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CRIME PREVENTION BY MEANS OF URBAN DESIGN TOOLS:
THE CASE OF İSTİKLAL NEIGHBORHOOD, ANKARA

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CRIME PREVENTION BY MEANS OF URBAN DESIGN TOOLS:
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THE CASE OF ISTIKLAL NEIGHBORHOOD, ANKARA**

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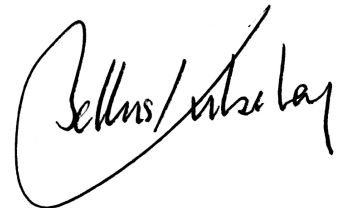
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ABSTRACT

CRIME PREVENTION BY MEANS OF URBAN DESIGN TOOLS: THE CASE OF ISTIKLAL NEIGHBORHOOD ANKARA

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The objective of this study is to seek the reasons of both the actual crime and fear of crime on urban streets, to evaluate the relationships between fear and physical attributes and to find out how physical attributes can help to reduce this. The study aims at developing new urban design principles in order to decrease the crime risks for users in historic residential neighborhoods.

To do that, the study identifies the risky and unsecure spaces and potential places with high crime rates in Istiklal Neighborhood. The study also explains the relationship between crime and the design of the built environment and the role of urban design tools in reducing the crime rate and creating safer places by the help of this case study, held in Istiklal Neighborhood, Ankara.

Keywords: urban design tools, urban setting, perceived crime, crime, crime prevention

ÖZ

KENTSEL TASARIM ÖĞELERİNİ KULLANARAK SUÇ ÖNLEME: ANKARA İSTİKLAL MAHALLESİ ÖRNEKLEMİ

Kubilay, Ayşe Belkıs

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Bu çalışmanın amacı, sokaklardaki gerçek suçun ve korkunun sebeplerini araştırmak, bu korkunun fiziksel öğelerle olan ilişkisini incelemek ve fiziksel öğelerin korku hissini azaltmakta nasıl yardımcı olabileceğini ortaya çıkartmaktır. Bu tez kentsel yerleşimlerdeki kullanıcılar için suç riskini azaltıcı yeni kentsel tasarım standartlarını geliştirmeyi amaçlamaktadır.

Çalışma, İstiklal Mahallesi'ndeki riskli ve güvenli olmayan alanların ve suç oranının yüksek olduğu yerlerin belirlenmesine odaklanılmaktadır Daha sonra suç ve yapı çevre tasarımı arasındaki ilişkiyi ve kentsel tasarım öğelerinin suç oranını düşürmedeki ve güvenli alanlar yaratmadaki rolünü Ankara İstiklal Mahallesi örnekleminin yardımıyla açıklamaktadır.

Anahtar kelimeler: kentsel tasarım öğeleri, kentsel yerleşim, hissedilen suç, suç, suç önleme

To My Family and A. Onur Öztürk

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CHAPTER 1

INTRODUCTION

The objective of this study is to evaluate both the actual crime and perceived crime rate in a neighborhood compared to the fear of crime on urban streets, and how physical attributes of the neighborhood can help to reduce actual crime, perceived crime and the fear of crime. The study aims to identify urban design principles in order to reach an ultimate goal of decreasing the crime risks for inhabitants of a historic residential neighborhood by altering the neighborhood's physical attributes. Istiklal neighborhood in Ankara is used as a study field.

In relation to the case study of Istiklal neighborhood, the main aim of this study is to discuss how urban design tools or principles can help maintain security on urban streets. This suggests that environmental attributes of cities' public spaces, like streets, squares, the distances between buildings, or the locations of bus or subway stops, can help provide security. In other words, this study examines why some streets have high inclinations for crime and how these streets can be redesigned more safety, making residents feel more safe thanks to the place's physical attributes.

This study also aims to identify meaningful environmental attributes that can affect the feeling of safety. This is in contrast to the use of technological systems such as closed-circuit television (CCTV) and cameras, which interfere with people's privacy and the ability to act on one's own initiative. These new technological approaches, like surrounding residential areas with security walls or private security guards, are short-term and limited solutions to crime.

This study also searches for methods of crime prevention. The main purpose of crime prevention is to reduce people's risk of becoming a victim. That is why it is important to remove opportunities for a criminal to take advantage of people or their property. It is obvious that successful crime prevention efforts will promote a safer community by enhancing the perception of safety and the attitudes and behaviors that help people feel safe.

According to Akpınar (2005), the first step of crime prevention is to analyze the current status of crime in terms of density or the pattern of crime types. However, Brantingham and Faust (1976) stated that crime prevention "might be defined simply as any activity, by an individual or a group, public or private, that precludes the incidence of one or more criminal acts" (p. 284). Therefore, besides understanding the current status of crime, examining the current social or physical status of the area is also important as a first step of crime prevention.

In terms of the current social or physical status of the area in question, there is a current participatory action project in Istiklal neighborhood (Osmay & Ataöv, 2008). The name of this project is "Neighborhood Upgrading through Participation" (2008) and it includes empowerment activities within the context of upgrading the quality of life in Istiklal neighborhood (Osmay & Ataöv, 2008). The main aim of the project is "to generate shared knowledge to be useful for the community in order to change the situation through participation and action" in the Istiklal neighborhood (Osmay and Ataöv, 2008, p. 1).

According to the findings of this PAR study, Istiklal neighborhood exists with limited notions of community, and this puts the existing problems of the neighborhood into a process of long-term change (Osmay & Ataöv, 2008). This change includes the residents' gaining capacity, both socially and economically. "Secondly, it calls for a change in the approach of the local authorities and central government to the site, towards a more holistic one. Within this framework, the neighborhood safety, the restoration of houses, empowerment of youth, education

and training of inhabitants can be listed as urgent issues to be dealt with towards a sustainable community” (Osman and Ataöv, 2008, p. 10).

As stated above, the issue of safety has been one of the major concerns of the neighborhood’s inhabitants. Therefore, this thesis deals with the issue of safety and crime prevention in Istiklal as a part of the Neighborhood Upgrading through Participation Project. Moreover, the thesis looks not only into the environmental and social conditions that enhance and hinder neighborhood safety, but also at the role of stakeholders in making the neighborhood a safer place.

Additionally, Istiklal is a historic residential neighborhood of Ankara and this is an important issue for this thesis. Istiklal neighborhood is an existing residential area and, because of its historic nature, it has its own peculiar structure. However, some part of this structure has changed over the course of time. Both these changes in the neighborhood and the peculiar structure of the area generate some positive and negative opportunities for crime and crime prevention. Moreover, they constitute the fundamental basis of this thesis by affecting the best ways to approach the neighborhood in terms of crime and crime prevention.

Within this framework, this thesis aims at responding to the main question of how the environmental attributes affect the occurrence of crime in Istiklal neighborhood. More specifically, the study intends to find answers to the following research questions:

- What are the types of actual crime and perceived crime that have occurred most frequently in Istiklal neighborhood?
- Where do these crime types most frequently emerge within the neighborhood, and why does it emerge at these locations?
- Is there a relationship between crime occurrence and environmental features in Istiklal neighborhood? Which environmental attributes trigger crime?

- Have interventions decreased the occurrence of crime?

The study makes a contribution to its field on various levels: theoretically, methodologically, and professionally and practically.

The study is important at the theoretical level because crime can affect quality of life and the sustainability of cities. A lower rate of crime means a higher quality of life within cities. Crime rates can be reduced with the help of planning processes and urban design.

Urban planning and the physical environment can play an important role in reducing the opportunity for crime and decreasing the fear of crime. In fact, “the fear of crime, which received scant attention until the 1980s, is now recognised as a more widespread problem than crime itself” (Hale, 1996, quoted in Bannister and Fyfe, 2001, p. 807). This is because fear of crime directly affects people’s behavior and the general livability of the city.

Fear of crime affects the livability and sustainability of cities by keeping people off the streets and out of public places. “Together crime and the fear of crime have been seen to blight urban life, attacking the economic, social and political fabric of cities. Seemingly, crime and the fear of crime have drained cities of their vital essence: the celebration of difference” (Bannister and Fyfe, 2001, p. 872).

The study is methodologically important because it complements a bottom-up research method which allows the neighborhood’s inhabitants to speak for themselves, and thus empowers the residents of a historic neighborhood that is typically left alone to its own destiny by local politics. This study produces the knowledge, based upon the policies formulated by neighborhood inhabitants, to prevent crime in that area.

The study is also important professionally and practically. The structure and the layout of the neighborhood's man-made environment have a huge impact on crime rates and the fear of crime. Certain places, like streets, alleys, parks, and parking areas, are determined to be dangerous by citizens, due to attributes such as poor lighting, isolation, or lack of other people. All these points can be addressed by urban design principles in order to make a more livable city (Wekerle & Whitzman, 1994). "A high proportion of crime takes place in particular locations, and the characteristics of those locations in terms both of their general settings and their specific attributes influence very considerably the crimes that do (don't do) take place there" (Schneider & Kitchen, 2007, p.1).

Urban safety is also a very basic precondition for urban economic and social development. First of all, people make their decision about location according to the rate of crime in a city. "When, for instance, people perceive urban areas as unsafe and decide to out-migrate or not to locate there, there can be serious economic consequences for those areas" (Berg, Pol, Mingardo, & Speller, 2006, p. 8). Safety influences the spatial behavior of citizens, companies, businesses, visitors, and tourists. If people think that cities have become less safe, the urban attractiveness will inevitably decrease, and people have a tendency to move to other places perceived as more safe. As a result, the local economy is negatively affected.

The aim of this study is descriptive and the methodology used is qualitative, in order to reveal insights about people's lives, experiences, behavior, emotions, and feelings, in addition to organizational functioning, social movements, cultural phenomena, and interactions between nations (Strauss & Corbin, 1998).

First, the study starts with a literature survey, mainly focusing on urban design principles and tools that use methods for providing security. This literature survey reveals both the attitudes of the researchers in this field and the existing interventions which aim to create safer places in the world.

The second phase of the study is a field survey about security in Istiklal neighborhood. This step focuses on identifying the risky and unsecure spaces and places with high crime rates in Istiklal neighborhood, Ankara. Moreover, this step highlights the attitude of the stakeholders about both the actual crime, perceived crime and the present social conditions of Istiklal.

This identification can be made by gathering data from observations in Istiklal neighborhood, describing the stakeholder map of the area, and defining the security problems in Istiklal in terms of internal and external stakeholders.

In the final step, this study attempts to explain the relation between crime and the design of the man-made environment, and the role of urban design tools in reducing the crime rate and creating safer places in Istiklal neighborhood, by comparing neighborhood findings to the literature review.

As a result, the study is comprised of five main parts. These are the literature survey, case study, methodological issues, results, and discussions. Chapter 2, the literature survey, presents the previous studies in security design and intends to provide organized information about crime prevention. Chapter 3, the case study, proposes to familiarize the reader with Istiklal neighborhood. It includes the historical context, the planning approaches, and the present situation of Istiklal. In Chapter 4, the method of the study is presented. More precisely, this chapter clarifies the data gathering method, the data analysis method, and the stakeholders of the study. Chapter 5 shows the results of the gathered data. The last chapter, a discussion of the findings, reveals a conflict between the literature survey and the situation in Istiklal neighborhood. Moreover, this final chapter offers some crime prevention tools to make Istiklal neighborhood safer.

CHAPTER 2

THEORETICAL AND PRACTICAL REVIEW ON CRIME AND CRIME PREVENTION

Crime remains an indisputable fact of life for societies in all developing countries (Lab, 2000). Lab (2000) states that “crime has continued to increase or remain at unacceptably high levels, regardless of whether crime is measured by official records or victimization surveys” (p. 1).

The rate of crime has increased for two reasons. One reason is the change in technology and the materialistic way of life, and the other is a prevalence of poor social, political, economic, and environmental conditions (Akpınar, 2005). Besides this, there are several factors, such as potential targets and geographic convenience, that affect the geographic distribution of crime and that influence where an offender chooses to commit crime (Akpınar, 2005).

However, to reduce the crime rate, some actions, like crime prevention, can be taken (Akpınar, 2005). Actually, “crime prevention is not a new idea. Indeed, for as long as people have been victimized, there have been attempts to protect oneself and one’s family” (Lab, 2000, p. 15). To do that, most individuals turn to society. Respectively, society has established the criminal justice system to combat the crime problem, and the competency of the criminal justice system has been seriously questioned by both its proponents and opponents (Lab, 2000). However, because of the increase in crime rates despite the existence of the justice system, society needs to pursue alternate means of preventing crime (Lab, 2000).

Within this framework, this chapter is comprised of three subsections in order to analyze crime and crime prevention approaches. First, a definition for crime is presented. Second, general crime prevention models are examined. Third, this chapter offers a brief discussion about environmental design components of crime prevention and presents the existing studies of crime prevention in Turkey.

2.1.The Concept of Crime

The straightforward definition of crime is that “crime is something that is against the law” (Rosiers & Bittle, 2004, p. 7), and it is defined in the dictionary as “an act punishable by law, as being forbidden by statute or injurious to the public welfare” (*Oxford English Dictionary*, 1987, cited in Erdoğan, 2007, p. 13).

However, there is much more to the definition than simply referring to what is written in the law. As Comack and Brickey (1991) stated, “law can be said to have a distinctly social basis; it both shapes and is shaped by the society in which it operates” (p. 15). More precisely, according to Rosiers and Bittle (2004),

Before a criminal statute is even contemplated, there are a whole host of social forces and events that both shape how we conceive of a particular behaviour and influence our decisions on how to respond. In addition, many of these social forces continue to shape our response strategies well after the social wrong becomes part of our legal lexicon. How society thinks about crime and the individuals deemed to be responsible for criminal behaviour influences law enforcement practices and the penalties administered. (p. 7)

In fact, crime is a socio-spatial phenomenon (Farooq, 1999, cited in Erdoğan, 2007, p. 13) and it requires an underlying theory, assumptions, and methodological requirements (Erdoğan, 2007). Indeed, “crime is the product of power relations within society and that the possibility of experiencing conflict with the law is often inversely related to one’s social standing” (Rosiers & Bittle, 2004, p. 9).

For decades, scholars in fields besides the criminology academic disciplines, such as sociology, psychology, and city planning, especially urban design, have struggled to understand various aspects of crime (Düzgün, 2007).

Criminology is the scientific understanding of crime and criminals. It stays firmly within the existing confines of criminal law. Criminology explores the basis and implications of criminal laws. To do this, criminologists ask how the criminal laws emerge, how they work, how they get violated, and what happens to violators (Carrabine, Iganski, Lee, & South, 2004, p. 3).

Sociology is “interested in explaining the epidemiology of crime and they emphasize that it is related to certain social structural conditions of a society” (Clinard and Meier, 1998; Crews, 2001, cited in Erdoğan, 2007, p. 15). In other words, crimes that occur within society and the results of crime are some of the main subjects of interest in sociology. There is not a unique definition of crime in sociology. It holds that crime is a normal situation that emerges within all societies during social change processes and it differs from one society to another (Düzgün, 2007). In the same line with Düzgün (2007), according to Henry and Lanier (2001), “what counts as crime at one place and time, culture, or location may not be considered criminal at another time, in another culture, or even across the street” (p. 7).

“Psychology is concerned with the etiology of crime and explains the process through which individuals come to commit such acts” (Crews, 2001, cited in Erdoğan, 2007, p. 15). Psychology deals with key aspects of problems of human behavior and tries to find the response to questions such as why people exhibit aggressive and violent behavior, whether there is such a thing as a “guilty” personality, and whether childhood experiences have effects on adult criminal behavior (Düzgün, 2007).

In city planning, and especially in urban design, the concept of crime is based on the reality that crime occurs in a space. Therefore, city planning designs spaces to

prevent crime. The criminality fact in city planning depends on principles to design special spaces that preclude crime, thinking that the crime depends on the space. The criminality fact and its space explanation help determine the planned design space for a city planner. To create a secure urban man-made space, it is necessary to accurately consider the fact of criminality (Düzgün, 2007).

As can be seen here, approaches to crime and research topics differ from discipline to discipline. Sociology studies the social reasons of crime, while psychology focuses on the individual that commits the crime. City planning, especially urban design, is concerned with the physical attributes of an urban space that affect the occurrence of crime. However, while searching for the reasons for crime, there should be a comprehensive approach, including social, psychological, and physical factors, because crime occurs most frequently in stressful and disadvantaged areas with disproportional concentrations of poverty, unemployment, and minority populations (Ackerman, 1998; Anselin, 2000; Kershaw and Tseloni, 2005; Nagle, 1995; Osborn et al., 1992; cited in Zhang and Peterson, 2007, p. 4).

In conclusion, as Brantingham and Brantingham (1981) said, there are four things that have effects on the occurrence of crime. These are law, offender, target, and place. Brantingham and Brantingham (1981) claim that “without an offender, someone who breaks the law, there is no crime. Without some object, target, or victim, there is no crime. Without a place in time and space where the other three come together, there is no crime” (p. 7). Crime occurs when these dimensions are in concurrence. However, this thesis deals with only the fourth dimension of crime, which is “place.” It strives to understand crime and crime prevention according to city planning principles, especially urban design, in the context of the case study of Istiklal neighborhood in Ankara.

2.2.The Concept of Crime Prevention and Crime Prevention Theories

Crime prevention can be defined as “any action taken or technique employed by private individuals or public agencies aimed at the reduction of damage caused by acts defined as criminal by the state” (McLaughlin & Muncie, 2000, p. 63).

In the same line, the National Crime Prevention Council (1997) defines crime prevention as “a pattern of attitudes and behaviour directed both at reducing the threat of crime and enhancing the sense of safety and security, to positively influence the quality of life in our society and to help develop environments where crime cannot flourish” (p. 2).

Crime prevention, attempts to protect oneself and one’s family against crime, is an idea that has been around for as long as there has been crime (Lab, 2000, p. 15). Therefore, many approaches to crime prevention have been developed. These approaches have attempted to understand the distribution of criminal acts in space and time, known as the ecology of crime (Crews, 2001, cited in Erdoğan, 2007).

Crime prevention history began with offender theories in the late 18th and late 19th centuries by moral statisticians like Guerry in 1833 and Quetelet in 1831 (Erdoğan, 2007). They were also known as early traditional ecologists and their studies were grounded on offender-based prevention. They studied “criminals and the social conditions that affected their behaviour to become criminals by asking” how people come to be criminal offenders and why people commit crime (Erdoğan, 2007, p. 18).

In the early 20th century, similar to the moral statisticians, traditional ecology began to develop. In the modern city, the studies of the Chicago School (Park et al., 1925) and social disorganization theorists Shaw and McKay gained importance in 1942 for traditional ecologists (Erdoğan, 2007).

After the Second World War in the mid-1940s, until the early 1970s, the social and spatial restructuring of cities was distinguished by modernist thought and place-based crime prevention theories began to develop. According to Erdoğan (2007), these early new crime ecological theories included Crime Prevention through Environmental Design (Jeffery, 1971), Defensible Space (Newman, 1973), and Space Syntax Theory (Hillier, 1977; Hillier et al., 1983).

The first approach to the intentional design and management of urban space in order to reduce the incidence and fear of crime was the Crime Prevention through Environmental Design (CPTED). It was introduced in the early 1970's. The CPTED approach is often marketed as a simple and easy technique that can be applied to all design schemes in order to reduce crime. It also involves a detailed situational crime analysis to identify localized patterns and an examination of the micro-environmental conditions that might be creating opportunities for crime to occur. C. Ray Jeffery is interested in the principles of natural surveillance, access control, territorial reinforcement, and proper land uses (Jeffery, 1971). Another supporter of CPTED is Jane Jacobs. She emphasizes another side of crime prevention. She particularly claims that mixed-use development of streets and the legibility of the environment enhance natural surveillance and “eyes on the streets” (Jacobs, 1961).

The second approach in modernist cities is Defensible Space. “Defensible Space is a model for residential environments which inhibits crime by creating the physical expressions of a social fabric that defends itself” (Newman, 1973). This approach argues that all elements in theory have a common goal of territoriality and a sense of community. Oscar Newman focuses on improving urban safety in public housing projects. He does that by focusing on improving the feeling of ownership (territoriality) in residential areas, access control, and boundary marking. Newman's work emphasizes the critical importance of informal surveillance of areas, especially through visual accessibility. He also focuses on ways to increase a collective sense of responsibility for common areas (Wekerle & Whitzman, 1995). The components of

his study are “Natural Surveillance, Territoriality, Boundary Definition, Access Control, Image and Milieu” (Newman, 1973).

The third approach, from the mid-1940s until the early 1970s, was that of the Space Syntax theorists (Hillier, 1977; Hillier et al., 1983). Like Defensible Space (Newman, 1973), Space Syntax states that it is possible to decrease or prevent crime and increase the defensibility of a space by changing the space’s physical attributes. However, Hillier and Newman differ in their approaches to their main hypotheses. “While Newman (1972) argues that physical design directly influences crime rates, Hillier suggests that spatial configuration in the first place is related to patterns of social interaction and by that means it may affect crime rates” (1973 in Fanek, 1997, cited in Erdoğan, 2007, p. 29). Space Syntax theory determines and quantitatively measures the configurational properties of urban space (Hillier & Hanson, 1984, cited in Baran, Smith, & Toker, 2007, p. 2). This theory is related to the accessibility of potential victims (person and places) as an opportunity to motivate offenders. According to Space Syntax research, crime, especially property crime, tends to cluster in segregated areas, particularly in those “unconstituted enclosed clusters which Newman considered to be the key to increase local surveillance and hence to exclude causal intrusion by non-residents” (Shu, 1999; Hillier, 1988; cited in Baran, Smith, & Toker, 2007, p. 3).

After the emergence of these three approaches, the place-based trend has been improved further since the late 1970s in globalizing cities, and the (late) new ecological approaches have appeared. As described by Erdoğan (2007, p. 19), these theories are Routine Activities (Cohen & Felson, 1979), Situational Crime Prevention (Clarke, 1980; Clarke 1992; Clarke 1997), and Rational Choice (Cornish & Clarke, 1986) as supporting elements of situational crime prevention, and Crime Pattern Theorists (Brantingham & Brantingham, 1981a; Brantingham & Brantingham, 1981b; Brantingham & Brantingham, 1984; Wilson & Kelling, 1982; Sherman et al., 1989; Rossmo, 1995).

The first approach is the Routine Activity Theory (Cohen & Felson, 1979). Actually, this theory is a complementary work of Situational Crime Prevention (Clarke, 1980). The Routine Activity Theory focuses on understanding the “routine activities” of offenders (Schneider & Kitchen, 2002). For this theory, Cohen and Felson (1979) stated that:

Unlike many criminological enquiries, we do not examine why individuals or groups are inclined to criminality, but rather we take criminal inclinations as given and examine the manner in which spatio-temporal organisation of social activities helps people to translate their criminal inclinations into action. (p. 589)

The Routine Activity Theory describes when, where, and how criminal events occur by using the opportunities provided by routine activities of the victims and possible absence of controllers (Erdoğan, 1997). It searches for “patterns of offenders in certain circumstances and likely venues for crimes based upon adjacent land uses and the socio-economic characteristics of neighborhoods” (Schneider & Kitchen, 2002, p. 107). According to this theory, crime occurs when a likely offender, a suitable target, and the absence of a capable guardian against crime converge simultaneously (Erdoğan, 2007).

