HOLDING THE PROCESS ACCOUNTABLE: AN EXPLORATION OF NEW HOUSING DEVELOPMENTS AND PLACE IN CUKURCAYIR, TURKEY

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HOLDING THE PROCESS ACCOUNTABLE:
AN EXPLORATION OF NEW HOUSING DEVELOPMENTS AND PLACE IN ÇUKURÇAYIR, TURKEY

A Thesis
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
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Master of Landscape Architecture

by
Beyza Şen
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Accepted by:
Dr. Matthew Neal Powers, Committee Chair
Dr. Clifford Ellis
Mr. Daniel Ford
ABSTRACT

Housing environments are the places where its residents spend most of their time in. In Turkey, housing types that have been built in the past have over time. Especially during the past decade, due to the concentration of people in the city centers and the nations goals on housing developments have resulted in dense and tall apartment buildings to be built in newly developing cities. This study exemplifies the current planning practices and its effects on housing environments and place. The reasons why this study is focusing on the housing environments are: housing environments represent the culture and society, people spend most of their time and raise future generations in housing environments, the major issue that addresses the need for quality design and participatory development for healthy and sustainable communities, and the need for change in physical planning process.

In this study, three theories and issues has been discussed, that are physical planning in Çukurçayır, Sense of Place, and Community. The theoretical framework then follows a participatory design process where resident’s opinions on quality of housing environment engaged in this study to develop a dialogue between the actors that take place in place making process and provide a quality design solution that reflects resident’s values and culture. The results of this study will help to show the need for quality design, design guidelines, collaborative and participatory planning and place making process for long-lasting communities. Finally, it draws attention to the need for a change in the overall planning process.
DEDICATION

For my grandparents: Ömer, Asiye, Gülsen, Fatma and Yaşar.
ACKNOWLEDGMENTS

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CHAPTER I
INTRODUCTION

Man's most consistent and on the whole, his successful attempt to remake the world he lives in more after his heart's desire. But, if the city is the world which man created, it is the world in which he is henceforth condemned to live. Thus, indirectly, and without any clear sense of nature of his task, in making the city man has remade himself (Park, 1967, p. 3).

The world is rapidly changing, and we live in an era where the standards of human rights have moved to the center stage both administratively and morally. A great deal of energy is expended in promoting their significance for the construction of a better world (Harvey, 2008). This research questions the impact of rapid urbanization on the community in Çukurçayır, Turkey. In addition, the research addresses the kinds of housing environments people desire based on societal ties, relationship to nature, lifestyles, and aesthetic principles that people desire.

Background

According to Harvey “From their beginning, cities have emerged through geographical and social concentrations of a surplus product” (Harvey, 2008). Therefore, urbanization has always been a class phenomenon since the surpluses are extracted from somewhere and someone while the control is in few hands (Kostof, 1991). This rule still applies to governances of cities today, which are still in a few hands both politically and spatially. Since urbanization depends on mobilization of a surplus product, an intimate connection emerges between the development of capitalism and urbanization (Harvey, 2008). This close connection between capitalism and urbanization makes the planning process more critical for the better future of the cities.
Today, in developing countries, governments have a tendency to base a country’s economies on capitalism (Şengül, 2009). As Harvey states, in capitalist economies surplus products of tomorrow have to be produced today in order to keep the economy rising (Harvey, 2008). Housing is one of the industries that keep the economy rising. Turkey has been under rapid housing development since 1995 (Ersoy, 2007). Existing housing stock in the city centers are no longer desirable by the middle class due to their aging conditions, perceived loss of amenities, and rising land values.

City administrations are seeking opportunities to bring more development into their boundaries in order to increase economic activity and generate political power by registering more people to their communities. Çukurçayıır is a great example of the rapid pace of urbanization. After the City of Sultanbeyli, Istanbul, Çukurçayıır has the greatest urbanization rate in Turkey (Turkish Statistical Institute, 2011). The reason behind the fast pace of urbanization is the urban planning process in Turkey and the rights that the Turkish Government has given to the municipalities. As a result, municipalities take advantage of this power and maximize the development capacities within their boundaries and use planning as a tool to reach their political and financial goals.
Theoretically, planning is the regulatory tool of the land. Planners and city administrators work with developers, the public, and third parties. The goal of planning should be collaboration between all the actors during the urban development process (Verhage, 2002). In Turkey, besides the capitalist economy, the central planning system plays a big role in the governance of cities. Planning is a hierarchical system from top (central government) to bottom (local governments); which allows the top to control the bottom (Şengül, 2009). It is expected that each plan include necessary information and detailed data based on its scale and context in order to provide a foundation for the next plan (Ersoy, 2007). In case of a conflict, the system can intervene and fix the problems, which results in a fully working system (Şengül, 2009). The flow of the system is based on the principle of overlaying plans. Physical plans, (land use and application plans) are a result of strategic plans, which are at the national and regional level. In order to make the planning mechanism work, all the government instruments that are shaping cities should have a clear understanding of their roles, and collaborate with their neighbor and surrounding authorities (Grand National Assembly of Turkey, 2005).

Turkey is a country with 81 city-states and 2,103 municipalities (Turkish Statistical Institute, 2011). Municipalities and other institutions are the government’s representatives in the city-states. In order to make the system work, these institutions should work in collaboration with each other. For instance, the neighbor municipalities should be revising each other’s land use and master plans in order to generate holistic solutions for the city. However, in reality, due to lack of rules and well-defined duties, each institute works individually. Thus, the system does not function coherently and it limps.

Municipalities have the most power among other institutions such as the Urban Special Administration Office that is located within the city-state limits. Any settlement whose population has risen to 5,000 will become a municipality within a 5,000-meter radius (Grand
In 2005, a new law (law numb: 5393) was passed that required cities to generate their land use and application plans (Grand National Assembly of Turkey, 2005). As a result of this law, new municipalities are now allowed to develop on greenfields, whereas before the vacant land was under control of the Urban Special Administration Office, which works directly with central government and urbanization process was limited.

The new law allows all land to be open to development in order to create more modern urban settings, infrastructures, housing, commercial centers, parks, etc. This creates another critical land management and development issue that municipalities should be aware of. In the new municipal boundaries, most of the new housing developments are occurring in the greenfields and planning authorities are responsive to new developments in order to bring money to the city. Bringing money to the cities is vital for a city to function (Şengül, 2009), but city administrators should be critical when they are allowing for new development for a better future. However, due to the unilateral approach of municipalities, there is a disconnection between the planning process and the end product.

**Problem Statement**

The results of the current urban planning process and development in Trabzon, Turkey will be the focus of this study. Investigation seeks to uncover if the current processes are contributing to the death of place, society, and loss of history. The hope is to find a common ground where people have a voice about their future environments by developing a “place vocabulary.” The study evaluates the interaction between the land allocation and housing development as a product of planning process, and exemplifies how land can be managed and developed in more sustainable and economic and culturally sensible way.
According to Harvey (2008), “The answer is simple enough in principle: greater democratic control over the production and utilization of the surplus in general “ (37). In capitalist economies, housing is considered a commodity and produces houses as any type of goods and services with a very high pace and quantity. Therefore, development challenges solely with properties and goals of the municipalities overlook the need for essential place-making community elements.

If the current trends of building houses remain the same, urban settings are going to become places where there are no qualified outdoor spaces, connections with nature, and places where social interaction can take place. There will also be no identity and overall quality (Şengül, 2009). Eventually within 10-15 years these types of developments lose their market values and there is no demand for them. If the authorities revisit the planning system, the system may function as an entity. Then the land use and application plans can be developed with the collaboration of public, academics, and third parties in addition to today’s dominant actors (Ersoy, 2007).

Figure 1.2: A view of current housing developments in Trabzon, Turkey
Source: Beyza Şen
Significance of Study

Significance of this study is ranging from the physical planning practices to the elimination of “place” for people. By showing different development cases and the results from the participant surveys, the missing elements of current housing developments will be represented. The findings will highlight the need for design guidelines that ensure a sense of place in mass developments. It will represent a critical approach to show the need for change in the planning system and provide guidelines for better community environments.

Research Questions

Some of the questions this research is aiming to answer are:

1) How do current planning practices encourage or discourage place and public open space in new housing developments in Çukurçayır, Turkey?
2) How do residents of Çukurçayır perceive the quality of their current housing environments?
3) What social and cultural cost do the residents pay when a lack of space and place are included in a housing development?
4) How can new design guidelines help shape spaces that will improve public space and place?
5) How the cultural values and community identity and democracy contribute to regeneration of sense of place?

Conclusion

The stakeholders, developers and politicians heavily affect man’s creation of today’s modern Turkey (Şengül, 2009). The intent of this thesis is to find alternatives to generate better futures for the city’s housing environments with the current economic circumstances by
using the current housing environments. Interviews with professionals, planners and city administrators analyzed with residents profile and feedback are the instruments to shape quality of environments. This study provides both local governments and developers an opportunity to better understand why society and housing environments are important and provide design guidelines to accomplish this goal. Finally, based on the literature and research, a retrofitting plan for a selected site will be applied. Next chapter embodies the theoretical framework shapes this study’s.
CHAPTER II
LITERATURE REVIEW

Introduction

This study examines the way cities are formed and created in the past 10 years with a particular focus on mid-size housing developments. Place making has studied as a result of physical planning practices in this study. Therefore, in the first part of this chapter, it starts with global economies and extends into physical planning, which is known as the tools for shaping places. It is a common fact that cities are governed by political power and the land is their canvas to represent their power. The land can contain various land uses one of which is the housing environments and sense of the place in the developments. Thus, this study is focusing on the new housing developments in Çukurçayır and these issues will frame the literature review in this chapter.

Chapter Organization

This chapter will analyze the current urban planning theory and physical planning process in Turkey. Capitalist planning will be discussed in order to provide a better understanding of how current economic status and trends reflect to urban space by political power. Additionally, as local governments have an important role shaping future cities, the current legislative laws and city rights will be discussed. Finally, current housing developments and the requirements for quality housing environments will be examined as the context relate to Çukurçayır.
Figure 2.1: Theoretical framework
**Physical Planning**

Developing countries such as Turkey practice Capitalism as the central model of their nation’s economies. This economy was introduced to Turkey in the 1950's and is still practiced today. After the elections in 2002, the current government, Justice and Development Party (JD), followed a more engaging process with the middle class, where the left parties used to cast out during their period in the past. By doing that, JD Party also acknowledged the fact that those local governments are very important to attain and sustain political power. Therefore, according to 2011 election results, the JD Party was elected for the second time with an election rate of 49,95 % in the national elections in 2011 (Haberler Seçim, 2011). This means almost the JD Party represents half of the municipalities.

