Analyzing the Aesthetic Quality of Street Through User Preference: A Case Study of Mehmet Akif Street, Nicosia, Cyprus

Sanaz Nezhadmasoum

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Prof. Dr. Serhan Çiftçioğlu
Director

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

Prof. Dr. Özgür Dinçyürek
Chair, Department of Architecture

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

Assoc. Prof. Dr. Beser Oktay Vehbi
Supervisor

Examining Committee

1. Assoc. Prof. Dr. Beser Oktay Vehbi _____

2. Asst. Prof. Dr. Nevter Zafer Cömert _____

3. Asst. Prof. Dr. Pınar Uluçay _____

ABSTRACT

Public spaces are actually main out-door areas, hosting many social events and serving various types of users. Streets are the most important public spaces providing a context for several activities. It is important to figure out what is urban aesthetic quality, which is one of the main criteria for daily user's preference in public open spaces. This research is associated with commercial streets with specific focus on the aesthetic quality of them; as the first and the most important quality, which attracts visitors and maintains their presence throughout time.

Accordingly, this study has tried to investigate the urban aesthetic quality of Mehmet Akif Ersoy Street in Nicosia, Cyprus. The area is a commercial street which preliminary research shows that it lacks certain aesthetic qualities resulting in weakness of this place and could decrease the number of people who are attracted to this place throughout time. Hence, this study has mainly aimed to analyze the strengths and weaknesses of Mehmet Akif Street in terms of aesthetic quality through the user's preferences. Besides, it aims to provide suggestions for improving its aesthetic qualities and subsequently turn it into a more attractive and preferred place.

The thesis includes four chapters. In the first chapter research problem, aims and objectives of the research together with methodology of the study have been defined in details as an introductory section. The second chapter includes literature review on public open space, types, urban aesthetic and its types. Third chapter is dedicated to analyzing the formal and symbolic aesthetic quality of Mehmet Akif Street in terms

of user preference. Finally, in chapter four conclusions and recommendations for improvement of aesthetic qualities have been provided in terms of formal and symbolic characteristics of the case study area.

Based on physical analysis and social survey, Mehmet Akif Street has fair to poor condition in terms of formal aesthetic and good to fair symbolic aesthetic and only in a few components of urban aesthetics are not qualified in this place.

Keywords: Public Space, Street, Commercial Street, Urban Aesthetic, Mehmet Akif Ersoy Street

ÖZ

Kamusal alanlar esas olarak dış mekanlar olup birçok sosyal aktivite ve kullanıcıya hizmet etmektedirler. Sokaklar birçok aktivitenin yapılabilidiği kamusal alanlardan biridir. Sokaklardaki kullanıcı varlığının artması için estetik kalite birinci ve en önemli kriterdir. O nedenle , kull31anıcıların kamusal alanları tercih nedenlerinden biri olan kentsel estetik kalitenin ne olduğunu anlamak gereklidir. Bu araştırma ticari sokaklarını ve onların estetik kalitelerine vurgu yapmaktadır.

Bu bağlamda, çalışma Kıbrıs Lefkoşa'da bulunan Mehmet Akif Ersot Caddesi'nin estetik kalitesini araştırmayı hedefler. Bu çalışma için seçilen ticari aks, yapılan ilk gözlemlerde estetik kalite açısından eksik bulunmuş ve bu kalite eksikliği alanın çekiciliğini ve kullanıcı sayısını olumsuz etkilediği düşünülmüştür. Bu çalışma Mehmet Akif Ersoy Caddesi'nin kentsel estetik kalitesini kullanıcı tercihi açısından zayıf ve güçlü yönlerini ortaya koymayı hedeflemektedir. Buna ek olarak, estetik kalitesinin artırılması ve alanın daha aktif ve tercih edilen bir alan olması için öneriler geliştirmektedir.

Tez çalışması dört bölümden oluşmaktadır. İlk bölüm, çalışmanın araştırma konusunu, amacını, hedelerini ve methodunu anlatan giriş kısmıdır. Teorik çerçevenin anlatıldığı ikinci bölümde, kamusal açık alanlar, tipleri, kentsel estetik ve tipleri analtılacaktır. Mehmet Akif Ersoy Caddesi'nin formel ve sembolik estetik kalitesinin test edildiği bölüm üçüncü bölümdür. Son bölümde ise çalışmanın sonucuna ve çalışma alnının formel ve sembolik estetik kalitesinin artırılması için önerilere yer verilmiştir.

Yapılan fiziksel ve sosyal analizler sonucuna göre Mehmet Akif Ersoy Caddesi formal estetik açısından orta ve sembolik estetik açısından iyi bir durumda tespit edilmiş, sadece birkaç kentsel estetik kalite kriteri eksik bulunmuştur.

Anahtar Kelimeler: Kamusal alan, sokak, ticari sokak, kentsel estetik, Mehmet Akif Ersoy Sokakğı

This thesis is dedicated to my mother

For her endless love, support and encouragement

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For any errors or inadequacies that may remain in this work, of course, the responsibility is entirely my own.

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Chapter 1

INTRODUCTION

Public spaces are actually the main out-door elements, hosting many social events, serving various types of users, who are going there to spend their free time, do shopping and many other activities. Among the main city elements, one the most important one is the Streets, which is a way of designing a suitable location for public and commercial buildings. It is both framed by its surrounding buildings as well as an area designated to exhibit the buildings in the most advantageous manner.

A conventional street type is named as Commercial Streets, which are mainly including places such as shopping malls and restaurants, and are employed to serve citizens in their commercial activities, along with being a social urban space for citizens, providing them social activity and public life opportunity. There are various qualities mentioned by different scholars and researchers of urban environments throughout time, including physical, ecological, behavioral, functional, visual, and aesthetics (Im, 1984). Among all these qualities aesthetic is the first quality to be kept in the minds of people (visitors), which in terms of physical character, is known as a quality of making various places more impressive and memorable.

Moreover, it is an essential issue for the designers to understand and find the desired specifications, making the places more attractive and enjoyable, and the people more fascinated. Having good experiences is one of the important factors that makes the

users remember a specific public place, affecting the social lives of residents and users, along with making the city livable. It is indeed important to know what the aesthetic concept is actually about; undoubtedly, is more than just forms and physical qualities. In addition, it is important to know the daily users and people's preferred aesthetic qualities and perceptions of physical qualities of places.

Studying about the concept of aesthetics has been focused by wide range of investigators from psychologists, philosophers, environmental designers and of course artists, aiming to understand the main way of conveying pleasure to the people, why it is conveyed and the reason (Lang, 1987, p.179). The term of aesthetics is nowadays covering a broad range of matters, from objects to buildings and design processes. Their aesthetics qualities are being discussed, effecting people judgments and viewpoints, with different properties, even though they might not be designed predominantly with aesthetics awareness (Stich, Knauper, Eisermann and Leder, 2007).

For a design to produce visual pleasure that are more consistent with public favorites, it is necessary that it should present a coherent combination of non-physical and physical elements and specifications.

1.1 Problem Statement

Nowadays, most of the people's lives are being passed in built environments, which their influences have been long studied by researchers of different fields of study, from architecture and interior design to environmental psychology. It is well explained that the spaces do have influence on the people's behaviors. Visual and physical characters of spaces are among those factors affecting the use of urban

spaces. Consequently, it is important to investigate the visual and physical characteristics of these spaces and treat them as essential features of urban aesthetics.

One of the street spaces, considered as the main heart of the city, having both traffic and business functions is Mehmet Akif Street (in Lefkoşa), which is also known as a good example of commercial street type. Due to its specific location, it influences the traffic status, and so the city residents' life quality. Along with this feature, it hosts the residents' social activities and is popular for its shopping districts. In other words, this street can be represented as the economic and cultural portrait of the city. On the other hand, having all these characteristics, which can obviously be attractions for a specific location, because of lacking certain aesthetic qualities, problems are raising for this street, although as aforementioned, it is hosting popular restaurants and famous brand shops.

1.2 Aims and Objectives of the Study

As aforementioned, this thesis aims to find out the aesthetic qualities of streets through the user's preferences in Mehmet Akif Ersoy Street in Nicosia (North Cyprus). Therefore, investigate the necessary urban aesthetic qualities, and find out how by improving these features, this street can be turned into a more attractive and preferred place for people.

Visual awareness of people can be enhanced by some street elements. Regarding to the literature review on the urban aesthetic, this concept will be surveyed through the symbolic and formal aesthetic components, such as enclosure and spatial containment, complexity, diversity, visual richness and variety, order, harmony and

balance, legibility, clarity, permeability, continuity, style, naturalness, upkeep, intensity of use and historical significance has been concerned.

Considering the case study of Mehmet Akif Ersoy Street, there are challenges and some lacks that can be noticed in providing the aesthetic properties, which should be improved. The main goal of this study is to analyze the potential methods of improving the current conditions of the street. Based on this aim, the main research question is developed as,

"Which aesthetic criteria highly affect the users' preferences for using streets?"

Thus, the following sub questions will form the framework of the study:

- What is public open space?
- What is Street?
- What is Commercial Street?
- What is urban aesthetic?
- What are the elements defining the urban aesthetics in city/spaces?
- What kind of aesthetic qualities do users prefer in the streets?
- What are the existing aesthetic quality in the Mehmet Akif Ersoy Street?
- What are the suggestions to improve urban aesthetics in the commercial streets in order to make them more attractive and livable spaces?

The objectives of the study are as follows:

- To understand Public open spaces
- To understand the definition of street and commercial street
- To explain urban aesthetic and its components
- To understand the aesthetic quality and the user preference relation

1.3 Methodology

Both qualitative and quantitative methods are being employed in this research. The following three steps are presenting the methodology: (see Table 1.1)

1. Theoretical framework will be formed through reviewing previous literatures
2. Data collection from the case studies, analyzing them and evaluating the results of data
3. Results, discussions and proposing necessary suggestions

This thesis is subcategorized into four chapters. In the first chapter, entitled as introductions, the focused problem has been stated; aims of study and the employed methodology have been introduced. The second chapter is the literature review, in which public open spaces, streets aesthetic concepts, along with the factors that influence the peoples' preferences of built environments (symbolic and formal aesthetic principles), are investigated in published literatures. Chapter three includes the data collection, their analyses and evaluation. The analyses have been carried out on social and physical structure of case study area.

To collect the data a questionnaire is prepared to be asked from local people, students, and tourists, to evaluate the aesthetic characteristics of Mehmet Akif Arsoy Street in Nicosia respectively. Questionnaires were distributed randomly between the people, to find out which spaces and qualities are preferred more from their viewpoints, and how they assess the Streets aesthetically. More data were also gathered through field observations. Finally, the last chapter is including the conclusions of study, along with suggestions for defining aesthetic elements, which are more consistent with the users' preferences.

Table 1.1: Methodology of the thesis

INTRODUCTION
Definition of subject matter and research problem
Definition of research aims and objectives
Setting up research questions
THEORETICAL FRAMEWORK Through literature review

Public spaces definition Street definition Function, form and quality of street	Urban aesthetic definition Components of urban aesthetic through user preference

Achieving the aesthetic parameters that affect user preference in the street
METHODOLOGICAL FRAMEWORK Case Study: Data Collection

Physical Analysis	Social Analysis
Fieldwork (through various analysis techniques)	Questionnaire Design Documenting research

DATA ANALYSIS

Analysis of formal aesthetic	Analysis of symbolic aesthetic

Conclusion and Suggestions

Chapter 2

AN OVERVIEW OF URBAN AESTHETIC AND USER PREFERENCES IN THE STREET

2.1 Introduction

This chapter, attempts to investigate the public open spaces, particularly the streets, as they are one of the most significant public spaces. Among the properties of these spaces (i.e. streets), aesthetic issues are focused specifically, to understand the relevant qualities, leading to the users' preferences. To put it simply, in this chapter, physical features of urban spaces, attracting people influencing their attendance, and encouraging them to keep on attending, are investigated.

The importance of streets in an urban space, together with the effectiveness of aesthetic qualities are explained in the introductory section. Having explained about streets, makes it necessary to pay attention to the public open spaces from a general view point and discuss about their function in societies' health and conditions, which is discussed in later section, and also contains mentioning various activities, being hosted by these spaces, according to the definitions given by different scholars.

The third section is mainly dealing with explanations about streets, as one of the most important public open spaces. In the section, streets, their different types, functions, forms and the qualities of those known to be good ones will be explained. However, as the main evaluating topic of this chapter are aesthetic qualities, the fourth section, will be mainly about that.

According to the various publications and previous researches on development of this subject, urban aesthetic qualities are including various components, which can be named as; Spatial containment, enclosure, diversity, complexity, variety and visual wealth, order, harmony, balance, clarity, legibility, permeability, style, continuity, naturalness, upkeep, intensity and employing historical significances. The mentioned qualities that are significantly important in forming the people's (users of space) preferences will be discussed in details to find out their actual way of influence.

It worth mentioning that besides the aforementioned factors, there are some other qualities playing significant role in users preferences of public places and are defined according to human needs.

Finally, in the last section, all the explained significant roles of people's preference will be summarized. In the next chapter, based on the current investigations, selected case studies will be introduced and evaluated.

2.2 Public Open Space

Researches have proven that public open spaces (POS) are important factors in urban designing and they affect the quality of the users lives (Nasution & Zahrah, 2012). The definition of "public" in the Oxford Dictionary is "of or pertaining to the people as a whole; belonging to, affecting, or concerning the community''. Considering the definition, one can easily perceive that, any environment, which is not allocated to an individual or that is not private, is called public.

By using the mentioned definition, Madanipour in 1999 gave a more precise definition of public space:

> "based on the observation that the public spaces of cities, almost anywhere and at any time, have been places outside the boundaries of individuals or small-groups control, mediating between private spaces, and utilized for a variety of often overlapping functional and symbolic purposes" (Madanipour, 1999).

Benn and Gaus in 1983 categorized the activities into private and public ones and introduced three dimensions to evaluate the level of publicity or privacy of each space. These are access, agency, and interest. Most of the definitions of public spaces emphasize on the first dimension (Madanipour, 1999).

For Lang, public open spaces have been criticized for their inability to serve the users (Mehta**,** 2010). Various researchers tried to define public open space. Some of these definitions are discussed in the following table (Francis, 1989).

Kier in 1979 defined public space as a "geometrically bounded by a variety of elevations". Years later, another definition was given by Berman in 1986 who argued that public spaces are the ones which ''come together freely and do it on their own''. Carr et al. in 1992 stated that spaces, where people perform group or individual activities are called public spaces. Madanipour emphasizes on the free use of public space and claims that any organization or individual does not control it, so people can freely use it. On the other hand, Mitchell in 1995 focuses on the political movements, which can occur in public open spaces. Moughtin in 2003 talks about the elements of a public space to define it (Mehta, 2010). Those definitions, which are explained above are summarized and listed in Table 2.1.

