Ebru_Erbas_Guerler/publication/316644948_Westernized_Oriental_Turkish_Landscape_The_Gardens_of_Istanbul/links/59099cf7aca272f658fc4469/Westernized-Oriental-Turkish-Landscape-The-Gardens-of-Istanbul.pdf).
- Faroqhi, Suraiya. "Urban Development in Ottoman Anatolia ( 16.-17. Centuries)". *M.E.T.U. Journal Of The Faculty Of Architecture* 7, no. 1 (1981): 35-51.
- Geddes, Patrick. *Cities In Evolution.* , London: Routledge/Thoemmes Press, 1998.
- Hamadeh, Shirine. *The City's Pleasures.* , Seattle: University of Washington Press, 2008.
- Hanna, Autumn K., and Pikai Oh. "Rethinking Urban Poverty: A Look At Community Gardens". *Bulletin Of Science, Technology & Society* 20, no. 3 (2000): 207-216. doi:10.1177/027046760002000308.
- Habermas, Jürgen., *The Structural Transformation Of The Public Sphere* ,Hoboken: Wiley, 1962.
- Harvey, David. "The Right To The City". *New Left Review* no. 53 (2008): 23-40,p 23-24.
- Hynes, H. Patricia. *A Patch Of Eden - America'S Inner-City Gardeners.* , Vermont: Chelsea Green Publishing Company, 1996.
- Jacobs, Jane. *The Death And Life Of Great American Cities.* Reprint, New York: Vintage books, 1996.
- Kaçar, Ayşe Duygu. "Cultivating The Nation: Atatürk's Experimental Farm as an Agent of Social and Cultural Transformation". Ph.D in Architecture , METU, 2010.



- Kaldjian, Paul. "Istanbul's Bostans: A Millennium of Market Gardens". *Geographical Review* 94, no. 3 (2004): 284-304. doi:10.1111/j.1931-0846.2004.tb00174.x.
- Kaldjian, Paul. "Urban Food Security And Contemporary Istanbul: Gardens, Bazaars And The Countryside". Ph.D. , University of Arizona, 2000.
- Kassman, Kenn. *Envisioning Ecotopia.* , Westport, Conn: Praeger, 1997.
- Le Corbusier. *The City Of Tomorrow And Its Planning.* , Dover Publications, 2013.
- Kerr, Derek. "The Time Of Trial By Space? Critical Reflections On Henri Lefebvre'S Epoch Of Space". *Common Sense* 15 (1994).
- Kohn, Margaret. "The Mauling Of Public Space". *Dissent* 48, no. 2 (2001).
- Lefebvre, henry. *Production Of Space.* oxford: blackwell, 1991.
- Marx, Karl, and Friedrich Engels. *Capital: A Critic Of Political Economy (Vol.2).* , London: Electric Book Co., 1976.
- Maguire, Henry, "Gardens And Parks In Constantinople", *Dumbarton Oaks Papers* 54 (2000): 251, doi:10.2307/1291843.
- Malkoç Yiğit, E., and H. Sönmez Türel. "İlkçağlardan Günümüze Anadolu'Da Açık Mekanın Evrimi". *Journal Of Tekirdag Agricultural Faculty* 3, no. 2 (2006): 187-194.
- Mares, Teresa M., and Devon G. Peña. "Urban Agriculture In The Making Of Insurgent Spaces In Los Angeles And Seattle". In *Insurgent Public Space: Guerrilla Urbanism And The Remaking Of Contemporary Cities*, 241. Jeffrey Hou. , London: Routledge, 2010.