The JD Party has been following Capitalist economy in order to keep up the economy. Local governments are comprised of elected officials of the JD party. Sengul, a widely recognized political scientist and professor at the Middle East Technical University, states that the local governments, proponent of major party, are eager to support urbanization of the capital (Şengül, 2009).

The principles of capitalist planning supports the capitalist economies and land is considered as a commodity (Harvey, 2008). Local governments adopted capitalist planning from central governments (Şengül, 2009). Settlements became municipalities during AKP’s existence (2002-present) are more engaged in the process of capitalist urbanization (Ersoy, 2007). Since the unstable elements of the economy and absence of long-term planning has caused developers to build as quickly as possible and then leave the market. The research project by Komurlu and Gurgun ‘Evaluation of House Buyers’ Preference Criteria in Istanbul from the Perspective of Construction Companies (1999), which is to be presented in the first Project Production and Management Congress in METU, Ankara, Turkey, surveyed data from 10 major construction companies in Istanbul in order to identify the trends in the housing sector. This research shows
that each construction company has a competitive advantage and prefers to use this to maximize its profit (Turkey Real Estate Year Book, 2012). According to Gans, “Producers of goods and services probably have more power than consumers who are actually paying for those amenities in all societies because they play a central role in a communist economy and because they have the incentives and resources to put pressure on government in a capitalist economy” (Saunders 1986, 295).

While this is happening a few questions emerge: How is the land being managed under this economic pressure? How is the physical planning system working under these circumstances? John Friedman states ‘that planning is too important to be left entirely to experts, the participants realize after taking part in the planning process’ (Hester, 1974, p. 50). To answer these questions, one must take a look at the planning process and the critical stages that planning in Turkey has gone through in the last twenty years.

Local governments play critical roles in the democracies. Theoretically, local governments are the representatives of the central government and they are the providers of the services and institutions who focus on the common good of the people and cities. In the 9th national development plan states, there is the need for better, more sustainable housing environments in Turkey (TMBB, 2006). When current housing trends in the new municipal areas are observed, the results show that the developments haven’t been following the physical plan rules.

**Physical Planning In Turkey**

Physical planning paradigms that are highly recognized worldwide were formed based on public realm. Because of his reason, those paradigms are dependable both economical resources and societal provision to the society where they developed. (Tekeli 2006)
As Tekeli (2006), one of few national Turkish sociologists, states that physical plans should be developed based on the public realm grounded on the society that it will inhabit in the environments created. Physical planning is the fundamental tool to express the culture, philosophy, society, and creator of the place. Baykan Günay says, “planning is the process of both abstract and concrete thoughts related to place, it is a process of acquiring the desired places through circles, arrows, triangles that define the density, use, numbers of the place” (Baykan, 2005). Planning in Turkey was established as a profession after 1950 as a result of big waves of immigration to the cities. Unmanageable activities brought the need for physical planning as it happened in late 19th century in other parts of the world. The disorganization of authorities and plans still has a negative impact on the overall image of the cities.

**Physical Plans In Turkey**

Local governments have a great influence on the urban environment. Relationships develop as cities interact with their hinterlands and with the wider global economy. Most modern cities’ governments are trying to attract the attention by of developers in Turkey. There are many cases where cities have strategic plans to bring more people in to generate economic and social activity. In doing so, many cities take sustainability actions and hire firms to develop future plans. For instance, Municipality of Almere, Netherlands, hired William McDonough to generate a strategic plan report for the city of Almere, which then shaped the physical plan.

The general concept behind planning process at the local level should be providing better quality environment and livability to the places for the wellness of the citizens. Physical plans are necessary for the sustainable development of cities. Land use and application plans are ideally the tools to supply necessary amenities such as infrastructure, green spaces, housing, commercial and industrial areas, for healthy environments.
United Nations Rio+ 20, Rio Earth, a summit conference on sustainable development, critical issues such as sustainable development have been discussed. Sustainable development emphasizes a holistic, equitable and far-sighted approach to decision-making at all levels. Table 2.1 reveals the physical and social plans and their scope.

Table 2.1: Planning steps, zoning legislation and top scale planning issues in Turkey

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<td>Comprehensive Plan</td>
<td>Reservoir and Region</td>
<td>1/50,000 and 1/100,000</td>
<td>Environment and Urban Ministry</td>
<td>Environment and Urban Ministry</td>
<td>Environmental Law Numb: 5491</td>
</tr>
<tr>
<td>Land Use Plan</td>
<td>Area within the Greater Municipality Limits</td>
<td>1/25,000</td>
<td>Greater Municipality</td>
<td>Greater Municipality</td>
<td>Greater Municipality Law num:5216</td>
</tr>
<tr>
<td>Land Use Plan</td>
<td>Contiguous and Municipality Limits</td>
<td>1/5000 and 1/2000</td>
<td>All Municipalities</td>
<td>Related Municipality</td>
<td>Legislation Law Numb:3194</td>
</tr>
<tr>
<td>Implementation Plan</td>
<td>Contiguous and Municipality Limits</td>
<td>1/1000</td>
<td>All Municipalities except Greater municipalities.</td>
<td>Related Municipality</td>
<td>Legislation Law Numb:3194</td>
</tr>
</tbody>
</table>

Two plans that are affecting place and how it is shaped are land use plans and implementation plans. As shown in Table 2.1, those two are the only plans that are affecting the place and there is no authority that checks on how the plan are being implemented.

Çukurçayır A New Municipality

Çukurçayır became a municipality in 1994 with a population of 2491 (Çukurçayır, 2013). Today, due to its closeness to the city center and to the municipal allowance of high-rise housing developments; a new focus is on the population living in the decaying housing of Çukurçayır. Çukurçayır became a popular place with new and affordable units and a sea view as complementary to the units.

Figure 2.2: A view housing development
Source: Beyza Şen

Figure 2.3: Lifestyle and branding
Source: AKS Group Advertisement Brochure
Çukurçayır offers new buildings only. People are sold by the information they are given in a brochure, like the type of living standards. What is actually built is not what people are promised. Matthew Carmona discusses people’s desire for quality: “Nobody wants to feel they are living in a row of boxes” (Carmona, 2001, 104).

Carmona also lists a series of characteristics of housing developments that developers are making sure to cover. These characteristics are: “responsiveness to site and locality and careful choice of location, development based on local knowledge, high quality design including, high quality construction, the perception of ‘home’…” (Carmona 2001). People were accepted to live in these high-rise apartments. Today center of the city is lacking so many amenities that are basic

Today, Çukurçayır has reached a population of over 14,000 residents on 160 acres of land (Çukurçayır, 2013). As it is revealed in Figure 2.4, the population of Çukurçayır has dramatically changed over the past 21 years. It had an overall growth rate of 12.5% each year. After 2009, Çukurçayır has doubled it’s population. The reason behind this is all of the new housing developments built since 2009.
Mid-Size Housing Developments: Çukurçayıır As An Example

Due to the decay in city centers, aging houses, and apartments; new developments are more desirable because they are cheaper, newer, and bigger in size and it response to modern infrastructure requirements (Sengul, 2011). From 2003, the government through the Mass Housing Administration (TOKI), took a significant role in the development of branded residential projects, which are sold even before the beginning of the construction (Geniş, 2007). TOKI passed the law in 2009 to have the power to build on any land they find necessary. This brought TOKI the privilege to market the land to both national and outside economies. TOKI produces various scale and price ranges of housing all around Turkey. Besides, TOKI since 2002 there are also mid-level relatively small developers that buy land from local property owners and develop housing units. Mid-size developers generally aim to locate in new developing municipalities. The majority of newly established municipality lands were built on greenfields.

Greenfields are easy to develop on because of the fast preparation of the site when it compared to brown fields or built urban fabric. Easier construction processes due to the lack of established regulations and the willingness of the city to improve with vertical concrete elements. In reaction, many very similar buildings occupy today’s housing environments.

Sense of Place in Çukurçayıır

This chapter examines the physical aspects of “place” and urban planning activities. The accumulation of dwellings on a site also has a fundamental meaning in terms of place. As it is discussed in the previous chapter, physical planning is the tool for generating place. In this chapter, the types of dwellings that are being produced in Turkey are contributing to the creation of place. Dwelling and accumulation of different organizations generates place. People living in urban environments have different backgrounds and different
groups represent different cultures. Culture is defined as a group of people who hold the similar values. Culture is directly connected to a person’s identity, and identity and its close relationship with culture and place will be examined. After comprehending identity, physical place and its effects on one’s life will be examined. This chapter will conclude with gatherings, commons, and parks and green spaces.

Dwelling And Its Essence

Modern people inhabit dwellings. To fulfill modern man’s need, a dwelling should be larger, newer and equipped with technologies. Turkey has an aging housing stock in most of its existing city centers. Hence, new cities have been established and new cities and dwellings have been built. Dwelling has a direct influence on the inhabitant’s psyche, so it is important to understand the affects when planning. The word “dwelling” comes from the Old Saxon "wuon", the Gothic "wunian", and is linked to the German "bauen", which is "to build" (Janz, 2004). Dwelling or house is a building that can vary in size, height, and color. Other than being a three-dimensional object, it provides shelter; it responds to social needs, it also holds memories and dreams. In accordance with successful architecture, simple building can be a complementary part of the self (Tuan, 2011). Although, one may fulfill the need of self from dwelling, groups of people will need social spaces such as plazas, parks, and well-defined places.

Heidegger, a philosopher known for the notion dwelling, has employed a poetic approach to dwelling. According to him, “home” consisted of four elements: the earth refers to the constant change in life; the sky means there are some limits that human beings cannot control; the gods, he accepts the fact that the universe was created by some power that is not human; and finally the mortals, that are our limitations based on our values that identify the self (Janz, 2004). All these components referring to a place where one find peace.
Additionally, Heidegger, with the notion of place, refers to remaining or staying in a place. As a conclusion, dwelling can be defined as place of peace from Heidegger’s point of view. His definition of dwelling also emphasizes a sense of attachment to a place and one’s feelings of belonging to that place.

**City And Culture**

Half of the world’s population is living in urban environments. Therefore, greater numbers of people are living in a close proximity and in smaller areas. In small settings such as villages, over time people generate similar values. The primary reason for living with a group is because people share the same values, habits, and opinions. Societal values and their identities shape their culture. “The city is a spatial environment but it is also a collection of organizations and cultural context” (Pipkin & La Gory, 1981, p. 4). Therefore it is important to consider social context when building a city.