Table 2.1: Definition of public open space (Mehta, 2010)

Kier, 1979	geometrically bounded by a variety of elevations
Berman, 1986	Spaces to come together freely to do it on their own
Carr et al., 1992	publicly accessible places where people go for group or individual activities
Madanipour, 1994	space that is not controlled by private individuals or organizations, and hence is open to the general public
Mitchel, 1995	where social and political movements can occur
Moughtin, 2003	Boulevards, squares and public parks together with building facades that define them

Francis (1989) divided public spaces into two wide categories: traditional and innovative. The types of former group are public parks, neighborhood parks, playgrounds, pedestrian malls, piazzas. The second group consists of community open spaces, neighborhood open spaces, schoolyards, streets, transit malls, farmers' markets, town trails, vacant/ undeveloped open spaces, waterfalls, found spaces (Mehta**,** 2010). Table 2.2 representing the most important constituent components of public space.

Table 2.2: Parts of a public space (Carmona et al., 2008)

Buildings	Infrastructure	Landscape	Uses
Walls	Roads and cycle lanes	Trees	Events
Structure	Bus stops/shelters	Planting beds and areas	Gatherings
Windows	Tram/bus lanes	Lawns and verges	Street entertainment
Entrances/exists	Traffic lights/road signage	Planters/hanging baskets	Street trading
Balconies/projection	Telegraph polls	Paving	Markets
Shopfronts	Telecommunications	Road surfaces	External eating
Signage	Equipment	Traffic calming	Kiosks
Building Lighting	Street lighting	Steps	Play grounds
Foodlighting	Telematics	Boundary walls/fences/railings	Parks
Artwork	Parking bays/meters/car parks	Fountains/water features	Sport facilities
Decoration	Public toilets	Public art	Retail uses
Canopies	Waste and recycling bins	Signage	Leisure uses
Skyline/roofscape	CCTV polls and cameras	Advertising	Community uses
Flags and banners	Telephone/post boxes	Street furniture	Homes
Monuments/landmarks	Gutters/drainage	Bollards	Workplaces
Colonnades	Utilities boxes	Shelters/band stands	Industrial uses
Corners	Underground services	Festive decorations	Tourism
	Servicing bays/turning heads		

In this part, professionals have totally diverse ideas on what qualities are essential for a public space. They believe that if these qualities are ignored, the result can sometimes even be unusable. William Whyte in 1980 had different ideas on public open spaces qualities. He believed that the situation of a public place (in busy and live regions), sociability, being leveled by the pavement, and the spaces which have elements for sitting and movable seats can make achieving the required functions easier.

In 1981, Lynch had introduced some essential qualities for a public space such as vitality, sense, fit, access and control. Identically, Bentley (1985) has noted the factors of personalization, robustness, richness, legibility, variety, permeability and visual appropriateness, as public space characteristics and qualities. While on the other hand, Jacobs in 1987 talked about some other qualities which are ‘’livability, identity, access, authenticity, community and public life, urban self-reliance, an environment for all’’. Amos Rapoport in 1990 has introduced 36 different characters for a public place, which are all related to their size and form. All these qualities are divided into six categories, which are high level of enclosure, being narrow, variety in width and projection, having short blocked views, variety of enclosing elements, being part of a complex pattern.

Carr in 1992 argued that human needs make the quality of a public place such as comfort, relaxation, passive engagement with the environment, active engagement and discovery’’. A public space should meet all these qualities and like what Carr have mentioned, successful design products are the ones, which have human needs in their prior considerations. Years later in 1996, Biller Hillier discussed two general qualities, which are physical and visual. At the same time, Jan Gehl focused on some

factors such as connection, size, etc. which affect the quality of space. These are called tangible features because they are measurable. Beside tangible qualities, there are also intangible ones, which also attracted different ideas of the professionals. These qualities vary among the users according to their characteristics and needs.

Smith in 1996 listed some of these qualities. ‘’Livability, character, connection, mobility, personal freedom, diversity’’ are some of these required qualities. Afterward, Carmona in 2003 summarized some qualities of public spaces as: application to context, sustainable urban design, townscape, urban form, public realm, connection and movement, mixed use and tenure. All these qualities of a public place that mentioned above are listed in Table 2.3 Relying on these qualities, the following physical features are resulted:

1. Streets should be livable.
2. Residential constructions should have at least minimum density.
3. Various activities should be possible to occur such as shopping, working and etc.
4. An environment, which defines the public open space, is vitally important.
5. Different buildings should be in relation with each other (Carmona et al., 2003).

According to all these ideas, the positive qualities of every public space, all over the world, can be seeing in Table 2.4. The importance of each quality may not be the same for people of every region, thus; the designer should act accordingly (Carmona et al., 2008).

Table 2.3: Qualities of a public space

William Whyte (1980)	**Lynch (1981)**	**Bentley (1985)**	**Jacobs (1987)**	**Amos Rappaport (1990)**	**Carr (1992)**	**Smith (1996)**	**Carmona et al. (2003)**
Sociability	Vitality	Personalization	Livability	Variety in width and projection	Comfort	Livability	Application to context
Being leveled by the pavement	Fit	Robustness	Identity	Having short blocked views	Relaxation	Character	Sustainable urban design
Required functions	Sense	Richness	Access	Variety of enclosing elements	Passive engagement with the environment	Connection	Townscape
	Control	Legibility	Authenticity	Being part of a complex pattern	Active engagement	Mobility	Urban form
	Access	Variety	Community and Public life		Discovery	Personal freedom	Public realm
		Permeability	Urban self-reliance			Diversity	Connection and movement
		Visual appropriateness					Mixed use and tenure

Table 2.4: Positive qualities for public space

Clean and tidy	Well cared for	Clear of litter, fly tipping, fly posting, abandoned cars, bad smells, detritus and grime; adequate waste-collection facilities; provision for dogs
Accessible	Easy to get to and move around	Ease of movement, walkability; barrier-free pavements; accessible by foot, bike, and public transport at all times; good quality parking; continuity of space; lack of congestion
Attractive	Visually pleasing	Aesthetic quality; visually stimulating; uncluttered; well-maintained paving, street furniture, landscaping, grass/verges, front gardens; clear of vandalism and graffiti; use of public art; coordinated street furniture
Comfortable	Comfortable to spend time in	Free of heavy traffic, rail/aircraft noise, intrusive industry; provision of street furniture, incidental sitting surfaces, public toilets, shelter; legible; clear signage; space enclosure
Inclusive	Welcoming to all, free, open and tolerant	Access and equity for all by gender, age, race, disability; encouraging engagement in public life; activities for young people; unrestricted
Vital and viable	Well-used and thriving	Absence of vacant/derelict sites, vacant/boarded-up buildings; encouraging a diversity of uses, meeting places, animation; availability of play facilities; fostering interaction with space
Functional	Functions without conflict	Houses compatible uses, activities, vehicle/pedestrian relationships; provides ease of maintenance, servicing; absence of street parking nuisance
Distinctive	A positive, identifiable character	Sense of place and character; positive ambience; stimulating sound, touch and smell; reinforcing existing character/history; authentic; individual
Safe and secure	Feels and is safe and secure	Reduced vehicle speeds, pedestrian, cyclist safety; low street crime, anti-social behaviour; well-lit and good surveillance, availability of authority figures; perception of security
Robust	Stands up to the pressures of everyday use	High-quality public realm, not repeatedly dug up; resilient street furniture, paving materials, boundaries, soft landscaping, street furniture; well-maintained buildings; adaptable, versatile space
Green and unpolluted	Healthy and natural	Better parks and open space; greening buildings and spaces; biodiversity; unpolluted water, air and soil; access to nature; absence of vehicle emissions
Fulfilling	A sense of ownership and belonging	Giving people a stake (individually or collectively); fostering pride, citizenship and neighborliness; allowing personal freedom; opportunities for self-sufficiency

“A second element basic to any public open space plan is to recognize the importance of streets as the framework of public open space” (Barnett, 1982). Accordingly, among all the public open spaces, streets are subject of this thesis, which will be studied.

2.3 Street

Various definitions have been so far given for the word of “street” and its concept. According to one explanation, streets are validated as public spaces, objectivity to the cities and without them, there is no city. They are including a roadway plus usually a pedestrian pathway and the surrounding buildings (Kostof, 1992). Oxford English Dictionary defines the word “street” as a road in either urban or rural areas, usually containing both sidewalks and carriageways, passing between two rows of houses (Ellis, 1991). It is obvious that these definitions imply on the existence on surrounding buildings by the sides of street. However, the word of street is derived from the Latin word “sternere”, with the meaning of “to pave”, referring to the paved property (Shahide 2013). Referring to the root of the word, it is indicated that streets are specific pathways in an urban texture, contain human movements. Thus, streets can be defined through its form and functionality, being an urban form and containing people’s activities and movement (Kostof, 1992). To sum up, Kotsof definition of street mainly implies on pathways meant to be serving in transportation, traffic, goods exchange, communication and etc.

Other proposed definitions are still more or less similar to the given one. For example, Rapport (1987) has viewed street from two perspectives. Morphologically, considering the activities being held in that (cultural background), and the as a linear space, surrounded by building by the two sides used for transportation and some other activities (Budi Hartanti).

Undoubtedly street are significant elements of a city, which play an essential role on the mental image of it. According to Jacobs 1961, streets are vital organs,

immediately coming to the minds as the cities are thought about. Streets come in the first place of importance in creating the city image.

The network of a city's streets if the most remarked form in defining its space system. From this viewpoint, these two cannot be actually detached from each other. Street life indicated city life. From this perspective, streets are both the physical and also the experiential city structures Hillier (1976). Moreover, many of the cities' characters are revealed in commercial streets that are open to public and hold commercial activities and public lives.

Moughtin (2003), when trying to give a definition for a street, talks about the similarity between some words that are wrongly used interchangeably. Words such as street, road, way and path, which the first two are often used with a same meaning while they are different. He first defines road and argues that road is a way with certain destination and a specific end. Here, the main aim is moving toward a space. Street can also have similar characteristics, however; it is located in a village or town. It is wider, compared to the road and located between two lines of shops or houses. In most of the studies, street is an enclosed three-dimensional space between two lines of buildings. In recent years, the increasing amount of car traffic in the streets has caused a modern movement in designing them. This movement is being criticized by many professionals. Le Corbusier (1947) was one of these professionals who believed that streets do not work the way they should and something must be used instead (Moughtin, 2003).

Street is a political space where users negotiate political issues and it is difficult to control it because of publicity that is what makes it suitable for political activities.

Street presents the symbolic social, political elements of each region and it is not used only for accessibility. During some periods of history, the primary elements of urban design became streets because they improve the livability of the city and have various functions. The multi-tasks that a street should perform have reasoned in the occupation of about 25-35 percent of developed land in America. When streets are designed properly so that they can fulfill human needs, approximately 1/3 of the city is designed successfully (Moughtin, 2003).

2.3.1 Function of Streets

In addition to the physical function of a street, its social function also plays a great role in a city. This function can be studied from different perspectives like who uses it? Who controls it? Why it is built? Moreover, what are its social and economic roles of this element of an urban design? The major function is to connect the buildings both inside a street and in larger scale, between the whole buildings of a city. In this respect, gives the possibility to walk in pedestrians or to transport goods. The other function is related to the communication or interaction among people. ‘’thus serving to bind together the social order of the polis, or what in current parlance would be called the local urban community’’(Moughtin, 2003).

Figure 2.1: Crowded pedestrian

Carmona et al. also defines various functions for a street. Some of these are "pedestrian though fares, traffic arteries, retail destination, venues for civic functions, gateways to the private realm, places for social interaction, serving arteries, play spaces, public transport, containers for landscaping, etc.". Some of these functions may have conflict with each other, thus; the final decision should organize them all in such a way that it enhances the quality of space (Carmona et al., 2008).

Figure 2.2: Play space and civic functions of a street

Long lasting cities by passing time are the ones shaped through the human needs, buildings and spaces. Those that are representing a successful integration and collaboration of traffic and activities.

As it has been defined previously, various functions are be considered for streets, as multi-functioning spaces, containing movement (traffic, transportation), activities (commercial, cultural) and enclosure (surrounding streets). These functions can be listed as below:

- Movement for various types of users (pedestrian, vehicles, cyclists, etc.)
- Movement (transportation) access
- Accessibility to the buildings, ventilation systems and lighting tools

- Automobiles and other vehicles storing space
- Public spaces where human activities are being held (gathering, different public activities)
- Being a root to different facilities

Additionally, the role of street can also being perceived in providing the proper space for entertaining, ritual observances and conversation. In recent years the human life have changed noticeably which directly influences public spaces and streets. The housewives, who once walked to do shopping, are now bread winners and use cars to transport. Social activities are now done in destinations rather than during the journey and speaking on phone is more popular compared to spending time in a doorstep. Certainly, all these changes of human life directly affect how people use streets and a designer should consider them all and work accordingly.

Today, when a well-designed street is mentioned, most of all, being free of negative effects of large traffic is meant. On the other hand, a good street is the one, which aesthetically stimulate the users. The ability of walking down a street and watching buildings, shops and talking with people is essential for a well-designed street (Moughtin, 2003).

2.3.2 Form of Streets

Generally, a street itself has not attracted the great attention, which is dedicated to its form and design. Some professionals, such as Zucker (1959) and Sitte (1889), have focused on the nodes and the activities which are allocated to them when studying the form of a street. Most of the buildings in a street and artistic creations are concentrated in the nodes.

Despite the fact that streets have a great role in social activities of the users, their creation begins when all the buildings are designed in a satisfying form. In fact, in European countries, there exist two main methods for designing a street. The first method is to carve the street from a solid block. Sitte in 1889 use to admire and prefer this method of designing streets. The second method is to locate buildings on a three-dimensional landscape. This idea of design began from the Modern Movement in architecture. To analyze form of streets, some qualities such as ‘’scale, proportion, contrast, rhythm, connections to other streets and squares’’ can be utilized (Moughtin, 2003).

Form of a street can also be analyzed by polar qualities such as straight or curved, long or short, etc. It should be noted that a street is both a path and a place, however; the second function is often ignored by the designers (Moughtin, 2003).

Figure 2.3: Different forms of streets

When cities begin to be unsafe and crowded, people try to stay in their private safe spaces and only leave them when necessitates and with cars. This fact has made streets to perform only as paths and the only thing that matters is the number of vehicles which can pass through them in an hour. These types of streets do not

answer the Norberg_ Schultz (1971) definition of a path when he says that path is a basic property of human life and it is also an original symbol. They do not also serve the definition of Lynch (1960) when he said that a path should have an entrance, exit and also some nodes in its length for some specific human activities. These streets should give a memorable image to the users. According to Gibberd (1955), street is not just a building frontage, but the buildings are located in a way that they create different types of streets. When it is desired for a street to perform as a place, it should have the same qualities as a public square.