The second approach in globalizing cities is Situational Crime Prevention, developed by Ronald V. Clarke (1980, 1992, 1997). This theory is based in part on his experiences with juvenile offenders. The Situational Crime Prevention approach aims to reduce crime by explaining specific crimes in specific circumstances. It is a “tactical” approach in terms of place and crime specifics. “In situational crime prevention, settings become more prone to criminal activity when they bring together in time and space likely offenders and suitable targets (either property or persons) in the absence of capable guardianship and the presence of people who may act to encourage or promote crime” (Schneider & Kitchen, 2007). There are sixteen factors that enhance security under four main subject headings, which are listed in Table 2.1., Sixteen Opportunity-Reducing Techniques (Clarke, 1997, cited in Schneider & Kitchen, 2002, p. 105)

Table 2.1. Sixteen Opportunity-Reducing Techniques

Increasing perceived effort	Increasing perceived risks	Reducing anticipated rewards	Removing excuses
1. Target Hardening Slug rejecter device Steering locks Bandit Screens	5. Entry/exit screening Automatic ticket gates Baggage screening Merchandise tags	9. Target removal Removable car radios Woman's refuges Phonecards	13. Rule setting Customs declarations Harassment codes Hotel registration
2. Access control Parking lot barriers Fenced yards Entry phones	6. Formal surveillance Red light cameras Burglar alarms Security guards	10. Identifying Property Property marking Vehicle licencing Cattle branding	14. Stimulating conscience Roadside Speedometre 'Shoplifting is steeling' 'Idiots drink and drive'
Deflecting offenders Bus stop placement Tavern location Street closures	7. Surveillance by employees Pay phone locations Park attendants CCTV systems	11. Reducing temptation Gender-neutral listings Off-street parking Rapid repair	15. Controlling disinhibitors Drinking age laws Ignition interlock V-chip
4. Controlling facilities Credit card photo Gun controls Caller ID	8. Natural surveillance Defensible space Street lighting Cab driver ID	12. Denying benefits Ink merchandise tags PIN for car radios Graffiti cleaning	16. Facilitating compliance Exit library checkout Public lavatories Trash bins

Source: Clarke, 1997; cited in Schneider & Kitchen, 2002, p.105

The third approach is Rational Choice Theory (Cornish & Clarke, 1986) as a vital supporting element of Situational Crime Prevention. Cornish and Clarke (1983) stated the grounding of this theory as follows:

Criminal Choice theory is capable of providing answers to many questions lying outside the scope of conventional criminology concerning such matters as temporal and geographical patterns of crime, the isolated offending of otherwise law-abiding people, and changes of course in criminal careers. (p. 15)

In the same line, criminal choice theory assumes that environmental factors affect offenders' choices and that they commit crimes within the context of a "bounded" rationality (Cornish & Clarke, 1986). According to Rational Choice Theory, "offenders are seen as rational decision makers who aim to minimize their benefits (potential rewards) and minimize their costs (expended effort) and risks in choosing their targets" (Erdoğan, 2007, p. 37).

The last approach in globalizing cities is Environmental Criminology, or, in other words, Crime Pattern theories. This approach deals with offender dispositions besides the characteristics of the crime event. Uncovering patterns of criminal and victimization events is the main basis of the theory. That is why this theory is also known as "pattern theory" (Schneider & Kitchen, 2007).

Environmental Criminology focuses much more on the "geographic elements of crime, including paths and patterns. These are seen to form 'action' and 'awareness' spaces of offenders which, in turn, contain the 'search areas' in which victims and targets are identified" (Brantingham & Brantingham, 1981, cited in Schneider & Kitchen, 2002, p. 108). Environmental Criminology aims to define the relationship between the offense and offender residences, which means that the theory is based on determination of crime sites by examining the areas where the offenders live (Mason, 1996, cited in Erdoğan, 1997, p. 38).

Environmental Criminology highlights the role of place in determining the time, location, and character of crime (Akpınar, 2005). As mentioned in the previous chapter, according to Brantingham and Brantingham (1991), crime analysis has four dimensions: law, offender, target or victim, and place. They also argue "that crime can be understood and predicted through analysis of city land use patterns, its street network, and its transportation system" (Brantingham and Brantingham, 1991, cited in Akpınar, 2005, p. 13).

According to Environmental Criminology, crime prevention can be divided into three approaches (Brantingham and Faust, 1976; Caplan, 1964; Leavell and Clark, 1965; as cited in Lab, 2000). Each of these three approaches, primary, secondary, and tertiary approaches, attack the problem at different stages. Table 2.2., Crime Prevention Approaches, shows the grouping of these approaches (Lab, 2000, p. 21).

Table 2.2. Crime Prevention Approaches

Primary Prevntion	Secondary Prevention	Tertiary Prevention
Environmental Design Architectural design Lighting Access control Property identifications	Identification and Prediction Early ID of problem individuals Crime area analysis	Specific Deterrence
Neighborhood Watch Surveillance Citizen patrols	Sitautional Crime Prevention Problem identification Situation specific intervention	
General Deterrence Arrest and conviction Sentencing methods	Community Policing	Incapacitation
Public Education Levels of crime Fear Self-help	Substance Abuse Prevention and treatment	
Social Crime Prevention Unemployment Poverty Employment/ Job training	Schools and crime Prevention	Rehabilitation and Treatment
Private Security		

Source: Lab, 2000, p.21

Primary prevention means actions taken to avoid the initial problem or crime. It determines the physical and social environment that causes an increase in crime. Secondary prevention deals with individuals and situations that exhibit early signs of crime. It engages in correctly indentifying and predicting problem people and situations. Tertiary prevention deals with actual offenders and involves intervention to cope with crimes that have already occurred. Tertiary prevention is based on the workings of the criminal justice system (Lab, 2000; Akpınar, 2005).

In conclusion, not surprisingly, there have been different approaches including various activities to the prevention of crime since the 18th century. This is demonstrated in Table 2.3., Spatial and Social Contexts and Corresponding Theories of Crime Ecology (Erdoğan, 2007, p. 19).

Table 2.3 Spatial and Social Contexts and Corresponding Theories of Crime Ecology

Urbanization and Urban Development Processes and Related Spatial and Social Contexts	Crime Ecology Theories
Late 18th- Late 19th century Industrial City	Early Traditional Ecologists: Moral Statisticians
Early 20th century Modern City	Chicago School and Social Disorganization Theorists of Traditional Ecology
Mid 1940s- Early 1970s Modern(ist) City	Early New Ecology by Defensible Space, CPTED, and Space Syntax
Late 1970s- Present Global(izing) City	Late New Ecology by Routine Activities, Situational Crime Prevention, Rational Choice and Crime Pattern Theorists

Source: Erdoğan, 2007, p.19

And still, new theory development continues at present (Erdoğan, 2007). Each activity to prevent crime, especially planning interventions, has an important effect on reducing crime rates. Consequently, the next part of this chapter gives more details about the environmental design components in crime prevention in order to better understand the role of planning in reducing crime.

2.3.Environmental Design Components in Crime Prevention

Planning intervention has a positive impact on the decreasing of crime rates (Tilley, 2005; Newman, 1973; Schneider & Kitchen, 2007) and reduction of the fear of crime (Shaftoe, 2004). With the help of a planning intervention, the physical and social environment can be rearranged in order to decrease, and in some cases to eliminate, the opportunities for crimes to be committed and to reduce the fear of crime.

First, a planning intervention has an influence on the decrease of the crime rate (Tilley, 2005; Newman, 1973; Schneider & Kitchen, 2007). According to Schneider and Kitchen, “A high proportion of crime takes place in particular locations, and the characteristics of those locations in terms of both their general settings and their specific attributes considerably influence the crimes that do (don’t do) take place there” (Schneider & Kitchen, 2007, p. 1).

Additionally, the form and layout of the constructed environment can provide an opportunity to commit crime (Tilley, 2005) based on the belief that physical environment can affect human behaviour (Jacobs, 1961; Jeffry, 1977; Clarke, 1997; Brantingham & Brantingham, 1981). For example, deserted areas, vacant buildings, and unattractive streets provide more opportunity for crime (Jeffery, 1977), just as broken windows or windows that are not repaired stimulate a tendency to break a few more windows (Wilson & Kelling, 1982).

Secondly, a planning intervention has an effect on reducing the fear of crime (Shaftoe, 2004). Pain (2001) defined the fear of crime “as a wide range of emotional

and practical responses to crime and disorder made by individuals and communities” (p. 901). In fact, “The fear of crime, which received scant attention until the 1980s, is now recognised as a more widespread problem than crime itself” (Hale, 1996, quoted in Bannister & Fyfe, 2001, p. 807). The fear of crime has a negative effect on livability, sustainability, and the quality of life (Wekerle & Whitzman, 1995).

Due to the fear of crime, people tend to keep off the streets and out of public places, and this affects the way people use and enjoy the city space for living, working, and recreational purposes. When people avoid using streets due to the fear of crime, streets grow empty, laying the groundwork for crime, and, in turn, losing livability. Then the growth of crime rates strengthens the feeling of fear of crime. This, in turn, pushes people to spend yet more time inside their homes (Berg, Pol, Mingardo, & Speller, 2006). However, according to Crowe, “the physical environment can be manipulated to produce behavioural effects that will reduce the incidence and fear of crime, thereby improving the quality of life” (Crowe, 2000, p. 34).

If we define the terms “livability” and “quality of life” more precisely, the term “livability” can be described as “a contemporary equivalent of long-standing city planning concerns with amenity, pleasantness and health” (Lynch & Hack, 1984, cited in Goodchild, 2008, p. 195). It includes empathy of planners with users, putting themselves in the residents’ positions to assess whether a proposal meets their demands and wishes (Goodchild, 2008). “Quality of life” is a complex concept, as it includes a multitude of contributory facets such as housing, work, and environment; and “quality of life studies have focused on subjective well-being or life satisfaction” (Mira, Uzzell, Real, & Romay, 2005, p. 1).

Both “livability” and “quality of life” evolve out of a wealth of existing resources and conditions. Resources promote healthy living, such as clean air, water and soil conditions, good schools, convenient shopping, safe community spaces and secure infrastructure, and so on (www.eslarp.uiuc.edu). All these elements have a role in

“making a community a success and relate to what makes a community livable” (www.eslarp.uiuc.edu). Although the concepts “livability” and “quality of life” range from economic to environmental aspects, this thesis focuses on these issues in terms of physical conditions for safe community spaces.

As mentioned above, both crime and fear of crime blight urban life (Bannister & Fyfe, 2001). “Seemingly, crime and the fear of crime finish off the vital essence of cities” (Bannister & Fyfe, 2001, p. 872). However, crime and fear of crime can be reduced with the help of planning interventions. The design of the constructed environment has a very significant role in reducing crime and disorder and cutting down the fear of crime (Berg, Pol, Mingardo, & Speller, 2006). Crime prevention requires planning and design principles to be incorporated into planning and development on a consistent basis at all levels (Sarkissian Associates Planners, 2002).

Each planning principle about crime prevention should pursue a holistic approach, including social, environmental, and community development strategies (Cleveland & Saville, 1997). This calls for a further analysis of the planning, design, management, and social dimensions of crime prevention. Previous research shows that crime opportunities can be reduced through planning (Schneider & Kitchen, 2002), environmental design (Schneider & Kitchen, 2002), management of the constructed environment (Schneider & Kitchen, 2002), and social changes in the society. Although these all seem to be separate dimensions, some are suggested to co-exist in the sphere of crime prevention.

Table 2.4., The Grouping of Research Categories on Crime Prevention, demonstrates the kinds of issues discussed under these four dimensions of crime prevention research. Research which takes a planning approach to crime prevention focuses on juxtaposition of land uses, mixed using and diversity, and activity generations. Research on environmental design discusses more spatially specific attributes in response to crime.

These attributes are categorized under six titles: Site Design, Street Design, Visibility/Scrunity/Sightliness/Recognizability, Attractiveness, Territorial/Entry Definition, and Finding Help. Studies which emphasize the management side of crime prevention point out the issues of Natural Surveillance; Organized Surveillance; Mechanical Surveillance; Natural Access Control; Maintenance; Setting Rules; Target Hardening; Partnership between Police, Citizens, Businesses,

Organizations, and Local Authorities; and Explaining Specific Crime in Specific Circumstances. Finally, a group of research focuses on the need for social change in order to prevent crime. Within this context, researchers discuss the issues of Increasing Sense of Propriety / Responsibility; Increasing Education / Jobs / Training / Welfare; Mutual Learning; Awareness / Conscience; Social Relationships; and Taking Precautions

Table 2.4. The Grouping of Research Categories on Crime Prevention

PLANNING		URBAN DESIGN				MANAGEMENT			
Juxtaposition of Land Uses	(Jeffery,1971) (Newman,1976)	Territoriality and Boundary definition	(Newman,1973) (Jeffery, 1971) (Angel, 1968) (Wekerle & Whitzman, 1995)	Visibility/ Scrunity/ Sightliness/ Recognizability	Position of windows / entrances	(Newman,1973) (Jeffry, 1971) (Alexander,1977)	Surveillance	(Newman,1973) (Jeffery,1971) (Wekerle and Whitzman, 1995 (Crowe,1991,2000)	
			Image and Milieu		(Newman,1973)	Orientation / Legibility			(Newman,1973)
			Hierarchy		(Newman,1973)	Signage			(Newman,1973)
			Project size / Building density		(Newman,1973) (Alexander,1977) (Jeffery, 1971)	Lighting			(Newman,1973) (Jeffery, 1971) (Clarke, 1997) (Wekerle & Whitzman, 1995)
Building types	(Newman,1973)								
Mixed Using & Diversity	(Newman,1973) (Jeffery,1971) (Jacobs,1961) (Wekerle & Whitzman, 1995)	Building position and Relationship with streets	(Newman,1973) (Clarke,1997)	Attractiveness	Paving	(Newman,1973)	Natural Access Control	(Newman,1973) (Jeffery,1976) (Clarke,1997)	
		Building height	(Newman,1973) (Jeffery, 1971)		Paint	(Newman,1973) (Jeffery, 1971)			
		Traffic	(Newman,1973) (Jeffery, 1971) (Hill & Blears,2004)		Landscaping	(Newman,1973) (Jeffery, 1971) (Wekerle & Whitzman, 1995)			
		Position of access paths	(Newman,1973)		Real Barriers (fencing, gates, exits)	(Crow,1997) (Jeffery,1971) (Clarke,1997) (Wekerle and Whitzman, 1995)			
Activity Generations	(Newman,1973) (Wekerle & Whitzman, 1995)	Street layout	(Newman,1973) (Jeffery, 1971)	Territorial / Entry Definition	Symbolic Barriers	(Newman, 1973)	Partnership between police, citizens, businesses, organizations , and local authorities	(Clarke,1997) (Alexander,1977) (Crowe,1991)	
		Parking	(Clarke,1997) (Wekerle & Whitzman, 1995)		Entry phones	(Clarke,1997)			
		Bus stop placement	(Clarke,1997) (Wekerle & Whitzman, 1995)	Finding Help	Electronic or mechanical devices	(Crowe,1991) (Clarke,1997)			
					Posting instructions	(Clarke,1997)			

2.3.1.Planning for Crime Prevention

Planning interventions are mostly related to the land use strategies of a settlement. Land use planning is the systematic assessment of land, and, basically, “land use is about how people use the Earth’s surface: urban, rural, agricultural, range, forest, and so on. Its aim is to choose and put into practice the best land use to meet the needs of the people. Moreover, it creates the prerequisites required to achieve a type of land use, that is sustainable, socially and environmentally compatible, socially desirable and economically sound (Betke, Klopfer, Kutter, & Wehrmann, 1999). “It sets in motion social processes of decision making and consensus building concerning the use and protection of private, communal or public areas” (Betke, Klopfer, Kutter, & Wehrmann, 1999, p. 21). In this study, environmental attributes in the planning scale will be explained in terms of crime prevention because some land use strategies have an effect on reducing crime and fear of crime. These attributes are mixed use and diversity (Newman, 1973; Jeffery, 1971; Jacobs, 1961; Wekerle & Whitzman, 1995), juxtaposition of land uses (Newman, 1973; Jeffery, 1971), and activity generations (Newman, 1973; Wekerle & Whitzman, 1995).

2.3.1.1. Mixed Use and Diversity

The first important planning attribute against crime is mixed use and diversity (Newman, 1973; Jeffery, 1971; Jacobs, 1961; Wekerle & Whitzman, 1995). Properly defined, “mixed-use refers to a deliberate mix of housing, civic uses, and commercial uses, including retail, restaurants, and offices” (Metropolitan Area Planning Council, p. 2). This provides more options for both residents and workers and allows an area to be useful during all 24 hours of the day (Quality Growth Toolkit).

According to Jane Jacobs (1961) and Ray Jeffery (1971), both of whom support crime prevention through environmental design, mixed uses and diversity of streets and parks have an important role in crime prevention. Streets which are isolated,

unused, and nonfunctional are unsafe streets; on the other hand, streets that have both residential and commercial use 24 hours a day are safe streets (Jacobs, 1961).

In line with Jacobs and Jeffery, Wekerle and Whitzman (1994) claim that commercial streets and shopping malls for neighborhoods must pay special attention to ensure that users feel safe. Additionally, Oscar Newman (1972) points out that “the areas most usually identified as safe are heavily trafficked public streets and arteries combining both intense vehicular and pedestrian movement; commercial retailing areas during shopping hours; institutional areas; and government offices” (p.108-109).

“Streets with pedestrian and vehicular traffic, with small shops and cafes which open late at night, and with residents living in apartments overlooking the street are safe streets because they have multiple purposes to use streets, therefore such streets have eyes and these uses promote natural and informal surveillance by pedestrians and occupants (Jacobs, 1961).”

For streets to be safe, people should have reasons to go out, such as visiting shops or cafes; otherwise, they will prefer to stay indoors (Jacobs, 1961; Jeffery, 1971). Then staying at home increases the desertification of the streets, and thus increases the crime rate and successively the fear of crime (Jacobs, 1961; Jeffery, 1971). This is further emphasized by Jeffery (1971), who observes, “A vicious cycle is created whereby crime forces people off the streets and out of the parks, and nonuse of streets and parks results in a further increase in crime” (p. 216).

Beside streets, parks should also have mixed use and diversity (Jacobs, 1961; Jeffery, 1971). According to Jacobs (1961), parks should be designed as a part of their surrounding environment and should be used by the people. That is why they should be located where people live, to be used during leisure time for ball games, concerts, boating, bicycling, and so on. Parks should also have multiple uses, including restaurants, theaters, zoos, movie houses, art galleries, and so on (Jeffery, 1971).

2.3.1.2.Juxtaposition of Land Uses

The second important attribute is the juxtaposition of land uses (Newman, 1973; Jeffery, 1971). Juxtaposition of areas are analyzed in terms of facilities (commercial, institutional, or entertainment), territoriality, and dimensions.

In terms of facilities, commercial and institutional areas can be identified as safe areas during their intensive uses, because in this period many people engage in activities and thus the facilities provide staff to monitor the individuals who have a tendency to commit crime (Newman, 1973). However, when these facilities are closed, they appear to be untrustworthy and desolate areas for their lack of passersby and employees (Newman, 1973). This is why “the juxtaposition of the entries to residential units with safe institutional areas was considered of positive benefit” (Newman, 1973, p. 110).

Entertainment areas like parks or playgrounds also need to be adjoined to housing projects. There should be a clear identification about the relationship between parks and adjacent project buildings (Newman, 1973). This identification allows adjacent residents to increase the natural surveillance of park activities (Newman, 1973). Otherwise, the park becomes a no man’s land and an uncontrolled area (Newman, 1973). In short, like parks, other entertainment areas should not be isolated from all other activity areas, buildings, and public streets.

When locating the facilities within a project in order to increase the activity, this location decision should be critically evaluated in terms of business activities, intended users, identification with area residents, activity periods, and so on (Newman, 1973). Consequently, juxtaposition of land uses has an effect on minimizing safe conflicts; for example, activities for the elderly should not be placed adjacent to those aimed at teenagers. Likewise, it has an impact on maximizing defense; for example, places where money is collected or stored generally should be located where there is guardianship and surveillance (Jeffery, 1971).

Juxtaposition of land uses also affects territoriality definitions (Newman, 1973). The close juxtaposition between buildings can create territoriality, and also, the relationship between recreational areas or entertainment areas and residential areas should be defined clearly to identify the individuals who belong to the area (Newman, 1996). This leads to better control of an area. “Residents are concerned about ensuring its safety and act to maintain and control it” (Newman, 1996, p. 19).

In addition to the ideas mentioned above, juxtaposition of land uses is also analyzed in terms of dimensions. Newman (1973) points out that:

The success or a failure of a particular configuration depends as much on the degree to which residents can identify with and survey activity in the related facility as it does on the nature of the users of that facility and the activities they engage in. This would suggest that dimensions and nature of the juxtaposition can be significant. (p. 114)

Consequently, this identification has a positive effect on improving the sense of ownership and natural surveillance.

2.3.1.3. Activity Generators

The last important planning attribute for decreasing the crime rate is activity generators. “Activity generators are features that tend to create local activity, such as playgrounds, benches, picnic areas and kiosks. In some circumstances, activity generators can be used to reduce opportunities for crime” (Sarkissian Associates Planners, 2002, p. 8).

Places where appropriate activities have been created have a low risk of crime and a sense of safety because the more activities there are, the higher the potential for natural surveillance is (Hill & Blears, 2004). “The purpose of activity generators is to add eyes to the street or open space; to make a place more secure by populating it” (Wekerle & Whitzman, 1995, p. 46).

Oscar Newman also agrees with the impact of activity generators on crime prevention (Newman, 1973). According to Newman (1973), locations with ground amenities such as playgrounds and sitting spaces increase the areas' intensity of use and further support territorial definitions. He also points out that "the presence of residents involved in various activities, individual or communal children at play, women chatting or doing a wash, or men talking over the best way to tackle a faulty carburetor, brings these areas under casual surveillance by the concerned members of the family and further reinforces its defensible space attributes" (Newman, 1973, p. 70-71).

2.3.2. Environmental Design Attributes for Crime Prevention

Environmental attributes in design scale are mostly related to shaping the physical settings for crime prevention. The aim of these attributes is to enhance "the ability to see and to understand the significance of what is around and what is ahead in order to avoid dangerous situations" (Wekerle & Whitzman, 1995, p. 28). Environmental attributes in design scale deal with the design analysis, including Site Design (Newman, 1973; Jeffery, 1971; Clarke, 1997), Street Design (Newman, 1973; Jeffery, 1971; Clarke, 1997; Alexander, 1977; Brantingham & Brantingham, 1981), Visibility / Scrutiny / Sightliness (Newman, 1973; Jeffery, 1971; Alexander, 1977; Wood, 1961; Wekerle & Whitzman, 1995), Attractiveness (Newman, 1973; Jeffery, 1971; Clarke, 1997; Wekerle & Whitzman, 1995), Territorial / Entry Definition (Newman, 1973; Jeffery, 1971; Clarke, 1997; Crow, 1997; Wekerle & Whitzman, 1995), and Finding Help (Clarke, 1997; Crow, 1997).

2.3.2.1. Site Design

Environmental attributes in design scale deal with site design (Newman, 1973; Jeffery, 1971; Clarke, 1997). The typical design characteristics of housing which suffers from high crime rates are in relation to the natural territorial reinforcement, image and milieu, boundary definition, hierarchy, project size and building density

building types, building position and building relationship with streets, and building height.

Giving more detail about these characteristics, first, natural territorial reinforcement and boundary definition, in terms of crime prevention, is the capacity of the physical environment to create a feeling of neighborhood and a sense of ownership, to identify where “strangers” or “intruders” stand out and to encourage residents to exercise surveillance over their areas (Newman, 1973; Jeffery, 1971; Wekerle & Whitzman, 1995).

To supply the natural territorial reinforcement, Jacobs (1961) also emphasizes the importance of clear boundaries between public and private spaces. There should be a clear distinction while moving from the public street to the semi-public grounds of the project; in the transition from outdoors to indoors; and finally in the transition from the semi-public space of a building lobby to the corridors of each floor (Newman, 1973). When moving through a sequence of territorially defined areas, behavior and expectations of people are changed accordingly, even without the sharp divisions created by locked gates and doors (Newman, 1973).

Defining boundaries to make people understand where public, semi-public, and private spaces lie can be achieved by using street design, site design, street layouts, and real and symbolic barriers (Newman, 1973). Additionally, territorial reinforcement can be accomplished through design techniques such as changes in paving, paint, landscaping, signage, and entry path design relative to individual dwelling units, or with such obvious territorial tools such as fencing, gating, and barricading (Jeffery, 1976). Namely, the physical environment can impose a direct influence on crime by clearly delineating territories (Angel, 1968).

Second, image and milieu is the ability of design to prevent the perception that the area is isolated, unused, and open for crime (www.aic.gov.au). According to Kitchen and Schneider (2007), “Newman’s idea of image and milieu focuses on the

importance of the appearances of places and the power of stigmatisation that flows from images of residential types, especially low-income, publicly subssubsidised housing” (p. 22).

The design of settlements conveys a visual image and an identity. This image can have a negative or positive effect on crime. For instance, settlements that have signs of individuality by defining territoriality tend to signal a private, safe, and no-entry area. On the other hand, a vandalized area can convey bad images such as disorder and abandonment.