- Matos, Rute Susa, and Desidério Sales Batista. "Urban Agriculture: The Allotment Gardens As Structures Of Urban Sustainability". In *Advances In Landscape Architecture*, 28. Murat Özyavuz. , IntechOpen, 2013.
- Merrifield, Andy. "Flexible Marxism An The Metropolis". In *A Companion To The City*, 130-133, 2nd ed. , Oxford: Blackwell Publisher Ltd., 2003.
- Mitchell, Don. "The End of Public Space? People's Park, Definitions of the Public, and Democracy." *Annals of the Association of American Geographers* 85, no. 1 (1995): 108-33. <http://www.jstor.org/stable/2564281>
- Montgomery, John. "Making A City: Urbanity, Vitality And Urban Design". *Journal Of Urban Design* 3, no. 1 (1998): 93-116. doi:10.1080/13574809808724418
- Mugeot, Luc J. A. *Urban Agriculture: Definition, Presence, Potentials And Risks.* , Ottawa: International Development Research Centre (IDRC), 2000.
- Mumford, Lewis. "The Natural History Of Urbanization". In *Man's Role In Changing The Face Of Earth*, 382-401. Lewis Mumford, Carl O. Sauer, Marston Bates and William L. Thomas. , Chicago: Published for the Wenner-Gren Foundation for Anthropological Research and the National Science Foundation by University of Chicago Press., 1970.
- Müftüoğlu, Volkan. "Kentsel Açık Yeşil Alan Karar Ve Uygulamalarının İmar Mevzuatı Kapsamında Ankara Kenti Örneğinde İrdelenmesi". Master of Science in Landscape Architecture, , ANKARA University, 2008.
- Orsini, Francesco, Marielle Dubbeling, Henk de Zeeuw, and Giorgio Gianquinto. *Rooftop Urban Agriculture*. Reprint, Springer International PU, 2017.
- RAWOO Netherlands Development Assistance Research Council. "Coping With Globalization The Need For Research Concerning The Local Response To

- Globalization In Developing Countries". , Netherlands: (RAWOO), The Hague, 2000.
- Rosol, Marit. "Politics Of Urban Gardening". In *The Routledge Handbook On Spaces Of Urban Politics*, 134. K. Ward, A. E. G. Jonas, B. Miller and D. Wilson. , Routledge, 2018.
- Rosol, Marit, "Community Gardening in Berlin and New York: A new Eco-social Movement" In *Second Nature Urban Agriculture, Designing Productive Cities*, 252. André Viljoen and Katrin Bohn. , London: Routledge, 2019.
- Ricci, Alessandra, "Intangible Cultural Heritage in Istanbul: the Case of the Land Wall's Byzantine Orchards", 3. *Uluslararası Tarihi Yarımada Sempozyumu*,( 2008), Istanbul, 66-67.
- Ruin Academy research (2010) in co-operation with the National Taiwan University Department of Sociology. <https://blog.p2pfoundation.net/the-community-gardens-of-taipei/2010/12/04>
- Saldivar-Tanaka, Laura, and Marianne E. Krasny. "Culturing Community Development, Neighborhood Open Space, And Civic Agriculture: The Case Of Latino Community Gardens In New York City". *Agriculture And Human Values* 21, no. 4 (2004): 399-412. doi:10.1023/b:ahum.0000047207.57128.a5.
- Setha M Low, Dana Taplin and Suzanne Scheld, *Rethinking Urban Parks* (repr., Austin, Tex.: University of Texas Press, 2005).
- Sennett, Richard. *The Fall Of Public Man.* , London: PENGUIN BOOKS, 1977.
- Smit, Jac, Annu Ratta, and Joe Nasr. *Urban Agriculture: Food, Jobs And Sustainable Cities*. Reprint, New York: United Nations Development Programme (UNDP), 1996.

- Stanley, Benjamin W., Barbara L. Stark, Katrina L. Johnston, and Michael E. Smith. "Urban Open Spaces In Historical Perspective: A Transdisciplinary Typology And Analysis". *Urban Geography* 33, no. 8 (2012): 1089-1117. doi:10.2747/0272-3638.33.8.1089.
- Sözlük, Türk. "Türk Dil Kurumu | Sözlük". Sozluk.Gov.Tr, 2019. <https://sozluk.gov.tr/?kelime=MES%C4%B0RE>.
- Tanyeli, Uğur. *Anadolu-Türk Kentinde Fiziksel Yapının Evrim Süreci (11.-15. Yy.)*. , İstanbul: İ.T.Ü. Mimarlık Fakültesi, 1987.
- Tornaghi, Chiara. "Public Space, Urban Agriculture And The Grassroots Creation Of New Commons: Lessons And Challenges For Policy Makers". In *Sustainable Food Planning: Evolving Theory And Practice*, 349-363. André Viljoen and Johannes .S.C Wiskerke. Reprint, The Netherlands: Wageningen Academic Publishers, 2012.
- Tracey, David. *Guerrilla Gardening*. , Gabriola Island, BC: New Society Publishers, 2007.
- Tvinnereim, Helga Stave. *Agro Pontino*. , Oslo: Solum, 2007.
- UNESCO, "Stari Grad Plain", accessed August 27th, 2019, <http://whc.unesco.org/en/list/1240>.
- United Nations. "World Urbanization Prospects: The 2018 Revision". , Department of Economic and Social Affairs, Population Division, 2018. <https://population.un.org/wup/Publications/>. Last accessed: 6/6/2019
- Ülkenli, Zeki Kamil. "Two Engaged Utopias Of Young Turkish Republic And Their Transformations; Ankara And Atatürk Experimental Farm". *Journal Of Ankara Studies* 5, no. 1 (2017): 27-72. doi:10.5505/jas.2017.91300.