Reasonable proportions are also essential for a street. When it is wide and long, people will not feel enclosed, hence various methods for shortening long streets are used all during history. Arches, for example, are one of these methods, or by offsetting the frontage of building, it is possible to give the feeling of enclosure to the users. When it is desired to give the feeling of enclosure to the users, three factors are essential: entrance, place itself and termination. Street is one type of path, which has two directions and should terminate from both (Moughtin, 2003).

2.3.3 Types of Streets

The traditional systems of classifying roads and streets were based on the accessibility of the motor vehicles to them, hence; other users were probably ignored. The later categorization was done by AIA or American Institute of Architects (1996) which focused on the multi-task character of the streets. According to this system, the street can work both as a connector and as a separator. The following Table (2.5) shows how this institute has categorized streets.

Table 2.5: Categorization of different streets (Forbes, 1999)

Classification	Description
Highway	A long-distance, medium speed vehicular corridor that traverses open country. A highway should be relatively free of intersections, driveways and adjacent buildings; otherwise it becomes a strip, which interferes with traffic flow.
Boulevard	A long-distance, medium speed vehicular corridor that traverses an urbanized area. It is usually lined by parallel parking, wide sidewalks, or side medians planted with trees. Buildings uniformly line the edges.
Avenue	A short-distance, medium speed connector that traverses an urban area. Unlike a boulevard, its axis is terminated by a civic building or monument. An avenue may be conceived as an extremely elongated square.
Drive	An edge between an urban and a natural corridor, usually along a waterfront, park or promontory. One side of the drive has the urban character of a boulevard, with sidewalk and buildings, while the other has the qualities of a parkway, with naturalistic planting and rural detailing.
Street	A small-scale, low speed connector. Streets provide frontage for higher-density buildings such as offices, shops, apartment buildings, and row houses. A street is urban in character, with raised curbs, closed drainage, wide sidewalks, parallel parking, trees in individual planting areas, and buildings aligned on short setbacks.
Road	A small-scale, low speed connector. Roads provide frontage for low-density buildings such as houses. A road tends to be rural in character with open curbs, optional parking, continuous planting, narrow sidewalks, and buildings well set back. The rural road has no curbs and is lined with pathways, irregular tree planting and uncoordinated building setbacks.
Alley	A narrow access route servicing the rear of buildings on a street. Alleys have no sidewalks, landscaping, or building setbacks. Alleys are used by trucks and must accommodate dumpsters. Alleys are usually paved to their edges, with center drainage via an inverted crown.
Lane	A narrow access route behind houses on a road. Lanes are rural in character, with a narrow strip of paving at the center or no paving. While lanes may not be necessary with front loading garages, they are still useful for accommodating utility runs, enhancing the privacy of rear yards, and providing play areas for children.
Passage	A very narrow, pedestrian-only connector cutting between buildings. Passages provide shortcuts through long blocks or connect rear parking areas with street frontages. Passages may be roofed over and lined by shop fronts.
Path	A very narrow pedestrian and bicycle connector traversing a park or the open country. Paths should emerge from the sidewalk network. Bicycle paths are necessary along highways but are not required to supplement boulevards, streets, and roads, where slower traffic allows sharing of the vehicular lanes.

This model is based on ‘’capacity and character’’ which the former is related to properly transporting people and the latter is associated with the ability of the street to invite people to social interaction and to create diversity.

The other system has divided paths into five categories according to their functions which will be illustrated in table 2.6. It was called Metro Portland and was based on the mobility character of the paths (Forbes, 1999).

Table 2.6: The categorization of different paths (Forbes, 1999)

Classification	**General Description**
Throughways	Emphasizes motor vehicle travel and connects major activity centers.
Boulevards	Serves major centers of urban activity and emphasizes public transportation, bicycle and pedestrian travel while balancing the many travel demands of intensely developed areas.
Streets	Serve transit corridors, main streets and neighborhoods with designs that integrate many modes of travel and provide easy pedestrian, bicycle and public transportation travel.
Roads	Traffic oriented facilities with designs that integrate all modes but primarily serve motor vehicles
Local streets	Streets that complement the regional system by serving neighborhoods and carrying local traffic.

Commercial streets are obviously those holding mainly commercial activity spaces and commercial buildings. Therefore, they are mainly considered as public or semi-public spaces, especially compared to the non-commercial ones, such as roads connecting residential complexes. Various examples of this type of street can be made, from different cities around the world, such as Chomps Elysees in Paris, Fifth Avenue in New York and Ginza Street in Tokyo. It is stated that a commercial building, besides being a pathway, should also be attractive, to the users encouraging them to pass their times there, even without spending any money (Ashihara 1983).

2.3.4 Qualities of a Good Street

Jacobs (1961) asks for various qualities when he talks about an ideal street. A great street should provide situation so that people can communicate and each individual can act and interact. It should be accessible to everyone and easy to find. Different groups of people should spend time there and it not allocated to a specific group or class of people. It must be alive so that it brings people together and make them spend time there. Safety and comfort are other factors. During hot seasons of a year street should provide shade so that users can enjoy cool weather in the street (Jacobs, 1961). Lynch (1981) has referred to 'presence, use and action, appropriation, modification and disposition' as five fundamental rights of people in public spaces.

Referring mainly to the works of Jacobs and Lynch, Mark Francis (1987) suggests 'democratic street'; a street which combines qualities of livability and pedestrian-friendliness as well as promoting 'social justice, economic health and ecological vitality'. It recognizes vehicular movement but in balance with pedestrians and bicyclists' rights. It offers the concept of publicness in a sense that public places be available to everyone unlimitedly. According to him, qualities of a 'democratic street' include 'use and user diversity; accessibility; participation/modification; real and symbolic control; traffic management; safety and security; ground floor-street relationships; comfort; ecological quality; environmental learning and competence; love and conflict' (Francis, 1987).

In another approach, physical and operational characteristics of street have been associated with incidental outcomes or designed provisions. 'Street life, visual complexity, social status and density of people' are incidentals while 'safety, security, comfort and sense of enclosure' are results of the design. Moreover,

maintenance and cleanliness strengthens both of these features. Anyhow, all these characteristics have been proved to lead to qualities of ‘sociability, walkability and pleasurability’ (Canada Mortgage and Housing Corporation, 2002). The studies of the Audit Commission in 2002 have illustrated that people prefer streets which are “pleasant, attractive, well-designed, free from danger pollution and noise, functional, litter free, not repeatedly dug up, diverse, to cater from all needs_ peaceful and lively, business and play (Carmona et al., 2008)”.

Project for Public Spaces has also mentioned some ‘qualities of a great street’, which include:

- ‘Attractions and destination’; providing various activities for people of diverse backgrounds to encourage them to come time and time again to avoid the space from being empty.
- ‘Identity and image’; maintenance and cleanliness are key terms in this regard as well as local values to be represented in the context.
- ‘Activity edge uses’; human-scale and gound floor relationships are key concerns in this regard which allow interaction between outdoor and indoor, reducing the traffic as well as providing a safe environment.
- ‘Amenities’; provision of facilities like seating areas, lighting elements, cycling facilities as well as maintaining cleanliness and safety.
- ‘Management’; in addition to managing services various periodical and cultural activities could effectively contribute to the liveliness of street.
- ‘Seasonal strategies’; to keep the space active all the times.
- ‘Diverse user groups’; providing activities for people of diverse background to decreases dominance of a certain group over others.

- ‘Traffic, transit and the pedestrian’; one of the most important, if not say the most important, factors in success of a street. Being accessible both visually and physically and supporting connection to other places as well as promoting walking and biking by reducing the dominace of vehicles are the key concerns.
- ‘Blending of uses and modes’; mixed-use functions help private and public realms cooperate to improve the experience of the space.
- ‘Neighborhood protection’; good streets should reflect explicitly their own character while showing the distinction between commercial and residential context.

Those qualities that mentioned in previous paragraphs are listed in Table 2.7.

Table 2.7: Qualities of a Good Street

Jacobs (1961)	provide situation, accessible, use by all type of people, livable, safety, comfort,
Lynch (1981)	Presence, use and action, appropriation, modification, disposition,
Francis (1987)	Democratic street: use and user diversity, accessibility, participation, modification, real and symbolic control, traffic management, safety and security, ground floor street relationship, comfort, ecological quality, environmental learning and competence love and conflict.
Mortgage and Corporation, (2002)	(Sociability, walkability, pleasurability)Street life, visual complexity, social status, density of people, safety, security, comfort, sense of enclosure, maintenance, cleanliness.
Carmona (2008)	Pleasant, attractive, well designed, free form danger pollution and noise, functional, litter free, diverse,
Project for the public spaces (2010)	Attractions and destination, Identity and image, Activity edge uses, Amenities, Management, Seasonal strategies, Diverse user groups, Traffic, transit and the pedestrian, Blending of uses and modes, Neighborhood protection

It is known that the quality of streets, as public spaces, has a strong influence on people's lives quality Carmona (2003). Based on this idea, three main aspects are counted for the quality of open spaces, which are physical and ecological, behavioral and functional, and visual and aesthetic (Im, 1984). According to the previously conducted researches, the first quality perceived by people is the aesthetic and visual quality, leading to generation of good experience for them, influencing their sense of well-being. This quality is specifically defined and explained in the next section, to clarify its features and qualities and how it influences people's perceptions.

2.4 Urban Aesthetic Definition

Etymologically the term 'aesthetics' returns to the Greek *aisthanesthai* and *aistheta*, which respectively mean 'to perceive' and 'perceptible'. Accordingly, Oxford English Dictionary (cited in Porteous, 1996) defines aesthetic as 'knowledge derived from the senses'. A more recent definition involves 'taste or the perception of beautiful in nature and art' (Porteous, 1996). Alexander Baumgarten has been pioneer in this regard, as he was concerned with the perception of beauty in fine arts (Lang, 1987). Historically search for notions of beauty dates back to Classical Greek as Plato considered 'form' rather than 'content' as the most important factor in creating beauty. Aristotle mentioned wholeness (integras), harmony (consonantia) and radiance (claritas) as the most important contents of beauty. In Medieval times, the term was more associated with truth within religious dialog but after Renaissance, it was again attached to perception of beauty. In eighteenth century Baumgarten's concern for beauty in poetry, painting and sculpture, along with other British scholars' (such as Burke and Addison) works, contributed significantly to the development of aesthetic attitude toward perception of beauty; this is known to be the beginning of Modern aesthetics (Porteous,1996). More recently, with

development in behavioral studies, the use of the term has been extended into environmental design, which has led to the development of *empirical aesthetics*.

Defining the factors of a pleasing environment, for the people, and studying the factors' characteristics, is the major aim of this survey. It is important to find out the procedure of perceiving, understanding and formation of opinion. In the following, a more detailed description of contribution of urban aesthetic that scholars made is brought, in a chronological order.

2.4.1 Review on Urban Aesthetic

Camillo Sitte (1889) has been pioneer in the empirical approach toward aesthetics. He was mainly concerned with 'picturesque' quality in urban environment, which is 'structured like a picture and possessing the formal values of an organized canvas'. This is more a visual approach and narrower understanding of urban design (Carmona, 2003). Accordingly he attempted to extract rules from analyzing visual and aesthetic characteristics of existing historic cities in Europe, in order to define his 'Artistic Principles'. His principles include 'enclosure, freestanding sculptural mass, shape and monuments'. His approach is close to 'psychology of form', known as 'Gestalt' theory, which tends to organize parts in order to create a visually coherent and ordered whole (Carmona, 2003). He suitably considered the third dimension in an imaginative fashion, however did not go any further as he addressed just static instead of kinesthetic experience of the environment; a notion that Cullen (1961) has successfully addressed.

In this regard, Cullen (1961) has argued that 'environment should be designed from the point of view of the moving person' and a stimulating tension from 'existing view' to 'emerging view' is necessary (Carmona, 2003). In other words, he has

emphasized on continuity and contrast, in order to make an environment pleasing (Aminzadeh, 2010). He has also emphasized on 'art of relationship' between elements of environment (Broadbent, 1990). Thus, he has succeeded in expressing his own reaction to urban environment but not the public opinions of townscape and places, which Lynch has achieved (Carmona, 2003).

Lynch (1960) was mainly concerned with the mental image of the city, in a sense that which meanings the city bears for the citizens. In other words, the inhabitants' perception of the city should be the essential consideration in urban design. Although he has referred to other features, such as rhythm as the components of a beautiful city, he has more emphasized on the 'requirement for identity and structure' in the perceptual world. Therefore, his visual quality was associated with 'the apparent clarity' or legibility, which leads to imageability. It worth's explaining that a highly imageable city invites the eyes and the ears to greater attention and participation' (Lynch, 1960). He referred to nodes, paths, edges, districts and landmarks as the elements defining the city image (Ferdous, 2011). Afterwards in 1984, he mentioned that a city that could be ordered as an ordered one would be more desirable (Carmona, 2003). His efforts have contributed significantly to conceptual dimension of urban design and consequently development of urban aesthetic preferences.

Subsequently, Smith (1996) has referred to rhyme and pattern, rhythm, balance and harmonic relationship, as essential components of aesthetic appreciation. In order to achieve rhyme, complexity is the essential term, while for perceiving rhythm, contrast and variety are necessary. Nevertheless balance and harmony help achieving order and a coherent whole (Carmona, 2003). In a parallel manner, Kaplan and

Kaplan (1987) have discussed environmental preference in short and long terms: while coherence and complexity result in immediate appreciation, legibility and mystery play effective role in preference over time (Carmona, 2003).

It is explained in Kaplan's framework that for people, there are two different ways of relating the collected information, which are the three-dimensional space and visual array (as in a picture level surface). Regarding the visual array, complexity and coherence are the two main factors, influencing the preference. Complexity can be defined as the happenings or events taking place in a specific scene, and coherence can be defined as the factor influencing the organization of scene, so that it can be built up, held and figured out better. Moreover, to define the mystery, it can be viewed as a chance to collect information, in an indirect way, and finally, legibility is the atmosphere and space interpretation, it is greater when the depth is significant and space is well defined. These two factors are connected to three dimensional interpretation and influencing the preference of them (Kaplan, 1992, p. 47- 51).

One of the most influential works in development of urban aesthetic belongs to Jon Lang. Lang (1987) refers to the earliest classification of aesthetic issues by Santayana (1896): sensory, formal and symbolic or associative. Sensory aesthetic deals with sensation through touch, smell, taste, sound, sight, and could play a major role in response to the environment. However, formal and symbolic aesthetics has been the major focus in urban design issues (Lang, 1987). Accordingly, he has defined formal and symbolic aesthetics. Formal aesthetic involved in the "appreciation of shapes and structures for their own sake" and it is more associated with Gestalt theory of perception. Shape, proportion, rhythm, scale, complexity, color, illumination, shadowing, order, hierarchy, spatial relations, incongruity,

ambiguity, surprise, and novelty are all attributes of formal aesthetic. He has mainly focused on order, complexity and clarity as the elements, which play role in the appreciation of the environment in formal terms. 'Symbolic aesthetic is concerned with the associational meanings of the patterns of the environment that give people pleasure' and it is of great importance in terms of addressing 'people's identity needs'. For instance, specific places such as churches or those build by famous architects may influence the judgments of beauty (Lang, 1991). A cognitive process plays role in creating a symbolic meaning however, building configuration, spatial configurations, materials, nature of illumination and color could be effective in this regards. Style of building is the most important factor indeed (Lang, 1987). Figure 2.4 shows the Visual Aesthetic Perception and Judgment of Urban Streetscapes.