In fact, this attribute of image and milieu anticipates the broken windows theory proposed by Wilson and Kelling in 1983 (Kitchen & Schneider, 2007). The broken window theory is derived from the following example:

Consider a building with a few broken windows. If the windows are not repaired, the tendency is for vandals to break a few more windows. Eventually, they may even break into the building, and if it's unoccupied, perhaps become squatters or light fires inside. Or consider a sidewalk. Some litter accumulates. Soon, more litter accumulates. Eventually, people even start leaving bags of trash from take-out restaurants there or breaking into cars. (Wilson & Kelling, 1983)

The broken window theory offers a strategy for preventing vandalism by fixing problems while they are small. Otherwise, these small problems lead to vandalism. For example, if the broken window were repaired quickly, the tendency to break more windows or further damage could have been prevented (Wilson & Kelling, 1983).

Third, another design attribute against crime is hierarchy (Newman, 1973). Two types of hierarchy appear significant in crime prevention: horizontal and vertical. Horizontal hierarchy in space refers to achieving a variety of sizes of public space and the organization of buildings on the ground level. Vertical hierarchy refers to differentiating the use of building floors.

In regards to horizontal hierarchy, Newman (1973) claims that a housing project where there is no attempt at differentiating the grounds to make portions for a particular building or cluster of buildings is the typical housing project suffering from high crime rates. Hierarchy in a residential environment can produce space subdivided into zones reflecting their unique territorial definition of spaces (Newman, 1973). This can enable occupants to expand their responsibility of space and opportunity for surveillance, and to make clear to outsiders where the surveyed boundary starts (Newman, 1973). Figure 2.1., Defensible Space, illustrates the territorial definition reinforced with surveillance opportunity (Newman, 1973, p. 9). In terms of vertical hierarchy, Newman (1973) points out that:

The small cluster of apartments at each floor of a multi-story building is the first level beyond the apartment unit where occupants can be made to extend the realm of their homes and responsibilities. The second level is the common entry and circulation paths within their buildings. The third level is the clustering of buildings which define a project's grounds and its entry. The final level in the hierarchy occurs when the housing development stakes its claim on surrounding urban streets. (p.9-10)

He further illustrates the schema of hierarchy of defensible space from public to private, as in Figure 2.2., Defensible Space Hierarchy (Newman, 1973, p.9-10).

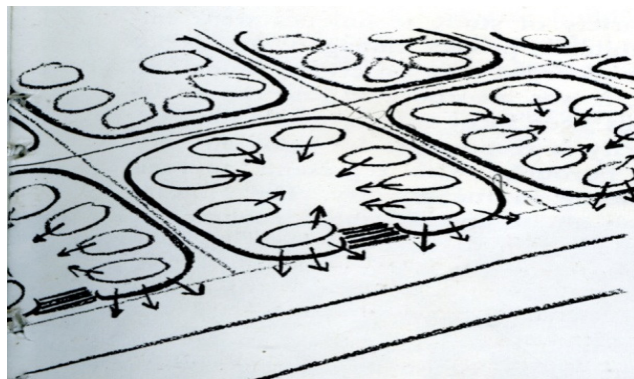


Figure 2.1: Defensible Space
Source: Newman, O. (1973), Defensible Space, p. 9

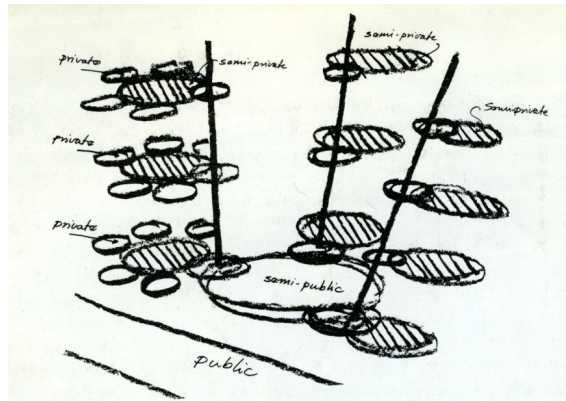


Figure 2.2: Defensible Space Hierarchy in Multi-Level Dwelling
Source: Newman, O. (1973), *Defensible Space*, p. 10

Fourth, one of the typical design characteristics of housing projects with high crime rates is project size and building density. More precisely, this can be expressed by stating that “larger projects encourage crime by fostering feelings of anonymity, isolation, irresponsibility, lack of identity with surroundings, etc” (Newman, 1973, p. 28).

To put it a different way, the higher the project size, the higher the crime rate, for two main reasons (Newman, 1973). One reason is that “project size affects stigmatization as perceived both by the outside world and by the project residents themselves. The apathy that comes with stigmatization leads to neglect and withdrawal, first on the part of the residents, then by housing management, and finally by the municipal agencies that service the project” (Newman, 1996, p. 28). The other reason is that a large project provides a continuous area in which there are opportunities to commit crime (Newman, 1996).

A “high project size” means a high building density. In high density areas, the control of space is rather difficult because there are many people sharing the same place and it is difficult to know each occupant and to determine who belongs or who

is an outsider to the area. In more detail, Alexander (1964) limits the density rate. He suggests that the density rate must be low enough to allow people to have intimate contact with at least four other occupants in their neighborhood (Alexander, 1964). Oscar Newman (1973) thinks that there is a relationship between the number of families sharing space and the responsibility for that space. The more that the space is shared, the less people care about the space.

Fifth, the relation between building types and crime rates was analyzed. The shape of the buildings and their locations enhance two attributes. The first one is the ability of forming places for semi-public activities and the other is the ability for surveillance.

Building types and their locations can create semi-private territory and the use of this area for recreation, for seating, or for playing reinforces its territorial restriction (Newman, 1973). For example, according to Newman (1973), L-shaped buildings, those positioned to touch the street as at two extreme points of an “L,” are a good example of forming semi-private areas. This is because “the area enclosed by the right angle is defined as a semi private territory” (Newman, 1973, p. 54), and the semi-private area forms a buffer zone between the street and the building’s entries (Newman, 1973).

Building types and their locations also improve the ability for natural surveillance. Because of semi-private areas between buildings, residents have a chance to get to know the other building residents who share this space with them (Newman, 1973). Consequently, “strangers are easily recognized, and their activity comes under observation and immediate questioning” (Newman, 1973, p. 55).

Sixth, building position and relation to the streets is also one of the typical design characteristics of housing with high crime rates (Newman, 1973, 1996). Fundamentally, a building’s entry position relative to the street has an effect on providing security (Newman, 1973; Jeffery, 1971). Newman (1973) claims that a building’s front door should be defined clearly and face directly onto the street.

Likewise, going directly from the street to the front door is safer for an inhabitant (Newman, 1973).

Finally, building height influences the crime rate (Newman, 1973, 1996; Jeffery, 1971). According to their height, buildings are grouped by Newman (1996) into three categories: single family houses, walkups, and high-rises. In terms of his hypothesis, Newman (1996) points out that the high-rise buildings mean a large number of people share the same territory, and this causes inhabitants to feel less of a sense of responsibility. Additionally, when the number of people sharing a communal space increases, it becomes more difficult for people to identify each other or to feel that they have a right to control their space, and this makes it more easy for outsiders to gain access to the building (Newman, 1996).

Both height and size factors have effects on decreasing the crime rate, but building height is more important than project size (Newman, 1973). Newman (1973) explains this situation by stating that “the fact that projects greater than 1000 units, with buildings of seven or more stories, have the highest rate, indicates what contributes to a more criminally active situation. It seems that one can still maintain high density (size) and not encounter higher crime rates, as long as building height remains low” (p. 28).

2.3.2.2. Street Design

The second environmental attribute in design scale is street design (Newman, 1973; Jeffery, 1971; Clarke, 1997; Brantingham & Brantingham, 1981). Streets include a complex variety of functions to meet people’s needs for living, working, and moving. That is why they require special approaches to prevent potential conflicts and crime (*Manual for Streets*). For street design, important elements are traffic (Newman, 1973; Jeffery, 1971; Hill & Blears, 2004), position of access paths (Newman, 1973), street layout, circulation network (Alexander, 1964), bus stop placement (Clarke, 1997), and parking (Clarke, 1997).

First, traffic (Newman, 1973; Jeffery, 1971; Hill & Blears, 2004) has an impact on reducing crime by increasing surveillance. Housing developments that are isolated from the main traffic flows of both automobile and humans are closed to public use, public view, and, consequently, to natural surveillance (Jeffery, 1971). For safe streets, there should be vehicular traffic, pedestrian traffic, and a link between vehicular and pedestrian traffic.

The isolation of routes from vehicular traffic causes decreased surveillance and increased crime rates and makes walkers feel lonely and unsafe, especially after dark (Hill & Blears, 2004). Instead of totally restricted vehicular access, there should be slow traffic for increased surveillance and feelings of safety. According to Newman (1973), vehicular access/traffic is not totally excluded, but rather its movement is restricted by interrupting the existing geometric traffic flow to slow down the speed. He thinks that “vehicular access provides a form of continuous natural surveillance, as well as an opportunity for formal patrol by a policing authority” (Newman, 1973, p. 60).

Pedestrian traffic and routes have a significant impact on public safety, both real and perceived (Sarkissian Associates Planners, 2000). Jeffery (1971) states that street designs that encourage walking offer the highest level of passive surveillance and “eyes on the streets.” This means that “the more people that walk, the more ‘eyes on the street’, which, in turn, encourages more people to walk” (City of Gosnells, 2001, p. 18).

The relationship between pedestrians and vehicles influences the crime rate (Hill & Blears, 2004). Routes for pedestrians and vehicles should, in most cases, run alongside one another, and not be segregated from each other. “The separation of traffic and pedestrians at different levels can lead to under-used, isolated and unsafe environments” (Hill & Blears, 2004, p. 16). At the same time, keeping pedestrians and vehicles at the same level provides an opportunity to avoid intimidating spaces such as footbridges, underpasses, and areas below viaducts (Hill & Blears, 2004).

These areas are unsafe because of their isolation from residential view (Jeffery, 1971).

Secondly, access paths should be easy to use and clear to understand so as to improve the legibility of neighborhoods (City of Gosnells, 2001). On the contrary, access paths that are located through randomly positioned buildings form sharp turns and blind corners (Newman, 1973). These circuitous access paths have two negative effects on crime prevention. One is that these badly positioned and circuitous access paths provide many opportunities for criminals to conceal themselves (Newman, 1973). A second drawback is that people are less likely to use such access paths.

To eliminate these negative effects, “pedestrian routes need to be direct and match desired lines as closely as possible” (*Manual for Streets*, 2007, p. 64) and there should be street-based activities such as play, socializing, shopping, or just sitting, in order to increase use of paths and surveillance. If more people use an area, this area becomes safer through “natural surveillance” (City of Gosnells, 2001).

Thirdly, there is a relationship between street layout and crime because street layout influences the movement patterns of criminals (Beavon et al.). Actually, street layout has more impact on crimes committed by people who learn areas by motor vehicle rather than by foot (Beavon et al.). “It is important to remember that the distribution of criminal opportunities is also shaped by the road network. High traffic volumes mean high numbers of potential individual victims” (Beavon et al., p. 119).

A recent study concerning street patterns and crime, especially burglary, is Yang’s research (2006). He identifies street layout patterns by using geographical information systems (GIS), demonstrated in Figure 2.3.

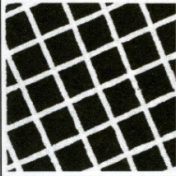
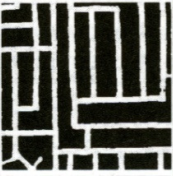



	Gridiron (c. 1900)	Fragmented parallel (c. 1950)	Warped parallel (c. 1960)	Loops and lollipops (c. 1970)	Lollipops on a stick (c. 1980)
Street patterns					

Figure 2.3. Street Pattern
Source: Kitchen & Schneider, 2007, p. 49

Kitchen and Schneider explain Yang's research, which is the effect of street patterns on crime, in the following paragraph:

Within the city study area, the incidence of first-time burglaries is highly correlated with permeable street patterns. Indeed, the street pattern more statistically associated with burglarised residence is the gridiron layout. The relationship between parallels, wrapped parallels, loops and lollipops on a stick design are not statistically significant. (Kitchen & Schneider, 2007, p.48-49)

Fourthly, poorly designed parking areas are a problem for community safety (Clarke, 1997; Wekerle & Whitzman, 1995). Poorly designed parking areas cause safety problems, increasing fear of crime and consequently isolating people from parking areas. To avert these situations, both outdoor and indoor car parks require special attention.

In designing safe outdoor car parks, pedestrian scale remains a key issue. The car parks should be designed according to pedestrians' movement to and from vehicles (City of Gosnells, 2001). That is why, in safe parking lots, there should be clear pedestrian paths and direct networks to ensure safe pedestrian passage through the car parking areas to homes, shops, or other facilities (City of Gosnells, 2001). Another important issue is the location of the parking area itself. A safe parking area

should be located where building windows overlook the lot, where natural surveillance is available (Sarkissian Associates Planners, 2002). “Parking should be visible and should be designed to be overlooked from streets and occupied buildings” (City of Gosnells, 2001, p. 17).

Indoor car parks are usually thought of as the most secure places (Hill & Blears, 2004). However, this is not always true if they are designed badly. Because badly designed parking areas are absent from residents’ realm of surveillance, they are more open to crime than outdoor car parks. To make indoor car parks safe places, accessibility is important. Ideally, “car parks can only be accessed from inside the building, not by outside pedestrians” (Sarkissian Associates Planners, 2002, p. 18).

While outdoor and indoor car parks require different approaches to minimize opportunities for crime, some issues, like size, lighting, sightlines, and signage are common to both (Wekerle & Whitzman, 1995). While designing both types of parking areas, indoor and outdoor, planners should avoid “large expanses of car parking,” or in other words, large car parks should be divided “into sections or groups of cars, each visually distinguishable from the other (by different paving, landscaping, street furniture, etc.) to help people locate their cars quickly” (Sarkissian Associates Planners, 2002, p. 33).

Lastly, safety at bus stops is related to the placement of the bus stops (Clarke, 1997; Wekerle & Whitzman, 1995). Bus stops are used by different groups of people at different hours. Moreover, who is responsible for the management of the stops is usually not clear. This causes people to experience fear, discomfort, confusion, and crime, particularly at night (Sarkissian Associates Planners, 2000). While locating bus stops, there are two critical features: surveillance and accessibility.

First, natural surveillance should be taken into consideration and bus stops should be placed where natural surveillance can take place (Wekerle & Whitzman, 1995). This is because being watched by residents or shopkeepers gives people the sense of

being safe. On the other hand, at bus stops in isolated locations with poor sightlines from shops, residents are open to crime (Wekerle & Whitzman, 1995) and this causes an increase in the fear of crime.

Second, passengers, especially women, want to get off the bus closer to their homes. It is generally believed that “this minimized their walk from bus to home and made it more difficult for potential stalkers to follow them” (Wekerle & Whitzman, 1995, p. 68). To decrease this fear of crime, there should be short, safe routes to bus stops from residencies or night-time attractions such as cinemas, pubs, and theaters (Sarkissian Associates Planners, 2000).

According to Sarkissian Associates Planners (2000), in addition to these two features, there should be also lighting, signage, telephones, and maintenance (which are further discussed in following chapters) for safe bus stops, and they show the shape of a safe bus stop as in Figure 2.4., Some Options for Safer Bus Stop Design.

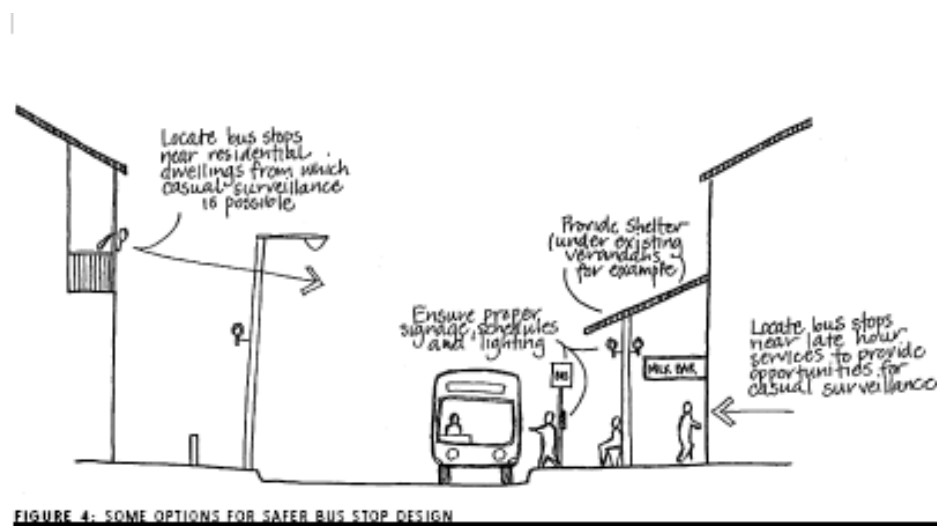


Figure 2.4. Some Options for Safer Bus Stop Design
Source: Sarkissian Associates Planners, 2000, p. 38

2.3.2.3. Visibility / Scrutiny / Sightliness / Recognizability

Visibility / Scrutiny / Sightliness / Recognizability (Newman, 1973; Jeffery, 1971; Alexander, 1977; Wood, 1961; Wekerle & Whitzman, 1995) provides people with the ability to be seen and an awareness of the environment. This includes the position of windows and entrances (Newman, 1973; Jeffery, 1971; Alexander, 1964), orientation/legibility (Newman, 1973; Wekerle & Whitzman, 1995), lighting (Newman, 1973; Jeffery, 1971; Clarke, 1971; Wekerle & Whitzman, 1995) and signage (Newman, 1973; Wekerle & Whitzman, 1995).

The first attribute for Visibility / Scrutiny / Sightliness / Recognizability is the position of windows and entrances (Newman, 1973; Jeffery, 1971; Alexander, 1964). According to Newman (1973), housing projects that are designed to look inward have unsafe streets because the residents of the area do not overlook the street or pedestrian areas for surveillance. He adds that “a project with buildings facing and closer to a street, with lobbies visible to passersby, is decidedly less likely to experience as much crime as one where these factors do not interplay” (p. 83).

In the same line, Alexander (1964) thinks that a plan where houses are on the streets with a communal room, visible from the street, allows passersby to see if the inhabitants are available for visiting and gives the sense of being watched. To maximize the natural opportunities for surveillance, windows of activity rooms, like the kitchen, and entrances of buildings should face to street.

The second attribute is orientation/legibility (Newman, 1973; Wekerle & Whitzman, 1995). Legibility is “the ability of the environment to communicate a sense of place” (Sarkissian Associates Planners, 2000, p. 16). Both orientation and legibility affect safety in terms of two aspects. One is that legibility and orientation of a place give pedestrians clues to easily identify the space and to easily find their way. Moreover, visitors are able to see, understand and “use” the area or development and thus improve the natural surveillance (City of Gosnells, 2001). The other aspect is that

legibility and orientation make entrances, exits, and public and private areas more clear. As a result of this, strangers can easily understand their boundaries.

The third aspect is lighting (Newman, 1973; Jeffery, 1971; Clarke, 1971; Wekerle & Whitzman, 1995). Lighting has an effect on reducing both the crime rate and the fear of crime. That is why this issue is important for community safety and crime prevention.

“A poorly lit street with a low level of illumination and low usage will appear to the user to have the potential to hide attackers, thus increasing fear of crime. Such a street also lowers the possibility of detection, recognition and apprehension for a person considering a criminal act, thus increasing the likelihood of actual crime” (Sarkissian Associates Planners, 2000, p. 12).

Lighting encourages people to use spaces by decreasing fear of crime, making places more livable after dark, and increasing informal surveillance (Hill & Blears, 2004; Wekerle & Whitzman, 1995). Well-designed lighting improves the opportunity for surveillance, especially at night, and gives a positive message about the management of an area (Hill & Blears, 2004). On the contrary, “badly designed and poorly lit areas offer opportunities for crime to occur and give the message that an area is uncared for” (Wekerle & Whitzman, 1995).

Lighting levels and types should assist in providing public places, streets, pedestrian routes, building entries, bus stops, and parking areas with safe, well-lit atmospheres after dark. Overlighting and inappropriate use of lighting can also be a problem for crime prevention (Wekerle & Whitzman, 1995).

The final attribute of Visibility / Scrutiny / Sightliness / Recognizability is signage (Newman, 1973; Wekerle & Whitzman, 1995). “Knowing where you are and which way to turn contributes to a feeling of security” (Wekerle & Whitzman, 1995, p. 55).

Respectful of this fact, clear signage assists in easy “way-finding” by making places legible and understandable (City of Gosnells, 2001).

“Signs should be developed as a system with a consistent pattern, based on a hierarchy of most important to least important messages and be accessible to people with visual impairments” (Sarkissian Associates Planners, 2000, p. 16). A sign system should be designed to identify a place and point out whether or not it is accessible to everyone, to indicate warnings where necessary, and to give routing information (Sarkissian Associates Planners, 2000).

2.3.2.4. Attractiveness

Attractiveness (Newman, 1973; Jeffery, 1971; Wekerle & Whitzman, 1995) also increases awareness of the environment and strengthens territoriality. Attractiveness is achieved by paving (Newman, 1973), paint (Newman, 1973; Jeffery, 1971), and landscaping (Newman, 1973; Jeffery, 1971; Wekerle & Whitzman, 1995).

Paving, paint, and landscaping “provide an appropriate balance between aesthetics and safety” (Sarkissian Associates Planners, 2000, p. 19), improving the use of streets and, consequently, natural surveillance. Moreover, like lighting, it sends out positive clues about good maintenance. According to studies, “landscaping design and maintenance of a whole site correlates with user satisfaction and safety. However, where planted areas are poorly maintained and vandalised, this may increase the risk of crime” (Sarkissian Associates Planners, 2000, p. 19).

In terms of crime prevention through environmental design, landscaping, paving, and paint can contribute to safety through increased opportunities for natural surveillance, by improving good sightlines, by not creating potential entrapment spots, and by providing easy maintenance (Sarkissian Associates Planners, 2000). Similarly, by defining boundaries between public and private spaces, these attributes make places more legible and understandable for both residents and strangers.

2.3.2.5. Territorial/Entry Definition

Territoriality means the ability and desire of legitimate users of an area to lay claim to the area. Area control includes the establishment of real and perceived boundaries, the recognition of strangers and legitimate users of the area, and a general communal atmosphere among the inhabitants (Lab, 2000, p. 27).

Instruments of territorial/entry definition have an effect on defining boundaries and strengthening territory (Newman, 1973). According to Newman (1973), “These boundary definers are interruptions in the sequence of movement along access paths and serve to create perceptible zones of transition from public to private spaces” (p. 63). These definers can be divided into two instruments: real and symbolic barriers and fencing (Newman, 1973; Clarke, 1997; Jeffery, 1971; Crow, 1997).

Real barriers include fencing (Newman, 1973; Clarke, 1997; Jeffery, 1971), gates (Newman, 1973; Jeffery, 1971), exits (Newman, 1973; Jeffery, 1971), U-shaped buildings (Newman, 1973), and high walls (Newman, 1973). Moreover, they should be viewed as one component of a hierarchy of means of defining space and should allow visibility (Newman, 1973).

On the other hand, symbolic barriers include “open gateways, light standards, a short run of steps, planting and changes in the texture of the walking surface (Newman, 1973, p. 63). Symbolic barriers without sharp divisions like gates or high walls are also identified as boundary lines, because they have an effect on human behavior and expectations to realize the difference between public and private areas (Newman, 1973).

However, both have same purpose: “to inform that one is passing from a space which is public where one’s presence is not questioned through a barrier to a space which is private and where one’s presence requires justification” (Newman, 1973, p. 63).

2.3.2.6. Finding Help

“Finding help means that a person can receive assistance from others” in case of an emergency (Wekerle & Whitzman, 1995, p. 28). In this way, it can decrease the fear of crime and reduce crime rates. Emergency phones (Clarke, 1997), electronic or mechanical devices (Crowe, 1991; Clarke, 1997) and posting interactions (Clarke, 1997) are all useful for finding help.

Emergency phones at public transport stops, car parks (especially indoor), or entrances of ATM; and electronic or mechanical devices such as CCTV systems and cameras observing buildings and streets are directly linked with safety and give the sense of being safe.