It is becoming harder for people to feel connected to a place, according to Heidegger, because people have lost their ability to dwell. It is becoming harder and more important to create quality places for the longevity of communities. Kevin Lynch states in his book, The Image of the City, “with the important proviso that images are much modified by culture and familiarity” (1984, 249). Lynch mimics the need for satisfying the
needs of different cultures and groups that embodies the city. Carmona states that the direct link between physical settings and culture, shapes places over time and is evidence that sense of place arises from the sense of society (2001).

Density alone is not enough to create a sense of society or to shape a community. New housing developments attract people from different parts of the city. Especially when newly developed areas of the cities are forced to employ forming a new society. One major characteristic of developing cities is that they are built without having the knowledge of prospective residents of place. Even though there are limitations such as unit price, it will bring economic diversity as well as social and cultural diversity to the place. Once new cities are established, then there is interaction of different cultures, which leads a society with a unique identity.

Accumulation of people from different parts of the region enriches the place with their various backgrounds and memories. Rappaport underlines the fact that dwelling improves with culture (Rapaport, 2004). Accordingly, culture plays a big role shaping a place identity. For instance, in a traditional Turkish neighborhood, neighbors living across from each other, tie clotheslines to each other's houses so they create a sense of connection with in a very unique way. They also become Jane Jacob’s “eyes on the street” and keep the community secure and keep it safe (1961). Since culture is related to identity and place, more information about culture and society will be discussed in the following parts of this section.

Identity

In the previous section, culture is studied through place and one’s attachment to a place. Identity defines as an object’s distinction from other things, as a separable entity (Carmona, Heath, Oc, & Tiesdell, 2003, p. 89). Place plays a big role in one’s identity. Each culture differentiates from each other by their rules and values. Hauge lists physical environment as one of the actors that are contributing to
identity of one person beside genetics, social, and cultural environments (Hauge, 2007). As it contributes to one’s identity, it is also defines the place.

Identity of a human and the identity of a place are similar in theory. If a place is shaped by one’s identity then a place should have reflections of that person or the group. In cities, people from different groups will contribute to the place with their own individual identities. According to Hauge, place is often associated with a certain group of people. For example, in Turkish culture every neighborhood has more than one teahouse and each individual prefers one particular teahouse because of the reasons listed above. Identity creates a place, and it forces the creation of a place.

The population statistics clearly show that in the study area of Çukurçayır, residents are seeking a social identity where they can establish and enhance a positive self-esteem. 15-years-ago, a similar wave of housing developments happened in Tanjant, the city-state of Trabzon, and those dwellings were the new popular housing destination of the citizens of the state. Today, aging houses and diminished air quality due to unorganized planning activities caused Tanjant to loose its desirability. People are seeking alternative places to live because of the low quality of the urban environment.

Place

Place identity, place identification, and place attachment are three inseparable theories that are discussed by Ashild Lappegard Hauge’s paper on identity and place and how natural and physical built environments impact one’s identity (2007). The intent to include the brands is to show another aspect of identity and humans need for belonging and attachment. A place is often correlated with a specific

It is hard to imagine a place without its social context. According to Dear and Wolch (1992), social relations can be constrained by place therefore physical environments can facilitate or obstruct human activity. The main focus of this study is place. It will be examined as it contributes or diminish the culture and nature in Çukurçayır. Besides being a physical entity, place is essential for all animals. However, for people place also fulfills a psychological need. Place is a social privilege and has a spiritual impact (Tuan, 2011). Place has been discussed by many architects such as Christian Nordberg-Schultz, a theorist and professor of architecture, he analyzes modern buildings and the designers’ roles on place making. He advocates designers should create physical places that reflect visibility, differentiation, and concretization (1979). In Adam Sharr’s book Heidegger for Architects, particular places described more accurately the situation of human existence” (2007,7). He also emphasizes Heidegger’s definition of “place”: “the physical structure of the world is understood as a matrix of ‘places’ configured by social and intellectual structures of their inhabitants” (Sharr, 2003).

Edward Relph in his book *Place and Placelessness* describes the main features of places. He lists features that create a quality place: a meaningful experience, a sense of belonging, human scale, fit with local physical and cultural contexts, and local significance.
Places that are lacking in these attributes will not provide a strong sense of place, continuity of culture, and a sustainable entity.

Placelessness, on the other hand, relates to mass culture, anonymous and exchangeable environments (Relph, 2013).

**Gathering**

The generic term "places of public gathering" can be applied to all locales in human settlements, which are outside the private and personal territorial domains of the citizens (Ardalan, 1980, p. 5).

In the previous section of this chapter, place was discussed from psychological and physical standpoints. In this section, the meaning of place will be examined through gathering and public places. Later on, the section will be concluded with today’s cities and the necessity and value of parks and public places in housing environments. People from the first day of their existence started to gather for safety and community. These instincts turned into a form over time where people clustered, settled, and perceived space permanently. The Greeks officially introduced public places. One of the most important parts of a Greek City is the “Agora,” which translates as “gathering place” or "assembly". The Agora was located in the city center and its central location and meaning to society emphasize the importance of gathering for human beings even today.

Not every culture experiences and defines gathering the same. Islam influenced Turkish culture for centuries. Like any culture, traditional Islamic culture also has its impact on place. In an Islamic city, one can easily distinguish the difference between secluded and intimate houses from gathering places such as mosque, commercial shops, covered bazaars, and public streets. One of the most important things that influence people’s happiness is the strength of their relationship with others.
In the cities, traditional activities such as mosque visits, drinks at a teahouse after prayer, still exist from neighborhood scale to more complex regional scale. Every neighborhood would have a local farmers market each week and a teahouse for men to gather at after dinner to chat.

The stronger the ties are, the closer the relationship of residents. Gathering places are essential in order to generate a sense of community and a sense of place. Once a group of people started to share ideas and values, and they start relate to each other then, memories and attachments will occur, ties will get stronger and overall the place use to be a place of living will turn into a place where they belong to. In the contemporary cities of today, supplementary amenities were added to urban places such as railroads, airports, shopping malls and so on, to meet the requirements of new technology and changing lifestyles. However, citizens still have a right to public spaces and this right is covered by law 3194.
Parks And Green Spaces

In today’s cities, the increasing population requires larger gathering areas such as parks. There are many reasons cities inhabit green spaces and parks. Parks are places of gathering for large groups and as such organizations and they elevate the landscape quality. Jane Jacob’s lists four design elements for successful parks; intricacy, centering, sun, and enclosure (Jacobs, 1961).

Green spaces bring a refreshing distinction to the rectangular shape, color, and texture of buildings, and encourage the senses with their simple color, sound, smell, and motions (Dorward, 1990; Miller, 1997). “In areas of low landscape quality, Turner suggests that ‘the genus loci will favor ‘an innovative approach, that creates a contrast between new development and its surroundings’...” (Thompson, 2003, 70).

Even though it can be defined as an innovative approach, new developments in Çukurçayır are often lacking landscape designs that lead to a spontaneous solidary place. Almost all of the buildings in Çukurçayır have similar footprints and the only diversity in their
design is their facades, which are designed by different designers. Studies also highlight that residents living close to green spaces “had more social activities and more visitors, knew more about their communities, reported their neighbors were more concerned with helping and supporting one another and had stronger feelings of belonging” (Rabinowitz, 2004).

Parks and green spaces not only play a vital role in cleaning and keeping the air quality at a desired level, they also diminish the heat island effect of highly developed areas (The Cities Alliance, 2007). Çukurçayır has already started to suffer from the issue of diminishing air quality even though it is still surrounded by undeveloped greenfields. The effect is more calls for more parks and green spaces for residents.

Having urban green spaces helps a community in a number of different ways. There are different uses of green spaces. In recent years, community gardens, an old urban agriculture tradition, re-emerged in the city centers as a response to sustainability, localization, and economic problems. To this extent, open spaces can be managed as community gardens and ran by the municipalities in order to deliver food for community members, increase jobs, and bring revenue to the community.

In addition, environmental resources are valuable possessions for cities according to the Livable Cities Report. Also, this report shows that investment in environmental protection helps boost the economy. Municipalities are competing with each other and the municipalities that invest in protecting and improving the quality of their communities will be sustainable.

In conclusion, due to a unilateral, top to bottom approach that has been employed by cities, places have been created that are not appealing. They are the reflection of a larger economical activity. As a result of this, people are not willing to settle in this new but poorly
designed place. Developers are taking advantage of decaying and undesirable housing stocks that lack regulations for quality urban design.

Value Of Quality Design

Cities and communities are calling for good quality design. A study done in Copenhagen shows the importance of quality of the public places as it contributes to social interaction. The result of the study shows “each street improvement increases the pedestrian activity and uses of public places” (Gehl, 2011, 32). Quality improves the social and economic activity and generates vibrant centers where people start to interact, share, and generate a sense of place and collective memories that contribute to a healthy community.

Social Interaction

People collect memories everyday from their daily lives. An average active person’s journey starts in the dwelling and ends in the dwelling. During their journey people interact with people and different environments at different times. They go shopping, sometimes they take a bus and sometimes they pass by a group in his or her car. An average resident of Çukurçayıır starts their journey at their doorstep. Then, they typically take the elevator and there is a good chance that they will meet with one of the other residents of the apartment they live in. Since all the housing sites have been developed around the commercial strip, the first true public experience and interactions start in this apartment corridor. There are all kinds of shops and supermarkets available for Çukurçayıır residents. Nearly all of the amenities that are provided include bus stops and a minibus transportation hub is located within a quarter mile walking distance.
John Gehl, in his book *Life Between Buildings* underlines the fact that social activities and interaction cannot take place in poor quality public places (2011). He identifies three basic outdoor activities that are affected by the quality of the places. The first activity type is going to work and school, things that people cannot avoid. Secondly, optional activities that are highly affected by outdoor quality such as taking a walk, getting a breath of fresh air, and finally he lists social activities (greetings, conversations, communal activities).

Different cultures respond to these activity types in different ways. For instance, Turkish people enjoy spending time with each other and they can build very strong social ties in a short time period as long as they are given a quality place. Unfortunately, today’s housing environments in Çukurçayır do not fulfill the requirements of a quality place.

The memories that are produced during one’s journey directly effect their perception of dwelling. For this reason, housing environments should be designed to a high quality in order to allow one to have a pleasant journey and improve his or her level of attachment to the healthy community. Healthy communities can be described as vibrant places where its residents are highly satisfied with the quality of their surrounding and want to stay. It is also described by community toolbox as:
"A healthy community encourages social networks, provides gathering places where people from all parts of the community may mingle, nurtures families and children, offers universal education and other services, strives to foster non-violent and healthy behavior, invites familiarity and interaction among the various groups that make up the community, and treats all groups and individuals with respect" (Rabinowitz, 2004)

As stated before, people are social beings and during their daily activities they meet with different people and visit different places. People also interact with each other and the places that we meet and interact are very important to one’s sense of community.