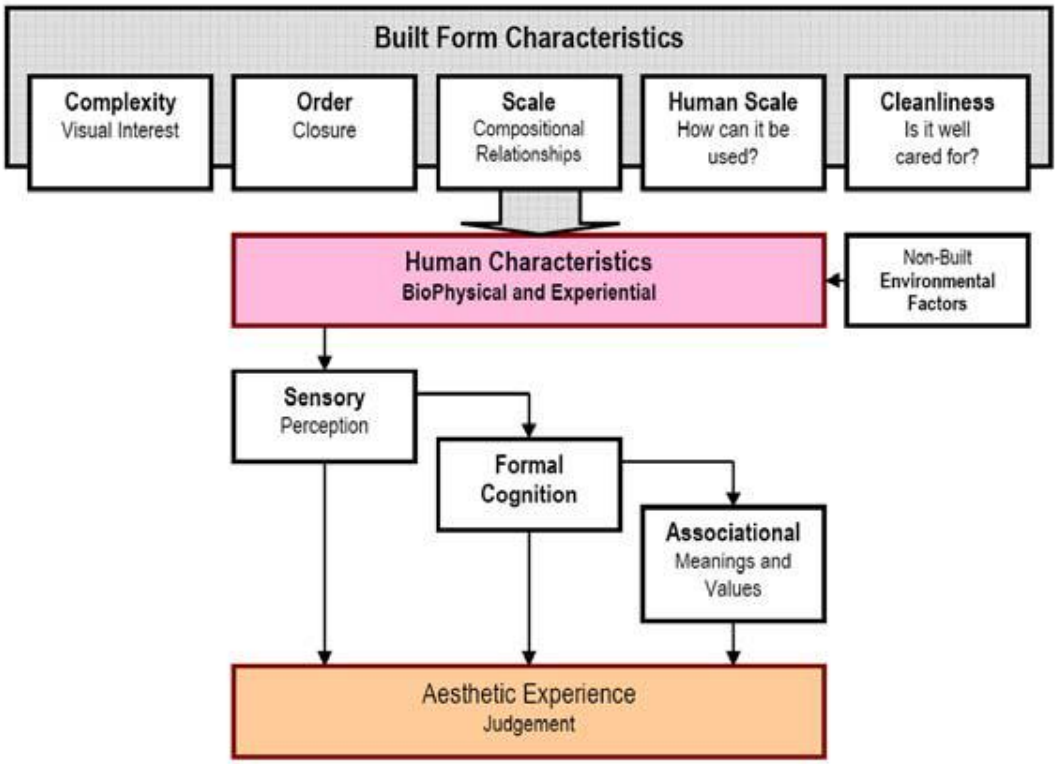


Figure 2.4: Source: Analytical framework of Visual Aesthetic Perception of Urban Streetscapes, Gjerde M., 2008

Worth mentioning is that scholars such as Lang have claimed that there may not be any formal aesthetics at all, as it could be just a language that designers have invented in order to understand each other. Rapaport, has also claimed that although more attention has been paid to formal aesthetic, symbolic aesthetic seems to play a more important role in people's appreciation of the environment. Accordingly, the term aesthetic would be used to refer to visual qualities that contribute to appreciation of urban environment (Carmona, 2003).Nasar (1994) has also referred to formal and symbolic aesthetics in order to address the issue (Ferdous, 2011). According to him diversity, harmony and clarity as well as cleanliness, complexity and openness are of significant formal aesthetic qualities, which contribute to appreciation of urban environment (Aminzadeh, 2010). In this regard, he has mentioned although complexity leads to more interest and consequently preference, if it exceeds it could have reverse effect.

In addition, defined open spaces are more preferred over the wide open or highly enclosed spaces (Carmona, 2003). According to him meaning and function, spatial experience and belonging are of important symbolic aesthetic features. Later he has referred to openness, upkeep/civilities, naturalness and defined space as well as historical significance/ content and order as characteristics of 'liked' environments (Carmona, 2003). Nevertheless, his proposed model is a probabilistic rather than predictive one due to the complex relationship between perception, cognition, affect and affective appraisal that plays role in aesthetic response (Ferdous, 2011).

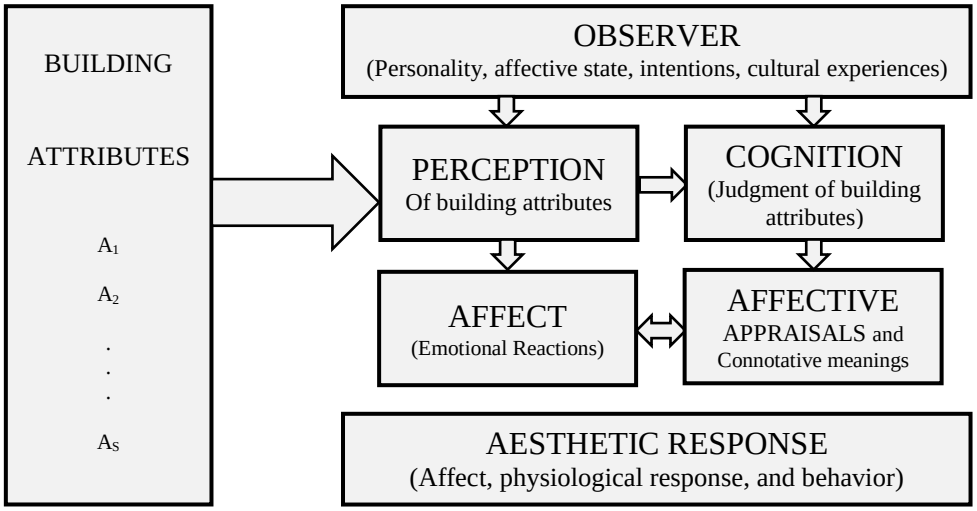


Figure 2.5: Eventual model of aesthetic response to the built environment. (Nasar, 1994, p. 381)

Carmona et al. (2003), having collected a comprehensive set of information from previous scholars, has thoroughly addressed the issue in a concluding manner. According to him, urban environments are experienced through all the senses. Also all parts of our body involve in aesthetic appreciation of urban environment, as the experience is a kinesthetic one. However, visual appreciation is the primary one, which is a result of perception and cognition. In this regard, individual feelings about a specific environment as well as cultural and social factors have significant role on our judgments. Moreover, he refers to design features contributing to appreciation of urban environment. Pursuing previous scholars, he argues that while enclosure, spatial containment and complexity help achieving a preferred environment, there should also be a balance between these features and permeability and legibility (Carmona, 2003). According to the deep literature review, most important aesthetic elements, which affect the urban quality, are listed in Table 2.8.

Table 2.8: Review on urban aesthetic

Sitte (1889)	**Cullen** (1949-1961)	**Lynch** (1960)	**Smith** (1996)	**Kapalan & Kaplan** (1982)	**Lang** (1987)	**Nasar** (1994)	**Carmona** (2003)
Picturesque quality Artistic Principles extracted from historic European cities: • **Enclosure** • **Freestanding Sculptural Mass** • **Shape and Monuments**	Kinesthetic approach: • **Serial vision** • **Continuity and Contrast** • **Art of relationship**	• **Identity,** • **Meanings** • **Structure** • **Clarity** • **Legibility** Nodes Paths Edges Districts Landmarks	• **Rhyme** and pattern (Complexity) • **Rhythm** (Contrast and Variety) • **Balance** & Harmonic relationship	Short term: • **Coherence** • **Complexity** Long term: • **Legibility** • **Mystery**	Sensory aesthetic (Perception) Formal aesthetic (Cognition): • Complexity • Order Symbolic aesthetic (Meanings and Values): • **Naturalness** Nature of illumination • **Style** Building Configuration Spatial Configurations Materials Color	Formal aesthetic: • **Enclosure** • **Complexity** • **Order** Symbolic aesthetic: • **Naturalness** • **Upkeep** • **Historical significance** • **Style** • **Intensity of use**	• **Enclosure** • **Complexity** • **Permeability** • **Legibility**

2.4.2 Components of Urban Aesthetic

Of the aforementioned approaches of the scholars, criteria mainly addressed by Lang, Nasar and Carmona have been extracted to be developed more in this study. The main reason for this selection is the reliable quality of their work, and comprehensiveness of their research in covering the different aspects of the issue. Moreover, their studies are the most recent ones and address the issue from similar approaches. To be more specific, Lang (1987) has narrated a comprehensive account of the issue by reporting the former works and then adding jobs that are more recent. Nasar (1994) has also done a great empirical research in this regard, including a cross-cultural study of city streets (1984) and a study of the evaluative quality of housing scenes (Nasar, 1989). "Public Places Urban Space" by Carmona et al. also contains a comprehensive literature in this regard, which has been taken as one of the major resources for this study.

In 1987, Lang has pointed that several matters that had so far been considered formal and aesthetic are in fact better to be viewed as symbolic aesthetic matters. In other words, the distinction between being formal and symbolic might not be clear and many variables can equally characterize both of these qualities (Nasar, 2000, p.134). Studies has shown that the environmental preferences are originally rooted in environmental aesthetics.

In this section, to find out about the factors influencing people's perceptions, symbolic and formal aspects of aesthetics are evaluated in short. Figure 2.6 is showing the two aspects (formal and symbolic) of analyzing the elements of urban aesthetics.

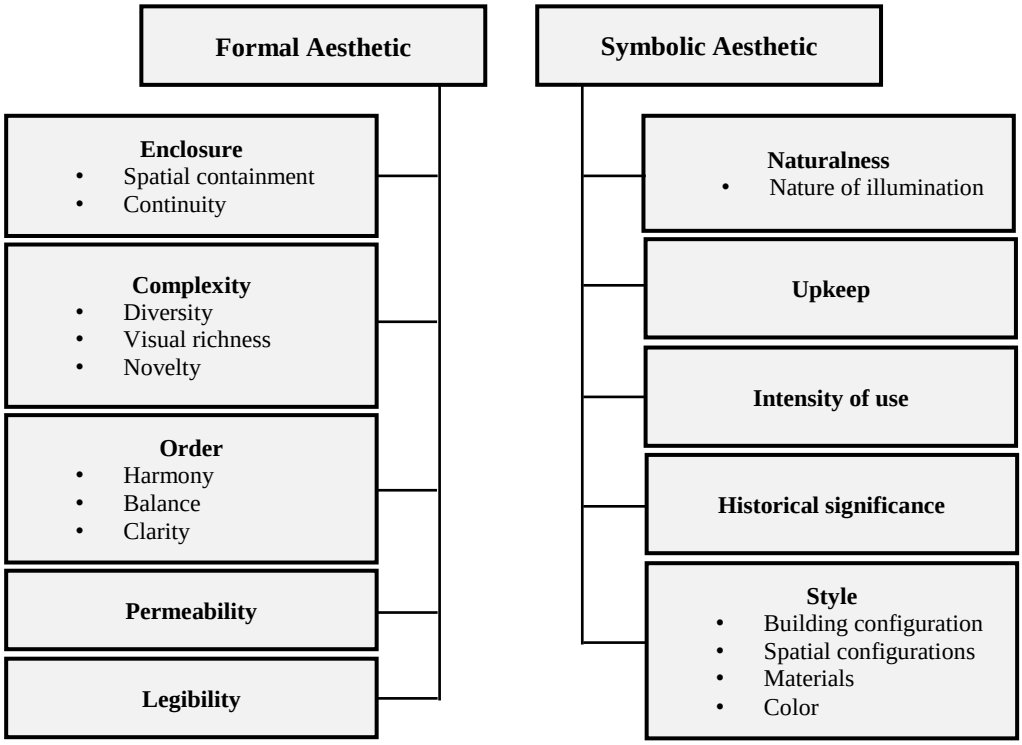


Figure 2.6: Analyzing the elements of urban aesthetics

2.4.2.1 Formal Aesthetics

- **Enclosure, Spatial Containment, Continuity**

People like an open beach, but when it comes to smaller outdoor spaces such as plazas, squares, streets, etc. they usually look for a shelter to sit (Carmona, 2003). As it has also been mentioned previously, studies related to enclosure and relevant factors have revealed that people are mostly in favor of defined open spaces, rather than highly enclosed spaces or even wide-open spaces (Kaplan & Kaplan, 1982; Nasar, 1992).

According to Sitte (1889), enclosure is a necessary element for streets to obtain more desirable feelings in the area. He has also explicitly referred to 'integrated continuity', a notion that has been developed by Cullen (1961), making a clear distinction between enclosure and closure in 'serial vision' concept. In Cullen's

views, enclosure creates an isolated ‘private world’, which is not dynamic, while closure provides a series of dynamic scenes, which encourage exploring the space on foot (Carmona, 2003).

Design of openings into the space is the most important consideration, which contributes to creating a strong sense of enclosure. It has been claimed that streets, which do not pass directly through the space, incorporate a strong sense of restraint and attract pedestrian to walk through the space; a state, which has been defined as ‘turbine’ plan by Camillo Sitte (1889) and ‘windmill’ or ‘whirling’ square by Booth (1983).

Ratio of the width of the space to the height of the surrounding buildings also plays an effective role in creating sense of containment. Although it has been suggested that the best experience occurs when the distance from a building is about twice its height, buildings should not give a single view in order to avoid monotony, and create a more attractive visual experience, which is going to be further discussed in the following sections (Carmona, 2003).

Another characteristic of streets, which is effective in creating enclosure, is formality in a sense that formal spaces, with arranged street furniture and ordered floorscape, have a strong sense of enclosure, while informal spaces, with asymmetric layout and surrounded by buildings of various architecture; reflect more relaxing character and consequently, less enclosure. Trees and other vegetation could also contribute to the sense of enclosure, and spatial containment if placed positively (Nasar, 1994; Carmona, 2003).

In addition to these features, which are mainly formal as they refer to shape and forms for their own sake, enclosure could contribute to the creation of meanings in the mind of the perceiver**.** Although this is less-studied aspect of enclosure, there are empirical studies, which reveal the impact of enclosure on the associated meanings. For instance, study of Beck (1970) shows that 'delineated space', gives a feeling of limitedness and constriction, while open spaces encourages movement, giving a feeling of freedom. However, other factors also play role, such as the status of the perceiver (Lang, 1987)

Although enclosure is an important spatial characteristic, which affects people's preference, complexity and order are of greater importance in the design review discussion, as they relate to surface and shape of buildings (Nasar, 1994). Moreover, there should be a balance between the sense of enclosure, permeability and legibility.