2.3.3. Management against Crime Prevention

According to studies, management includes answering the questions of how a safe place can be achieved and how it functions over time. For these purposes, there should be surveillance (Newman, 1973; Jeffery, 1971; Wekerle & Whitzman, 1995; Crow, 1991, 2000) natural access control (Newman, 1976; Jeffery, 1971; Clarke, 1997), maintenance and target hardening (Newman, 1973; Jeffery, 1976; Coleman, 1985, 1990; Clarke, 1997), and partnership between police, citizens, businesses, organizations, and local authorities (Clarke, 1997; Alexander, 1964; Crow, 1991).

2.3.3.1. Surveillance

Surveillance includes any action that increases the chance that offenders can be observed by residents (Lab, 2000). Surveillance can be enhanced in a variety of ways. These ways can be listed as three groups: natural surveillance (Newman, 1973; Jeffery, 1971; Wekerle & Whitzman, 1995), organized surveillance (Crow, 1991, 2000), and mechanical surveillance (Crow, 1991, 2000; Wekerle & Whitzman, 1995).

Natural surveillance is the ability to observe the public areas of one's residential environment to make one feel continually that he or she is under observation by other residents (Newman, 1973). This has an important effect on decreasing fear of crime and anxieties in inhabitants by increasing the sense of security in a specified area, increasing the frequency of use of the place by residents, and improving its security by providing the safety which comes with intensive use (Newman, 1973).

According to Richard H. Schneider and Ted Kitchen (2002), "Newman was fascinated by the power and energy inherent in the command of places by users, even they were not owners. His fundamental concept is intuitively appealing: places and spaces can be designed and built so as to increase residents' feelings of ownership and control" (p. 95). When people own a place, they protect it better. This, in turn, further enhances the sense of appropriation for that place. Newman (1973) points out that "The decision to act will also depend on the presence of the following conditions:

- The extent to which the observer has a developed sense of his personal and proprietary rights and is accustomed to defending them
- The extent to which the activity observed is understood to be occurring in an area within the sphere of influence of the observer
- Identification of the observed behavior as being abnormal to the area in which it occurs and therefore warranting response
- The observer's identification with either the victim or the property being vandalized or stolen
- The extent to which the observer feels he can effectively alter the situation (by personal or collective response)" (p. 79).

Additionally, Newman emphasized that doors should face the street to allow passersby to view the entranceways and that only a few families should use the same common entrance so that residents can learn to identify each other. Moreover, pathways in and around the community should have unobstructed views for residents

to see what is awaiting them while they enter and exit their homes (Newman, 1973, cited in Lab, 2000).

Like Newman, CPTED is also interested in natural surveillance. CPTED emphasizes the position of windows, the presence of traffic flow, landscape elements, transparent building entrances, and lighting design (Jeffery, 1971). Jeffery (1971) also adds that increasing the outdoor activity and pedestrian traffic increases the “eyes on the street” and this has a direct impact on decreasing the crime rate (Lab, 2000).

In addition to the above, according to Newman (1973), “Improved surveillance operates most effectively when linked with the territorial subdivision of residential areas, allowing the residents to observe those public areas which he considers to be part of his realm of ownership and hence responsibility” (p.79).

The second type of surveillance, organized surveillance, “is where individuals employed by an organisation formally participate in surveillance as part of their employment. They may be dedicated security staff or employees that have a minor surveillance role as part of their duties” (Design Out Crime Research Centre).

The most common example of organized surveillance is security guards, doormen, and police patrols. However, organized surveillance can be also provided by local stakeholders like shopkeepers. They can easily “identify and record possible criminal activities and suspicious behaviour to report to police” (Design Out Crime Research Centre).

The third type of surveillance, mechanical surveillance, can be supported by mechanical and physical systems such as closed-circuit television (CCTV) and appropriate lighting.

CCTV has been extensively used in mechanical surveillance and can be an effective means of reducing crime and improving a feeling of safety (Lab, 2000). “CCTV may

deter criminal offences (e.g. vehicle crime or burglary) due to a perceived increase in the risk of detection that may outweigh the perceived potential benefits to the criminal” (Design Out Crime Research Centre).

Another system used in mechanical surveillance is lighting. Lighting can enhance the ability to see what occurs in the area. Proper lighting can help improve surveillance, especially natural surveillance, and have an influence on crime reduction (Lab, 2000). According to Farrington and Welsh (2002), street lighting is likely to have an effect by increasing community pride and informal social control rather than by simply improving surveillance opportunities.

2.3.3.2. Natural Access Control

Natural access control refers to the ability to regulate who comes and goes from an area or building, with the intent of limiting access to legitimate users (Lab, 2000, p. 29). This focuses on reducing the opportunity for crime by increasing the effort needed to enter and exit a building or area for the purpose of committing crime, and creating a heightened perception of risk in offenders (Lab, 2000).

Access control can also be defined as efforts that make potential criminal targets more difficult to victimize by taking steps to clearly differentiate between public space and private space (Lab, 2000). For example, “the use and/or installation of locks, bars for windows, unbreakable glass, intruder alarms, fences, safes, and other devices makes crime more difficult to carry out” (Lab, 2000, p. 29).

Additionally, limiting the numbers of entrances, limiting the escape routes, identifying the point of entry, using structures, eliminating design features that provide access to roofs or upper levels, fencing, using gates, and natural access control can be use to achieve increased security (Lab, 2000; Jeffery, 1971; Newman, 1973).

2.3.3.3. Maintenance

Good maintenance is as important as implementation of safe design tools. The implementation is meaningless if there is no maintenance after implementation. For example, adding lighting in apartment stairwells does no good if light bulbs are allowed to stay burnt out; a fence that is broken no longer fulfills its function” (Wekerle & Whitzman, 1995, p. 18). That is why places should be designed for easy maintenance (Wekerle & Whitzman, 1995).

Moreover, as mentioned above, according to the broken windows theory (Wilson & Kelling, 1982), whether deliberate or not, damage which is not repaired causes further misuse of the area, increases the tendency to crime, and increases fear of crime by giving negative clues about safety (Wilson & Kelling, 1982; Sarkissian Associates Planners, 2000).

2.3.3.4. Partnership between Police, Citizens, Businesses, Organizations and Local Authorities

Partnership between stakeholders has a positive effect on reducing crime rates. One supporter of this is “situational crime prevention” (Clarke, 1997). Clarke (1997) was influenced primarily by community oriented policing (Schneider & Kitchen, 2002). “Community oriented policing is an organizational and administrative approach to law enforcement that is designed to put police in closer touch with citizens by emphasising more personal contact between police and citizens” (Schneider & Kitchen, 2002).

By the same token, Jeffery (1971) also supports the idea of partnership between stakeholders. He thinks that “local authorities should encourage citizens to report crimes and to act as witnesses in court, something most citizens are reluctant to do” (p. 209). If in addition to the police, citizens, businesses, organizations, and local

authorities are involved in crime prevention and law enforcement, the negative results of crime change (Jeffery, 1971).

In conclusion, the attributes of planning approaches, environmental design, and management have positive effects on decreasing crime rates and reducing fear of crime. In relation to this chapter, this thesis aims at analyzing the crime prevention tools in Istiklal neighborhood and tries to identify Istiklal's positive and negative attributes in terms of crime and crime prevention.

2.4. Existing Studies on Crime Prevention in Turkey

There are studies about the problem of crime and crime prevention in Turkey. They mostly deal with the increase of crime and criminality from the perspective of traditional ecology or (late) new ecology (Erdoğan, 2007). In this framework, this section reveals the current crime and crime prevention studies in Turkey concerning the theories of both traditional ecology and (late) new ecology of crime.

2.4.1. Traditional Ecology of Crime Prevention in Turkey

Traditional ecology studies in Turkey intend to describe the negative impacts that push people to become offenders. They ask “how [negative factors] contribute to the increase in criminality and how people come to be offenders” (Erdoğan, 2007, p. 50). To respond to these questions, they compare offender profiles in terms of socio-economic and demographic characteristics, or they use socio-economic characteristics of the scene of crime (Erdoğan, 2007).

Traditional ecology studies based their arguments on three factors. The first one is squatter settlements (Kaplan, 1980; Uğur, 1986; Şener, 1994; cited in Erdoğan, 2007); the second is the social, demographic, and spatial impacts brought about by squatter settlements (Ergun et al., 2003, cited in Erdoğan, 2007); and the last is the negative social, demographic and spatial impacts brought about by the rapid

urbanization process (Sayın, 1998; Erkut et al., 2001; Kaplan, 1980; Uğur, 1986; cited in Erdoğan, 2007, p. 50).

One implementation of traditional ecology is a comparison between two different zones of police stations. The first study of this approach aimed at comparing public order (*asayiş*) incidents and offenders between Altındağ squatter settlements and Bahçelievler planned settlements in Ankara in 1985 (Uğur, 1986, cited in Erdoğan, 2007). Another study also includes a comparison between squatter (Mamak) and planned (Çankaya) settlements in Ankara in 1978 in terms of “public order (*asayiş*) and ideological incidents and offenders (Kaplan, 1980, cited in Erdoğan, 2007, p.50-51).

The other implementation is the taking of only one police zone to analyze the area in terms of crime. A study conducted in early 1990 in Konak, Izmir, is an example of this implementation. Şener (1994) studied only squatter area settlements in Konak (Şener, 1994, cited in Erdoğan, 2007).

These studies are different implementations of traditional ecology. However, they have the same study findings. According to the findings of these three studies, the squatter settlements did not have high crime rates, but these settlements are driving forces for increasing criminality in big cities (Erdoğan, 2007).

Analyzing the robbery incidents in districts of Istanbul from 1993 to 1997 and analyzing public order (*asayiş*) incidents in all six police station zones of Eskişehir between 1999 and 2004 are further examples of the traditional ecology studies in Turkey, having similar findings with the above studies (Erdoğan, 2007).

Other comparison studies in traditional ecology include:

- All incidents, except for terrorism, in districts of Istanbul for the period between 1994 and 1998 and in 1997, by differentiating them with respect to their ratio of planned and squatter residential areas (Ergun et al., 2003); or

- Some selected property and violent incidents in districts of Istanbul for the years 1993 and 1997 by differentiating them according to their levels of population increase in regard to Istanbul's annual average population increase rate" (Erdoğan, 2007, p. 51).

Traditional ecology studies mainly intend to describe incidents or offenders. Moreover, they conclude with policy proposals for crime prevention based on urbanization, social welfare, migration within the framework of security (policing), and judicial systems. They add an understanding that crime cannot be separated from society and that there should be the participation of an aware public in crime prevention activities (Erdoğan, 2007).

2.4.2. New Ecology of Crime Prevention Theories in Turkey.

New ecology studies aim at proving the advantages of utilizing geographical data analysis techniques and methods by using GIS-based systems and spatial data analysis tools in exploration of crime patterns (Gül, 2002; Düzgün & Erdoğan, 2003; Akpınar, 2005; cited in Erdoğan, 2007).

The new ecology studies also aim at differentiating patterns of crime or crime types in urban areas (Gül, 2002; Düzgün & Erdoğan, 2003; Akpınar, 2005; cited in Erdoğan, 2007). Their main assumption is that "certain types of criminal events do not occur or distributed randomly in space and time, but they show distinct patterns" (Ekblom, 1998, and Hirschfield et al., 1995, in Nelson et al., 1996, p. 411, cited in Erdoğan, 2007, p. 52). In other words, there are factors that affect the occurrence and distribution of such criminal events (Erdoğan, 2007).

In the same line, some researchers study either one type of crime, such as thefts in a police station zone in Bursa (Gül, 2002), or two crime types, such as auto thefts and thefts from autos in metropolitan districts of Konya in 2000 (Düzgün and Erdoğan, 2003). "On the other hand, Akpınar (2005) analyses and compares more than two

crime types (five property or violent incidents) between two police stations, Bahçelievler and Çankaya in Ankara in 2003” (Erdoğan, 2007, p. 52).

Another study was conducted in Istanbul for the years 1983, 1988, 1993, and 1998, integrating new ecology to the traditional one (Ünlü et al., 2000, cited in Erdoğan, 2007). This study involves the spatial and social structure of Istanbul, where almost all types of incidents took place, and searches for incident patterns in four residential neighborhoods (Erdoğan, 2007, p. 53). This study emphasizes the “effects of configuration or organization of spatial and social entities on distribution of criminal activities in residential neighborhoods” (Erdoğan, 2007, p. 53).

There are also some new ecology studies emphasizing the importance of public participation and interdisciplinary approaches and environmental design in crime prevention (Sayın, 1998 and Akpınar, 2005, cited in Erdoğan, 2007)

The motivation for this thesis comes from a present urgent need in İstiklal neighborhood. The present state of the neighborhood can be defined as socially disintegrated and physically decaying, according to the results of the Neighborhood Upgrading through Participation Project conducted by Sevin Osmay (2008) and Anlı Ataöv (2008) in İstiklal.

As stated previously, the Neighborhood Upgrading through Participation Project includes “empowerment activities within the participatory neighborhood upgrading context of the Şengül Hammam Neighborhood (İstiklal), and eventually, towards re-connecting the site and the city” (Osmay & Ataöv, 2008, p. 1).

In order to do that, Osmay and Ataöv used participatory action research methodology to generate shared knowledge in order to change the community’s situation through participation. Within the scope of this work, they intend to mobilize the neighborhood stakeholders and to orientate them for such activities as cleaning up

the neighborhood and orchestrating a garbage collection campaign (Osmay & Ataöv, 2008).

According to the results of the study, the residents should gain capacity both socially and economically. Secondly, there should be a change in the approach of the local authorities and central government to the neighborhood, towards a more holistic one. Related to this, neighborhood safety, the restoration of houses, empowerment of youth, and education and training of inhabitants can be listed as urgent issues in Istiklal neighborhood (Osmay & Ataöv, 2008).

In this framework, this thesis searches for neighborhood safety as a preliminary study of the Neighborhood Upgrading through Participation Project, and the connection of the thesis to the PAR project is to provide input to the PAR project by analyzing the area in terms of its crime situation. In order to do that, the thesis attempts to analyze the crime situation in Istiklal from the early new ecology aspects. In other words, it intends to define the physical attributes that cause crime in Istiklal with the assistance of the knowledge provided by the literature review.

CHAPTER 3

CONTEXTUAL SETTINGS OF ISTIKLAL NEIGHBORHOOD

The Istiklal neighborhood is situated in the Ulus district, at the center of old Ankara, to the southwest of the citadel. Figure 3.1., the Google-Earth Picture of Istiklal Neighborhood, shows the location and the nearby surroundings of Istiklal within Ankara.



Figure 3.1. The Google- Earth Picture of Istiklal Neighborhood

Source: Google- Earth

Istiklal represents one of the few remaining historic residential neighborhoods of Ankara. However, there have been some changes over the years that affect the present situation of the neighborhood. This present situation of Istiklal can be defined as socially disintegrated and physically decaying (Osmay & Ataöv, 2008.)

To understand better the present situation in Istiklal and the living conditions of neighborhood residents, and to analyze both the actual and perceived crime rate and the fear of crime in Istiklal, this chapter presents the social context, historical context, physical context, and planning context of Istiklal neighborhood.

3.1. Social Context of Istiklal Neighborhood

The neighborhood population is comprised of low-income families, squatters, and individuals. There are also organized groups running illegal businesses in the neighborhood and street children living in vacant houses (Osmay & Ataöv, 2008).

A field survey in 2005 showed that one-fifth of the total 273 households (22%) are owner-occupied and 66% of the households are tenant-occupied. The rest of the households, 12%, are either squatters or do not pay rent on a regular basis. Furthermore, 49% of the population, including the elderly and children in school, is unemployed. “Half of the residing population (%49) is out of employment. This includes the elderly and children in school. Three-fourths of the remaining population (%38) is employed. Only one-fifth of the employed population (%6) is female” (Osmay & Ataöv, 2008, p. 4-5).

According to a field survey in 2007 and 2008, residents in Istiklal follow an extended family structure. Households are often comprised of three generations and several families combining their economic resources. On the other hand, there are also single male tenants living in additional separate rooms. Some tenants and squatters outrage residents because they perform illegal activities in the neighborhood, like using

alcohol and narcotics in public areas and vandalizing building facades, public structures, and street benches (Osmay & Ataöv, 2008).

3. 2. Historical Context of Istiklal Neighborhood

From the 19th century to the 1970s, the neighborhood served as a residential district adjacent to the main business center of Ankara. Istiklal was known as the Jewish district and served as a residential district for Jews in the Ottoman Period (Şahin, 1988). In the Republican era, the neighborhood was comprised of different social and ethnic groups, with a vital economic life (Osmay & Ataöv, 2008). These groups included Muslims, Jews, Greeks, Armenians, Russians, and Bosnians. The presence of buildings such as mosques, hammams, mescits, and a synagogue show adequate evidence that predominantly Muslims and Jews lived together in Istiklal (Bahar, 2003; Osmay & Ataöv, 2008).

The north side of Istiklal was destroyed in a large fire in 1917. According to Ortaylı (1985) and Bahar (2003), this fire is regarded as a triggering factor for the Jewish community leaving Ankara. Moreover, the declining economic situation of the time mostly affected the non-Muslim merchants in the city (Osmay & Ataöv, 2008).

With the declaration of Ankara as the capital of the Turkish Republic, intense construction work began in the city (Şahin, 1988; Osmay & Ataöv, 2008). Law no. 583 allowed new districts to develop between the old city structure and the Çankaya district. The aim of the law was to conserve the old part of the city and to prevent an increase in property prices (Şahin, 1988). However, in this period “quite a number of old houses in the old city were demolished due to the uncontrolled building permissions given, neglect and the property changing hands” (Osmay & Ataöv, 2008). Moreover, efforts for the restoration of monumental buildings and the protection of historical sites were inadequate. As a result, the policy to not build a new Ankara over the old one was conservative. On the other hand, it caused the old city to come to grief (Şahin, 1988).

In the beginning of the 1950's, rural immigrants started to occupy the Istiklal area and this changed the character of the population in the area from middle-class to rural immigrants (Osmay & Ataöv, 2008). Because of the lack of affordable housing in the city and population pressure, the remaining former inhabitants moved to the modern southern neighborhoods of Ankara, and thereby, they left the old neighborhood to other new inhabitants (Osmay & Ataöv, 2008). Consequently, the dwellings in the area were subdivided to be used as rental homes for the new inhabitants. Moreover, the change in population from middle-class to rural immigrants effected the socio-economic situation in Istiklal and because of this, the physical maintenance of the buildings could not be supported.

A large part of Ankara, comprising “the citadel, the historic center of the city and some residential neighborhoods including the Istiklal Neighborhood,” was declared “as an historic and cultural conservation site” (Osmay & Ataöv, 2008, p. 3). This caused a stop to all construction and renewal works in the area and renovation of any building without approval. This also hastened the deterioration of housing and as “many families moved out of their dwellings, many unoccupied houses and rooms were invaded” (Osmay & Ataöv, 2008, p. 3).

3.3. Planning Approaches for Istiklal Neighborhood in the Republican Era

After the proclamation of the Republic, Ankara was declared the capital city on 13 October 1923. With this declaration, contrary to the experiences of other Anatolian cities, an intensive structuring process started in Ankara (Şahin, 1988). This process can be categorized into four phases, which are “in the early republication era,” “Jansen’s plan,” “the Yücel-Uybedin plan,” and “conservation planning.”

3.3.1. In the Early Republican Era

With Law no. 583, 400 acres of land in Sıhhiye were condemned. This helped to embody the dichotomy between old and new Ankara (Şahin, 1988). Then, in 1927,

Heussler laid out a “Sihhiye Plan” for 150 acres of land. Although Sihhiye was previously thought of as a residential area to relieve the housing problem, he tried to orient central management to the south by settling some of the ministries in Sihhiye (Şahin, 1988).

The changes of this period also affected Istiklal and its surroundings. The first change was that the conflagration area was redeveloped and the first forms of Republican era buildings were built on Denizciler Caddesi and Anafartalar Caddesi. The second was that the structuring around Ulus was accelerated. The third was that new roads were built and this enabled a connection between Ulus, Istasyon, and Saman Pazarı; and the last change was an attempt to solve problems related to the infrastructure like electricity, water, and drainage (Şahin, 1988).

However, due to the discontinuity between the projects, “The Old Ankara Plan” experienced unplanned and chaotic development until the Jansen plan entered into force (Şahin, 1988). Heussler was asked to provide a plan in 1927. This plan included old Ankara, except Sihhiye. However, this plan was not approved because it could not feasibly be applied. After that, the municipality of Ankara organized an international planning competition for a more comprehensive plan. Herman Jansen’s was selected for its preservation of historical sites, including low-density residential proposals, and approved in 1932 (Altay & Tokman, 2006)

3.3.2. Jansen’s Plan

In 1928, the notion of “conserving” the traditional structure of the city gained importance. More specifically, the main aim of Jansen’s plan was to provide a realistic ground plan which could be applied to traditional sites, and the most important focal point of the city was the citadel. It could be seen from everywhere (Şahin, 1988).

In Jansen's Plan, İstiklal was not in the "Protocol Area" and was defined as a "new structuring area." Instead of maintaining the old structure of İstiklal, two-storied houses with courtyards in blocks covered by roads were suggested (Şahin, 1988).

3.3.3. The Yücel-Uybadin Plan

Despite the fact that Jansen had a detailed plan, some changes which could not have been taken into advance consideration, like rapid population growth, caused the plan to be infeasible for Ankara. Specifically, rapid urbanization brought about squatter settlements around the city. Despite some efforts, like the construction of Yenimahalle (the new district), the squatting continued (Altay & Tokman, 2006).

As a result, a new planning competition was organized and the plan of N. Yücel and R. Uybadin was approved in 1957. "Although it was planned with higher densities than the Jansen Plan, later within the same layout of this plan, the building densities were increased two times by the Ministry of Reconstruction and Resettlement" (Altay & Tokman, p.1)

The most important decision of the Yücel-Uybadin Plan was that development did not build up in the direction of propagation; conversely, it grew in the direction of upward movement. In the new plan, the two-storied houses scaled up to 4-, 6-, and 8-storied houses (Şahin, 1988).

This decision also effected the structuring of the İstiklal neighborhood and its surroundings. Building height on Anafartalar Caddesi, Denizciler Caddesi, and Talatpaşa Bulvarı redoubled. Moreover, Talatpaşa Bulvarı and Atatürk Bulvarı were defined as commercial centers. On Talatpaşa Bulvarı buildings were allowed to grow up to 8 stories, while on Atatürk Bulvarı buildings were allowed up to 10 stories (Şahin, 1988). However, the topography in İstiklal prevented these high buildings in the area. Therefore, there are limited high buildings in İstiklal (Şahin, 1988).

3.3.4. Conservation Planning

A large area, including Istiklal, was declared a “historic and cultural conservation site” in 1980 and all constructions and renewal works were frozen at this site (Şahin, 1988; Osmay & Ataöv, 2008).

In the same year, the Greater Ankara Municipality attempted to open Hisarcılar Caddesi in the north-south direction. The “historic and cultural conservation site” defined by the Ministry of Culture and Tourism compromised this site and the project required destruction (Şahin, 1988). Eight of fifty-six houses, destroyed by the Municipality, needed to be conserved. However, Hasırcılar Caddesi was opened and the area between Talatpaşa Bulvarı and Hasırcılar Caddesi was destroyed and collapsed (Şahin, 1988).

Istiklal still maintains its status as a “historic and cultural conservation site.” That is why the Ministry declared that all interventions in this area by the municipalities should be planned carefully.

In 1983, floor height of the buildings in the conservation site was decreased by a law approved by the Monuments High Commission (Şahin, 1988). Thus, the floor height on Hasırcılar Caddesi was fixed at 2 stories; buildings on Anafartalar and Denizciler Caddesi were fixed at four stories (Şahin, 1988).

In conclusion, the historical events in Istiklal can be summarized as in Table 3.1.

Table 3.1. Summarization of the Events in Istiklal Neighborhood According to Periods

The Periods	Events in Istiklal Neighborhood
Ottoman Period	Known as the Jewish district and served as a residential district for Jews
Republican Era	<p>The neighborhood community was comprised of different social and ethnic groups with a vital economic life</p> <p>The north side of the neighborhood was destroyed due to a big fire in 1917, which was a triggering factor for the Jewish community to leave Ankara.</p>
Declaration of Ankara as the Capital of the Turkish Republic	<p>Intense construction started in the city with the aim of conserving the old part of the city and preventing the increase of property prices.</p> <p>A large number of old houses in the old city were demolished due to the uncontrolled building permissions given, neglect and the changing hands of property.</p>
The beginning of the 1950's	<p>Rural immigrants started to occupy the area and this changed the character of the population in the area from middle-class to rural immigrants.</p> <p>The changes affected the socio-economic situation</p> <p>The physical maintenance of the buildings could not be supported.</p>
The 1980s	<p>Istiklal neighborhood is declared as a historic and cultural conservation site</p> <p>This caused all construction and renewal works in the area to stop and disrupted renovation to any building without approval</p>

3.4. Physical Context of Istiklal Neighborhood

The physical context of Istiklal is important in terms of crime prevention. As established above, some physical attributes, like types of buildings, height of buildings, structure of the area, street layout, or the relationship between the roads and entrances, can affect crime occurrence either positively or negatively.