Community Enhancement and Improvement

A concentration of people in a limited area does not represent a community by itself. To form a community, residents need to meet at places where they can relate to; places where they can interact actively. There is widely written literature on quality design and its contributions to healthy and long lasting communities. Therefore, municipalities that engage in top to bottom design strategies may not generate design solutions that could help create ideal communities that residents desire.

Public Participation and Design

Participatory design and public participation is an accepted tool that many municipalities in developed countries started to employ participatory design. For example, in the United Kingdom a law forcing participatory design passed in 1994. In the last 10 years (Carmona, Heath, Oc, & Tiesdell, 2003), Turkey has gone through a rapid process of housing development; Çukurçayır in particular was one of the fastest growing cities. Unfortunately public opinion wasn’t taken into consideration during this rapid development process. This thesis employs citizen participation during design process.
One of the first researchers to discuss citizen participation is Sherry R. Arnstein. In her article, “A Ladder of Citizen Participation”, she outlines the eight level of participation. First step (manipulation) refers to total elimination of public opinion, and highest degree of participation (citizen control) involves high citizen participation at all stages of decision making process.

In Turkey, participation is at the 3rd step according to Arnstein’s classifications. There is a public hearing about physical plans and people are allowed to take 60 days to object to the plan. Even though a plan is canceled due to an objection, central government still has the power to pass the plan (Şengül, 2009). It is evident that the importance of participatory design hasn’t been acknowledged by the local governments in Turkey, even though there are many cases why residents should be a part of the decision making process.

In this study, the main focus besides understanding the forces, tools, and actors behind the design of low quality housing environments, is the success of places that are shaped by its residents. Çukurçayır has the opportunity to create a unique character if the local government employs a participatory design process.
Summary

The three sets of information presented in this chapter provided a theoretical framework for this study. The investigations previously done on the profession set a baseline of information. This study is built on this information including physical planning tools, physical plans and their role in the economy, place and the invisible actors that are affecting the place. Place as an entity, human need and expectations, and gathering provided additional understanding. Furthermore, shaping communities through participatory design principles and quality design were reviewed to better understand residents’ perceptions and evaluations.

The following chapter reviews the research design and gives an overview of the research methods employed in this study. In addition, data collection procedures and analysis techniques are discussed.
CHAPTER III
METHODOLOGY

Introduction

The quality of housing environments started to become a concern in planning and design due to increasingly poor natural and physical infrastructures. There are many organizations and groups that are objecting to the idea of mass housing developments. Because they are segregated due to lack of participatory design processes. This thesis addresses the need for an improvement in the quality of housing environments by resident data that is based on residents’ perceptions of their housing environments.

Study Organization

This chapter discusses data analysis and data collection techniques and how they relate to the research question. The chapter includes four main sections: 1) research design, 2) sample populations, 3) data collection procedures, and 4) data analysis. The first chapter reviews research design as well as the research objectives and questions. Additionally, the first section provides the questionnaire and how its content is formatted and pre-testing. The second section discusses the sample size and how it was selected. The third section examines data collecting techniques. The final section summarizes the methods used to analyze the data.

Research Design

Research design is the organization of a study that one intends to conduct (Berg, 2001). Research design starts when a researcher set norms based on the research questions and objectives of the study. This way, the researcher determines the type of data
needed as well as the sample size for the particular study. According to Berg, research design should start early in the process to avoid possible errors that might occur (Berg, 2001). Overall, with well-designed research, the researcher can meet her study objectives and answer the research questions.

**Research Objectives**

Given the objectives of this study, qualitative inquiry is deemed as the most appropriate methodological approach for a number of reasons. First, qualitative research attempts to gain the actors’ perspectives (Maxwell, 2005). It helps to understand the meaning of place, the actions that the individuals take in their communities and their accounts regarding their lives and experiences. By employing qualitative methods, the study sought to reveal the popular trends in the housing market and the profile of the consumers. Since individuals’ lived experiences create the “home” (Mallet, 2004), this study also attempts to understand the meaning of the house and residents’ expectations from their surroundings through an in-depth investigation of the residents’ everyday life.

One of the solutions to this project is a retrofit of the study area based on residents’ reflections and perception of their housing environments and place. The original land use plan, made by the municipality of Çukurçayır and with the guidance of Design Workshop’s Legacy Design metrics help to develop the overall concept for the study. Participation of residents will allow me to design the ultimate place for the long-term satisfaction for the users and environment. Each method and data delivers a diverse characteristic of the equivalent representational validity (Berg, 2001). Following the strengths of qualitative inquiry, surveys served as the primary data collection method. Participant and non-participant observations, visual data and multiple sources of secondary data assisted in challenging and in confirming the findings of the surveys.
Research Questions

The following research questions directed data collection and address the study’s purposes:

1) How do current planning practices encourage or discourage place and public open space in new housing developments in Çukurçayır, Turkey?

2) How do residents of Çukurçayır perceive the quality of their current housing environments?

3) What social and cultural cost do the residents pay when a lack of space and place are included in a housing development?

4) How can new design guidelines help shape spaces that will improve public space and place?

5) How the cultural values and community identity and democracy contribute to regeneration of sense of place?

Survey as Research Instrument

There are many ways to collect information such as case studies, in depth interviews, visuals, researcher observations, interviews, and surveys. In this research, primarily resident surveys were considered as the most efficient way to gather the data in a limited time and from a large number of people. Another method that was partially used in this study is in depth interviews. Surveys delivered to residents’ houses and the data collected by the researcher. Detailed discussion of how the data was delivered and collected, and the population size and the sample is provided later in this chapter.
The Survey Format

Every survey consists of content and format. Sommers describe content as the subject matter and the format is the appearance of the questions and how they are represented on the page (Sommer & Sommer, 1991). The goals of the survey are to generate a clearly formatted survey with concise content and questions tied to the research objectives (See Appendix A for a copy of the questionnaire).

The questionnaire is prepared for self-administration allowing residents to complete the surveys efficiently. However, participants are given an option to answer the questions either by interview or written response. Most of the residents preferred the surveyor to interview them. This also allowed residents to give more input about their housing environments.

The surveys use open-ended questions to allow respondents to incorporate their ideas both with writing and drawing as well as closed-ended questions that require respondents to select one or more, if defined in the question, options asked by the researcher. The majority of the questions were close-ended due to the large sample size and time limitations (Sommer & Sommer, 1991).

Organization Of The Survey

The organization of the survey questions is based on their content. The four content areas that overlap in the survey questions are: 1) Place making, 2) Quality Design, 3) Social Context, and 4) Environmental Perception theory. Environmental perception theory highlights the memories of people and their preferences. It also emphasizes place making and quality design in terms of the importance of social context. A combination of questions that are evaluated based on quality design and social context helped to measure levels of community cohesion, trust, attachment to place, and sense of belonging.
The first set of questions is regarding demographics. These questions ask about gender, parental status, family income, property status, and monthly rent. These questions are at the beginning of the survey in order to give respondents more time at the end to answer final questions and share their other opinions about the place. A set of self-reported questions is asked to determine indicators of comfort level. Some of the questions cover demographic and socio-economic, property status, educational level, perceived access to, and the uses of social and public spaces. Questions related to desired amenities were asked in order to analyze current satisfaction levels of the respondents from their housing environments. The final question is asked in order to understand different resident's backgrounds their culture, level of social ties, attachment to the place, and their visions of the place.

**Pretesting**

Pretesting is a necessary step for developing and reviewing the survey. Initial questions often include uncertain words and phrases that are too detailed or not a priority for the survey (Sommer & Sommer, 1991). The survey is prepared to be self-administered, but at the same time the researcher design of the surveys to make sure respondents are clear about the questions. Although the researcher was present during survey responses a pretest applied to questions. The pretest is a must in this research because most of the literature was written in English, so definitions and translations of the terms tested before it is presented to residents.

The pretest questionnaire was taken by 10 different people on December 28, 2012. The residents completed the pretest and gave both written and verbal comments of what they thought need revising. There were a few unclear set of questions, which were changed in the final format of the survey. Finally, the survey was presented to the researcher's committee chair and then finalized. Clemson University Institutional Review Board approved the final survey on February 20, 2013.
Data Collection Procedures

There are many ways to collect data with a survey. According to Sommer and Sommer, surveys can be conducted to individuals, small groups, on the telephone, by mail, or on the Internet (1991). Each technique has some advantages and disadvantages. For this study, since it is conducted in a different country, surveys were delivered individually.

Obtaining The Population Sample

Different techniques exist for obtaining a sample for surveys such as random sampling, systematic random sampling, stratified random sampling, and purposive sampling (Berg, 2001). A random sampling is preferred. As a result 120 surveys were conducted between January 3, 2013 and January 8, 2013. Surveys were conducted between 10 am to 4 pm everyday, three days during the week and two days on the weekend. Out of 120 completed surveys only 92 of them were evaluated due to existence of incomplete surveys.
Sample Population

The rationale of this survey comes from the research objectives and questions. The characteristics of the population define the group to whom the study’s results may reflect (Krathwohl, 1988). For this study, the surveyed population is the residents of the study area in Çukurçayır. The problem, objectives, and questions for this study all relate to the residents of mid-size housing developments.

Sample Size

Sample size is an important factor because it determines the statistical significance of the results. The sample size used for this study was approximately 2% of the current population of City of Çukurçayır.

Data Analysis

Data analysis is the process of putting a large group of numbers into a smaller size to clarify certain trends that the data set includes and to show differences between the data groups (Berger & Patchner, 1988). As the surveys were collected, the qualified data coded, categorized, and converted to qualitative data in an excel sheet. The qualified and quantified data was analyzed using excel. The results of the data analysis are discussed in the following chapter, Results and Analysis.

Summary

In this study, surveys and interviews with residents and city administrators were used to collect the data. Data collection is determined by the research objectives and the research questions. The questionnaire is constructed by the literature review that shaped the overall outline of this study. The framework is shaped by the previous surveys that were delivered to residents of various housing
developments in the United States; also there are few applications of housing environment evaluation studies in Istanbul, Turkey. Theories and concepts that shape this study are Genus Loci, place making and participatory design.