In Sitte's opinion, enclosure was a vital factor to be considered. The characteristic of urbanity was chiefly felt and conveyed through enclosure. According to this idea, a critical issue was to design an intersection of a side street and a square. This could be obtained through the pattern known as "turbine" plan. Moreover, Sitte's ideas about the buildings aesthetic was that the building's façade, defining the space, was observed within that space, refusing the notion of viewing buildings as individual separate sculptural elements. Consequently, in most areas, the viewers are able to observe a façade overall, and appreciate its consistency and relations between (the relations between single building's façade) (Lozano 1974).

Figure 2.7: An example of an enclosed space – Piazza Santa Croce, Florence, Italy

According to Nasar, limited and intermediate levels of space enclosure are having preference over widespread open spaces and substantially enclosed ones (Nasar, 1994).

Continuity is also a characteristic, which helps distinctive parts become interconnected, new sensuous impacts adhere to previous ones and create a coherent image of the environment; hence, it participates in creating a complexity and the unique identity.

According to Lynch (1960), there are qualities, which contribute to perception of continuity:

> Continuance of edge or surface (as in a street channel, skyline, or setback); nearness of parts (as a cluster of buildings); repetition of rhythmic interval (as a street-corner pattern); similarity, analogy, or harmony of surface, form, or use (as in a common building material, repetitive pattern of bay windows, similarity of market activity, use of common signs).

In this regard, continuity of paths is of great importance. Lynch's studies of Jersey City in 1981 reveal that dependable paths, from the citizens' as well as the visitors' point of view, are those that include track continuity, and other associated characteristics are also generalized with this feature. The study also shows that change in channel width, interruption in spatial continuity and change in the use of buildings affect people's perception of continuity adversely and cease them from extending their way.

Continuity of path can be provided by several tools including; concentration of some special use or activity along the margins, a characteristic spatial quality, a special texture of façade, a particular lighting pattern, a unique set of smells or sounds. Thus, the paths are the major arteries, giving order to other elements. It is also important to note that when the environment's size increases, creating sense of continuity becomes more difficult.

- **Complexity (Novelty, Diversity, Visual richness)**

It is mostly observed that moderate complexities are always preferred to extreme levels of it (Akalın et. al., 2009; Imamoğlu, 2000; Nasar, 1987; Stamps, 1999a). On the other hand, some observations also reveal a linear relation between the preference and the sensed complexity (Herzog & Shier, 2000). Another investigation done by Imamoğlu, displays a large gap between the preferences of architecture and non-architecture students, viewing façade drawings of residential buildings, with different complexity levels. It has also been found out that higher level of façade complexity of older buildings were preferred to modern ones (Stamps, 1999b).

As already mentioned studies reveal that, the façade configuration has more impact on people's perception and judgment than spatial and massing characteristics. This

implies that complexity and order are of greater importance in the design review than features like enclosure (Nasar, 1994).

According to Wohlwill (1976) and Kaplan and Kaplan (1989), complexity could be created when there are ‘more independent elements, larger differences between them and less redundancy and pattern’ (Nasar 1994). In other words, perception of complexity increases when there are various elements with significant differences, while a place with few elements or similar ones is considered simple. According to Rappaport (1977), complexity could be achieved through either ambiguity or mystery (Lang, 1987).

Ambiguity in this regard, refers to an ‘open-ended design’, which carries multiple instead of uncertain meanings, while mystery is the characteristic of a ‘varied and rich environment’ and could not be thoroughly perceived at once, because of the multiple views that must be unfolded gradually. According to Lang (1987), the criteria for evaluating complexity within a system include ‘the number of its elements, their novelty and surprisingness, their texture patterns and their levels of order’. He has stated that recent empirical researches show that people are in favor of patterns, which reflect complexity. He has also mentioned that complexity increase leads to interestingness however gratifying decreases from a point (Figure 2.8).

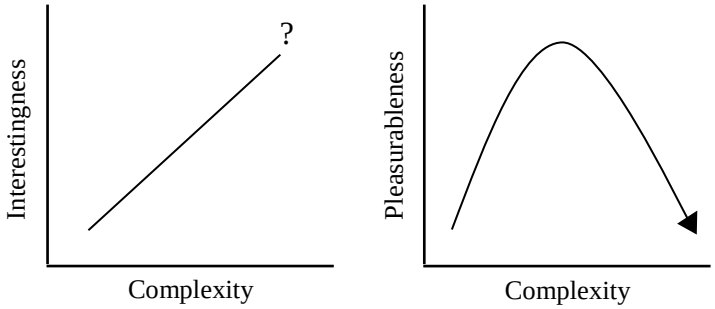


Figure 2.8: The relationship between complexity, interestingness, and pleasure (Lang, 1987)

Another factor, which is influential on environments preference, is novelty. Many definitions, from different viewpoints have been given for this concept. Berlyne defined novelty as the situation in which a visual stimulation itself or its arrangement comes very new to the viewers and different from their experiences (Berlyne, 1972; Kaplan, 1992). Moreover, a model has been also offered by Peron et al. 1998, entitled as "preference for prototypes or preference for differences", investigating preference, with regard to novelty, newness and typicality. The influence of familiarity is known to be contradictory, meaning that it is various among people. They might prefer a scene because it comes familiar to them, or in contrast, a novel scene might come more interesting to them (Nasar, 1992). Each of these findings (preferring novelty or familiarity) has their accredited references as well.

Wohlwill (1976) has used the term diversity instead of complexity and Kaplan and Kaplan (1989) has used visual richness in reference; therefore, the terms complexity, diversity and visual richness could interchangeably be used (Nasar, 1994).

Diversity is one of the principle criteria of sustainable design as it could provide a basis for environmental and social health. It is also one of the features of successful urban places in terms of providing variety and choice. Variety itself is an essential

factor for avoiding monotony and creating ‘visually interesting street scenes’, as well as one of the qualities of ‘responsive environments’ (Bentley et al. 1985). It helps creating desire and pleasurable experiences (Carmona, 2003).

A very important consideration in this regard is not to exaggerate in order to achieve richness of detail, since diversity could be immediately turned into a chaotic combination (Carmona, 2003). In other words as Nasar claims, although complexity leads to more interest and consequently preference, if it exceeds, it can have reverse effect (Nasar, 1999). Rapoport also refers to the optimum level of preference claiming that simple and chaotic combinations are disliked (Lang, 1987). Lang himself has also stated that in high levels of complexity, order is needed to reach pleasing result.

- **Order (Harmony and Balance, Clarity)**

As the environment is perceived as a whole entity, there is need for a visually coherent and harmonious integration of its parts (Carmona, 2003).

Many studies reveal that preference is highly dependable on organizing factors such as order (Kaplan & Kaplan 1989 and Nasar, 1994). Lynch (1960), has recognized order as a vital condition especially concerning the imageability. He has claimed that a city, which ‘could be ordered’ rather than an ‘ordered one’ is precious in a sense that a newcomer would not be puzzled, while throughout time he could make deeper connections by unveiling the essential patterns (Carmona, 2003). Accordingly, order leads to finding and moving in the environment easily and quickly, as well as giving structure to activities, which take place (Lynch, 1960).

Lang (1987) believes that when the certain principles are applied on the arrangement of elements, order is achieved. According to Kaplan and Kaplan (1989) order is 'the level to which a scene hangs together or makes sense' and it is associated with the formal features such as familiarity, redundancy and compatibility, along with symbolic features like style and naturalness. Lynch has specifically referred to familiarity (the elements which seem to be known due to previous experience), as a feature that gives identity to mental picture even if other features of order are weak (Nasar, 1994 and Lynch, 1960).

Order in building design process could be represented through considerations such as symmetry, balance, repetition, the grid, the bay, the structural frame, etc., while in urban fabric it could be demonstrated through architectural style and less formality as well as building silhouette, consistent plot widths, fenestration patterns, proportions, massing, the treatment of entrances, materials, details, etc. (Carmona, 2003).

Another relevant term is balance, which could be easily conceived but it is hard to be defined. Balance has been described as 'a form of order generally related to 'harmony' among the parts of a visual scene or environment'. Harmony itself involves the 'relationships between different parts and how they fit together to form a coherent whole'. Harmony could be discovered in such relationships as Golden Section as well as 'manipulated proportions', 'perspective effects' and 'deliberate distraction strategies', all employed by talented designers to awaken certain feelings. Respectively balance could be apparent in symmetrical compositions as well as asymmetrical ones in even a more interesting way. 'Complex organizations of colors, textures and shapes' could reflect balance as well if be employed properly.

Accordingly, intricate or even seemingly disordered scenes may contain a sort of balance that could be discovered not at once but over time. In this regard, Smith (1996) has recognized the importance of 'surprise' feature. Kaplan and Kaplan have also addressed the issue within a sequential dimension. They have argued that environmental preference in short term arises from complexity and coherence while in long term from legibility and mystery. Gestalt psychologists have referred to it as a balance, which is perceived by familiarity throughout time. Historic towns are good examples in this regard; whether considering the balance, which exists in Georgian neo-classical townscapes in a 'static' form, or the one that belongs to Victorian neo-Gothic townscapes in a more 'dynamic' way. As already mentioned, maintaining the balance in all the aspects is of great importance. As "richness of diversity" could easily be turned into "bewilderment of visual chaos" if we could not process the ambiguity, mystery and surprise, visually pleasant features could block visual access and permeability, create safety problems and decrease preference.

Harmony, unity or arrangement are also factors that play an important role, in a single scene, to improve its consistency and make sense (Nasar, 1987). In an artistic work, in a general view, coherence helps the perception of the work, along with increasing the certainty in comprehension. Consequently, people tend to prefer coherent works or environments, since it helps them in reaching a common sense with their surroundings, and feel safe (Kaplan and Kaplan, 1992).

Clarity is an essential characteristic of liked environments, which contributes to development of meaning by providing a comprehensible appearance. It both contributes to development of formal and symbolic aesthetic (Lang, 1987). It helps in creating symbols within a city by expressing the society and its aspirations, the

natural environment and dynamics of the city. Clarity participates in creating a strong sense of place and consequently attracts individuals by enhancing the activities, which take place.

Clarity within a city could be identified by figure-background clarity, form clarity, clarity of joint and overall clarity of structure. In this regard, clarity of joints is of great importance since at these points people are more sensitive as they make decisions based on their perception of the nearby elements. Therefore, there should be clarity in intersections, clear relation and interconnection between a building and its site. Moreover, visual clarity could be enhanced by sudden changes in the direction, which creates a confined spatial corridor. In this regard, the role of movement is very important. An environment, which provides various vistas when moving through it, is an interesting one. However, if the change in vistas happen, very often then the clarity would be lost. Moreover, 'texture, color, inclination of surfaces and effects of illumination and shadowing' are effective in achieving clarity within an environment (Lang, 1987).

- **Legibility**

Legibility or imageability is a characteristic that enhances the identity and structure of a city. It has been defined as the 'ease with which a city's parts can be recognized and can be organized into a coherent pattern'. In other words, a city, which has identifiable pattern districts that are easily sortable into a coherent, landmarks or pathways, is considered legible.

According to Lynch (1960), who has coined the term imageability, one of the necessary yet not sufficient features of liked environments is legibility. Legibility helps people orient themselves in the environment easily and as the environment is

easy to read, people are more likely to use it; hence it could create a joyful experience as well as providing a safe and securing environment, which overall enhances the human experience.

While Lynch has emphasized on legibility as the essential quality of liked environments, De Jonge (1962) has proved through his study in Holland that 'illegible' environments are more liked and Kaplan and Kaplan (1982) have highlighted 'surprise' and 'mystery' as the likable qualities.

In addition, it could be said that today with the aid of electronic devices and also maps it is easy to find our way in even unknown environments, but the contribution of legibility is far beyond this: a legible environment encourages more attention and participation by involving the senses. It provides a context for communication and enhances everyday experience by providing emotional satisfaction.

One of the major considerations that can effectively contribute to legibility is small block sizes, as Jane Jacobs (1961) mentions. Vegetation could also contribute to seasonal legibility. Symbolic differentiation could also be effective. In this regard, a relevant feature is clarity.

- **Permeability**

Permeability is also a related issue, which has also been identified as one of the characteristics of 'responsive environments'. It has been defined as 'the extent to which an environment allows choice of routes both through and within it". There is 'visual permeability', which implies 'the ability to see the routes through an environment', as well as 'physical permeability', which is associated with 'the ability to move through an environment'.

Cadastral pattern is the key consideration in this regard in a sense that more choices in terms of visual and movement are available in an area with smaller blocks. Shape of the blocks, if it is deformed, may however affect visual permeability adversely. Visual permeability could be increased by connection between public and private realms, which is more favorable. Moreover, streets, which reach to a dead end, are also less permeable.

However, as already mentioned, the most important consideration should be maintaining the balance between enclosure and features of permeability and legibility. Following section will further discuss how this could be achieved.

2.4.2.2 Symbolic Aesthetics

- **Style**

Style is probably the most important feature in symbolic aesthetic discussion. When a certain formal structure is experienced for the first time, it merely bears a denotative meaning in terms of its contents but when other examples are experienced, similarities and dissimilarities begin to give shape to signifying meanings; thus, a formal structure will be recognized as a style. The frequency with which the formal structures are experienced and the degree to which relations of the style exist within the building are effective in recognizing a style; however it has been confirmed that style could be recognized by people and play significant role in their preference. Responses to style is different however; in a sense that individual experiences and building types lead to preference in certain styles. For example, according to Nasar (1987 and 1989), there are different "symbolic meanings of house styles across various socio-demographic groups" and different symbolic meanings between "office styles" and "house styles". According to Lang (1987) shapes like circle or patterns like symmetry used to carry meanings in Western world but have

lost their meanings considerably. For instance, Modern period has been characterized by ‘simple clear’ shapes while Post-modern period is more associated with complex shapes and patterns. Based on the findings preferred styles should encourage variety in mentioning to the style instead of repeating the favorable style. Four different factors have been suggested for a symbolic aesthetic of style’s subcategory by Lang (1987).

The first one is known as **Building configuration**. This factor claims that in architecture, it is the building style is conveying a symbolic meaning, even if in certain cultures or traditions, specific patterns or shapes, such as symmetry, or circles, transmit convergence implications.

Another factor known to establish a symbolic meaning is the **Spatial Configuration,** including characteristics of enclosure level of space, enclosed space proportions and volume (Lang, 1987). Five different spatial characteristics were defined by Beck, 1970, which are how dense the space is, the space’s delineation, its direction (vertical or horizontal), and the inclination towards right or left in horizontal spaces and towards up or down in vertical spaces. The density of space was defined comparing the contradictions between diffusion and density, in the space. Delineation also denotes the bounded spaces, opposing the inward or outward open spaces, allowing free movements.