Istiklal is a historic residential area and it has a peculiar architecture and street layout. These peculiar features have both negative and positive effects on crime in the neighborhood. Therefore, this section of the thesis aims to analyze Istiklal in architectural and street scales.

3.4.1. In Architectural Scale

The civil architectural samples of Istiklal are mostly 2-storied buildings, and in general are range between 1 and 4 floors. This is in great opposition to the high-rise settlements along the axles that surround the central space and the variation of heights of the buildings in the interior sections of this area.

Figure 3.2. shows the floor distribution of buildings. There is a homogenous texture between the relations of inner-courts and gardens and the face components of building heights at human scale.

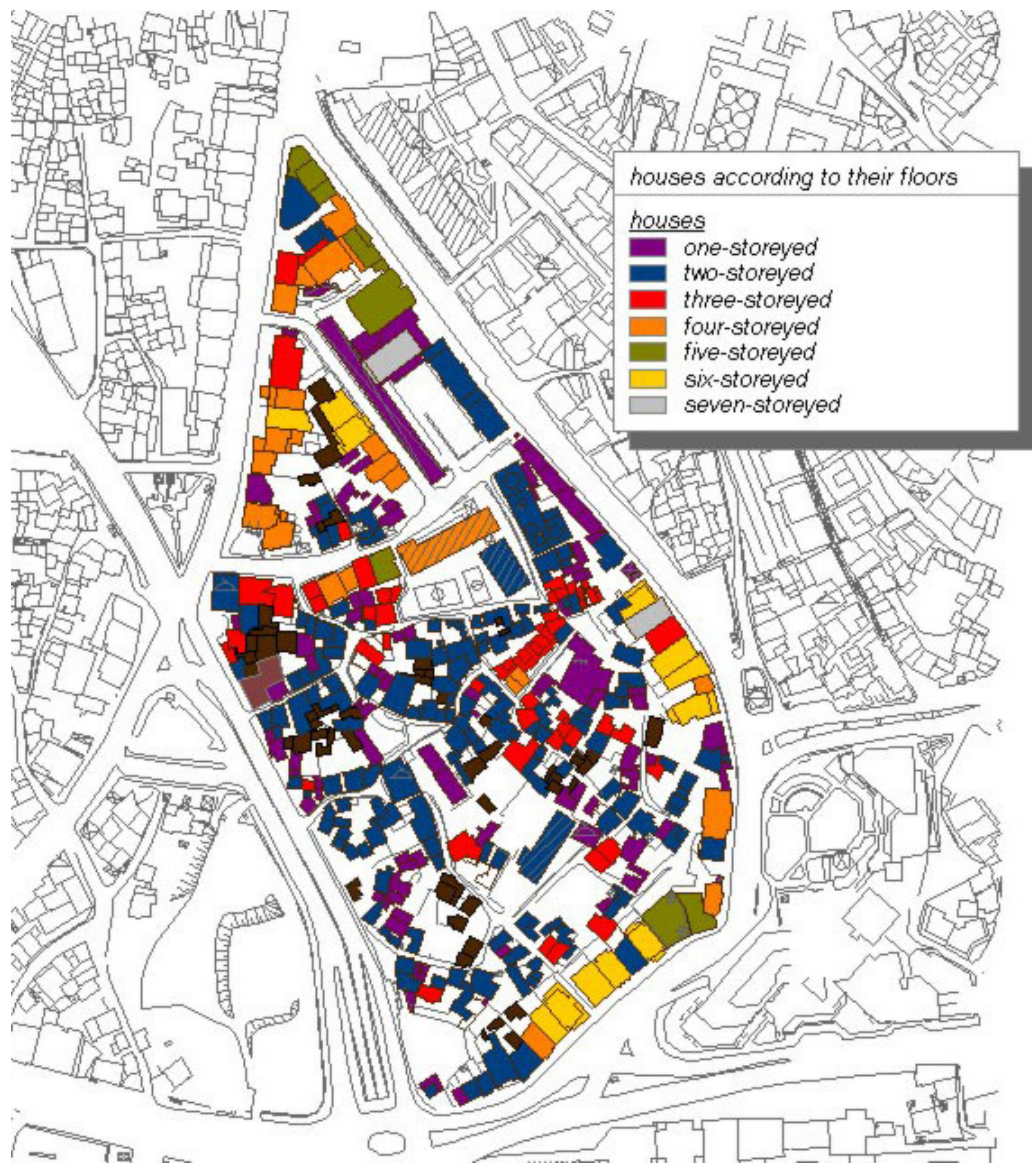


Figure 3.2. Distribution of Houses According to their Floors

There are no special face or plan types in this zone, but there are similarities among face components. As the relations between inner-court, garden and parcel differ, typically they can be separated as entrances directly from street or as entrances from the inner-court. The dimensions of inner-courts differ from each other but there are similarities among usage and components. There are different types of buildings located in gardens and entrances from an entrance hall paved with stone near the inner-court types. The reason for differences among gardens and inner-courts are the high modifications. They lose the originalities by adding new buildings and dividing buildings.

3.4.2. In Street Scale

There are no geometrical formations in the streets of this zone. They connect the axes around the space by orientations that decrease the inclination, which increases from west to east. A special characteristic of the streets can be determined by repetition of components that form the street. In general, streets are bound in a T-shape to each other. Mostly 1- or 2-storied buildings determine the characteristics of the streets from the differences of width. (Fig: 3.3. A View from Inan Sokak) Also, the heights of the garden and court walls determine the characteristics of the streets, like buildings. (Fig: 3.4. A View from Eskicioğlu Sokak)



Figure: 3.3. A View from Inan Sokak



Figure 3.4. A View from Eskicioğlu Sokak

The width of the streets varies between 2 to 5 meters, but standard width is not maintained along the streets. Street widths increase, sometimes to allow for entrances and sometimes forming a space. However, there are undefined spaces at the intersections of Kalyon Sokak with Örtmeli Sokak, and Kargı Sokak with Yağcılar Sokak (See Fig. 3.5., The Undefined Space at the Intersection of Kalyon Sokak with Örtmeli Sokak). These spaces do not carry the futures of a square but were formed from the ruined buildings (See Fig. 3.6., The Undefined Space at the Intersection of Kargı Sokak with Yağcılar Sokak).



Figure 3.5. The Undefined Space at the Intersection of Kalyon Sokak with Örtmeli Sokak



Figure 3.6 . The Undefined Space at the Intersection of Kargı Sokak with Yağcılar Sokak

Figure 3.7. shows the access network and entrances of the zone. The pedestrian entrances are generally stairways. The entrances from Anafartalar Caddesi are particularly not clear. These stairways are generally lost among the high-rise buildings. The entrances from Denizciler Caddesi and Hasırcılar Caddesi are more clear. (Fig. 3.8. – Fig. 3.9. – Fig. 3.10. – Fig. 3.11.)

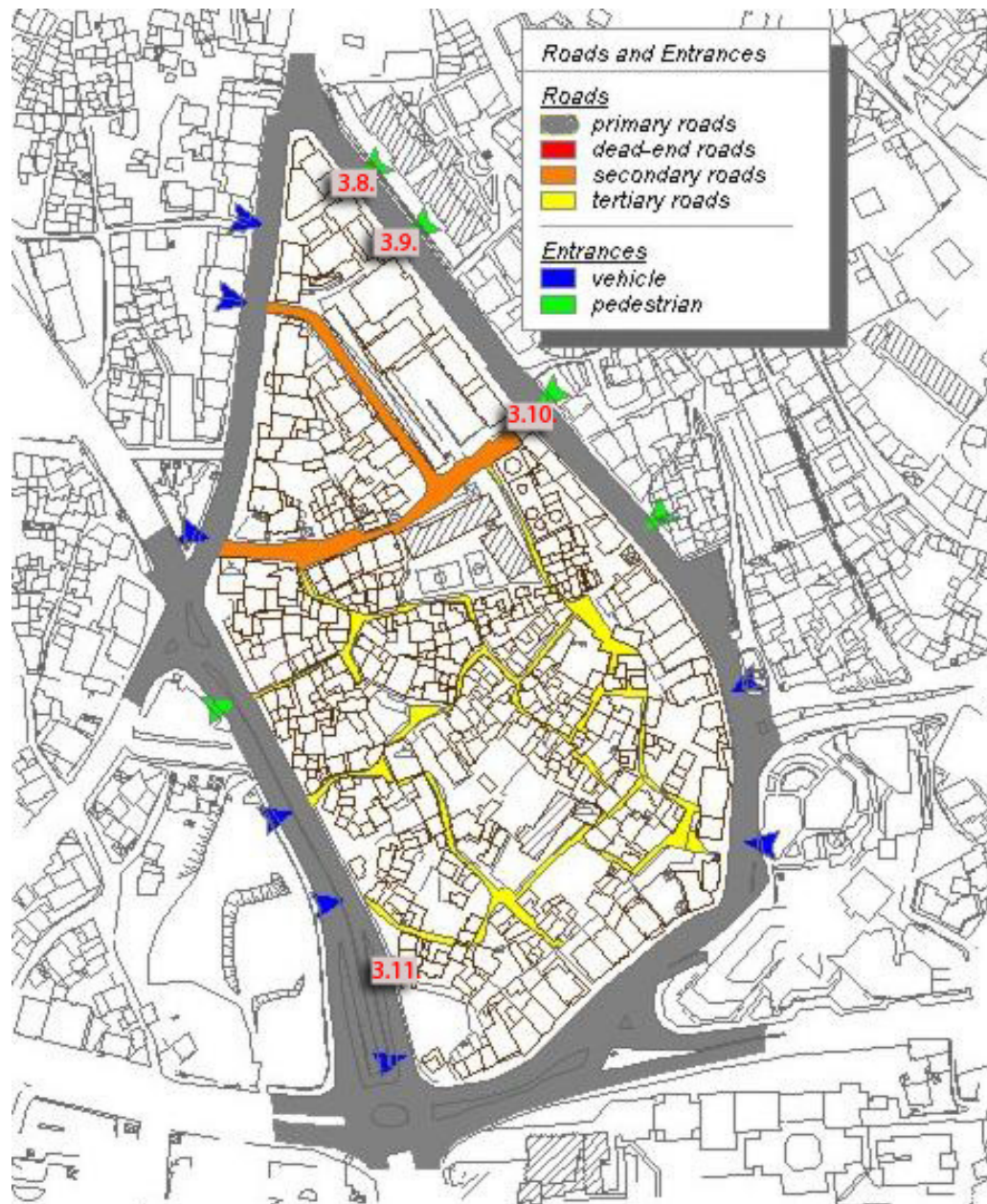


Figure 3.7. Relationship between the Roads and Entrances in Istiklal Neighborhood.



Figure 3.8 An Entrance from Anafartalar Caddesi



Figure 3.9 An Entrance from Anafartalar Caddesi



Figure 3.10 An Entrance from Anafartalar Caddesi



Figure 3.11. An Entrance from Hasırcılar Caddesi

3.5. The Present Position of Istiklal Neighborhood and Current Planning Interventions

At present, several types of historic buildings exist in Istiklal. “They can be classified according to their usage as religious, administrative, educational, service, commercial and residential buildings” (Osmay & Ataöv, 2008, p. 3). Besides Şengül Hammam (16th century, shown in Figure 3.12.), the historic religious buildings located in the area are the synagogue, the mosques of Eskicioğlu (characteristic with the mosques of the end of the 17th century and the beginning of the 18th century) and Leblebicioğlu (1713), and the Örtmeli Mescit (characteristic with the mosques of the end of the 14th century and the beginning of the 15th century) (Osmay & Ataöv, 2008). The distribution of officially registered buildings is shown in Figure 3.13.



Figure 3.12. Şengül Hamamı (16th.century)

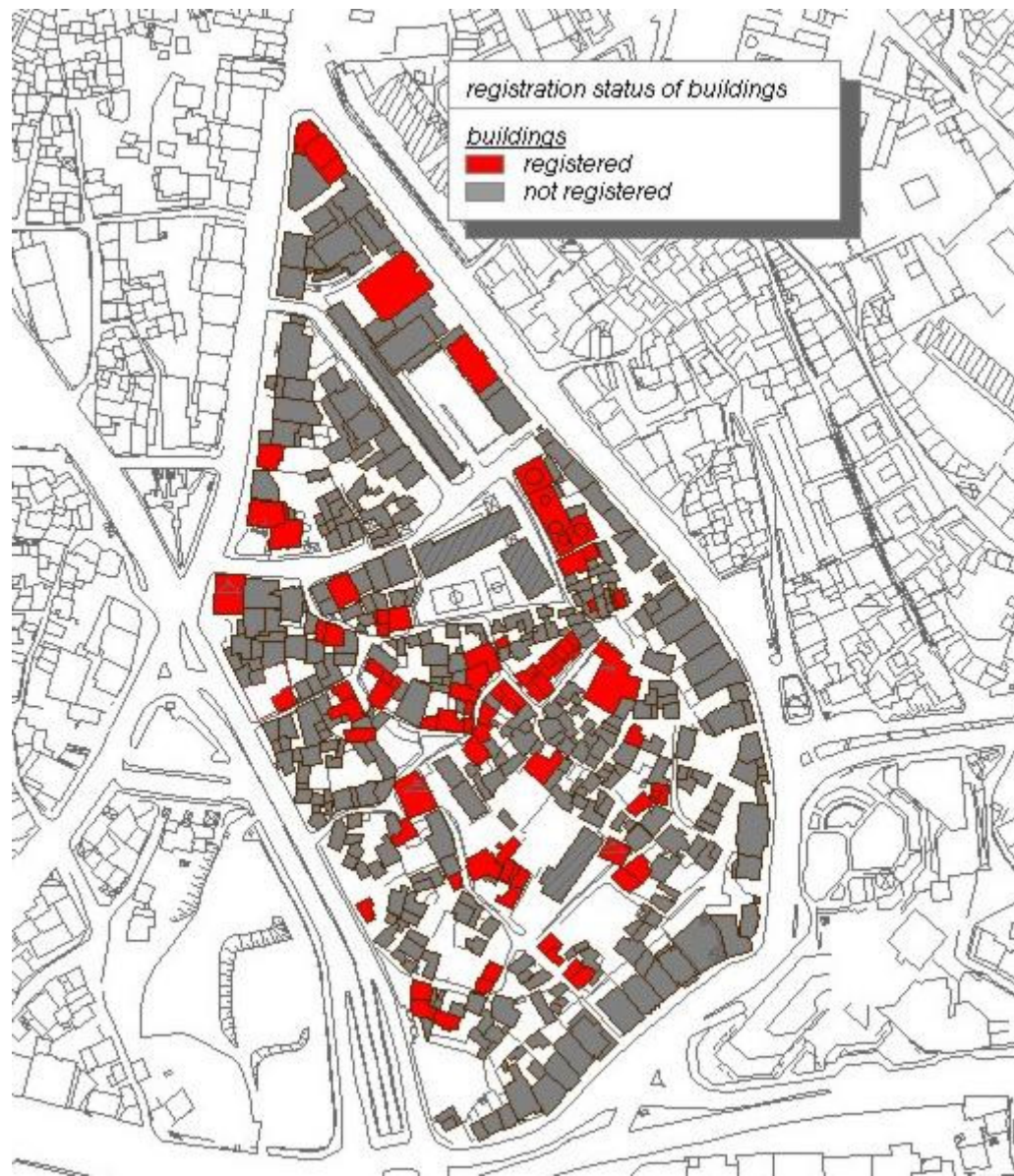


Figure 3.13. Distribution of the Officially Registered Buildings in Istiklal Neighborhood

“All these buildings of cultural heritage in the district are registered as sites to be preserved. However, degradation and decline in the site continues, and furthermore, vandalism and illegal appropriation of common spaces converts the neighborhood into an insecure environment” (Osmay & Ataöv, 2008).

Istiklal represents one of the few remaining historic residential neighborhoods of Ankara. As mentioned in a previous chapter, to conserve this area and upgrade the quality of life in the Şengül Hammam neighborhood, there is a project being conducted by Sevin Osmay and Anlı Ataöv. This project is a Participatory Action Research (PAR) project and includes various activities within the context of upgrading Istiklal neighborhood.

Osmay and Ataöv (2008) claim that the neighborhood is presently “characterized by social disintegration and a physical decaying site (Figure 3.14. and Figure 3.15), disappointment and loss of trust in authorities” (p. 2). The impossibility of appropriating the social and physical environment of Istiklal puts the existing problem of the neighborhood into a process of long-term social change. Therefore, the project adopted the PAR methodology “to generate the shared knowledge to be useful for the community in order to change their situation through participation and action” (Osmay & Ataöv, 2008, p. 1).

The stakeholder map of the PAR project includes four groups: the neighborhood residents, decision-makers, community representatives, and the project coordinating group. With the help of the participants, Osmay & Ataöv (2008) developed a knowledge generation process “that participants could use to transform into what they envisage for themselves. Moreover, empowerment takes place in the most effective and efficient way only if the participants take charge of their real-life situation and can actually commit to a collective action to change it” (Ataöv, 2008, p. 7).



Figure 3.14.A Decaying Building from Kargalı Sokak



Figure 3.15. A Decaying Building from Kumrucuk Sokak

That is why various techniques were used, including “one-on-one and group meetings with the school teachers, the local key persons and decision-makers; workshops with the male and female adult members of the neighborhood and the school children; in-depth interviews with some of the key persons, such as the Head of the Planning Department of the Altındağ Municipality, the Imam, and the headmasters of both schools in the neighborhood; and advocacy meetings with the representatives of cooperating institutions such as the Religious Foundation, the Ministry of Culture and Tourism, and involved civil organizations” (Osmay & Ataöv, 2008, p. 7).

As a result of this PAR study, Osmay and Ataöv (2008) claimed that the present situation of Istiklal puts the existing problems of the neighborhood into a process of long-term change. This process includes upgrading the residents’ capacity, both socially and economically. Then, the approach of the local authorities and central government to the neighborhood should be changed. According to this framework, the most urgent issues are neighborhood safety, the restoration of houses, empowerment of youth, and the education and training of the inhabitants (Osmay & Ataöv, 2008).

Security has been one of the four major issues of the neighborhood’s inhabitants. Thus, to upgrade the context of Istiklal and to enhance its sustainability, this thesis intends to respond to the question of how environmental attributes affect the crime occurrence in Istiklal neighborhood.

CHAPTER 4

METHODOLOGICAL ISSUES OF THE STUDY

This chapter presents the methodology of the thesis, which is conducted with the internal and external stakeholders in Istiklal in order to understand people's views on crime in the area. The research primarily aims to respond to the question of how environmental attributes affect the crime occurrences in Istiklal.

More specifically, the study intends to respond to the following research questions: what types of actual crime and perceived crime occur in Istiklal, where each type of crime frequently emerges and why they emerge at those locations, whether there is a relationship between crime occurrence and environmental features in Istiklal, which environmental attributes trigger crime, and whether intervention has decreased the occurrence of crime. Table 4.1. presents these four sub-questions and the research approach, method of data collection, and method of data analysis for each.

In order to reveal the crime and perceived crime in Istiklal, I use qualitative methodology. Qualitative methodology can be defined from different aspects. But in this study, I use it as a type of research that refers to persons' lives, lived experiences, behaviors, emotions, and feelings, in addition to organizational functioning, social movements, cultural phenomena, and interactions between nations (Strauss & Corbin, 1998).

This method helps reveal contextual information regarding the present status of the event in order to describe what exists with respect to variables or conditions in a situation (Key, 1997). It helps the researcher to describe meaningful structures in the user's response to the environment and visual characteristics of the environment (Harding, 1974; Kupritz, 1996; cited in Ataöv, 2008). The basis of the research is about "what people understand about the environment, how they value it, and what principles they use" (Harding, 1974; Kupritz, 1996; cited in Ataöv, 2008, p. 27).

First, I determined the crime types that occurred in Istiklal over the last ten years by using a thematic analysis method. In order to determine this, I used in-depth interviewing with open-ended questions with representatives of the Sahir Kılıçtepe Police Station and the interior and exterior stakeholders of the Istiklal neighborhood.

Then, to understand the locations of actual and perceived crime types and to find the reasons for why those crimes emerged at these locations, I used thematic analysis as a data analyzing method. For this question, I gathered data from in-depth interviews with stakeholders and the Sahir Kılıçtepe Police Station, along with cognitive mapping according to interviews, and photographs and maps from the Istiklal neighborhood.

In order to reveal the relationship between crime occurrence and environmental features in Istiklal, I used observation notes, in-depth interviewing, cognitive mapping according to interviews, and photographing and mapping as a data gathering method, and I analyzed the data by using thematic analysis.

Similarly to the third question, to understand the role of intervention in decreasing crime rates, I used field observation notes, in-depth interviewing, photographing, and mapping. I analysed the data with the help of thematic analysis.

Table 4.1. Research Questions

Research Question	Research Approach	Data Gathering	Data Analysis
What are the actual crime and perceived crime types that occurred in Istiklal neighborhood in the last ten years?	Qualitative research	In-depth interviewing (open-ended questions)	Thematic analysis
Where do these crime types frequently emerge and why do they emerge at these locations?	Qualitative research	In-depth interviewing (open-ended questions), cognitive mapping, photographing, and mapping	Thematic analysis
Is there a relationship between crime occurrence and environmental attributes in Istiklal? Which environmental attributes trigger crime?	Qualitative research	Field observation, in-depth interviewing (open-ended questions), cognitive mapping, and mapping	Thematic analysis
Has intervention decreased the occurrence of crime?	Qualitative research	Field observation, in-depth interviewing (open-ended questions), photographing, and mapping	Thematic analysis

In conclusion, these four questions are intended to employ the same research approach and data analysis method. However, their data gathering methods are not similar. Within this framework, this chapter is comprised of three parts which systematically show the design of the thesis. These parts include the stakeholder map, data gathering, and data analysis method of the study. In the first section, I explain how I selected the sample group in Istiklal. In the data gathering section, I discuss the survey technique. The last section, I describe the techniques used to analyze the collected data.

4.1. Stakeholder Map

In order to better understand the crime situation in Istiklal, the participation of stakeholders who are affected or affect the crime in the area, either directly or indirectly, is required. Therefore, I conducted a stakeholder analysis to develop cooperation with individuals and groups in the Istiklal neighborhood. With the help of the stakeholder map, firstly, we can describe and better understand the different individuals and groups in Istiklal that have suffered from crime. Then we can examine how they have been affected and what their attitudes are about crime and the neighborhood. Then we can use this information to assess how the interests of those stakeholders should be addressed in this study. I draw these final conclusions from both the participants' responses and from the information provided by the literature review.

By developing the stakeholder map, the study aims to envisage the present and the possible future status of Istiklal with respect to crime occurrence. It helps to categorize stakeholders most likely to affect and to be affected by crime, as well as to reveal their attitudes toward the study of crime and its targets. Moreover, the goal of the analysis is to understand which individuals or groups in Istiklal have the greatest potential to contribute toward making the neighborhood a safer place.

The stakeholder map is comprised of two main groups to display the relative attitudes and influences of different individuals. These groups are internal and external stakeholders. The internal stakeholders include the neighborhood's inhabitants or visitors who are ultimately affected by crime, either positively or negatively. The external stakeholders are the ones who are indirectly affected by crime and have significant influence or importance in decision-making.

The first group is further categorized into two subgroups, in terms of people's relation to the neighborhood. The first group is the neighborhood residents, people living in Istiklal. This group particularly consists of current households who have lived in the neighborhood for many years, and new households. In fact, this group is the primary stakeholder group in the study because they live in the neighborhood and the crime in the area directly affects these people's quality of life. This group falls into an age range of 12 to 85. Most of the elderly people are retired. The second group is the people working in Istiklal. This group is comprised of government employees, local street vendors, the teachers and heads of the Sakalar Primary School and Anafartalar Technical and Vocational High School, the Hammam personnel, and the Istiklal neighborhood street cleaning personnel.