Five development sites have developed in different times and also locations. All of the housing developments were selected based on their relation with the main street. Respondents are targeted as prime members of the society, so that the perceptions people that are affected by the environment most are evaluated and considered the most. Out of 120 completed surveys only 92 of them were evaluated due to existence of incomplete surveys. In the following chapter, findings of the study and results of analyze are examined as they relate to research objectives and questions.
CHAPTER IV
RESULTS AND DATA ANALYSIS

Introduction

This chapter discusses the findings from the questionnaire. The findings were analyzed using standard statistical procedures and content analysis. This chapter takes the results of the analysis and begins establishing correlations between them and the other research questions. Additionally, the chapter discusses the implications of the findings as they relate to the different groups and organizations, most closely related to the research.

Chapter Organization

This chapter presents the results and data analysis of the study. The chapter is organized around the participant responses to the eighteen-question questionnaire used to gather data for this thesis. Each question is presented along with figures that graphically depict aggregate responses. In addition, each finding is followed by a brief summary addressing its relevance to this research. There are six different categories including: 1) general demographic profile, 2) residential habits, 3) perception of amenities, place and surroundings 4) satisfaction levels with the surroundings, 5) desired and lacking amenities, and 6) definition of desired social green place. Each section reviews the findings in terms of the information presented in previous chapters, most notably, the research questions.

The first category, general demographics profile, reviews findings related to gender, age, education level, occupation, parental status, and property status. The second section, family, presents information related to the respondents' families, such as, planned living
period, rent, and income. The third section, *residential habits* answers questions related to the type of daily transportation, weekly shopping habits, and planned living period. The fourth section, *satisfaction levels* present information outside view from apartment units, advantages and disadvantages, and missing amenities that the residents identify. This section also looks at the findings about residents’ current satisfaction levels from the amenities provided. The fifth section represents the findings of *desired and lacking amenities*. Finally, the sixth section looks at the definition of and respondent’s description of social green space. Together, the findings support and ensure that the goals and objectives of the study were reached and that guide design solutions for future quality housing environment in Çukurçayır.

**Demographics**

There were 92 respondents in this study. It is reported by the city of Çukurçayır that there are approximately 3000 people living in selected housing developments. The surveys were delivered to each household with expectation that the answers would reflect the opinions of the entire home. Therefore, the respondents of this study represent approximately 1.2% of the households living in the area. In order to obtain a detailed profile of the sample population, respondents were asked nine demographic questions:

1) Please indicate your gender.
2) Please indicate your marital status.
3) What is your parental status?
4) Please indicate your level of education.
5) What is your current career field?
6) Please indicate your property status.
7) What is your planned living period?
8) How much rent you pay monthly?
9) What is your monthly income?
Marital Status

In response to the second question, 100% (n=92) of the respondents indicated they were married. Figure 4.1 illustrates these results. This demographic data also reflects that a majority of the respondents give their general household opinions to open ended questions. It is stated in the investigation report of Çukurçayır that the average household size is determined as 3.17. It would be correct to say there are 291 people opinions indicated in this survey.

![Marital Status Chart](image)

Figure 4.1: Marital status (n=92)

Parental Status

The respondents were also given a pre-selected list of three parental status that included have no kids, have kids and living together, and have kids not living together. Figure 4.2 reveals that 13% (n=12) of the respondents identified their parental status as have no kids, while 73% (n=67) of the respondents identified themselves as have kids and living together. The rest; 14% (n=13) of the respondents represent themselves as have kids not living together. This demographic information shows that 73% of the respondents have kids and rest of respondents 27% (n=25) have either have no kids or have kids and their kids are not living with them. From this
information we can evaluate the selected group of people who have completed the survey have smaller household sizes as little as two people.

Gender

In response to the first question, 43% (n=40) of the respondents indicated they were male while the remaining 57% (n=52) indicated they were female. Figure 4.3 illustrates these results.
Level Of Education

In response to the fourth question, respondents identified their education level. Respondents were given a pre-selected list of five education levels; primary school, middle school, high school, university and graduate school.

Figure 4.4 affirms that 5% (n=5) of the respondents identified their education level as Graduate School, while 30% (n=28) identified themselves as college or university graduates. Thirty-two percent of respondents (n=29) high school graduates. Eleven percent of the respondents (n=10) identified their education level as middle school, and finally twenty-two percent (n=20) of respondents identified their education level as elementary school. Results indicated that sixty-seven percent (n=62) of the respondents’ education levels are equal or higher than high school.

Current Occupation

Figure 4.5 shows the current occupation of the respondents. It reflects the range of the different professions of the respondents. In total, the findings show that there are twenty-one different types of occupations. Housewives hold the highest occupancy level; out of ninety-two respondents thirty of them are housewives. Figure 4.5 shows that 33% (n=30) of the respondents were housewives. Thirteen
percent (n=12) of the respondents identified themselves as *retirees*. Ten percent (n=9) of the respondents identified themselves as a teacher. Nine percent (n=8) of the respondents indicated their occupation as *technicians*. Eight percent (n=7) of the respondents claimed themselves as workers of different *government agencies or institutions*. Four different types of occupants had the same rate of 2% (n=2). These occupations are; *baker, blue collar, freelance, and nurse*. Bankers, *assistant professor* and *marketing employees* have the same occupancy rate of 3% (n=3). The rest of the twenty-one occupations have a one percent value (n=1), which is *painter, taxi driver, city employee, accountant, engineer, and secretary, doctor, architect* and *call center*. Overall the findings show that the highest occupancy is housewives. These particular findings are probably affected by the time of the day surveys delivered.

Figure 4.5: Occupation (n=92)
Property Status

Figure 4.6 shows the current property status of the ninety-two respondents. Sixty-eight percent (n=63) of the respondents identified themselves as property owners. The rest, 32% (n=29) stated their status as renter. The finding shows that a majority of the respondents are property owners, who are possibly more connected to their surrounding.

Living Period

Respondents were asked to clarify their living period in the same development area in order to gain a better understanding of attachment level of the respondents. Respondents were given three categories to select from. These categories are: Less than 5 years, 5 to 10 years and 10 years or more. Fifty-seven percent (n=53) of the respondents indicated their living period as 10 years or more. Twenty-one percent (n=19) stated they are willing to stay 5 to 10 years. The rest, 22% (n=20) of the respondents stated their living period as Less than 5 years. This finding may overlap with the finding of previous questions about Property Status. It is clear that ownership of the property reflects to period of stay in the same development unit.
How Much Rent Do You Pay Monthly?

This question was asked to renters while people who claimed that they are the property owners were allowed to skip this question. There were 29 renter participants in the survey. Out of twenty-nine respondents, 83% (n=24) indicated their monthly rent as between 500 – 1000 Turkish Lira (TL from now on). Only seventeen percent (n=5) of the respondents stated their monthly rent below 500 TL.

<table>
<thead>
<tr>
<th>Rent Range</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-500 TL</td>
<td>5</td>
</tr>
<tr>
<td>500-1000 TL</td>
<td>24</td>
</tr>
<tr>
<td>10 Years or more</td>
<td>53</td>
</tr>
<tr>
<td>less than 5 years</td>
<td>20</td>
</tr>
<tr>
<td>5 to 10 years</td>
<td>19</td>
</tr>
</tbody>
</table>

Figure 4.7: Living period (n=92)

Figure 4.8: Monthly rent (n=92)
Household Income

Participants were asked to identify their monthly household income based on five categories; 0-1000 TL, 1000 – 2000 TL, 2000-4000 TL, 4000-6000 TL, 6000 – Plus. Fifty-three percent (n=49) of the respondents claimed their monthly household income as 2000-4000 TL, whereas 32% (29) of them stated it as 1000 – 2000 TL. Ten percent (n=9) of the respondents stated their income as 4000-6000 TL. Only three percent (n=2) indicated their income level as 0-1000 TL. Two percent (n=2) stated their income as 6000 TL-above. From this finding we can see that the general household income of most of the respondents is mid to mid-low when we consider the average income in Turkey as 1838 TL (Turkish Statistical Institute, 2010).

![Figure 4.9: Monthly income (n=92)](image-url)
Habits

Mode Of Transportation

Respondents were asked to state their daily usage of vehicles. They were given a list of five modes of transportation and asked them to accept/state/claim all that apply to them. The list included: Own Vehicle, Walking, Bus and Dolmus i.e., (a kind of a shuttle service that provides transportation service in certain distances, generally vans are used as the vehicle, generally carries eight to ten people). As shown in the Figure 4.10, 43% (n=60) are using Dolmus frequently. Thirty percent (n=50) of the respondents' choices of transportation were their own vehicles. Thirteen percent (n=18) indicated their mode of transportation as walking. Only 9% (n=13) prefers to use bus services that municipality provides. These findings show that most people's preference of transportation is car. Most of the respondents who prefer cars have a higher level of income, while people who prefer to walk are often retired. Following this question, respondents were asked to indicate their general opinions about the overall transportation system and physical condition of the new city of Çukurçayır. As respondent #76 states, “the roads are too narrow and sidewalks are too high, there is no where to walk, I am walking but just because I have to save money.” And the results of questions #15 and #17 will support this finding.
Weekly Shopping Habits

In question #11, respondents were asked where they shop for their weekly needs in order to see how the existing shops and markets satisfy their needs. They were given a list of six choices, including Shopping Mall in the city center (Exterior), Shopping Center, Corner Store on site, Farmer’s market, Supermarket, and other. They were told to mark all that apply to their personal habits. The results show that the mid size supermarkets are the most popular shopping facilities in Cukurcayir. Thirty-eight percent (n=77) of the respondents prefer supermarkets located on the main boulevard of Çukurçayır. Twenty-eight percent (n=57) of the respondents prefer Farmer’s Markets that provide fresh food and are located on one of roads by the main boulevard for ease of access. Eleven percent (n=23) of the respondents prefer a corner store in their development site. Ten percent of the respondents prefer “other” such as, larger farmer’s market in the greater city of Trabzon (10 minutes driving distance) or other local shops and markets located in the city center.

<table>
<thead>
<tr>
<th>Shopping Option</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supermarket</td>
<td>77</td>
</tr>
<tr>
<td>Farmers Market</td>
<td>57</td>
</tr>
<tr>
<td>Corner Store at Our</td>
<td>23</td>
</tr>
<tr>
<td>Shopping Center</td>
<td>22</td>
</tr>
<tr>
<td>Other</td>
<td>20</td>
</tr>
<tr>
<td>Shopping Mall in the Other</td>
<td>4</td>
</tr>
</tbody>
</table>

Figure 4.11: Shopping habits (n=203)

Only four percent of the respondents go to the shopping mall that is located in the new development area, which is a 15-minute drive.
Perception of Housing Environment

There were 92 respondents in this study. It is reported by the city of Çukurçayır that there are approximately 3000 people living in selected housing developments. Since the surveys were delivered to households and the common idea of a household is reflected in the surveys. Therefore, the respondents of this study represent approximately 1.2% of the households living in the area. In this section, respondents were asked to evaluate the quality of their housing environment regarding public place and green space.