Another important factor is the space **color**, which also is related to many other issues, including cultural variations and demographic factors, as well as the type of building, which affects color use (Kaya and Crosby, 2006; Lang, 1987). In an investigation, in eleven different types of buildings, individuals’ color perceptions

and suggestions were studied. The buildings were including residential buildings, hospitals, shopping malls, hotels, factories, religious places, offices, schools etc. it was shown that individuals' knowledge and experiences with the building type or a particular building, and emotions, may affect the color suggestion (Kaya and Crosby, 2006).

Materials are other factors, influencing people's association. According to different building types, specific materials can be employed. For example, metals can be used in a technology museum or woods, in a small market, with selling specific objects Lang (1987). It is interesting to add that the type of materials employed in buildings, may affect the judgments of other peoples about the buildings' residents. For example, it was found that people who are living in concrete blockhouses were thought as cold whist wooden house residences were known to be warm and creative (Sadalla and Sheets, 1993).

To explain more about architectural style is another factor, influencing symbolic interpretations from buildings. It is important that the expected function of building to be consistent with its interpreted function, otherwise, it will not be able to the intended users and eventually loses its proper functionality. Furthermore, judgments can also be done about the buildings residents, according to the architectural style of them (Nasar, 1989; Nasar, Stamps and Hanyu, 2005).

- **Naturalness**

Naturalness is a term used to show priority of natural elements over built elements; the existence of vegetation, water or mountains versus commercial strips, industry poles, wires and signs, "an escape from urban pollution". Investigations reveal that natural areas are preferred while "areas with intense land uses such as industry" are

disliked. According to Kaplan and Kaplan (1989) people are able to clearly distinguish between and categorize natural and built scenes. Consequently, natural areas in comparison to those with "built features or perceived human intervention" are preferred. Lynch (1960) notes the significance of vegetation and water in this regard. He claims that planting or water body along a path strengthens its imageability and likability. He has reported that people have preferred longer distances in their daily trips due to passing along natural elements. Other studies also confirm his findings revealing the beneficial effect of natural elements on human experience (Ulrich, 1973; Evans et al., 1982). Izumi (1969) refers to the artificiality or naturalness of the materials and the associated meanings they could carry. He claims that using for example plastics that look like wood instead of wood, itself may have negative effects as they may put people in doubt or feeling of being fooled. Nasar (1998) also argues that content and form of natural elements involve in creating "associations and connotative meanings" and consequently preference for them. For instance, a park could be associated with lovers, recreation or leisure, accordingly bear certain meanings, and influence the response. Also "gradual changes; irregular and curved lines; continuous gradation of shape and color; irregular, rougher textures; smoother, less intense, less predictable irregularities; movement; and sound" within natural contexts result in preference. Moreover, naturalness has been affirmed that contributes to perception of order.

There is also another important factor of symbolic aesthetics, which is known as **nature of illumination**, including the direction, source, color and the level of illumination. It is known that women are more positively reactive to the warm colors, compared to men (Knez, 1995).

- **Upkeep**

Upkeep/civilities represent cleanliness, maintenance and safety while lack of upkeep is associated with dilapidation, dirtiness, weeds, poles, wires, signs and vehicles as well as physical incivilities, which create social disorder. Several researches show the significant preference for upkeep (Lynch, 1960; Nasar, 1989). In this regard, exterior maintenance of the buildings is of great importance. In retail scenes, for example, reducing the size and contrast of signs has been proved to increase the preference. In addition, elimination of utility poles, overhead wires, billboards and signs and including elements such as foliage, which are more favorable, as well as reduction in traffic flow could be effective in the evaluative response. Furthermore, care for physical civilities reduces fear of and actual crime.

- **Intensity of Use**

Intensity of use indicates the frequency an environment is used which depends on the qualities it offers such as the variety of functions it provides for people of diverse background or its level of safety as well as physical qualities, which are desirable like illumination levels at night and existence of vegetation during the day. Presence of people has been expressed to reduce fear of crime and encourages attending the environment (Nasar et al., 1994). Jacobs (1961) has referred to 'people appearing in different times' as an essential criterion for a lively environment.

- **Historical Significance**

Monuments and places of historical background, which carry memories and identity of people have remarkable significance as they could awaken favorable response (Lang, 2005). They could either be historic or look like; anyhow, it has been observed that people are in favor of them. Also, it has been asserted that people of different cities, when asked about their favorite places, they have mentioned historic

ones. Historical buildings also could be a landmark and contribute to the imageability of the place.

Moreover, factors including good maintenance, historical items and signs, open sights, and space arrangement gives coherence and consistency to the space, and since this coherence brings the state of being wealthier and affordability (from society viewpoints), it is more preferred by people (Nasar,2000).

2.5 Summary of Chapter

This chapter attempted to analyze the public open spaces and more specifically streets, as the most influential public spaces. It was mainly focused on aesthetic issues in order to realize the related qualities, which contribute to user preference in streets. In other words, physical characteristics of the urban space, which play role in attracting people and maintaining their attendance, were explored.

The introductory section explains the significance of streets and the role of relevant aesthetic qualities. Street is a public open space, thus in the second section public open spaces and the role of them in the society and its health, have been discussed. Based on the offered definitions by different scholars during years, different activities that public spaces could provide have been mentioned. Then, streets as one of the most important public open spaces, if not say the most important one, have been examined in the third section, referring to functions and forms. The major concern of this chapter, however, is aesthetic issues, which have been discussed in the fourth section. Based on the literature review on the opinions of various scholars which have contributed to the development of the subject, components of urban aesthetic have been extracted, which include Enclosure and Spatial containment,

Complexity, Diversity, Visual richness and Variety, Order, Harmony and Balance, Legibility, Clarity, Permeability, Continuity, Style, Naturalness, Upkeep, Intensity of use and Historical significance. These are the aesthetic qualities, which play effective role in the user preference of the space, and they have been discussed comprehensively, in order to determine how they playing their role. However, apart from aesthetic qualities there are other features, which play role in people preference of public spaces. So in the last section in a concluding manner, several features of urban spaces, which are important in people active attendance in public spaces, have been discussed. Based on the results attained from these studies, in the following chapter, the selected case study will be assessed.

Chapter 3

ANALYSING THE AESTHETIC QUALITY OF MEHMET AKIF STREET

3.1 Introduction

In this study, it is aimed to investigate the aesthetic qualities of public open spaces, through user preference. To perform this investigation, Mehmet Akif Ersoy Street, located in Nicosia- North Cyprus has been chosen to be evaluated as the case study, since it is one the most popular streets in North Cyprus, and is considered as the heart of the city the center of entertainment and shopping activities. In this chapter, the collected data and the analyses method of evaluation will be presented.

There are five main sections, in this chapter. First section is the introduction, which is followed by the second section, in which explanations will be given about the case study, its selection, the development history of it and the city of Nicosia and physical characters of the street. The third section, incudes discussions about the analyses methodology, in the fourth section, outcomes of analyses will be explained and finally in section five, summary of chapter will be presented.

3.2 Case Study Selection and Description

Being located in the crossroad of Europe, Asia and Africa, Cyprus is the third largest island of the Mediterranean Sea, after Sicily and Sardinia. Because of its importance and strategic location, many civilizations have lived there during centuries of its history (Doratlı, 2000).

Passing through the different periods of civilizations, various societies with diverse cultural economical and administrative conditions have lived on the island. Varieties of each of these conditions has influenced the region's physical environment and consequently the outdoor space use (Akartuna, 2000). After the war in 1974, the island was divided into two parts of northern and southern regions, which develop separately. Among the cities of both part, Lefkoşa (Nicosia), Gazi Magusa (Famagusta), Girne (Kyrenia) can be named (Doratlı, 2000).

Figure 3.1: Map of the Cyprus Island

3.2.1 General Information of Nicosia

Located in the center of the island (Figure 3.1), Nicosia, which is locally called as Lefkosia (in Greek) or Lefkosa (in Turkish), is the capital of the country. It was probably founded in 280 BC, on the site of ancient district of Ledra, and has been the capital city since the 10th century. Central location of Lefkosa made it a safer place

against the coastal attacks, and also, having comparatively shorter distances from other regions let the residents of island benefit from its facilities, bazaars, and markets (Akartuna, 2000).The city is currently (after the war), divided into two three parts; the northern (Turkish), the southern (Greek) and a buffer zone (see Figure 3.2). The northern part itself has two main regions of modern districts (developing) and the walled city, which is the historical and in fact the oldest part, backdating to the Venetian period (1489-1571), and including remarkable examples of medieval town planning.

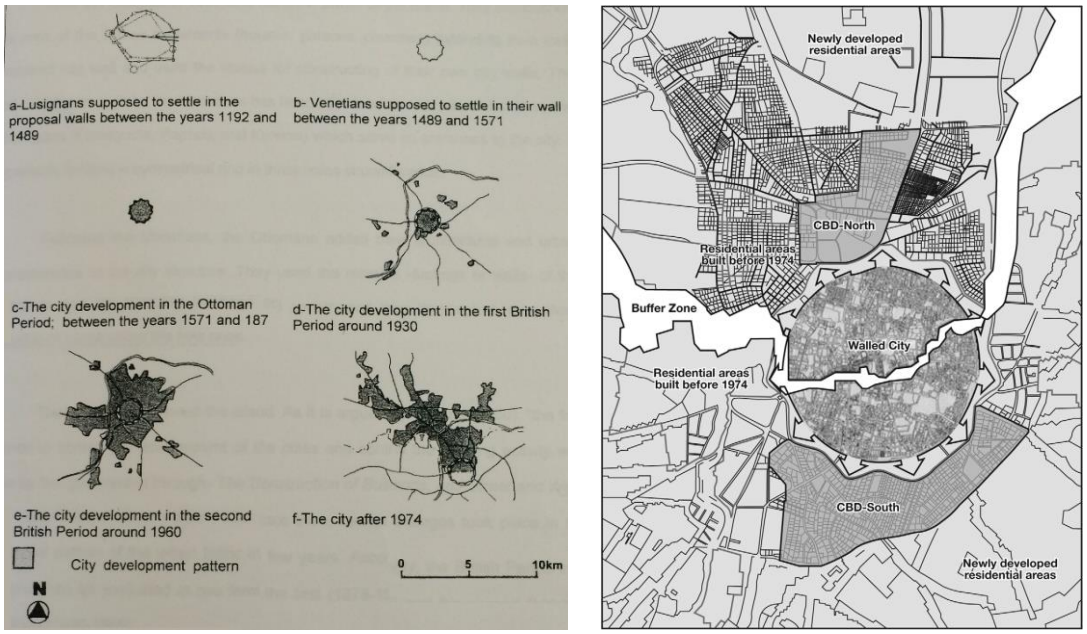


Figure 3.2: The development outline of Lefkosa from 1192 until now (Fasli, 2003)

At the elevation of 160 meters, the surrounding of the city is flat area, with some heights, observable in south direction of the city (Doratlı 2000).

Although the ongoing political situation in the island has caused years of apathy in the city, because of being in the central region and the capital of the country, it still

attracts people due to various purposes of employment, education, cultural activities, and etc.

The city of Nicosia was acknowledged as a conservation area, in 1989, in the Nicosia Master Plan. Being the country's capital for more than 10 centuries, it delivers the island's rich heritage, passing the centuries. In spite of the division, due to collaboration between the two sides of the city's planners and engineers, maintenance of urban facilities, infrastructures and services is continuing, along with future projects being planned, based on nowadays realities. (Fasli, 2003)

3.2.2 Development of Mehmet Akif Avenue

Mehmet Akif Avenue, which is also called Dereboyu, is known as the entertainment center of northern part of Nicosia (Figure 3.3). During the British ruling era, it was called the "Shakespeare Avenue". The avenue continues into the Green Line and the part of it located in the northern Nicosia is 1600 meters long (Wikipedia). The starting point of this avenue was at the corner of the old American cemetery, and went along the northern part of English barracks. It hosted its first houses, being built during 1910 (Baysal, 2003).

Figure 3.3: Location of Mehmet Akif Avenue

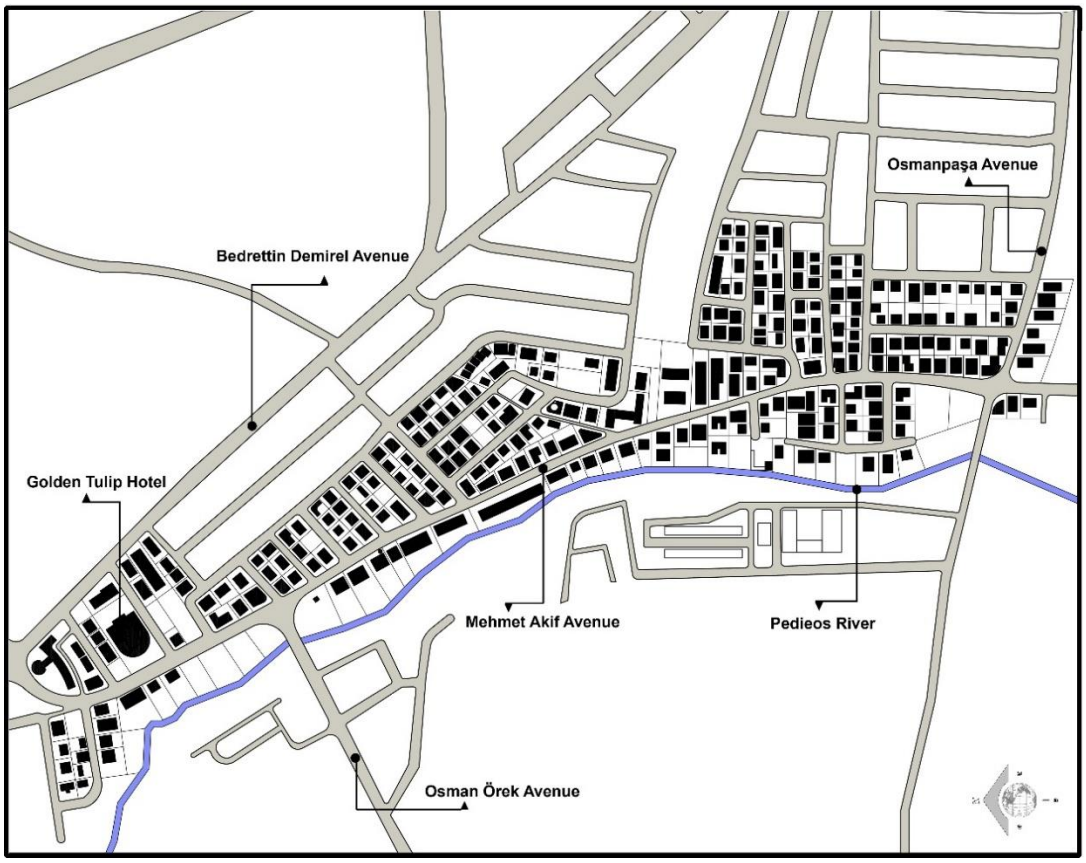


Figure 3.4: Mehmet Akif Avenue

In the Kithchener's map, which was plotted before 1960's, two main paths are observable, Mehmet Akif Avenue and Osman Pasha Avenue. In 1930's the avenue was just a path, and in fact the rapid development of it started after 1958 (Baysal, 2003). (Figure 3.4)

Numerous different activities are held in the avenue. Becoming the city's center of nightlife (mainly from 1990s), it hosts shopping festivals and concerts, as well as being the location of many bars and restaurants. Moreover, many official activities also take place, including demonstrations and marches, especially knowing that the Prime Ministry Junction is located in it.