The external group contains decision makers. These include both those who have direct influence on decisions about the neighborhood (the police in the Sahir Kılıçtepe police station and managers and professionals from Altındağ Municipality, the Greater Ankara Municipality, and the Ministry of Culture and Tourism), and the local leaders (the Imam and the mukhtar).

After defining the interior and exterior stakeholders, I started to gather data about crime and crime prevention. For the data gathering, I used a different method, which is described in the following section.

4.2. Data Gathering

As mentioned in previous chapters, this study presents the preliminary investigations for crime prevention as a part of the Participatory Action Research (PAR) in Istiklal neighborhood (Osmay & Ataöv, 2008). The PAR project includes empowerment activities within the context of upgrading Istiklal. That study defined its research question as how “to construct a common interest about the sustainability of the neighborhood by means of the empowerment of involved stakeholders through participation and shared action” (Osmay & Ataöv, 2008, p. 6).

As part of this inquiry, the issue of security has been one of the major concerns of the neighborhood inhabitants and an area within which they showed interest to take collective action. Thus, to enhance the sustainability of the neighborhood, this study intends to explore the issue of security in Istiklal, the conditions that enhance or hinder neighborhood security, and the involvement of stakeholders in making the neighborhood a safer place.

To do this, I collected data through the in-depth interviewing with open-ended questions, observation, and the taking of photographs and videos. In general, there are two types of data obtained from Istiklal to analyze the crime in the area. On one hand, narrative data includes in-depth interviews with the neighborhood’s internal and external stakeholders. On the other hand, visual data involves observation notes, maps, photographs, and videos.

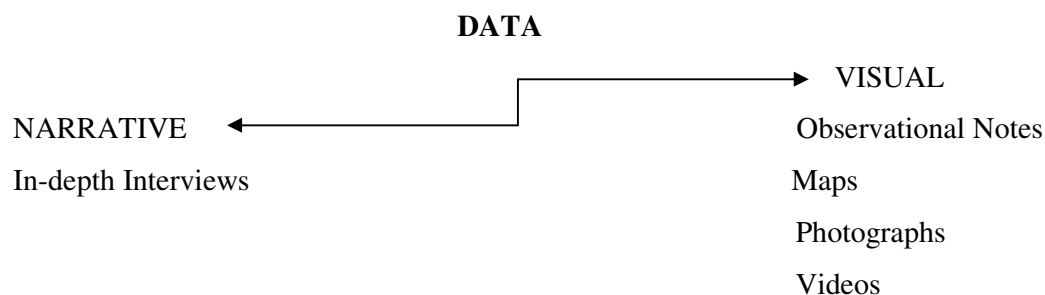


Figure 4.1. Data

To gather the data about the level of crime, the environmental attributes that foster crime, and the community's involvement in crime prevention, I used qualitative methods, including in-depth interviewing with open-ended questions, observation, photographing, and mapping. These inputs had to be organized to be used in my study efficiently.

With the help of the qualitative method in the study, I intend to extract meaningful information about neighborhood safety. To do that, I aim for qualitative research, including observation, in-depth interviewing, cognitive mapping, photographing, and mapping.

The first technique used in the study is participant observation in Istiklal. First, I went to the neighborhood accompanied by the PAR researchers to get acquainted with the area and the inhabitants of the neighborhood. After a short tour of Istiklal, the PAR researchers introduced me to some people who have participated in the PAR project.

A few days later, I again went to the project site to gain further acquaintance with the Istiklal neighborhood and to observe the street life. A former inhabitant, Mustafa Öztürk (28 years old; born and raised in the neighborhood, then moved to Eryaman with his family) helped me voluntarily. This took approximately six hours. Mr.

Öztürk often visits the neighborhood to see his friends. Thanks to him, I had a chance to walk through the whole district and to observe the local problems through the eyes of a young person from the neighborhood. I could also capture many images of the current physical state of the neighborhood on film.

Second, I applied the in-depth interviewing technique. Initially, I categorized the participants and thereby produced a stakeholder map. I interviewed the two major groups of stakeholders, decision-makers and neighborhood inhabitants. This provided the opportunity to see the differences between these two major groups. Furthermore, it helped reveal the attributes that potentially cause real crime as well as the sources for the perception of crime in Istiklal.

In the first step, I conducted in-depth interviews with some key persons within the decision-maker group, including the head of the Planning Department of Altındağ Municipality, a city planner from the Greater Ankara Municipality, and a city planner from the Ministry of Culture and Tourism.

The in-depth interview with the head of the Planning Department of Altındağ Municipality took approximately one hour. During the interview, he provided information about the general situation in Istiklal with respect to safety, as well as the projects to be implemented or those that have already been implemented in the site and in its environs, particularly including the ‘Hamam Önü’ project. Furthermore, I was able to collect the present map of Istiklal Neighborhood from him.

Then, to gather data about the crime in Istiklal, I interviewed the chief superintendent officer, Sahir Uzun, at the Sahir Kılıçtepe Police Station. The chief superintendent officer has shown a great interest and enthusiasm to share his archive with me. This was particularly important for the station’s future active involvement in the action-making phase of the overall PAR project. He provided the statistical data about the relations of crime types, including their frequency and their location in the neighborhood; the features of offenders, like age and gender; and people affected by

crime in the Istiklal neighborhood. Moreover, I obtained information about the precautionary measures currently being taken against crime. This interview took approximately two hours.

I also interviewed the head city planner from the Greater Ankara Municipality and a city planner from the Ministry of Culture and Tourism. Similarly, the interviews were intended to reveal the current and/or past projects conducted in Istiklal. However, I could not obtain much information from these interviews. They only mentioned the meaning of Istiklal being a “historic and cultural conservation site.”

In the second step, I conducted in-depth interviews with the people living or working in Istiklal, or, in other words, people who are directly affected by crime. The respondent table is comprised of 21 people, including present households that have lived in the neighborhood for many years; children and young people in the Istiklal neighborhood; merchants; the teachers and principals of the Sakalar Primary School and Anafartalar Technical and Vocational High School; the Hamam personnel; and Istiklal neighborhood cleaning personnel.

In this step, I talked with 21 respondents from different groups. Table 3.2. shows more detailed information about each respondent. While interviewing, I was also videotaping twelve of them and taking some photos to form a video and photograph archive to use as input for my study. However, some of the respondents did not want to be placed on record for various reasons. Each interview lasted between 10 and 20 minutes.

Table 4.2. Respondents

Respondent	Video number	Sex	Age	Residency length	Occupation	Household size
1	V1	F	46	30	housewife	5
2	V2.1 V2.2	F	NI	38	housewife	4
3	V3	F	16	3	student	5
4	V4	F	65	17	housewife	4
5	NV	F	58	13	housewife	2
6	V5.1 V5.2	M	72	37	retired	2
7	V6	M	63	50	retired	8
8	V7	F	22	12	employed	5
9	V8	M	48	44	retired	3
10	V9	F	85	11	housewife	1
11	V10	M	45	NI	shoe repairer	NI
12	V11	M	58	29	shoe repairer	NI
13	NV	M	56	32	shoe repairer	NI
14	NV	F	42	NI	teacher	NI
15	NV	F	38	NI	teacher	NI
16	NV	M	47	NI	teacher	NI
17	NV	M	53	NI	school director	NI
18	NV	M	48	NI	school director	NI
19	NV	M	25	25	grocer	5
20	NV	M	23	20	unemployed	4
21	NV	M	26	26	unemployed	5

*NI: No information

*NV: No video was recorded

I preferred to talk with participants directly instead of conducting a survey, because this allowed me to more easily understand their perception and the crime situation in the neighborhood. The first set of questions involved crime types in Istiklal. The second set was related to the characteristics of criminals. The last set aimed at extracting respondents' perceptions about the neighborhood's safety.

However, I prepared a simple inquiry, which gave me clues while in-depth interviewing, and I questioned participants about the problems of living or working in Istiklal regarding crime, in addition to the same questions asked at the police station, which were about the crime types, including their frequency and location in the neighborhood; the features of offenders, like age and gender; and people affected by crime in the neighborhood. The main aim of these interviews is to understand the inhabitants' attitudes about environmental attributes that trigger the crime in the neighborhood. However, I could not obtain clear answers to these questions from respondents because they abstained from giving more details about the neighborhood. Therefore, I couldn't analyse the relationship between the physical attributes and the perceived crime according to inhabitants. I intend to find the respond of this question by the relationship between my participant observation and physical context of Istiklal Neighborhood.

In the last technique, to find the environmental attributes which trigger crime and the locations where crime types emerge frequently in Istiklal, I formed some maps by walking through the whole district, photographing all sides, and using observational notes. Then, I categorized this data under four headings. These are Buildings, Transportation Systems, Street Plan, and Crime in Istiklal.

Moreover, I will support the field data with the findings of the literature review, particularly in developing design principles and tools to help make the neighborhood a safer place.

4.3. Data Analysis

In this thesis, I collected narrative and visual data, as mentioned in the previous chapter. To analyze these data types, I used the thematic analysis method.

According to Patton (1987), “Analysis is the process of bringing order to the data, organising what is there into patterns, categories and basic descriptive units. Interpretation involves attaching meaning and significance to the analysis, explaining descriptive patterns and looking for relationships and linkages among descriptive dimensions.”

Data analysis includes a systematic process of working with the data. The aim is to provide an understanding of the research participant’s perceptions as well as to provide an understanding through the researcher’s interpretation of the data.

The aim of this study is qualitative, in order to extract a better understanding of the contextual framework of crime in Istiklal. Qualitative research suits the purpose of this study because it helps reveal insight into people’s lives, lived experiences, perceptions, behaviors, emotions, and feelings, in addition to organizational functioning, social movements, cultural phenomena, and interactions between nations (Strauss & Corbin, 1998).

The aim of the study is to present a crime map of the Istiklal neighborhood according to the data obtained and to find solutions for creating safer places. Thus, to best do this, I used the thematic analysis technique, including sampling, to organize the data, and coding to analyze data.

Thematic analysis can be defined as a method for identifying, analyzing, and reporting on thematic patterns within data (Borrell, 2008). It reports “experiences, meanings and the reality of participants, or it can be a constructionist method, which examines the ways in which events, realities, meanings, experiences and so on are

the effects of a range of discourses operating within society” (Braun and Clarke, 2006, p. 81, cited in Borrell, 2008, p. 198).

Thematic analysis is “a person’s own words or actions or observable aspects of his or her life in an organization or culture includes” (Boyatzis, 1998, p.xii). It searches for “identification of common threads that extend throughout an entire interview or set of interviews” (Morse & Field, 1995, p. 139).

The thematic analysis process in this study is comprised of two major stages to analyze the data described above. The first one is the arranging of both narrative and visual data, obtained from interviews, observations, documents, and records. The second stage is the coding to interpret and organize data. By the same token, in the first stage, I organize the data in terms of two criteria. The first criterion relates to the present social context of Istiklal in terms of crime, and the second is the present physical context of Istiklal.

The first criterion, social context, reveals the crime situation in Istiklal. This stage is intended to discover which types of crime occur in Istiklal and who commits crime in the area. While analyzing the social context, I use narrative data, including in-depth interviews with the internal and external stakeholders of Istiklal, and visual data, including observational notes, photographs, and records. I watched all the in-depth interviews and then transcribed them. In the meantime, I typed observational notes. Then I chose some key words according to my research questions and the information from the narrative and visual data. Finally, I organized the data according to the frequency of certain words said by the people interviewed.

With the help of thematic analysis, besides the physical attributes that increase the crime rates, I also analyzed both the social concepts and crime occurrence in Istiklal in terms of internal stakeholders, including the inhabitants or visitors who are ultimately negatively affected by crime. The following chapter shows these research findings of the thesis.

CHAPTER 5

RESEARCH FINDINGS ABOUT ISTIKLAL NEIGHBORHOOD

At present, Istiklal is considered to be a “historic and cultural conservation site.” That is why all area construction is limited by the authorities. Builders must obtain permission from the Ministry of Culture and Tourism even for basic repairs. Furthermore, the residents of Istiklal are low-income families who feel disappointment and a lack of trust in the local authorities. For this combination of reasons, the area has become a more socially disintegrated and physically decaying site with each passing day (Osmay & Ataöv, 2008).

This situation causes security problems in the neighborhood and affects the sustainability and livability of the area negatively. Thus, the aim of this study is to understand the security context of Istiklal neighborhood, to enhance the sustainability and livability of the area, and to find methods to make the neighborhood a safer place.

As mentioned in a previous chapter, the main research question of this thesis is how environmental attributes affect the occurrence of crime in Istiklal neighborhood. In order to respond to this question, the study approaches the crime problem in Istiklal from the perspective of new early ecology studies. However, besides the physical context, the social context of the area also has an effect on decreasing or increasing the crime rate in the area. That is why this study also approaches the area’s crime problem from the traditional ecology point of view. This study’s investigation of social context is a preliminary study to reach the main question of the thesis.

Within this framework, this chapter represents the responses to the sub-questions of the study and reveals the findings about crime in Istiklal, in both the social and physical contexts. In the social context, I intend to define the crime types (Crime records, 2008; Uzun, 2009; internal and external stakeholders, 2009), the offender profile (Uzun, 2009; internal and external stakeholders, 2009), the disadvantaged groups (Uzun, 2009; internal and external stakeholders, 2009), and the current precautions taken to prevent crime in the neighborhood (Uzun, 2009; internal and external stakeholders, 2009). On the other hand, in the physical context, I try to identify the environmental features that affect the occurrence of crime, either positively or negatively. The physical crime context in this study includes building features, transportation systems, and the street plan.

5.1. Social Attributes That Affect Crime in Istiklal Neighborhood

This part of the study intends to describe the social factors that increase the crime rate in Istiklal. This part lays the groundwork for the main research question of the thesis by responding to the sub-question of what types of crime occur in Istiklal. Additionally, to better understand the social crime context in Istiklal, I define the area offender profile in terms of demographic characteristics, including age and gender and being an outsider or insider. I also identify the disadvantaged groups and the precautions currently being taken to prevent crime in the neighborhood, with the help of findings from the official records and the data obtained from the in-depth interviews with internal and external stakeholders.

5.1.1. Actual Crime in Istiklal Neighborhood

First of all, the real crime types that occurred in the neighborhood within one year (2008) can be revealed, as shown in Table 5.1., The Distribution of Real Crime Types in 2008 (Crime Record, 2008). This table is based on official records and obtained from the in-depth interview with Sahir Uzun, the superintendent of Sahir Kılıçtepe Police Station. The table shows the real distribution and frequency of the

crime types in Istiklal Neighborhood. This table is a very important input for the study in order to understand and compare the relationship between the real crime and the perceived crime in the neighborhood.

Table 5.1.: The Distribution of Real Crime Types in 2008

CRIME TYPES		Frequency	Definite Offender*	Indefinite Offender*
VANDALISM	to public property	12	8	4
	to personal property	16	8	8
MALICIOUS INJURY & ASSULT		120	102	18
GRAB		17	8	9
MURDER	deliberate	2	2	
	negligent offense (traffic accident)	11	11	
SEXUAL HARRASMENT		1	1	
BURGLARY		423	64	369
NARCOTICS		0		
PARKING OFFENSES	Administrative record	Many		
	Juridical record	6		

*Definite Offender (Faili belli): It is obvious who commit the crime

*Indefinite Offender (Faili meçhul): It is not obvious who commit the crime

Source: Sahir Kılıçtepe Police Station (Police Record, 2008)

Table 5.1. shows the distribution and frequency of the real crime in Istiklal neighborhood according to the official records of the Sahir Kılıçtepe Police Station (2008). When we look at the distribution of crime types, parking offenses appear as the most common crime type, whereas there are no narcotic offenses reported in Istiklal. The types of crime can then be listed as burglary, malicious injury and assault, grab, vandalism to people, vandalism to property, negligent homicide, deliberate homicide, and sexual harrasment, when ordered from top to bottom according to their frequency of occurrence. Mr. Uzun (2009) added that burglary, especially car theft, has a high rate of occurrence in the neighborhood. Moreover, theft of goods and money from the local small businesses also occurs frequently in the area. The malicious injury and assault offenses are caused by conflicts of the residents among themselves. The areas in Istiklal where the crime density is highest are Kargı (Figure 5.1.) and Dibek (Figure 5.2.) Streets (Uzun, 2009).

Figure 5.2., Figure 5.3., and Figure 5.4. show some views from different perspectives of Kargı Sokak. Places where these photos were taken are marked on Figure 5.1. Viewing Figure 5.2., it may be said that the abandoned or ruined houses along Kargı Sokak increase the crime rate in the area, because these buildings are open to crime, especially for narcotic offenses. Besides Kargı Sokak, Uzun (2009) also emphasized the presence of crime on Dibek Sokak; however, this street is not located in the study area of the thesis.



Figure.5.1.Kargı Sokak



Figure 5.2. An Example Building from Kargı Street



Figure 5.3. A View from Kargı Street



Figure 5.4. A View from Kargı Street

Table 5.2., The Offender Profile in Terms of Age and Gender, shows the offenders' demographic characteristics. This data was also obtained from the in-depth interviews at the Sahir Kılıçtepe Police Station.

Uzun (2009) claimed that the age ranges change according to crime types in Istiklal. However, there is only one age criterion according to official records in the police station. This criterion is to be either under 18 years old or above (Uzun, 2009). That is why this table does not include the criminals under 18 years old and the data in table 5.2. is not from an official record (Police Record, 2008). This data is the perception of the superintendent of Sahir, Sahir Uzun (2009). He stated that the age range of 99% of the criminals in the neighborhood is between 18 and 25 years old, and that they are male in the same percentage, 99% (Uzun, 2009). Moreover, he added that, except for the cases of malicious injury and assault, the criminals are mostly outsiders of the neighborhood (Uzun, 2009).

Table 5.2. The Offender Profile in Terms of Age and Gender

CRIME TYPES	AGE	GENDER
VANDALISM	99% between the ages of 18 and 25	99% male
MALICIOUS INJURY & ASSAULT		
GRAB		
MURDER		
SEXUAL HARRASMENT		
BURGLARY		
NARCOTICS		
PARKING OFFENSES		

Source: Sahir Kılıçtepe Police Station (Sahir Uzun)

With the help of the in-depth interview at the Sahir Kılıçtepe Police Station, besides the information in the two tables shown above, I also obtained some detailed information about the disadvantaged groups in Istiklal and the precautions being taken to prevent crime.

According to the chief superintendent of the Sahir Kılıçtepe Police Station, there are two disadvantaged groups in Istiklal (Uzun, 2009). The first group that is affected by crime is the residents of Istiklal neighborhood, because most of the malicious injury and assault offenses are caused by conflicts between the residents themselves (Uzun, 2009). The other group is the people who work throughout the neighborhood, like teachers or merchants. Actually, this group is a disadvantaged group because they have a fear of crime. For example, teachers usually fear rape or hijacking, and most of the merchants fear being robbed (Uzun, 2009). On the other hand, Uzun claims that people who visit Istiklal for one or two hours are usually not affected by crime (Uzun, 2009).

The Sahir Kılıçtepe Police Station takes some precautions to prevent crime in the Istiklal neighborhood. Actually, however, they usually take them according to the occurrence of crime. In other words, after a crime is committed, they take precautions according to the denunciation and the type of crime (Uzun, 2009). However, the general precautions are:

- After dark, looking around with lights in the places prone to crime
- Ascertaining the defective streetlights and then informing the municipality about them
- Employing more police in the areas where offenses were committed earlier, because these areas have potential for future crime
- Holding a meeting with the mukhtar once a week
- Positioning police in important points for 24 hours (Uzun, 2009).

According to an interview with Sahir Uzun (2009), the crime rate in Istiklal was very high 2 ½ years ago. However, with the help of the precautions listed above, this crime rate has decreased. He said that meetings with the mukhtar are especially important for reducing crime. If the mukhtars observe the neighborhood and pull together with the police, the crime rate will decrease. Moreover, looking around with a light after dark in the places affected by crime gives confidence to the residents of the neighborhood (Uzun, 2009).

Uzun (2009) claims that there are no problems while taking precautions. However, there are two problematic types of residents in the neighborhood. One group is the single tenants who live in separate rooms of other's households. These tenants usually work in night jobs or construction. They usually drink alcohol and come home in the late hours of the night. This group causes the drunken brawls and, consequently, the malicious injury and assaults. The other group includes the residents with low income or no income. This group includes unemployed people, and they are usually the ones who damage buildings and the environment. The chief

superintendent officer of the Sahir Kılıçtepe Police Station added that the people in the area should be made conscious of these dangers (Uzun, 2009).

5.1.2. Perceived Crime in Istiklal Neighborhood

In order to better understand crime in Istiklal, I used the in-depth interviewing method instead of conducting surveys because I believe that, in this way, respondents could express themselves more clearly and recount the crime problems in more detail. However, as mentioned in the methodology chapter, I could not obtain clear answers to my questions from respondents as they abstained from giving details about the neighborhood. Therefore, I attempted to learn more about the crime situation in Istiklal from interviews.

Within this framework, I interviewed 21 people from the neighborhood. These respondents are the interior stakeholders, including present households that have been in the neighborhood for many years, children and young people, merchants, and the teachers and principals of the Sakalar Primary School and Anafartalar Technical and Vocational High School.

Table 5.3. shows the distribution of crime types in Istiklal. More precisely, this table shows what each respondent said about crime types in the neighborhood.

Table 5.3. Perceived Crime in Istiklal Neighborhood According to Respondents

RESPONDENTS	VIDEO NUMBER	VANDALISM		MALICIOUS INJURY AND ASSAULT	GRAB	MURDER	SEXUAL HARASSMENT	BURGLARY	NARCOTICS	PARKING OFFENSES
		to public property	to personal property							
1	V1	*						*		
2	V2		*				*			
3	V3	*								
4	V4	*					*			
5	NV		*							*
6	V5									
7	V6								*	*
8	V7					*	*		*	
9	V8								*	
10	V9	*								
11	V10		*					*		
12	V11		*	*				*		
13	NV									
14	NV	*					*		*	
15	NV	*		*			*		*	
16	NV						*		*	*
17	NV	*							*	
18	NV	*								*
19	NV			*				*		
20	NV	*							*	
21	NV			*				*	*	
Total		9	4	4	0	1	6	5	9	4

Table 5.3. is comprised of the crime types perceived by the respondents or the crime types that are publicized in the neighborhood, rather than the crime types that the respondents are subject to. Meanwhile, respondents stated that the neighborhood crime rate in the past was higher than the crime rate at present (respondents in Istiklal neighborhood, 2009).

According to Table 5.3., the types of crime that are mostly commonly heard of in Istiklal neighborhood are vandalism to public property and narcotics usage (9 respondents each). The other most commonly reported crimes are sexual harassment (6 respondents) and burglary (5 respondents). Vandalism to personal property and parking crimes rank fourth (4 respondents each). Homicide follows as the least commonly reported crime in Istiklal (1 respondent). Grab is not reported here.

The criterion of being from the district or being an outsider to the district is considered along with the other criteria, like age and gender of the criminal, according to the citizens of the district. This information was obtained from the interviews conducted with citizens. As the citizens prefer to tell about the crimes they heard of, rather than the crimes that they experienced themselves, we cannot establish detailed information about the criminal profile or distributions among age or types of crime. The respondents generally believe that the criminals are between 19 and 25 years old, and men.

When examining whether the offenders are from the neighborhood or outsiders, it can be noted that the respondents say that they are most often outsiders, although there is no great difference in the perceived distribution. Table 5.4. shows the respondents' thoughts on this subject.

Table 5.4. Offenders from within the Neighborhood or without, According to Respondents

Respondents	From Neighborhood	From Other Neighborhoods
1	*	
2		*
3	*	
4		*
5	*	
6		
7	*	
8	*	
9		*
10		
11		*
12	*	
13		*
14		*
15	*	
16	*	
17		*
18		*
19		*
20		*
21		*
TOTAL	8	11

5.2. Physical Crime Context of Istiklal in Terms of the Early New Ecology Approach

The second criterion is related to the physical environment of Istiklal neighborhood. In this stage, I analyze the general physical characteristics of Istiklal and the environmental attributes which trigger crime there, as well as where each type of crime frequently emerges in Istiklal, in order to respond to the main research questions: Is there a relationship between crime occurrence and environmental features in the Istiklal neighborhood? Which environmental attributes trigger crime? Has intervention decreased the occurrence of crime?