View Outside From Balcony/Window

In this question, respondents were asked to identify the vista that they like to view from their house balcony or window. The new housing developments sit on a hilltop just above the preexisting city center and have views of the sea and other hills surrounding the site. This question was asked to find out if this site was developed in a way that suits most of the units. Respondents were given a list of eleven view options. Neighborhood Park, Kids Playground, Site Garden, Site Pool, Green Areas Over The Hills, Sea View, City Center (Trabzon), None, Community Park, and Other Buildings. Respondents were asked to identify their single favorite view outside. Thirty-two percent (n=29) of the respondents stated that their favorite view was the sea. However, 31% (n=28) of the respondents said there is no view outside. Eleven percent (n=10) identifies their view as the green areas over hills. Only 8% (n=7) percent said their favorite view is the city center. Five percent of the respondents stated their outside views as other buildings. Four percent (n=5) of the respondents said that they view the garden. Three percent (n=3) said they like to look at the pool on site as well as the other 3% (n=3) who are looking at the kids playground located on site. Only two percent said they have views to all of above that includes everything in the list of choices. Finally, only one percent (n=1) stated that they look at the neighborhood park.
All these options are combined into categories and choices are put under these categories in order to clarify the results. Three broad category names include: None, External Vista, and Active Spaces. None refers to the mostly enclosed units that only have views out to concrete elements that are built and do not have a pleasing vista. The reason for giving people more options to choose from is to have a clear idea of what is provided on the site and what is missing. Regrouping shows that 50% (n=46) of the respondents enjoy the exterior views that are the result of the physical positioning of the city. Thirty-six percent (n=33) stated that they have no views; these are the units that are enclosed by other buildings and hidden behind the other buildings. Only 13% (n=13) stated that they have amenities provided on site such as a pool, playground, etc., and that they enjoy viewing those amenities.
Advantages and Disadvantages of Living in Çukurçayır

Advantages Of Living In Çukurçayır

Figure 4.14 reveals the advantages of living in Çukurçayır. This question is an open-ended question followed by a question about the disadvantages of living in Çukurçayır. This question provides information about what brought them to Çukurçayır. Eighteen percent (n=29) of the respondents specified cleaner air as an advantage when they compare Çukurçayır with the other places that they used to live. Fifteen percent (n=25) of the respondents noted that there are no advantages to live in Çukurçayır. Fourteen percent (n=23) asserted closeness to the city center of Trabzon as an advantage. 11% (n=18) stated they find the interior space more comfortable. As respondent #53 stated, “… when I compare this unit with the old one, this one is much more larger there are three bedrooms that allow all my kids to have their own bedrooms…” Ten percent (n=16) find that Çukurçayır as a newly developed city is when compared to their previous unit. Çukurçayır is much more modern and new. Eight percent (n=13) of the respondents stated that the amenities that are located on the site are the positive aspects of living in Çukurçayır. However, only 6% (n=10) found the area tranquil as a compared with the old ones. Four percent (n=7) remained silent and they stated that they are neutral about living here. Four percent (n=6) found the apartment units as economic as the other. Another four percent (n=6) found the climate advantageous. Three percent of the respondents say that their relatives and friends are living in the Çukurçayır and they see this social connection as the advantage of living there. Finally, 3% (n=4) stated that the view is the advantage of living in Çukurçayır.
After examining the results, answers were combined and put into four main categories including *internal physical advantages*: climate, cleaner air, new settlement, modern/new settlement, interior space, economic apartment units and amenities. *My relatives or friends live here* is listed under *social advantages*. Views, tranquility, scenery, and closeness to city center were put under *external physical advantages* and *no advantages* was kept as separate category. As a result, *internal physical advantages* embody 54% (n=88), *external advantages* are 23% (n=37). As 20% (n=32) of the respondents stated there are *no advantages*. *Social advantages* contain only 3% (n=5). All in all, the combination of external physical advantages and no advantages categories consist of 43%. This shows that almost half of the respondents don’t see any internal benefit of the development itself.

Figure 4.14: Advantages of living in Çukurçayır (n=162)
Disadvantages Of Living In Çukurçayır

Question #14 was asked as a follow-up to question #13. This question shows the cost that people paid for moving into the apartment units in Çukurçayır. Based on the answers sixteen different disadvantages were found.

Figure 4.16 reveals the disadvantages of living in Çukurçayır. Thirteen (n=31) of the respondents find Çukurçayır very dense. Twelve percent (n=29) claimed no infrastructure as a disadvantage. Eleven percent (n=26) find roads a disadvantageous issue. Nine percent (n=22) of the respondents claimed Çukurçayır was a not planned development as a disadvantage of living there. Also, other 9% (n=20) states that, there are no green spaces. Nine percent (n=20) asserts existence of tall buildings as a failure of Çukurçayır. Eight percent (n=18) said there are no disadvantages to living in Çukurçayır. Seven percent (n=16) claimed lacking social connections, whereas six percent (n=14) found inefficient municipal services as a disadvantage. Four percent (n=9) stated there are no public spaces that they can use and see this as a disadvantage when they compare Çukurçayır with the previous place they lived. Three percent (n=8) claimed lacking civilization, which refers to relationship/interaction between people is a disadvantage. Three percent (n=6) complained of having no
friends. Two percent (n=5) found the environment that they are living in very depressing. As respondent #69 states “this place is such depressing place where I rather live in a cage.” Also, 2% (n=5) claimed that it is so dense that they cannot breathe. Only one percent (n=3) complained about sound and 1 person stated Çukurçayır is missing a trail system.

After analyzing the findings of the question above, disadvantages were distributed into six generalized groups including Lack of infrastructure, Density, Green/ Public Spaces, Sense of Community, No advantages and Sound (Figure 4.17). As a result, lack of
infrastructure i.e., (roads, municipal services, road problems, not being a planned development) is identified as the highest level of disadvantage and it is followed by density (very dense settlements, very depressing environment, tall apartment buildings and can’t breathe). This finding can be supported with a previous study done by Kearney shows that the perception of overcrowding in the neighborhood has found to have substantial negative effect in overall residential satisfaction (2006).

<table>
<thead>
<tr>
<th>Lack of Infrastructure</th>
<th>91</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>56</td>
</tr>
<tr>
<td>Green/ Public Spaces</td>
<td>30</td>
</tr>
<tr>
<td>Sense of Community</td>
<td>30</td>
</tr>
<tr>
<td>No Disadvantages</td>
<td>18</td>
</tr>
<tr>
<td>Sound</td>
<td>3</td>
</tr>
</tbody>
</table>

**Figure 4.17: Disadvantages of living in Çukurçayır combined (n=233)**

**Desired and Lacking Amenities**

**Lacking Amenities**

While respondents were in the mindset of clarifying the disadvantages of living in Cukurcayır, they were asked to identify the lacking amenities in Çukurçayır. Figure 4.18 shows that 22% (n=22) of the respondents stated that Çukurçayır is missing green spaces. Twenty percent (n=46) find parks as a lacking amenity. Fifteen percent (n=25) revealed that social spaces are insufficient. While eleven percent (n=17) claim that roads are lacking. Seven percent (n=17) stated that landscaping in the developments is missing. Six percent
(n=13) didn’t identify any lacking amenities. On the other hand, another 6% (n=13) of the respondents stated trails are missing in Çukurçayır. Five percent (n=11) found a community center as a lacking amenity. Four percent (n=8) stated pergolas are missing. Only two percent of the respondents (n=4) said Çukurçayır is missing schools where as three people asked for parking structures. Finally, 1% (n=2) asked for a community garden and only one person mentioned that bus services are lacking. It can be observed from the diversity of answers to this question that the question itself was confusing. In a sense, some people took it personally and identified their own needs where as some touched on larger scale amenities that are missing. After examining the results, four main categories developed; socially accessible places, infrastructure, designed landscapes, and lacking amenities.
As figure 4.19 reveals, the socially accessible places with the highest degree of missing amenities. Designed landscape is seen as lacking amenity as well. Very few respondents were happy with the amenities currently provided.

<table>
<thead>
<tr>
<th>Category</th>
<th>Count (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socially Accessible</td>
<td>144</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>44</td>
</tr>
<tr>
<td>Designed Landscapes</td>
<td>25</td>
</tr>
<tr>
<td>No Lacking Amenities</td>
<td>13</td>
</tr>
</tbody>
</table>

Figure 4.19: Lacking amenities in Çukurçayır combined (n=226)

**Available Green Space**

Figure 4.20 reveals the availability of active green spaces for residents’ use. This question shows different perceptions of green space. Sixty-eight percent (n=62) stated that there are no available green spaces for their use. Sixteen percent (n=16) of the respondents said there are not enough green spaces for their use. Eleven percent (n=10) identified the playground on site as a green space. Only 3% (n=3), without specifying what the green space is, claimed that they have enough green space in Çukurçayır for their active use. Finally, only 1% (n=1) stated that they are using Boztepe Park (a park that the City of Trabzon owns which is a semi-public park that requires a fee to enter the park) as the active green space that they are using. These results are grouped into three main categories: Enough (Enough, Playground in our site), Not enough (Exterior, Boztepe, Not Enough), and None.
Figure 4.21 represents the combined answers to the green space question. As a result, 67% (62) of respondents stated that there are no green spaces available. Nineteen percent (n=17) stated there are some but not enough green spaces available. Whereas 14% (n=13), without specifying the places, stated there are enough active green spaces available in Çukurçayır.

**Desired Amenities**

Respondents were asked to identify the amenities that they think are missing in Çukurçayır. The list of amenities includes: Arts Center, Sports Center, Community Center, Boulevards, Neighborhood park, Community Garden, Coffee/Tea House, Shopping Center, Cinema, and All of above. Also, they were asked to circle all that apply. Figure 4.22 reveals the desired amenities in Çukurçayır based on respondents' answers. Seventeen percent (n=51) of the respondents want to see a complete neighborhood park. Fifteen percent (n=46)
claimed that a sports center for both young people and adults is missing. Fourteen percent (n=42) of the respondents claimed that a community center for gathering spaces with the community members. Twelve percent (n=37) claimed that Çukurçayır desires a wide boulevard where there are trees isolated from the concrete blocks of apartments and roads. Nine percent (n=27) based on their agrarian culture desired to see community gardens where they can actually garden. Seven percent (n=22) claimed that there aren’t enough coffee/tea houses for people to socialize. Seven percent (n=22) would like to see all included. Only four percent identified cinema as a need in their community. Finally, only 3% (n=9) indicate that a shopping center is a necessary amenity that should be in their community.