- Van den Berg, Leo, and René van Veenhuizen. "Editorial- Multiple Functions Of Urban Agriculture". *UA Magazine* 15, no. (2005).
- Viljoen, André, Katrin Bohn, and Joe Howe. *Continuous Productive Urban Landscapes*. , London: Routledge, Taylor & Francis, 2016.
- Viljoen, André, and Katrin Bohn. "Urban Agriculture on the Map". In *Second Nature Urban Agriculture, Designing Productive Cities*, 252. André Viljoen and Katrin Bohn. , London: Routledge, 2019.
- Viljoen, André, and Katrin Bohn. "Utilitarian Dreams: Productive Life in Cities". In *Second Nature Urban Agriculture, Designing Productive Cities*, 252. André Viljoen and Katrin Bohn. , London: Routledge, 2019
- Wallace, Henry A. "Thomas Jefferson's Farm Book: A Review Essay." *Agricultural History* 28, no. 4 (1954): 133-38. <http://www.jstor.org/stable/3740507>.
- Warner, Sam Bass, and Hansi Durlach. *To Dwell Is To Garden*. , Boston: Northeastern University Press, 1987.
- Wright, Frank Lloyd. *The Living City*. New York: New American Library, 1958.
- Wright, Frank Lloyd. *Broadacre City, A New Community Plan (ed From Architectural Record)*. , New York, NY: SN, 1935.
- Yıldırım, Derya. "Design Problems Of AOÇ As A Public Property". Master of Science in Urban Design, , METU, 2004.
- "World's Largest Urban Farm To Open – On A Paris Rooftop". The Guardian, 2019. <https://www.theguardian.com/cities/2019/aug/13/worlds-largest-urban-farm-to-open-on-a-paris-rooftop>.<https://www.etimolojiturkce.com/kelime/meydan>

"İstanbul Millet Bahçeleriyle Kuşatılacak! - 30-05-2018". Emlakkulisi.Com, 2019.  
<https://emlakkulisi.com/istanbul-millet-bahceleriyle-kusatilacak/572405>.

Hürriyet. "Hobi Bahçeleri Tarih Oldu", 2008. <http://www.hurriyet.com.tr/hobi-bahceleri-tarih-oldu-8247516>.

"Daha Yeşil Ankara İçin 13 Millet Bahçesi İle 13 Milyon M<sup>2</sup> Yeşil Alan | Mehmet Özhasaki - Resmi Web Sitesi". Mehmetozhasaki.Com.Tr, 2019.  
<https://mehmetozhasaki.com.tr/daha-yesil-ankara-icin-13-millet-bahcesi-ile-13-milyon-m%C2%B2-yesil-alan/>.

Heeley And Meersbrook Allotments Protection Society, 2019.  
<http://heeleyandmeersbrookallotment.simplesite.com/>.

"Allotments". Sheffield.Gov.Uk, 2019. <https://www.sheffield.gov.uk/home/parks-sport-recreation/allotments>.

<http://aocarastirmalari.arch.metu.edu.tr/>

<https://agsci.psu.edu/research/areas/advanced-agricultural-and-food-systems> , last accessed on 1/7/2019

<https://www.sheffield.gov.uk/home/parks-sport-recreation/allotments>

<http://heeleyandmeersbrookallotment.simplesite.com/421177135>

<https://languages.oup.com/oed>

<https://www.thehighline.org/blog/2016/06/17/families-on-the-high-line-learning-from-nature/>