This section contains the parameters formed from the site analyses in conjunction with information gathered in accordance to the literature review and the interviews done with citizens and the Altındağ Municipality. I follow an operation for examining the crime-prone areas and the physical factors of these areas that foster crime. While operating in this way, I try to take into consideration the historical structure of the area and also the negative and positive effects of this structure upon crime rates.

First of all, as mentioned in previous chapters, the neighborhood is located at the old center of Ankara. It is surrounded by Anafartalar Street on the east side, Denizciler Caddesi and Hasırcılar Caddesi on the west side, and Talatpaşa Bulvarı on the south side. The neighborhood can be said to be very close to the major points of public transportation routes. Because of its location, there is no transportation problem in Istiklal.

Secondly, the neighborhood has a historical structure with a threefold homogenous texture between the relations of inner-courts, gardens, and face components of building heights at human scale. However, there are some differences among gardens and inner-courts, and these buildings lose their originality by adding new facets or dividing buildings. Additionally, both the lack of care and the economic hardship in

Istiklal cause the buildings to grow dilapidated or abandoned, and this situation enables criminals to commit crimes.

Along this line, Figures 5.5. to 5.10. are related to the buildings in Istiklal. These figures focus on the usage of buildings, conditions of buildings, and classifications about the historic value of buildings.

Figure 5.5. shows the usage of the buildings in the area. Generally, the usage types can be listed as residential, public, commercial, commercial sites under public buildings, and commercial sites under residential buildings. When we look at the distribution of these usage types, each type of building is generally clustered in the same area. It can be said that there is no homogeneous distribution of buildings in terms of their usage; in other words, there is no mixed usage in Istiklal.

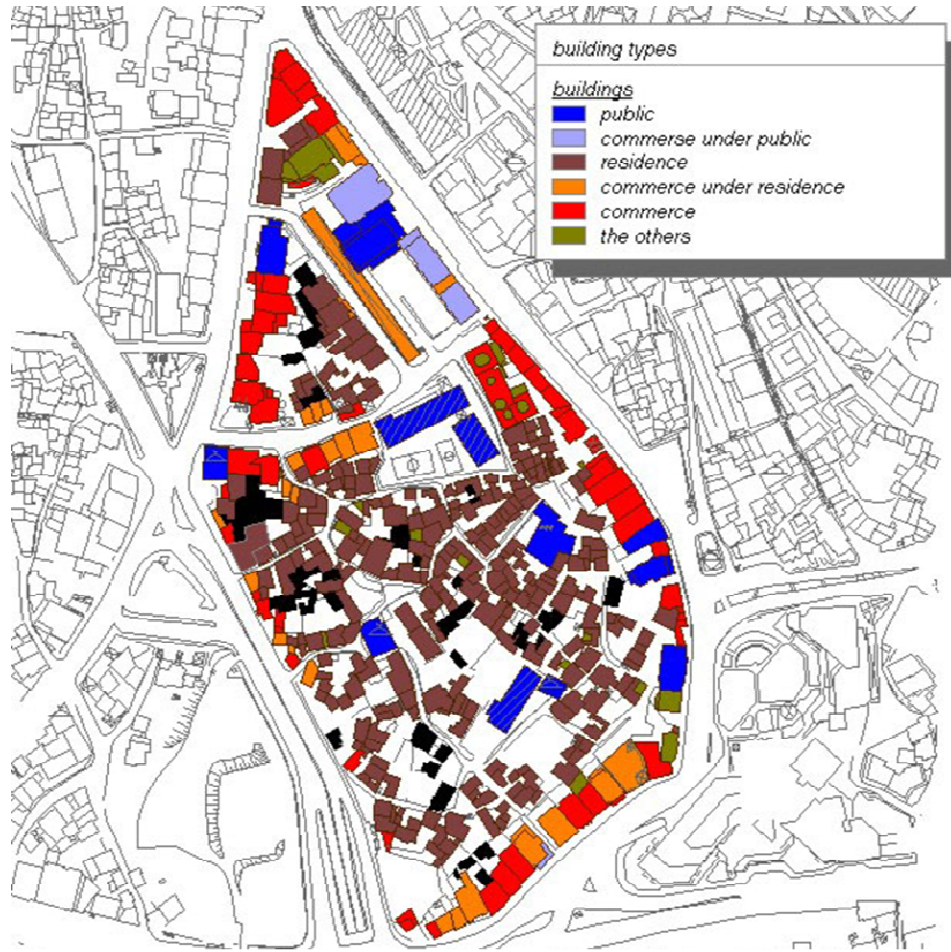


Figure 5.5. Classification of the Usage of Buildings

According to this map, the commercial and public buildings, such as T.C. Ziraat Bankası, Eti Maden İşletmeleri Genel Müdürlüğü Misafirhanesi, Türkiye Tarım ve Kredi Kooperatifleri Eğitim ve Sosyal Tesisleri, PTT, Başbakanlık Sosyal Hizmetler, and Çocuk Esirgeme Kurumu cluster around the outer boundary of the Istiklal neighborhood. There are a few local commercial sites, especially shoe repair shops, located in the interior of the neighborhood. That is why visitors, especially those who are shopping, rarely enter the neighborhood.

Contrary to commercial sites, residential buildings are grouped within the neighborhood. Moreover, the historical buildings of Şengül Hammam, Eskicioğlu Mosque, Leblebicioğlu Mosque, and they synagogue are located on the inside of the Istiklal neighborhood. Except for the visitors who come to the area periodically to visit the synagogue and the customers of the Şengül Hammam, there are not many outsiders visiting Istiklal. Therefore, there may be lack of natural surveillance by residents or visitors.

According to the information stated above, there are differences in the distribution of the population density between the inside and outside sections of the area during any given day. It is possible that while the outer edges of the area are very busy and crowded, the interior parts of the neighborhood are very empty and abandoned. Streets with no pedestrians or residents may cause a lack of natural surveillance in the inner parts of Istiklal and have the potential to increase the fear of crime among neighborhood residents.

Moreover, space is only used residentially in the interior parts of Istiklal. There are not enough entertainment facilities, such as cafes, restaurants, or parks. These facilities keep an area livable and allow residents to increase the natural surveillance. However, due to the lack of mixed using and activity generations in the interior parts of Istiklal, the streets are unused and isolated, especially after dark, and this has the effect that residents feel unsafe in the interior of the neighborhood.

Figure 5.6. shows the situation of the area buildings in terms of being dilapidated, abandoned, or utilizable. In spite of the original architectural style and the designs of streets in human scale, the lack of care had led the area to become derelict, and if it collapses, it will destroy the historical texture of the zone. This poor condition of the buildings has an effect on the perception of the environment and a negative impact on occurrence of crime.

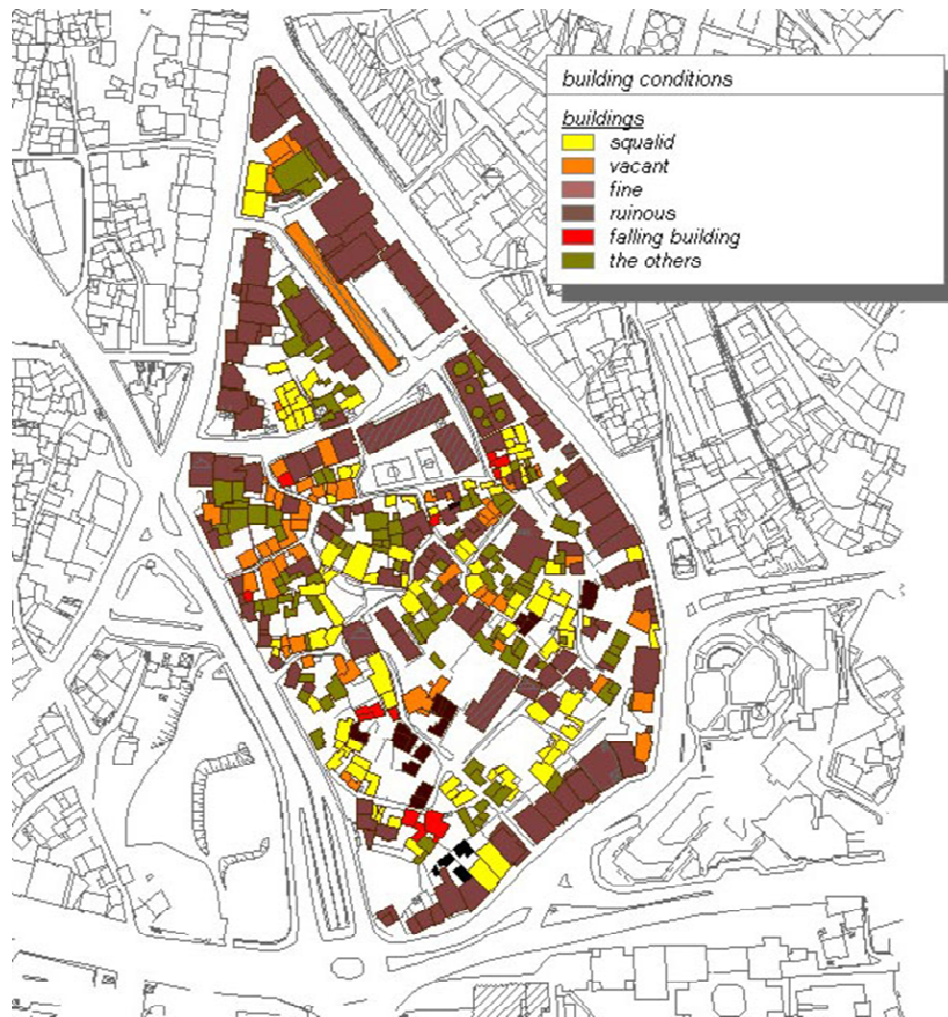


Figure 5.6. The Present Situation of the Buildings in Istiklal

The map indicates that most of the buildings along the area's boundary are well maintained (Figure 5.8.). However, most of the buildings in the interior of Istiklal are squalid or vacant. Moreover, ruinous and collapsing buildings are mostly clustered on the south side of the neighborhood. Figure 5.9. shows the areas where these squalid, vacant, ruinous, or collapsing buildings are primarily located. Figure 5.10. Figure 5.11., Figure 5.12., Figure 5.13., and Figure 5.14. are some examples of such buildings.



Figure 5.7. An Example of Well Maintained Buildings in Istiklal Neighborhood



Figure 5.8. An Example of Well Maintained Buildings in Istiklal Neighborhood



Figure 5.9. The Area where Squalid, Vacant, Ruinous, or Collapsing buildings are primarily located



Figure 5.10. An Example of Ruinous and Collapsing Buildings in Istiklal Neighborhood



Figure 5.11. An Example of Ruinous and Collapsing Buildings in Istiklal Neighborhood



Figure 5.12. An Example of Ruinous and Collapsing Buildings in Istiklal Neighborhood



Figure 5.13. An Example of Ruinous and Collapsing Buildings in Istiklal Neighborhood



Figure 5.14. An Example of Ruinous and Collapsing Buildings in Istiklal Neighborhood

These squalid, vacant, ruinous, and collapsing buildings may have negative effects on the environmental appearance of Istiklal neighborhood and fear of crime in the area. Similarly, according to the in-depth interviews conducted in Istiklal, the residents have negative attitudes toward the areas where squalid, vacant, ruinous, or collapsing buildings are located, and they usually avoid these places, especially after dark.

Furthermore, these empty areas lack natural surveillance and this may make it easier to commit crimes in this area. Additionally, these buildings may lay the groundwork for real illegal activities such as alcohol and narcotics usage, sexual harassment, and vandalism.

Figure 5.15. is prepared to show the distribution of houses according to the number of their stories. Building height influences the crime rate, either positively or negatively.

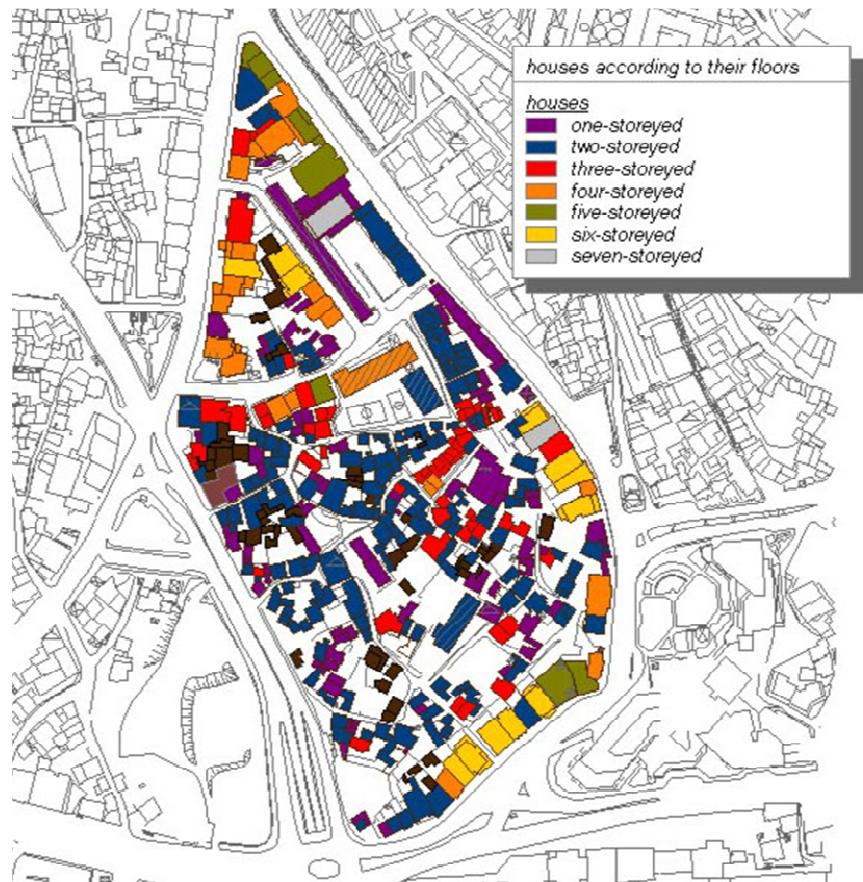


Figure 5.15. The Distribution of Houses According to the Number of their Floors

With regard to building stories in Istiklal, the map shows that the tall buildings, from four to seven stories, are located along the boundary to primary roads. On the contrary, the low buildings, from one to three stories, are located in the interior of the

neighborhood. However, when we strictly specify the buildings in the interior according to their floors, the area is mostly comprised of two-storied houses.

The tall buildings mean that a large number of people share the same building. As the number of people sharing the same space increases, it becomes more difficult for people to identify each other and to control the area. However, according to the map, there are not such tall buildings throughout the entire area. This may have a positive effect on the reduction of crime in Istiklal.

Figure 5.16. is related to the transportation network in Istiklal. There is one map showing the types of roads and the parking areas in Istiklal, as well as the entrances to the area. Actually, Istiklal has no geometrical formation of its streets. Repetition of components that form the streets, mostly one or more storied buildings, and the heights of the garden and court walls determine the characteristics of street (Şahin, 1988).

Generally, the width of the streets varies between 2 to 5 meters, but any street has a standard width. At some points in the neighborhood, streets expand to allow for entrances or squares. But there are also undefined spaces at the intersections of streets, and these undefined spaces may lay grounds for crimes like illegal parking.

Figure 5.16. also shows the entrances of the area. There are thirteen entrances from these avenues into Istiklal. Eight of the entrances are for vehicles, while five are for pedestrians. Except for only one pedestrian entrance, all of them have stairs for entering Istiklal. Most of these entrances, especially along Anafartalar Caddesi, are not clearly distinguishable. The high-rise buildings hide these entrances (Şahin, 1988)

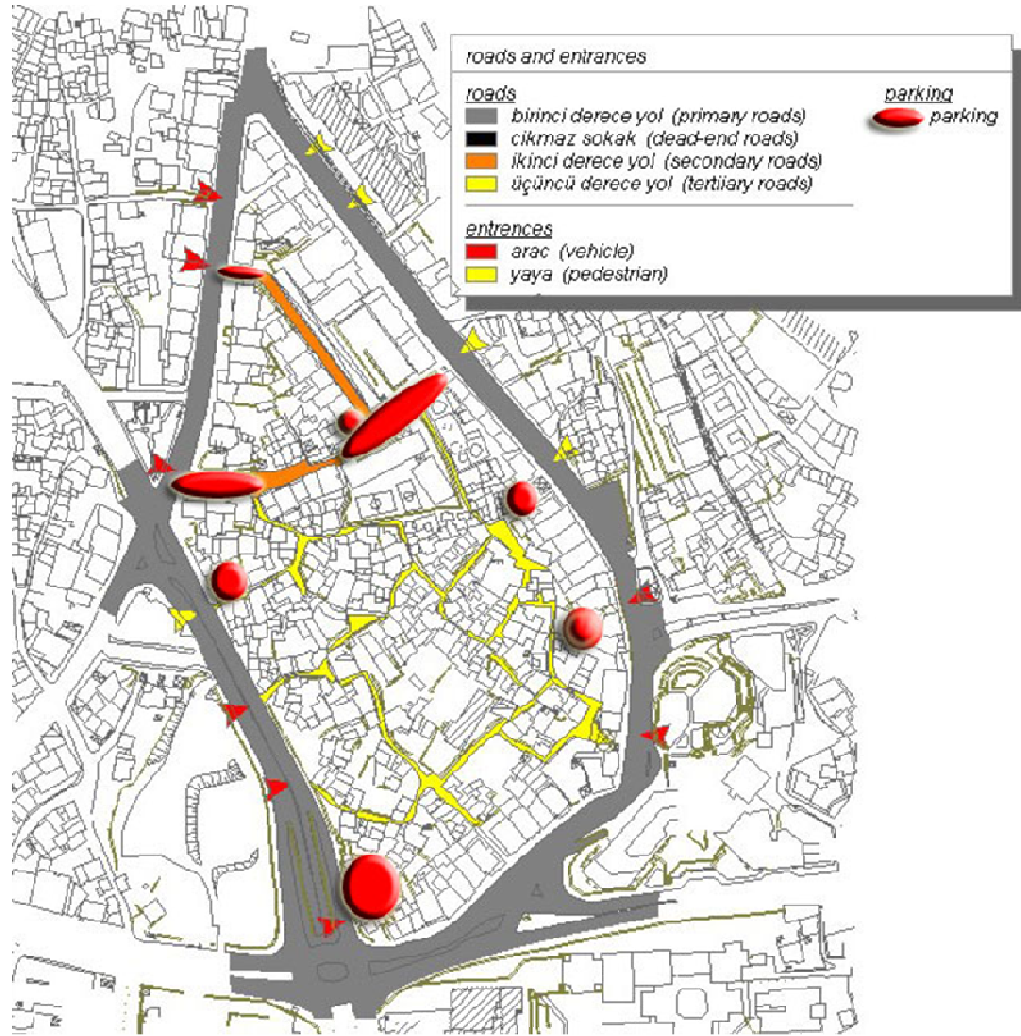


Figure 5.16. Roads and Entrances

According to the Roads and Entrances map, primary roads enclose Istiklal. These primary roads are Anafartalar Caddesi on the east side, Denizciler Caddesi and Hasırcılar Caddesi on the west side, and Talatpaşa Bulvarı on the south side.

Figure 5.16. also shows that there are two secondary roads connected with the primary roads. The width of these secondary roads on the north side of the neighborhood is approximately between 7 and 9 meters. These roads have enough

width for vehicles to pass. On the other hand, the tertiary roads are narrow streets. They are only suitable for pedestrians; however, they are usually used by vehicles nonetheless.

The Istiklal neighborhood, as mentioned previously, is located in the old center of Ankara, on the southwest side of the Ankara citadel. As a result, Istiklal is located very close to the city's administrative, educational, and commercial centers. Moreover, it is located on the main transit roads.

As a result of the factors indicated above, this area is very prone to illegal parking. The map of roads and entrances also highlights the parking areas in the Istiklal neighborhood and Figure 5.17. shows the illegal parking areas in the neighborhood more clear. According to residents of Istiklal, these parking areas are usually developed by destroying or burning old houses. Moreover, parking areas in Istiklal are not well designed, as shown in the figures below (5.18., 5.19., 5.20., 5.21.). This can be a problem for community safety.



Figure 5.17. Illegal Parking Areas in Istiklal Neighborhood



Figure 5.18. An Example of Illegal Parking Areas in Istiklal Neighborhood



Figure 5.19. An Example of Illegal Parking Areas in Istiklal Neighborhood



Figure 5.20. An Example of Illegal Parking Areas in Istiklal Neighborhood



Figure 5.21. An Example of Illegal Parking Areas in Istiklal Neighborhood

Figure 5.22., Figure 5.23., and Figure 5.24. are about Istiklal's street plan. These figures are related to the infrastructure that has an effect on tendencies to commit crime. It covers the area's features of the walls, distribution of utility poles, and lighting. These maps are prepared by means of observational notes.

Figure 5.22. highlights the walls in the street plan of Istiklal. The walls are categorized according to their height. The height of walls is important for the prevalence of crime because high walls can be obscure retreats for criminal to hide behind. On the other hand, sometimes high walls can be used to secure an area or a house against criminals.

Looking towards the area from the Istiklal neighborhood scale, we can say that the reason for the heights of some walls in this area is a result of architectural style. These gardens (Figure 5.23.) and court walls (Figure. 5.24.) belong to the historical structure and also provide samples of walls designed for security.

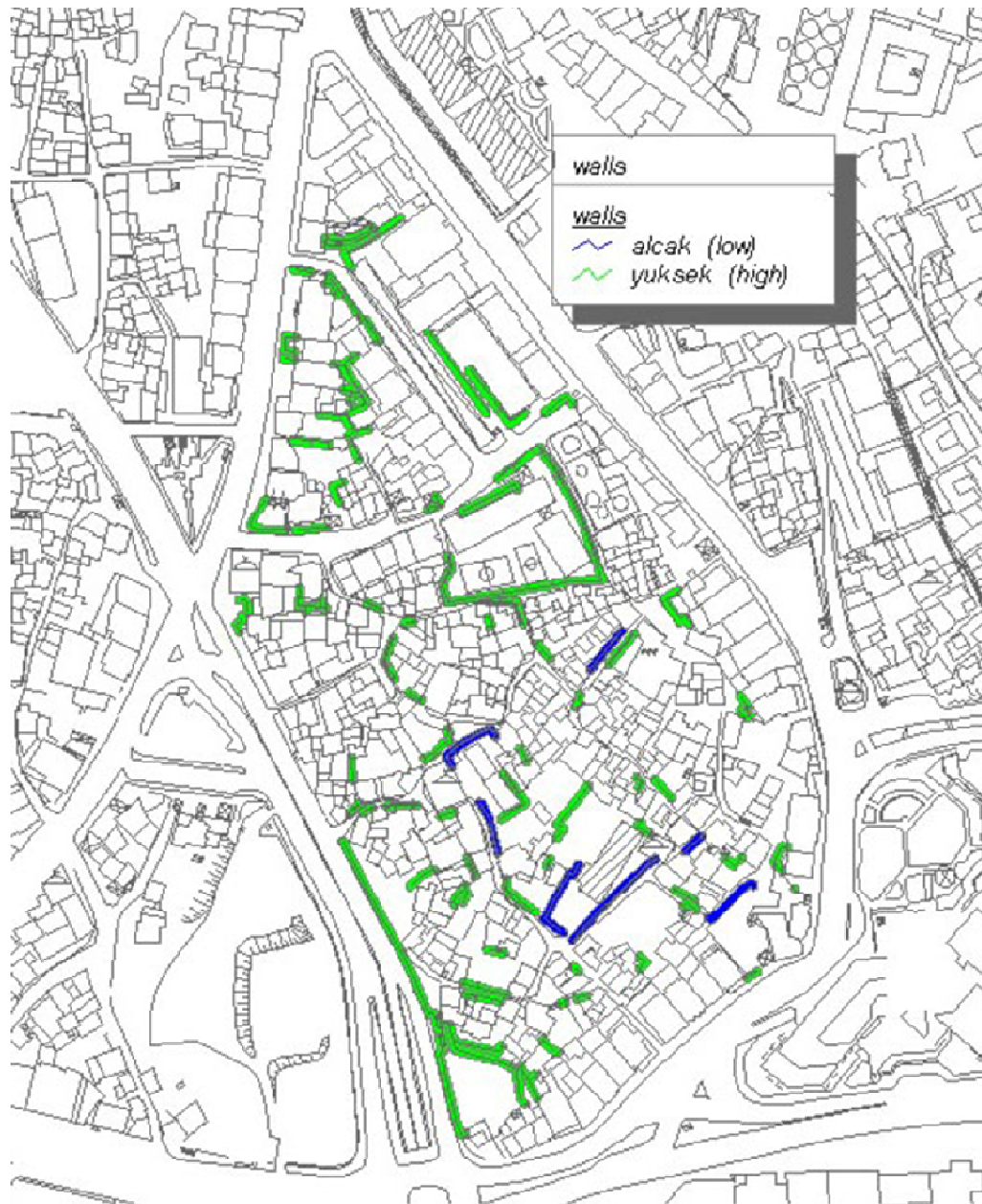


Figure 5.22. Walls in Istiklal Neighborhood



Figure 5.23. An Example of Garden Walls that Belong to the Historical Structure of the Area



Figure 5.24. An Example of Court Walls that Belong to the Historical Structure of the Area

Besides the walls that belong to the historical structure of the area, some of the walls, like the walls around Anafartalar Technical and Vocational High School (Figure 5.25.) and the synagogue (Figure 5.26.) were made to protect buildings. However, other high walls do not belong to the architectural style of this historical area. They were usually added at later times and they can be counted among unsafe areas (Figure 5.27. and Figure 5.28.).