![Figure 4.22: Desired amenities (n=302)](image_url)
Definition of Green

Describe Green

In the last question, which was an open-ended question, respondents were asked to describe ‘green,’ based on their memories and places they imagine. This question was asked to bring back all the memories that people still feel connected to. They were asked to give some characteristic feature of their dream green place. This fundamental question of this survey is mainly asked to shape overall experience people have with their current housing environments. This question was asked to support future guidelines.

![Figure 4.23: Describe green (n=257)]
Figure 4.23 shows the results. Sixteen percent of the respondents (n=41) stated that they find themselves in a green public places with people. Fifteen percent (n=40) of the respondents described a public park where both physical and social activities take place. Fifteen percent (n=38) stated that they see themselves in an area surrounded by trees. 8% of the respondents described a boulevard as a green space; a place where people walk and shop under trees. Seven percent (n=18) of the respondents referred to trails where they can walk with their partners and enjoy the fresh air. As respondent #53 stated, “I want to be able take my wife out to the places where we can get our daily walk.” And respondent #67 says, “I want to be surrounded by trees where I jog or run and I see people enjoying the landscape around them. Maybe there are also a few places to get something to eat and drink, maybe a little cafeteria.” Another seven percent of the respondents (n=17) described themselves in a forested area. Six percent of the respondents (n=16) use the term oxygen. Five percent (n=13) preferred to be in tranquil areas. Five percent (n=12) of the respondents said that they find themselves in a picnic area with their families and friends and other groups of people all together. Four percent (n=10) of the respondents imagined themselves being in their village where there are vegetable gardens and hazelnut trees. As respondent #32 stated “…ahh, my village where I used to live before I moved here, where I have a garden and have my own produce. I visit our hazelnut garden and walk around the neighbor’s gardens as we sit and have a cup of tea under the trees…” Another 4% stated that playground is a green place where their kids can play. Three percent (n=7) of the respondents stated that they see flowers all around. Two percent (n=6) identified water features as a green place element. Only two percent of the respondents (n=5) referred to sport fields as a feature of green spaces. Only one percent (n=3) of the respondents clearly stated designed landscapes as green space.
Summary

Of the 92 respondents, most were married couples with kids living with them. They are mostly living with their families and most of the homeowners are planning to stay in Çukurçayır for a long time. Most of the respondents have had at least a high school education and were willing to participate in collaborative organizations to improve the quality of Çukurçayır.

The primary reason they prefer Çukurçayır as a living option is its closeness to the city center where most of the economic activity of Trabzon is concentrated. Another reason why residents prefer to live in Çukurçayır is its air quality and its variety of new housing apartments as an alternative to the decaying existing housing stock. The respondent’s main concern with Çukurçayır is its lack of social infrastructure such as green spaces, parks, trails, gathering areas, plazas, cafes, and community centers. The results clearly show that there are many lacking amenities in Çukurçayır such as green spaces, and social interaction places, social and physical infrastructural amenities.

The next chapter, Summary and Implications, presents a discussion of the major findings as they relate to the research questions, the study implications, and design recommendations, as well as suggestions for future studies.
CHAPTER V
SUMMARY AND STUDY IMPLICATIONS

Introduction
This chapter discusses the study’s results within the context of the research questions, as well as previous studies. The chapter is divided into five sections. The first section reviews the major findings of the study and presents the information as it relates to the research questions. The second section discusses the implications of the study as a response to survey results and design recommendations and implications. The third section reviews the limitations of the study and offers suggestions for improvement. The fourth section provides ideas for future studies. Finally, the fifth section summarizes and concludes the study.

Summary and Discussion of the Major Findings
Discussion Of Major Findings
Here, the major findings of the study are discussed. Findings are grouped into three main categories based on Design Workshop’s legacy design metrics. Design workshop is a planning and design office based in Colorado. The reason why Legacy Design Metrics are used as a categorization tool is because even though they frame the findings in terms of effective design and project accountability.
Figure 5.1 shows the findings grouped into the three major groups including community residents, environment, and development. First, Community Residents has sub-groups of civic life and infrastructure based on the findings and research questions. The first sub-group, civic life represents the similar background of the respondents with their major concern being lacking and unsatisfying amenities. Most importantly, this emphasizes the lack of places for arts, culture and entertainment. Food production areas and quality public places

Design metrics are modified from DESIGNWORKSHOP Legacy Design Metrics

Figure 5.1: Summary of survey findings
can also provide social activities. The second sub-group summarizes the findings relative to the lack of social infrastructure such as neighborhood parks, sports centers, and community centers that contribute to social interaction and collaboration. The first group of findings addressed the research questions such as, how do residents’ preferences for public space/place differ from the existing housing environments? And, what kinds of amenities are present or missing from new developments in Trabzon that contribute to residents’ sense of place? In addition to those questions, the findings reveal information about the development of design guidelines for new housing developments.

The second major group of survey findings represents findings that are related to Environment. The sub-groups of environment are physical planning, transportation, energy, and atmosphere and operations. As it has been widely discussed in this paper, physical plans are the determinants of general land use and density and during the interviews in questions 13 through 18, residents reflected issues that are directly addressing issues such as high development density, lack of open land and conservation land plans, insufficient green spaces, public places. Another sub-group is site design. Related to site design, the respondents addressed increasing noise pollution and poor landscape design. Transportation is the third subheading under the environment category, trails and boulevards and a new transportation hub were the most wanted features that Çukurçayır doesn’t currently provide.

Energy and atmosphere is another metric of Design Workshop. Many respondents said that due to the very dense accumulation of houses, the air quality is diminishing. Finally, Operations is one of the subgroups that was listed under environmental metrics. In Cukurcayır, site maintenance is a major issue. This group of findings helps respond to the research questions pertaining to the social and cultural cost the residents pay when a lack of space and place are not included in a housing development. Many amenities are missing
from the new developments in Çukurçayıır that contribute to a residents’ sense of place. Also, it seems that the relationship between the respondents’ perceptions of their outdoor environment, and current planning practices are discouraging place and public open space in new housing developments in Trabzon, Turkey.

The final major finding group is Development. This group is sub-categorized as market potential and community impact. This group of findings is really important as it relates to the research questions of this study. For instance, this set of findings directly refers to the research question about the costs that are associated with current design principles of place. It was clear from the survey results that respondents, especially the house owners, are willing to stay for a long term in the houses they bought. The units are very affordable and new.

The location of Çukurçayıır holds a high value in terms of marketing the housing developments in the area as it provides beautiful view to city center, clean air, closeness to the city center, and shops and supermarkets. The findings represent that there is clear disconnection between residents and the local government because they are lacking a common ground to meet and collaborate. The second sub-group is community impact. This group represents whether Çukurçayıır offers a sustainable future for long-lasting communities. The results show that public and community infrastructure is missing in Çukurcayır, even though residents planned on living for a long term, some are already planning to move out because they think they have waited long enough for their housing environment to change. Overall, Çukurçayıır has one of the most rising values in Trabzon since 2006 and many people moving from other parts of Trabzon to Çukurçayıır. The government should consider and plan ahead so that when the houses decay residents will have intangible values to
hold on such as community, friendship, identity, and quality. Out of all findings, the ones that are shown in pink letters in figure 5.1 are reflected in the design guidelines as them being the most highlighted in the survey results.

**Design Recommendations**

All the design recommendations made were based on survey findings and research. There are three main groups of design recommendations: Community residents, Environment, and Development. Design recommendations are explained with supplementary figures.

**Community Residents**

This study recommends adding green spaces that will bring social and economic enhancement to Çukurçayıır. Figure 5.2 reveals design recommendations visually. Turkey has an agrarian background and many people that have agrarian background say that they want gardens like where they used to live. They also described gardens when they describe the “green”. Cukurcayır, in this sense, holds a

![Diagram of quality living](image)

*Figure 5.2: Diagram of quality living*
great potential to turn steep slopes that cannot provide recreational facility into community gardens for food production. Teahouses are one of the fundamental characteristics of traditional urban settings in Turkey. Currently, teahouses should improve its quality or moved to another central location in Çukurçayır. There is an opening next to mosque where they can establish quality teahouse. Examples of these improvements are shown in Figure 5.3.
Environment

The provision of local green space is one of the fundamental findings in making urban life more livable and in providing green infrastructure. These will provide valuable basic environmental services such as cleaning the air, storing floodwater, and ameliorating the heat island effect. All the developments in the study area are grouped around the main corridor, so any Çukurçayıır resident has to experience the journey on this street. Proposed street illustrations loosely represent street improvements (see figure 5.4). The main street

![Existing and proposed street improvements](image)

Figure 5.4: Main Street improvement
is a big asset to any type of community including Çukurçayıır. The current main street of Çukurçayıır can be improved by adding more trees and widening sidewalks by reducing the on-street parking. Residents also highlighted air quality as a reason why they moved to Cukurcayır, but they also complained about diminishing air quality. Providing green spaces will also help to diminish these negative issues. Beside its benefits, green spaces and public spaces are listed as the most desired amenities. In Cukurcayır, there are four potential sites

Figure 5.5: Examples of various green spaces
Source: Photos taken by Beyza Şen
that can be designed as green spaces based on community needs. Figure 5.5 shows examples of variety if green spaces that can be generated in Çukurçayır.

Development

Future improvements for the quality of the housing environment in Çukurçayır should happen with the collaboration of local governments and its residents. Beside physical improvements, many potentials of the community can be highlighted with community interaction programs.

Figure 5.6: Collaborative local governments and participatory community members
Figure 5.7 represents the land use plan of Çukurçayır. The diagram shows the current footprints of buildings and some of the land use. For instance, a school is replaced with an apartment building or, as it is revealed from Figure 5.6, some buildings sitting on proposed green areas. Another thing that is highlighted in this study is that residential developments in this plan are determined to be seven to eight stories tall. In the land use plan, all the green spaces and other infrastructural amenities were calculated based on that population, but municipalities do not provide enough social infrastructure. Therefore the recommendation is to revisit the physical planning system and employ a more comprehensive master planning process for the local governments that require involvement of all the actors.

The final recommendation is that there is a need for better design guidelines. During the interviews, residents complained about the design of places and the lack of local context. This is established in the literature and research. In this case, it is better that no investment has been done except apartments and some roads with its new society Çukurçayır can improve the quality of the place that everyone desires to live for long years.