Figure 3.5: Celebrating by people in Mehmet Akif Avenue

3.2.3 Physical Characters of Mehmet Akif Street

- **Function**

Various functions are considered for a single street, including a place of movement (for different users), accessing to transportation, to buildings, a public space, to respond different facilities and etc. Considering these facilities, Mehmet Akif Street can be grouped as a commercial street, because of having various retail destinations, and high level of social interaction for shopping and entertainment purposes.

- **Form**

A typical street is formed when all the surrounding buildings are designed desirably. Having both characteristics of a pathway and a place, specific features of scale, contrast, rhythm, proportion, connections to other streets or squares, should be considered for streets. Moreover, to analyze a street space polar qualities such as being straight or curved, long or short can be employed, in terms of which Mehmet Akif Street is a straight long street which is also moderate when considering its scale, rhythm, and proportions, apparently well- linked to squares and other streets.

- **Type**

Based on categorizations (in literature review), the space can be classified as a street, due to its low speed connectivity, providing frontage for higher density buildings such as shops, offices and restaurants, and having sidewalks. More specifically, Mehmet Akif Street is a commercial one, holding commercial centers and buildings, and a public space.

3.3 Methodology of the Analysis of the Case Study

Based on the wide literature review of chapter two, people's preferences are influenced by various elements, which are being listed in table 3.1, together with each one's importance and evaluation method.

The obtained parameters, from literature review, are analyzed in the case study of Mehmet Akif Street, through the users' preferences, generating both formal and symbolic aesthetic qualities. These analyses are important and should be considered especially for improving and suggesting better solutions for the available urban spaces.

The analyses are performed at two levels and each level includes three sections;

- **Level 1: Analysis of Formal Aesthetic**
- **Level 2: Analysis of Symbolic Aesthetic**

In addition, the three section:

1- Natural 2- Physical 3- Social

Natural analysis: These aspects are indeed important issues to be decided about, and to conduct this analyses the relevant parameters such as lightings, illumination nature and naturalness were explored through 1/5000 scale map and pictures of the Mehmet Akif Ersoy street.

Physical Analysis: Manmade environments and spaces are in fact legacies of people and are formed by them. From this perspective, different parameters of enclosure, continuity, spatial containment, diversity, novelty, order, visual richness, complexity, clarity, harmony, balance , naturalness, permeability, legibility, nature of illumination upkeep, intensity of use, style, building configuration, spatial configuration, materials and color have been explored, by going through.

Social analysis: To conduct this analysis, along with the documentary researches, a questionnaire was also prepared and distributed among people, to find out how much they agree with the quality parameter, their own preferences, and expectations from the avenue. Moreover, the problems of the avenue were also investigated and tried to be revealed through the questionnaire survey.

People who were selected and asked to participate in the survey were either locals, students or tourists. The survey was including 26 questions, and was carried out in a selected area. Total number of 100 people were participated in the survey. 60% of this group (50 participants), were residents, along the street and the remains were randomly selected people, during three days at different times and about 36% are the student that study in the Nicosia and the rest are tourists.

Table 3.1: Methodology of the Case Study Analyses, Developed by Author, 2014

Formal Aesthetic Components	Analyses	Tools
Enclosure • Spatial containment • Continuity	Figure ground Façade Analysis Observation	Maps Photographs 3D
Complexity • Novelty • Diversity • Visual richness	Façade analysis Social analyses Observation	Maps Photographs 3D
Order • Clarity • Harmony • Balance	Building height analyses Façade analysis Observation Social analyses	Maps Photographs Street section
Legibility	Lynch analysis Social analyses Observation	Maps Photographs
Permeability	Traffic and transportation analysis Social analysis	Maps Photographs
Symbolic Aesthetic Components	**Analyses**	**Tools**
Style • Building configuration • Spatial configuration • Material • Color	Observation Figure ground Façade analyses	Photographs Maps 3D Façade elevation
Naturalness • Nature of illumination	Vegetation analyses Observation Social analyses	Maps Photographs Graphs
Upkeep	Social analysis Observation	Photographs Graphs
Intensity of use	Land use analyses Social analyses	Maps Graphs

3.4 Analysis of Aesthetic Characters of Mehmet Akif Street

According to the methodology of the Analysis in the Case Study, analysis has been performed in two terms.

- Analysis of Formal Aesthetic
- Analysis of Symbolic Aesthetic

3.4.1 Analysis of Formal Aesthetic Characters of Mehmet Akif Street

- **Enclosure, Spatial Containment, Continuity**

As aforementioned, the factor of enclosure is known to be an essential actor, in evaluating the peoples' preferences, and also for streets to generate desirable feelings. In this regard, defined open spaces are always preferred to both wide-open spaces and to the highly enclosed ones. Moreover, considering street spaces, spatial restraints (contaminants), are usually referred as attractive visual experiences.

In this research, this factor is evaluated by figure ground map, 3D models and observations. Alongside the case study street, no designed floorscape, landscape designing and street furniture can be found.

Moreover, lacking properly designed trees and vegetation, to create spatial containment and enclosure is a significant weakness. Lack of adequate lighting patterns is an obvious weakness of the street. The ratio of width of the street to the height of the surrounding buildings is appropriate in two sides of the street (Figure 3.6). This issue is also considered in the newly designed buildings, except from Golden Tulip hotel (Section A.A), referred as one of the city's landmarks. In the next section, placement of buildings and appropriate ratio of height of surroundings to the street are described.

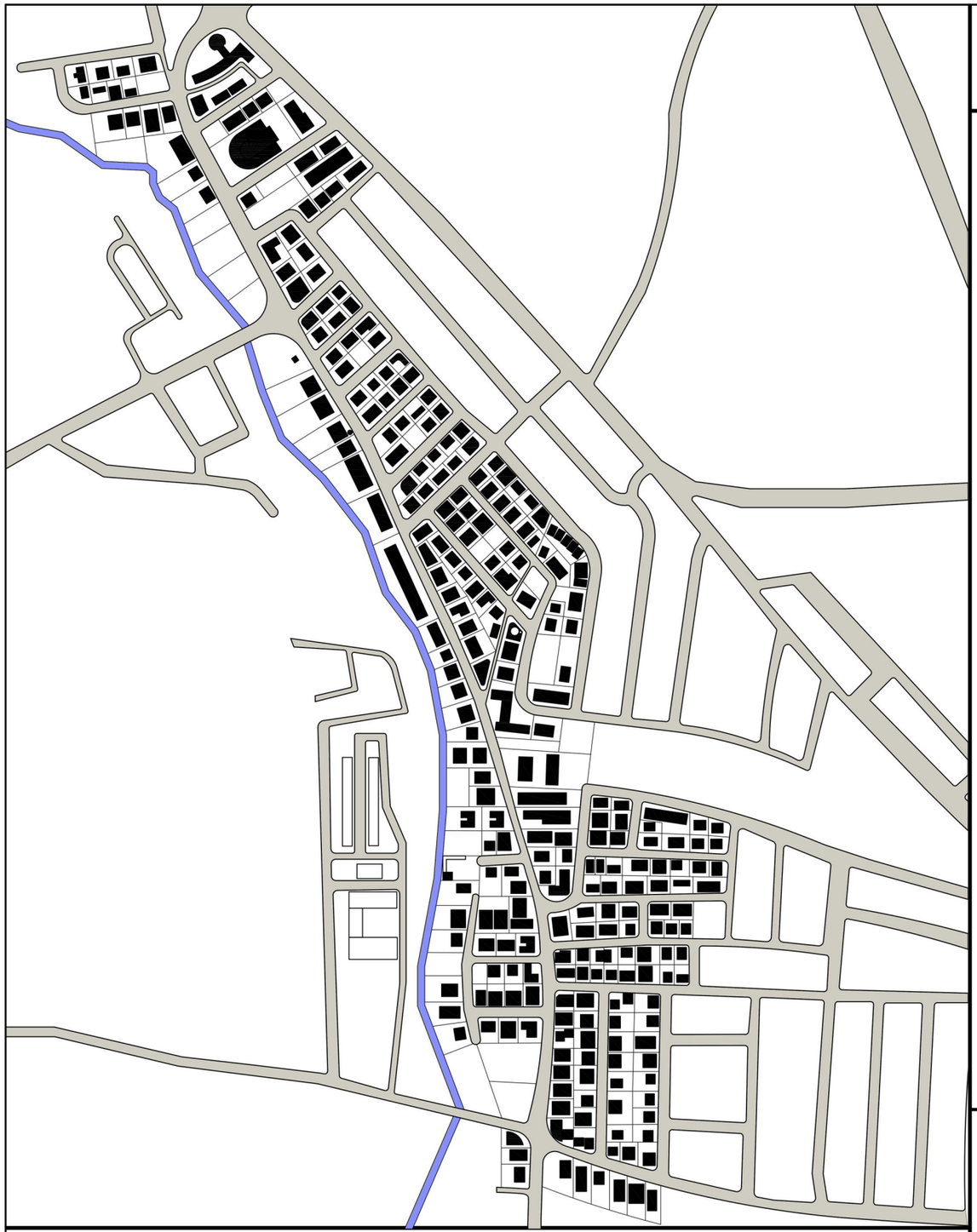
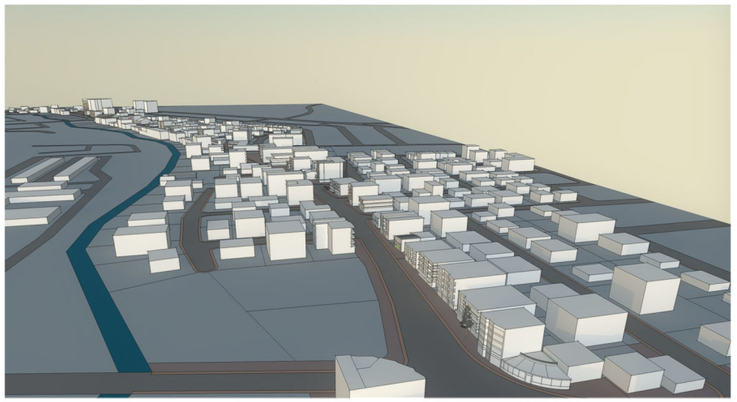
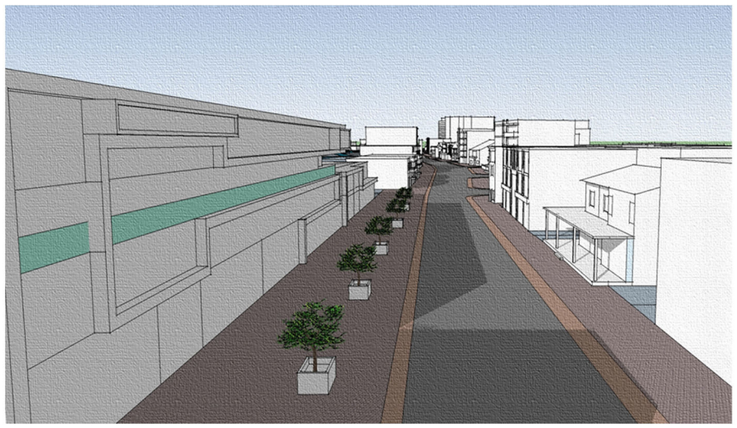
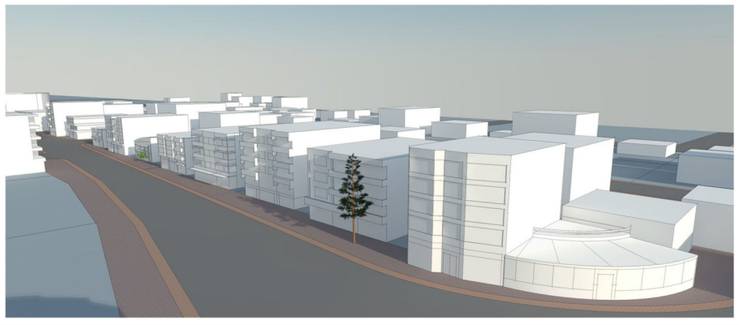


FIGURE GROUND **SCALE 1:5000**

Analyzing the Aesthetic Quality of Street through User Preference: A Case Study of Mehmet Akif Ersoy Street, Nicosia, Cyprus







From the figure ground map It is clear that,The buildings in Mehmet Akif Street are usually compact and only a little space to reach behind the buildings is intended, which makes the street more complex, in addition Most of building has a regular shape and usually rectangular.