Figure 5.25. Walls around Anafartalar Technical and Vocational High School



Figure 5.26. Walls around the Synagogue



Figure 5.27. An Example of Walls that Allow an Offender to Hide Himself



Figure 5.28. An Example of Walls that Allow an Offender to Hide Himself

Figure 5.29. and Figure 5.30. are related to the lighting in Istiklal. Figure 5.18 is derived from the maps gathered from Altındağ Municipality and the Greater Ankara Municipality. The map represents the distribution of the utility poles in the neighborhood.



Figure 5.29. The Distribution of Utility Poles in Istiklal Neighborhood

Lighting is also a key factor, both for preventing crime and for reducing the fear of crime. Streets with poor lighting or no lighting offer a potential area for criminals to hide or to escape. Moreover, these streets may increase the fear of crime among the inhabitants of the neighborhood.

Examining this important key factor for the reduction of crime, Figure 5.30. shows a lighting analysis for Istiklal. On this map, each utility pole has a circular lighting ability of a 30 meter radius. As a result, some white areas indicate the dark and dangerous areas of the Istiklal neighborhood.

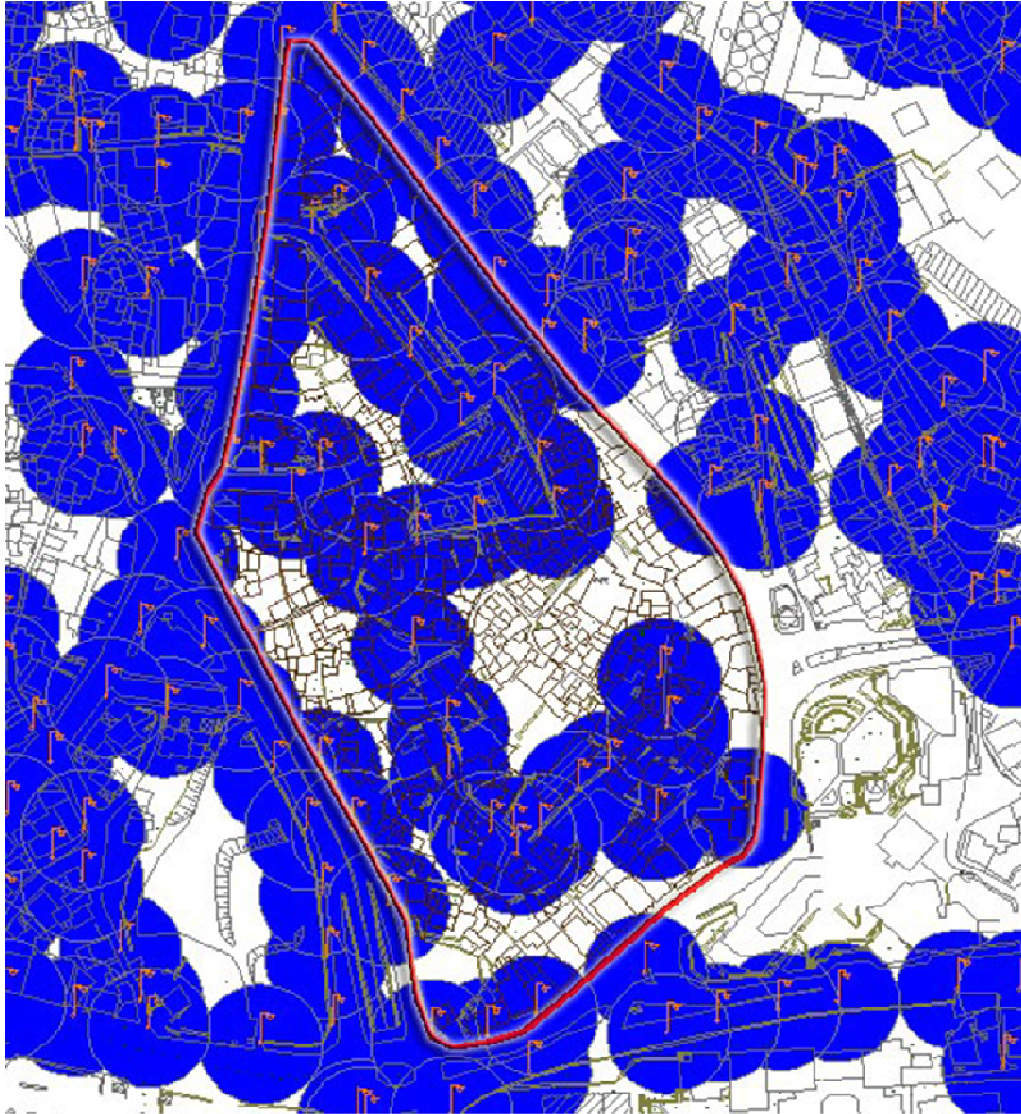


Figure 5.30. A Lighting Analysis of Istiklal Neighborhood

By considering both the literature survey and the positive and negative effects of Istiklal's own historical structure, the areas where crime is most likely to occur and where people may most likely be afraid of crime can be discerned, as stated above. Some of these physical attributes that affect the crime occurrence in Istiklal, either negatively or positively, include the usage of buildings, the conditions of buildings, the building heights, the transportation network, the wall heights, and the lighting. However, because of the historical importance of the area, these attributes should be evaluated within the framework of Istiklal's unique historical structure.

CHAPTER 6

CONCLUSION AND DISCUSSION

Istiklal neighborhood can be seen as one of the most important historical settlements of Ankara, with its special architectural style, street texture, and human scale. However, the unconscious annexes and repartitions built over time have worked to destroy this historical texture. Moreover, the difficulty or impossibility of appropriating the social and physical environment of Istiklal causes the area to lose its unique structure (Osmay & Ataöv, 2008). Consequently, the present situation of the neighborhood can be defined as socially disintegrated and physically decaying (Osmay & Ataöv, 2008). The demographic structure and the lack of a relationship between residents and authorities are the two reasons that have caused the neighborhood to become deserted and ruined.

One reason for the neighborhood's decay is its demographic structure. The population in the neighborhood includes low-income families, squatters, individuals organizing illegal activities, and street children living in vacant houses. Some tenants and squatters have damaged the neighborhood with illegal activities like public usage of alcohol and narcotics, or vandalism of building facades, public structures, and street benches. Moreover, such individuals discomfort and upset the families in the neighborhood (Osmay & Ataöv, 2008).

The other reason for the area's decay is the lack of a relationship between residents and authorities. Residents feel disappointment and a lack of trust in local authorities. They think that the authorities take no notice of Istiklal and that the authorities are to blame for the decay of the neighborhood. Thus, residents prefer to leave the

neighborhood, or to engage in illegal activities like forming new parking areas by destroying the historical buildings. Additionally, this lack of a relationship between residents and authorities can cause residents to be misinformed. The residents of Istiklal think that, due to the fact that the neighborhood is a “historic and cultural conservation site,” all construction is forbidden by authorities, and thus, they do not seek to improve damaged or decaying buildings. However, provided that the renovations are appropriate to the historical structure of site and that permission is obtained from the Ministry of Culture and Tourism, some basic renovation in the historic and cultural conservation site can be allowed by authorities (Kültür ve Tabiaat Varlıklarını Koruma Kurulu İlke Kararı). Therefore, the lack of a relationship between residents and authorities in Istiklal may have a negative effect on the historical area, as mentioned above.

To improve the context of Istiklal neighborhood and to prevent the further decay of this historical area, there is a Participatory Action Research (PAR) project being conducted with empowerment activities in Istiklal neighborhood, as mentioned in previous chapters. As a part of the PAR project, the main aim of this thesis is to research the fear of crime in the neighborhood and how physical attributes can help reduce this fear.

According to the results of my descriptive research, including in-depth interviews with the internal and external stakeholders of the neighborhood and visual data, including observational notes, photographs and records, the crime situation can be described as follows: It is clear that the fear of crime is greater than the real rate of crime in Istiklal neighborhood, when we compare the two sets of data from the Sahir Kılıçtepe Police Station and from the internal stakeholders. According to the records of the Sahir Kılıçtepe Police Station, parking offenses are the most common crime type in the neighborhood. The second most common crime type is burglary, especially theft from autos and from local small businesses. Following in the ranking are malicious injury and assault, kidnapping, vandalism to people, vandalism to property, negligent homicide, deliberate homicide, and sexual harassment. There are

no narcotic offenses in the police records. The area with the highest crime density in Istiklal is Kargı Street (Uzun, 2009).

Moreover, according to the Sahir Kılıçtepe Police Station, the age range of 99% of the criminals in the neighborhood is between 18 and 25 years old, and 99% of them are male. Except for the cases of malicious injury and assault, the criminals are mostly outsiders of the Istiklal neighborhood. The disadvantaged group, those who are negatively affected by crime, are the residents of Istiklal neighborhood and the people who work around the neighborhood (Uzun, 2009).

On the other hand, according to the in depth-interviews with the internal stakeholders, in the first place, vandalism to public property and narcotics usage are the most commonly perceived crimes in the neighborhood. Sexual harassment ranks second. Unlike in the police records, the distribution of the other crime types can be listed in descending order as theft, vandalism to personal property, malicious injury and assault, parking offenses, and homicide; there are no reported cases of kidnapping. Similarly to the police records, the age range of criminals in the neighborhood is reported to be between 18 and 25 years old, and all crime types are reported to be most commonly committed by males. The criminal offenders are mostly from outside the neighborhood. However, the answers of respondents do not express the real rate of crime. These answers express the perceived crime and perceived offenders, according to the internal stakeholders of Istiklal neighborhood.

This project aims at collective research by sharing intentions and knowledge, but because of the lack of clear answers from respondents, the thesis cannot reach a collective body of research. However, with the help of the literature review, in addition to input from external stakeholders and some internal stakeholders, the reason why certain areas are defined as either unsafe places or safe places can be discerned in connection to the physical attributes of the neighborhood. These attributes have an effect on reducing crime either positively or negatively, as shown in Table 6.1. These attributes are mostly derived from the information of the

literature review. In other words, with the help of that information, I intend to find probable places where perceived crime most likely occurs in Istiklal neighborhood.

Table 6.1 Positive and Negative Crime Reducing Attributes in Istiklal Neighborhood

Positive Crime Reducing Attributes in Istiklal Neighborhood	Negative Crime Reducing Attributes in Istiklal Neighborhood
Building Height and Density	Mixed Using and Diversity
Street Layout	Activity Generations
Position of Access Paths	Image and Milieu
Hierarchy	Building Types
	Traffic and Parking Areas
	Lighting
	Attractiveness
	Hierarchy

On one hand, the attributes which have a positive effect on reducing the crime rate in Istiklal neighborhood are related to the historical structure of the area. These attributes are the building height and density, the street layout, and the position of access paths.

The first positive attribute in Istiklal is the building height and density. The buildings' height and density have an effect on decreasing the crime rate. The higher the building height and density, the higher the crime rate, because the high-rise buildings mean that a large number of people share a common space and this causes inhabitants to feel less of a sense of responsibility. Moreover, when the numbers of people sharing a communal space increase, it becomes more difficult for people to

identify each other or to feel that they have a right to control the area; this makes it more easy for outsiders to gain access to the building (Newman, 1996).

However, in Istiklal, the building height varies between 1 and 4 stories; and on average, buildings are two-storied and there is a homogeneous texture between the relations of the inner-court and garden and the face components of building heights at human scale (Şahin, 1988). This means that there is not a large number of people sharing the same territory and the people who are living or working in a common area can easily identify each other. Therefore, the low height of buildings in Istiklal can increase natural surveillance in the area and have a positive effect on decreasing the crime rate.

Secondly, the street layout in Istiklal has a positive effect on decreasing crime. Street layout influences the movement patterns of criminals, with more impact on crimes committed by people who learn areas by motor vehicle rather than on foot (Beavon et al.). Moreover, the distribution of criminal opportunities is also shaped by the road network. This means that high traffic volumes provide higher numbers of potential individual victims (Beavon et al., p.119).

Actually, there is no geometrical formation of the streets in Istiklal. They usually connect the axles around the neighborhood's space. A special characteristic of the streets can be determined by the repetition of components that forms the streets. In general, streets are bound in a T-shape to each other. According to Bevis and Nutter (1977), this type of street pattern has a noticeable trend in terms of its lower crime rate, especially for residential burglary. Moreover, the narrow street layout of Istiklal neighborhood increases surveillance because street width varies from 2 to 5 meters. This can also increase the natural surveillance in the neighborhood.

The final positive attribute in Istiklal is the position of the access paths. Actually, the tertiary roads which are suitable for pedestrians have a significant impact on public safety, both real and perceived (Sarkissian Associates Planners, 2000). According to

Jeffery (1971), the street design should encourage people to walk because such streets offer the highest level of passive surveillance and “eyes on the streets.”

Moreover, access paths should be easy to use and clear to understand so as to improve the legibility of neighborhoods (City of Gosnells, 2001). Along this line, the access paths are located through buildings in Istiklal neighborhood. Mostly 1 or 2-storied buildings, they determine the characteristics of the streets from the differences of width. Also, the heights of the garden and court walls determine the characteristics of the streets, like the buildings. Access paths designed in human scale can improve the legibility of the neighborhood and the natural surveillance in Istiklal.

On the other hand, the attributes which have a negative effect on reducing the crime rate in Istiklal neighborhood are mixed using and diversity, activity generations, image and milieu, building types, traffic and parking areas, lighting, and attractiveness.

First, there is generally no mixed using and diversity in the neighborhood, as shown by Figure 5.5., Classification of the Usage of Buildings, in Chapter 5. However, mixed using and diversity have an important role in crime prevention (Jacobs, 1961; Jeffery, 1971). According to Jacobs (1961), streets which have both residential and commercial usage 24 hours a day are safe streets, whereas isolated, unused, and nonfunctional streets are unsafe streets, like those in Istiklal. Moreover, commercial streets and shopping malls within neighborhoods pay special attention to ensure that users feel safe (Wekerle & Whitzman, 1994).

Jacobs (1961) and Jeffery (1971) claim that to establish a safe street, people need reasons to go out, like shops, cafes, and so on; otherwise, they prefer to stay indoors and this causes the desertification of the streets, increasing the crime rates and the fear of crime. However, when we look at the usage of Istiklal’s buildings, the commercial and public buildings cluster around the outer boundary of the

neighborhood, while the houses are grouped in the interior. Only a few local commercial structures, particularly shoe repair shops, are located on the inside of the neighborhood. There are no shops, cafes, or restaurants.

In other words, there is no mixed using and activity generations in the interior parts of Istiklal. Mixed using and activity generation has effects on reducing the opportunities for crime. However, lack of these two important factors in Istiklal neighborhood may cause the streets to not be used during the day and night. Consequently, it may increase the crime rate and the fear of crime in the neighborhood.

The second attribute is the lack of activity generations, as mentioned above. Like mixed using, activity generations has an effect on reducing the crime rate by creating local activity in places such as playgrounds, benches, picnic areas, and kiosks (Sarkissian Associates Planners, 2002). Places where appropriate activities have been created are safe areas and they increase a sense of safety among residents, because they increase natural surveillance by adding eyes to the streets (Hill & Blears, 2004; Wekerle & Whitzman, 1994).

However, there are no such activity centers as playgrounds, recreational areas, parks, cafes, or shops in Istiklal. This is possibly why the streets in the neighborhood are isolated, especially after dark, and this causes a decrease in natural surveillance and an increase in the fear of crime in the neighborhood.

The third attribute is the image and milieu of the neighborhood. Image and milieu is the ability of design to prevent the perception that the area is isolated, unused, and open to crime (www.aic.gov.au). According to the broken window theory formulated by Wilson and Kelling in 1983, image and milieu is an important strategy for preventing vandalism by fixing problems while they are small. Otherwise, these small problems can lead to vandalism. For example, if a broken window is repaired

in a short amount of time, the tendency to break more windows or cause further damage can be prevented (Wilson & Kelling, 1983)

In line with the broken window theory, the poor conditions of the buildings increase both the crime rates and the fear of crime in Istiklal. Most of the buildings in the interior of the neighborhood are squalid or vacant. Moreover, ruinous and collapsing buildings are mostly clustered on the south side of the neighborhood. These building increase the fear of crime and give opportunities to commit crime, due to the lack of natural surveillance.

Natural surveillance has an important effect on decreasing the fear of crime (Newman, 1973). It is the ability to observe the public areas of one's residential environment and to make one feel continually that he or she is under observation by other residents (Newman, 1973). This has an important role in decreasing crime and fear of crime. However, there is a lack of natural surveillance in Istiklal. This increases the crime rates.

These squalid, vacant, ruinous, or collapsing buildings in the neighborhood are used for illegal activities like public alcohol consumption, narcotics usage, sexual harassment, and vandalism, because of the lack of natural surveillance and for the same reason behind the broken window theory. These areas increase the fear of crime because they have a negative effect on the environmental appearance of the neighborhood and give people a sense of being in danger. Moreover, criminals know that there are no nearby people to observe or catch them.

The fourth negative attribute is the traffic and parking areas in the neighborhood. There are two secondary roads connected with the primary roads, in addition to the tertiary roads. The tertiary roads are only suitable for pedestrians, but are nevertheless usually used by vehicles.

Istiklal neighborhood is located in the old center of Ankara, on the southwest side of the Ankara citadel. It is located on the transit roads and close to the city's administrative, educational, and commercial centers. As a result of this, the area is very valuable for illegal parking, and most damaged buildings were damaged in order to open new parking areas.

Moreover, parking areas in Istiklal are not well designed. This can be a problem for community safety. Because poorly designed parking areas increase the fear of crime and, consequently, isolate people from the parking areas, they decrease the area's natural surveillance (Clarke, 1997; Wekerle & Whitzman, 1994).

The fifth negative physical attribute in Istiklal neighborhood is lighting. Lighting has an effect on reducing both the crime rate and the fear of crime. In Istiklal, the lighting is insufficient. There are poorly lit streets in the neighborhood, as shown in Figure 5.19. in Chapter 5. According to the Sarkissian Associates Planners (2000) "the poorly lit street lowers the possibility of detection, recognition and apprehension for a person considering a criminal act, thus increasing the likelihood of actual crime" (p. 12).

Lighting encourages people to use spaces, makes places more livable after dark, and increases informal surveillance. Well-designed lighting levels improve the opportunity for surveillance, especially at night, and give positive messages about the management of an area (Hill & Blears, 2004).

The neighborhood's final negatively prominent physical attribute is attractiveness. Attractiveness includes paving, paint, and landscaping to provide an appropriate balance between aesthetics and safety (Sarkissian Associates Planners, 2000) and to improve use of streets and, consequently, natural surveillance.

Landscaping, paving, and paint enhance safety by increasing opportunities for natural surveillance, improving good sightlines, preventing the creation of potential

entrapment spots, and providing easy maintenance (Sarkissian Associates Planners, 2000). Moreover, these attributes make places more legible and understandable for both residents and strangers, by defining boundaries between public and private spaces.

However, generally, there is a lack of landscaping, paving, and paint in Istiklal. This causes the neighborhood to grow less understandable and legible. This in turn negatively affects natural surveillance and, consequently, can increase the crime rates in the neighborhood.

There are also some attributes in Istiklal which affect the crime rates both positively and negatively, like hierarchy. There is not a vertical hierarchy and boundary definition in the neighborhood. In other words, there is no territorial definition between public, semi-public and private areas in street scale.

According to Newman (1973), a housing project in which there is no attempt at differentiating the grounds is the typical housing project suffering from high crime rates. The hierarchy in grounds enables occupants to extend their responsibility of space and opportunity for surveillance, and to make outsiders recognize where the surveyed boundary starts (Newman, 1973).

Jacobs (1961) also claims that there should be a clear distinction while moving from the public street to the semi-public grounds of the project, and in the transition from outdoors to indoors (Newman, 1973). When moving through a sequence of territorially defined areas, behavior and expectations of people are changed accordingly, even without the sharp divisions created by locked gates and doors (Newman, 1973).

In Istiklal, some differentiation of the ground is attempted with walls. Some of these walls and courtyards are part of the historical structure of the neighborhood and these walls define the boundary of the buildings, having a positive effect on reducing the

crime rate. However, some of these walls lose their composition in the neighborhood with the addition of new walls or the demolishing of parts of old walls, and these walls enable illegal activities and give the opportunity for criminals to hide from police by blocking the sightline of natural surveillance.

In order to reduce both the actual and perceived crime rates, Istiklal Neighborhoods needs some physical interventions. The restoration of squalid, vacant, ruinous, or collapsing buildings; improving the lighting; improving attractiveness includes paving, paint, and landscaping, and creating local activities such as playgrounds, benches, and kiosks can be listed as urgent issues to reduce the actual and perceived crime rates in Istiklal Neighborhood.

Besides the physical attributes of the neighborhood, there is also a lack of management and social activities to prevent crime. The crime rates in the neighborhood have decreased for the last 2 ½ years with the help of some precautions taken by the Sahir Kılıçtepe Police Station (Uzun, 2009). However, there is no social interaction or synergy between the internal or external stakeholders of the neighborhood in order to prevent crime. This affect the neighborhood safety negatively because in order to improve the safety in Istiklal Neighborhood by means of physical interventions, there sholud be a strong social interaction, synergy, and a strong sense of responsibility of the inhabitants.

To improve this social interaction, synergy and sense of responsibility between the internal or external stakeholders, there should be shared knowledge meetings, workshops, and projects in the neighborhood. The main aim of such meetings and workshops is to improve the partnership between police, citizens, businesses, organizations, and local authorities; to increase residents' sense of responsibility; and to increase the education, job training, and welfare opportunities to prevent crime in the Istiklal neighborhood.

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APPENDIX A

ORIGINAL FORM OF SURVEY

- 1) Kişisel
 - a) Adınız?
 - b) Yaşınız?
 - c) Çalışıyor musunuz?
 - d) Ailenizle mi yaşıyorsunuz?
 - e) Kaç kişisiniz?
 - f) Kaç senedir bu mahalledesiniz?
 - g) Genel olarak mahalledeki sıkıntılarınız neler?
- 2) Suçlarla İlgili:
 - a) İstiklal mahallesi ve çevresinde ne gibi suçlarla karşılaştınız?
 - b) Hangi sıklıkta görülüyor?
 - c) Yoğun olduğu alanlar nereler?
 - d) Sizin iş yerinizde herhangi bir suç eğilimi oldu mu?
 - e) Bu suçlara karşı herhangi bir önlem aldınız mı?
- 3) Suçları İşleyenlerle İlgili
 - a) Suçu işleyenler genelde kaç yaşlarında ve cinsiyet dağılımı nasıl?
 - b) Suçu işleyenler mahalle halkından mı yoksa dışarıdan mı?
 - c) Yaş gruplarına göre suçlar nasıl dağılıyor?
- 4) Suçtan Etkilenenlerle İlgili
 - a) Mahallede suçtan zarar gören yapılar?
 - b) Mahallede günün her saati rahat dolaşabiliyor musun?
 - c) Hayır ise sizi rahatsız eden durumlar nelerdir?
 - d) Sizin aldığınız bir önlem var mı?
 - e) Sizce ne gibi önlemler alınarak bu durum sağlanabilir?