Figure 5.7: Land use plan Çukurçayır
The site that is selected for this study application is a 89 acre site. It covers a 1/4 square mile radius that allows easy pedestrian access. Approximately 11,412 people are living in the selected area. It contains 96 apartment buildings. The current green space covers only two percent of the whole site. There are enough shops and groceries to respond to residents’ needs. All of the developments that are located within the study limits have direct connection to the main road leading to the core of Çukurçayır. Figure 5.8 represents a comparison of the physical conditions of the site. The diagrams below represent proposed conditions based on the findings of the study.

Figure 5.8: Existing and proposed amenities’ comparison
Figure 5.9 shows the existing physical condition of the site (left) and on the proposed master plan (right), with improvements based on the

Figure 5.9: Existing and proposed Master Plan
study findings. The design provides widened sidewalks, trees, limited on street parking and, tree plantings, parks connected with green streets, a lookout plaza, a new plaza, and social space for gathering next to a mosque. Community gardens and other potential food production areas are also highlighted. Figure 5.10 reveals the design solutions using a more detailed perspective.

Figure 5.10: Detail view of improved areas
Design Implications

The study findings provide the field of landscape architecture with a new theoretical and practical perspective. The researcher is hopeful that these findings will be used by local government of Çukurçayır as well as practitioners and developers in Turkey. If used, designers will discover an improved approach generating quality places that will last for a long time. This section discusses the implications of the research findings for community residents, the City of Çukurçayır, developer/builders, and designers.

Figure 5.11: Design implications
Subcategories for each finding group are revealed in Figure 5.11. The black lines and arrows are representing the relationship between the actors. The black lines and arrows shown in figure represent the ideal relationship of the physical planning process for quality housing environments. Since municipal law doesn't require any engagement with either the community or the designer, it is a very fragmented and isolated process. This process is also requested by the residents, planners, and city administrators that were interviewed. Thus, if the dashed blue lines can be added, the overall process can be more holistic and generate quality places for long lasting communities.

Community Residents

Each category assigns some roles to different actors. Under community residents, emphasis is more on community interaction, such as Community centers, where residents can develop relationships through neighborhood partnership networks. In addition, they are given the greater amenities to allow community members to collaborate with neighbors and be active. Another category that contributes to the overall quality living experience of Çukurçayır is transportation. The majority of the residents are car owners and should be using non-motorized alternatives. Also, site maintenance and the greening of neighborhoods is something that community residents should be a part of it. With the partnership groups, they can generate a schedule for improving the quality of their housing environments.

Local Governments

Local governments hold the tools for shaping the places when the citizens are governed in a responsible way. This makes the place making process much more efficient and the results may be more satisfying. In the case of this study, the City of Çukurçayır should revisit their previous land use and implementation plans and follows a more participatory approach. By revisiting the plans, governments
will have a chance to see how much societal land they have taken away from residents. Some of the site design elements that local governments should improve are: public transportation, quality sidewalks that are connected that helps to increase walkability rate of Çukurçayır. For future developments, local governments can also support the idea of low energy building incentives and systems. Finally, local governments should develop a planning and design commission that works with developers, residents, and designers in order to make sure that every asset functions properly.

**Developer/Builder**

Developers should be more willing to give. They should integrate more on site amenities. Buildings should meet the building criteria and developers should provide a selection of previous work and experience. Developers and designers also should schedule follow-up project evaluation meetings and should communicate both with the city and homeowners.

**Designer**

Finally, maybe the most important actor that is contributing to death of place is the designer group. Before they are given the job they should convince all the actors that they are suitable due to their previous experiences and capabilities. They should understand the site and its social and physical context. They should meet with residents and create design alternatives based on the results of project evaluation meetings and public hearings.
Study Limitations

The main limitation of this study is the fact that research represents only 2% of the population living in the selected area. This makes it difficult to generalize the findings and apply it to design solutions. The goal of this study is to raise the awareness that housing environments lack quality, and suggest that local governments need to identify the development limits and engage in a more participatory design process. Another factor that limited this study was the limited timing and selection of a site not easily accessible from Clemson, SC.

Suggestion for Future Studies

More collaborative approach with the local government: Future studies may use the findings of this study to investigate a participatory design process. Future studies can include the collaboration of city administrator’s focus groups research and public hearings design process as enrichment.

True participation process: This study was only able to acquire feedback from 2% of the residents, which is a low representation rate. Following studies can employ larger groups of people to develop more holistic and reliable design solutions. Also, another factor that maybe limited in this study is how the surveys were delivered. Some people were isolated from the housing environment, which may have caused bias.
Selecting an undeveloped site: In this study, Main Street and the potential areas were retrofitted in order to create a focal point in Çukurçayıır. However, future studies can generate more comprehensive design solutions including architectural elements and urban social infrastructure.

**Conclusion**

The aim of this research is to draw attention to the rising issue of the diminishing quality of housing environments due to poor physical planning in Turkey. This study is important because the housing environments that are created in new cities are almost identical, and there is no significant feature that distinguishes one from another. These types of developments were introduced to developed countries in early the 1900’s, which for many was a lesson learned at a high cost. Today, the majority of these developments are demolished. Architecturally and contextually correct housing environments have started being produced in their place. However, Turkey as a developing country does not prefer to look at earlier examples that have failed. The government chooses to invest in poorly constructed mass housing development programs rather than creating environments that are productive and long lasting.

Findings from this study show that the major profile of a resident of Çukurçayıır does not find his or her housing environment satisfactory. They are happy with the fact that the apartment units are new and they have easy access to amenities such as supermarkets, shops, and the city center. The greatest concerns are a lacks social infrastructure, which includes green spaces, quality social places, plazas, urban agriculture, green streets and trails. The majority of the residents were housewives, which means they spend most of their daily lives in these environments. These women were also the group who were most willing to collaborate and change their surroundings.
The benefits of this study to current development is the design guidelines and design application that shows how to improve the current quality of the housing environment. The data may be used as a measuring tool for social infrastructure in new cities and to alert local governments to the negative costs. In turn, that knowledge will draw attention to target more engaging, collaborative, human scale places to be created for socially and environmentally sustainable communities.
APPENDICES
Appendix A
Sample Recruitment Script
Clemson University

Quality of the Housing Environment in Çukurçayıır, Turkey.

My name is Beyza Sen, a graduate student from the Department of Landscape Architecture at Clemson University. I am working with Dr. Matthew Powers from Clemson University for my thesis project. I would like to invite you to participate in my research study about the Quality of the Housing Environment in Çukurçayıır, Turkey. You may participate if you are currently a resident of a housing development in Çukurçayıır, Turkey. Please do not participate if you are currently residing at another place. As a participant, you will be asked to answer 18 questions, which will approximately take 10 to 12 minutes.

We do not know of any risks or discomforts to you in this research study. Neither your name nor your address will be recorded. All the information will be kept in a secure environment and will be solely used for academic purposes.

We do not know of any way you would benefit directly from taking part in this study. However, this research may help us understand the residents’ current satisfaction levels with their current housing environment.

We will do everything we can to protect your privacy and confidentiality. We will not tell anybody outside of the research team that you were in this study or what information we collected from you in particular.

If you would like to participate in this research study, please read the questions fully and take as much time as you need to answer all questions.

If you have any questions or concerns about this study or if any problems arise, please contact Dr. Matthew Powers at Clemson University at 864-656-4408. Also, you may contact the Clemson University Office of Research Compliance (ORC) at irb@clemson.edu or use the ORC’s toll-free number, +1 866-297-3071.

I have read this form and have been allowed to ask any questions I might have. I agree to take part in this study.

Participant's signature: ________________________________ Date: ________________

A copy of this form will be given to you.
Appendix B

Questionnaire

1) What is your gender?
   - Female
   - Male

2) What is your Marital Status?
   - Married
   - Single

3) What is your parental status?
   - No Kids
   - Have Kids Living Together
   - Have Kids Not Living With Me

4) What is your education level?
   - Elementary School
   - Middle School
   - High School
   - University
   - Graduate

5) What is your current career field? ..................................................

6) What is your Property Status?
   - Owner
   - Renter

7) What is your Planned Living Period?
   - 10 Years Or More
   - 5 To 10 Years
   - Less Than 5 Years

8) If you are a renter, how much do you pay for rent?
   - 0-500 TL
   - 500-1000 TL
   - 1000-1500 TL
   - 1500 TL And Plus

9) What is your household income?
   - 0-1000 TL
   - 1000-2000 TL
   - 2000-4000 TL
   - 4000-6000 TL
   - 6000- +

10) What is your daily mode of transportation? (Please select all that apply)


- Own Vehicle
- Dolmus (Shuttle)
- Bus
- Walk
- Na

11) Where do you shop for your weekly needs? (Please select all that apply)
- Farmers Market
- Supermarket
- Shopping Center
- Corner Store At Our Site
- Shopping Mall In The City Center
- Other

12) What is your favorite view outside?
- Neighborhood Park
- Kids Playground
- Site Garden
- Site Pool
- Green Areas Over The Hills
- Sea View
- City Center (Trabzon)
- Other

13) As far as your comfort and the comfort of your family are concerned, what are the things you like about this housing project?
___________________________________________________________________________________________
______________________________________________________________________________________________
______________________________________________________________________________________________

14) Again, thinking about the comfort of your family, what are the things you do not like about this housing project?
______________________________________________________________________________________________
______________________________________________________________________________________________
______________________________________________________________________________________________

15) If you or your family wished to improve your general satisfaction with your present surroundings, what kind of improvements would you make?
______________________________________________________________________________________________
16) What type of amenities you would like to see in your neighborhoods that you think would improve the quality of your neighborhood? (Please mark all that apply)

1) Neighborhood Park
2) Arts Center
3) Sport Center
4) Community Center
5) Boulevards
6) Coffee/Tea Houses
7) Shopping Center
8) Cinema
9) Community Garden
10) All

17) In your own words can you list the available active green spaces in your community?

____________________________________________________________________________________________________________________________

18) In your own words, please write down and draw what you think the term “green” means, in reference to the environment.

____________________________________________________________________________________________________________________________

Thank you for taking time to complete and submit this survey. Your insight and information are very valuable to me in making informed decisions design of this research, as well as providing a data for current housing environment satisfaction.

Should you have any further questions or concerns about this survey or any of its questions, please contact Beyza Sen at 0462-334-5976 or senbeyaz@hotmail.com
REFERENCES


City of Roseville California Planning and Redevelopment Department. Community Design Guidelines for the City of Roseville. Guidelines, Planning and Redevelopment Department, Roseville: Planning and Redevelopment Department, 2008.