Formal Aesthetic Components
Enclosure
Spatial containment
Continuity
Complexity
Novelty
Diversity
Visual richness
Order
Clarity
Harmony
Balance
Legibility
Permeability
Symbolic Aesthetic Components
Naturalness
Nature of illumination
Upkeep
Intensity of use
Style
Building configuration
Spatial configuration
Material
Color

Figure 3.6: Figure Ground Analysis

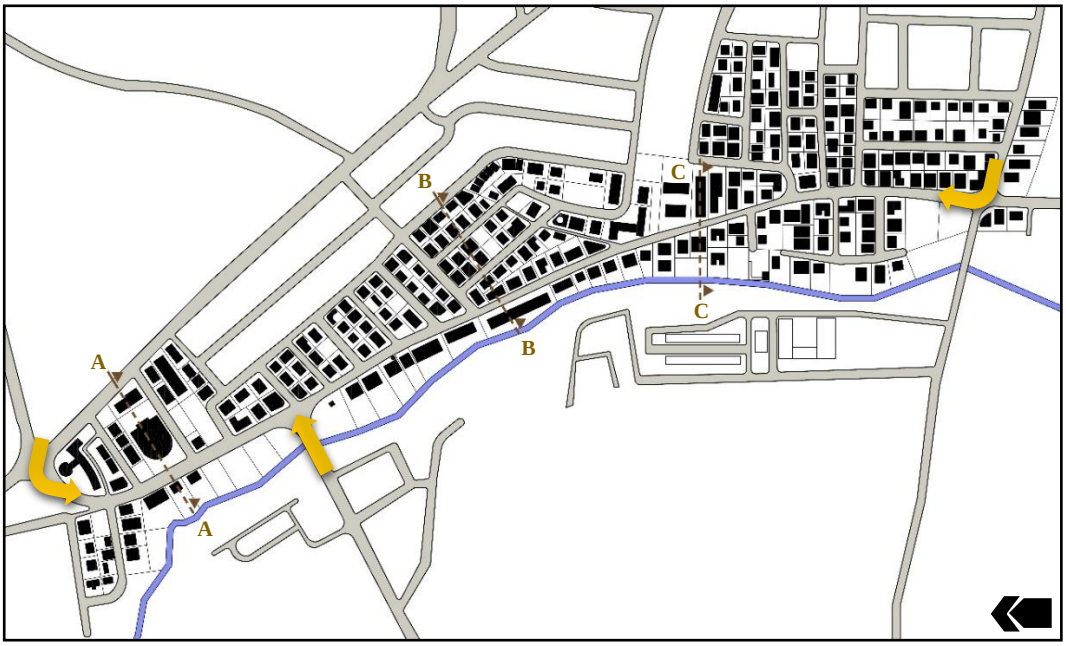


Figure 3.7: Street sections points

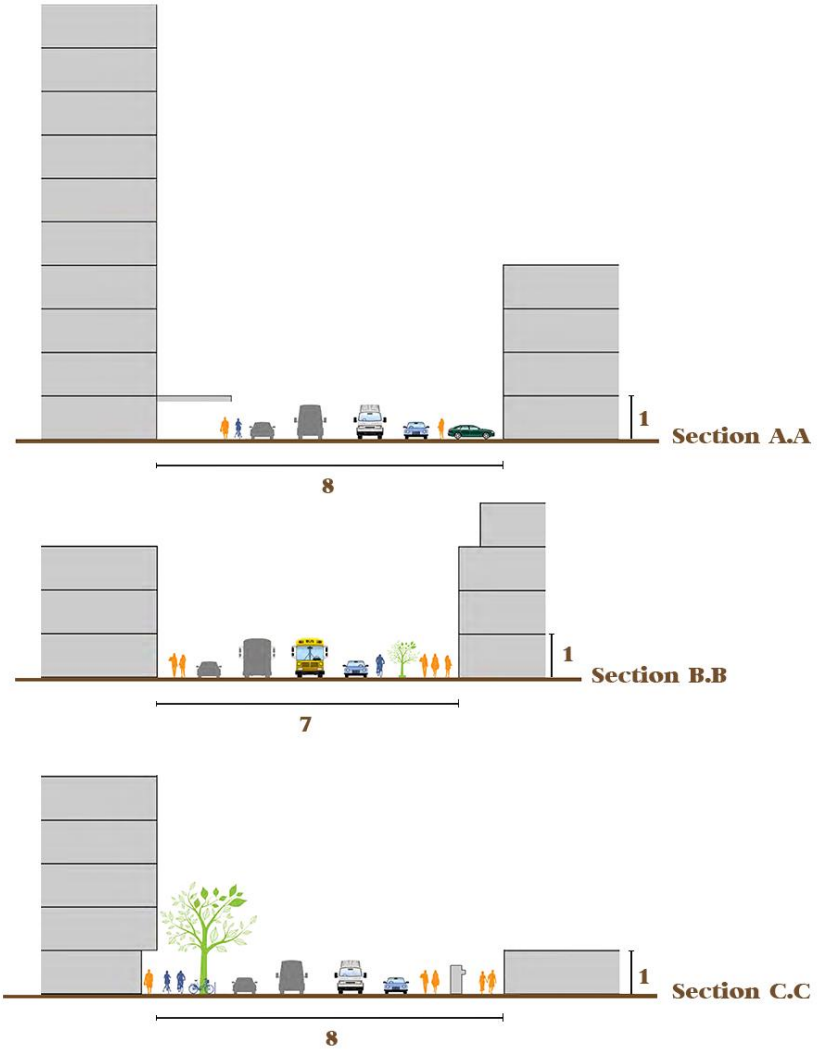


Figure 3.8: Sections along the Mehmet Akif Street (1= 3m)

Continuity is also another factor, which helps improving the coherence between the distinctive parts of spaces, and lets them become more interconnected. Therefore, it contributes in giving the unique identity to the space, obtained through façade analysis, and creating the complexity. In the case study, the factor of continuity is well kept in the edges and surfaces, like skyline, setbacks (Figure 3.6). The distances between rhythmic repetitions and nearness of buildings, are more or less harmonic and considerable similarities can be noticed between buildings in the street. (Figure 3.9)

Figure 3.9: continuity and rhythmic options in Mehmet Akif Street

- **Complexity, Novelty, Diversity, Visual Richness**

Façades arrangements are known to be more influential, on the space users' judgments and perceptions, compared to spatial and massive elements, according to the reviewed literature, indicating the fact that complexity is essential in design review. Undoubtedly, when buildings has a variety in shape, color, or material, Greater diversity is created in the space. This fact can be referred and considered in the new constructions in Mehmet Akif Street, which are shown in Figure 3.10. In this research, façades of the buildings are concentrated specifically. Which can be reviewed by analyzing the buildings' façades, in both sides of the Mehmet Akif Ersoy Street, as shown in Figure 3.11.

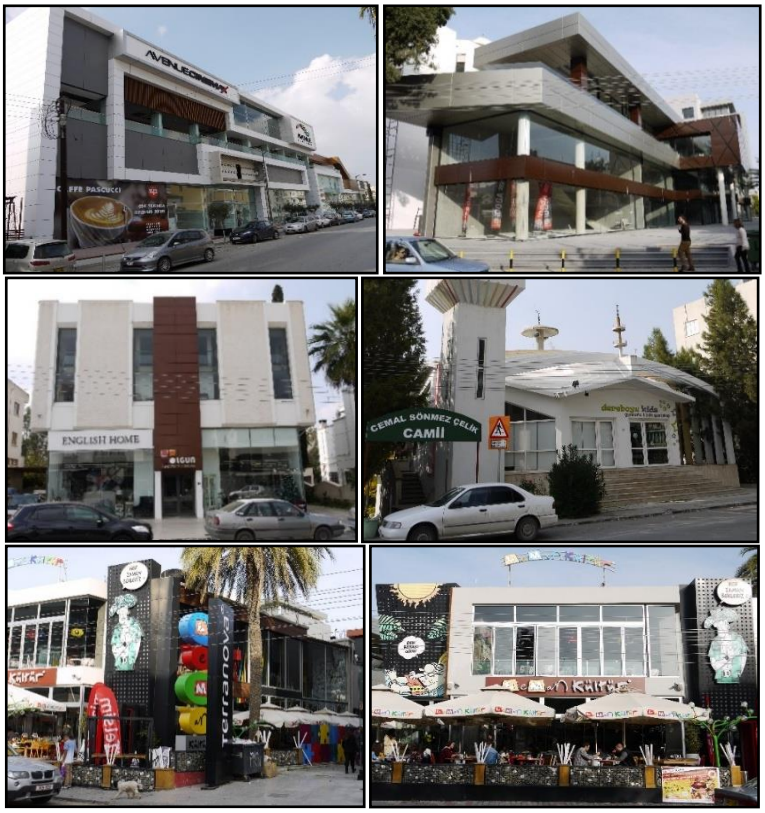


Figure 3.10: Different materials and buildings style that used in Mehmet Akif Street

There are various methods to determine the level of complexity. As for what preferred by the locals, they might prefer familiar scenes, because of their familiarity. On the other hand, a novel scene derives more interest. Indeed deficiency of novelty and diversity of elements in Mehmet Akif Street could decrease the complexity, therefore cannot create visually interesting and pleasant views. Based on the results from the questionnaire survey, more than 50% of the participants agreed the designing the facades are fair, and most of the locals are gratified with the complexity in the street.

According to the land use analysis, diversity in function and multi-purpose is more or less defined in the street. In the following section, the various functionalities of buildings' ground floors will be explored (Figure 3.12).

Eastern part of the street

Western part of the street

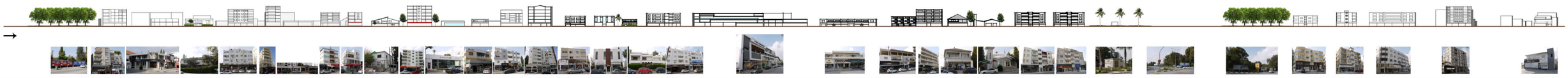
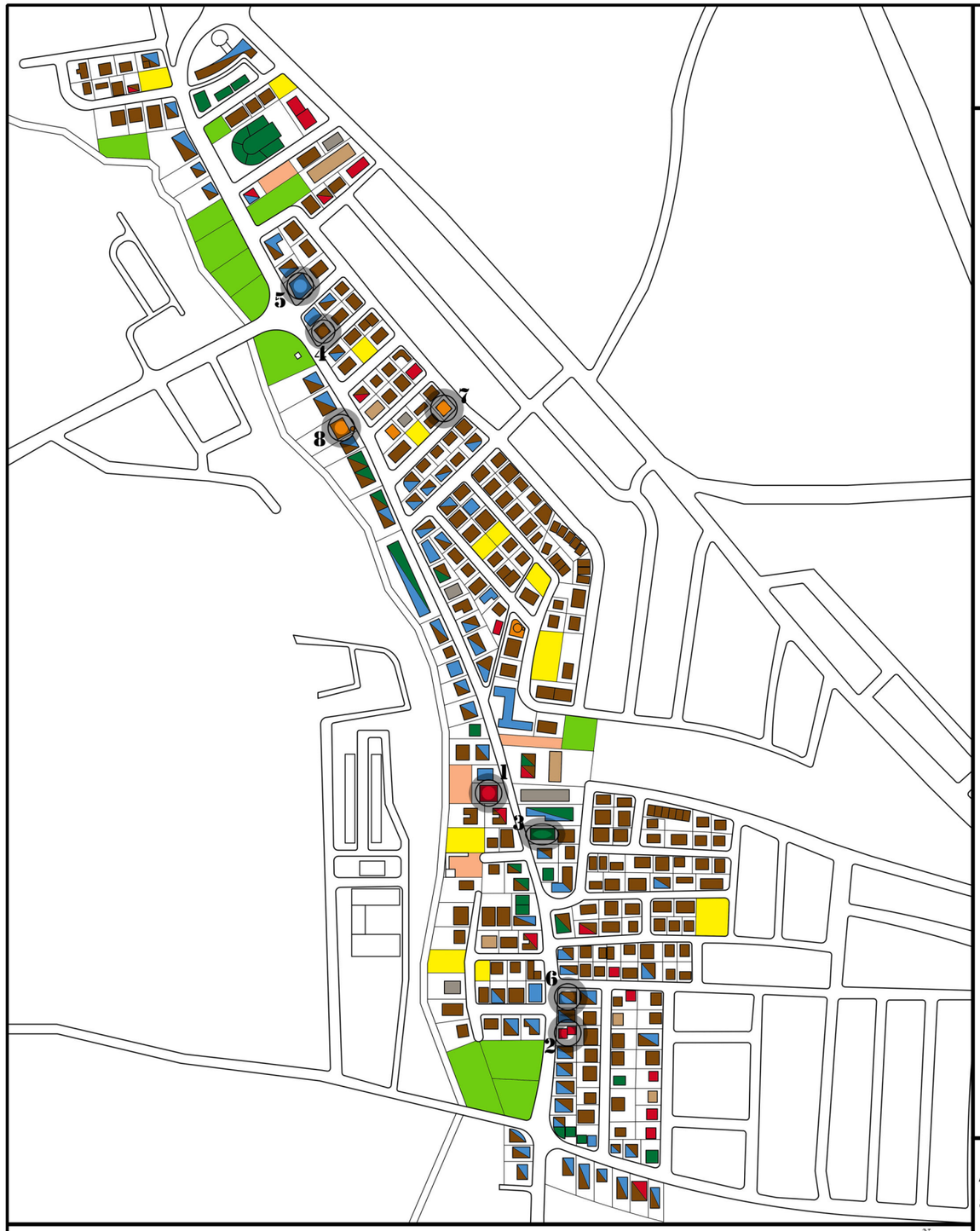


Figure 3.11: Facade Analysis



LAND USE ANALYSIS

SCALE 1:5000

Analyzing the Aesthetic Quality of Street through User Preference: A Case Study of Mehmet Akif Ersoy Street, Nicosia, Cyprus

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According to the land use analysis , it is resulted that the street act as a commercial street due to large amount of shops, restaurants and coffee shops, and also some other activities that makes more diversity and intensity of use in Mehmet Akif street.

Formal Aesthetic Components
Enclosure
Spatial containment
Continuity
Complexity
Novelty
Diversity
Visual richness
Order
Clarity
Harmony
Balance
Legibility
Permeability

Symbolic Aesthetic Components
Naturalness
Nature of illumination
Upkeep
Intensity of use
Style
Building configuration
Spatial configuration
Material
Color

LEGEND

- Residentioal
- Retail
- Office
- Leisure
- Community Service
- Public Utility
- Open Land
- Green Area
- Under Construction
- Ruined

Figure 3.12: Land Use Analysis

- **Order, Clarity, Harmony, Balance**

It has been perceived from the literature that factors and characters such as compatibility, rhythm, and proportion between the buildings' facades, and familiarity might affect the perception of order. Façade analyses of the case study's buildings revealed a moderate balance and harmony, kept through elements such as employed materials, repetitions, grids, structural frames, proportions (Figure 3.11), and height (Figure 3.15). On the other hand, signs of improper organizations of colors, shapes and textures are delivered, even though people's satisfaction level was indicated to be high, according to the questionnaire survey outcomes (Figure 3.13).

Figure 3.13: Improper organizations of colors, shapes, and textures

Harmony and Balance, according to its definition, is specifically described as the ordering forms, relevant to harmony, between visual scenes, in a street. Although the connections between the visual parts of Mehmet Akif Street are not perfectly made, a coherent whole is formed as a result of these visual parts being fit together. (Figure 3.14).

Figure 3.14: Harmony between the buildings in Mehmet Akif Street

Although proper organizations can be observed in colors, textures, surface inclinations and street structure, these elements together with illumination and shadowing are not effective on obtaining proper clarity in the environment. According to the survey, about 60% of participants stated that these qualities are fair, and 33% mentioned them to be poor. (Figure 3.15)

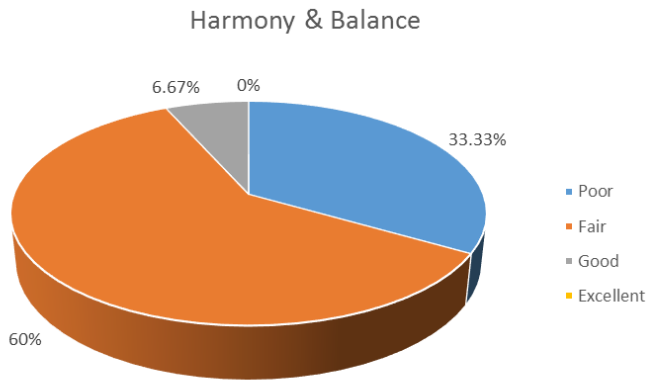
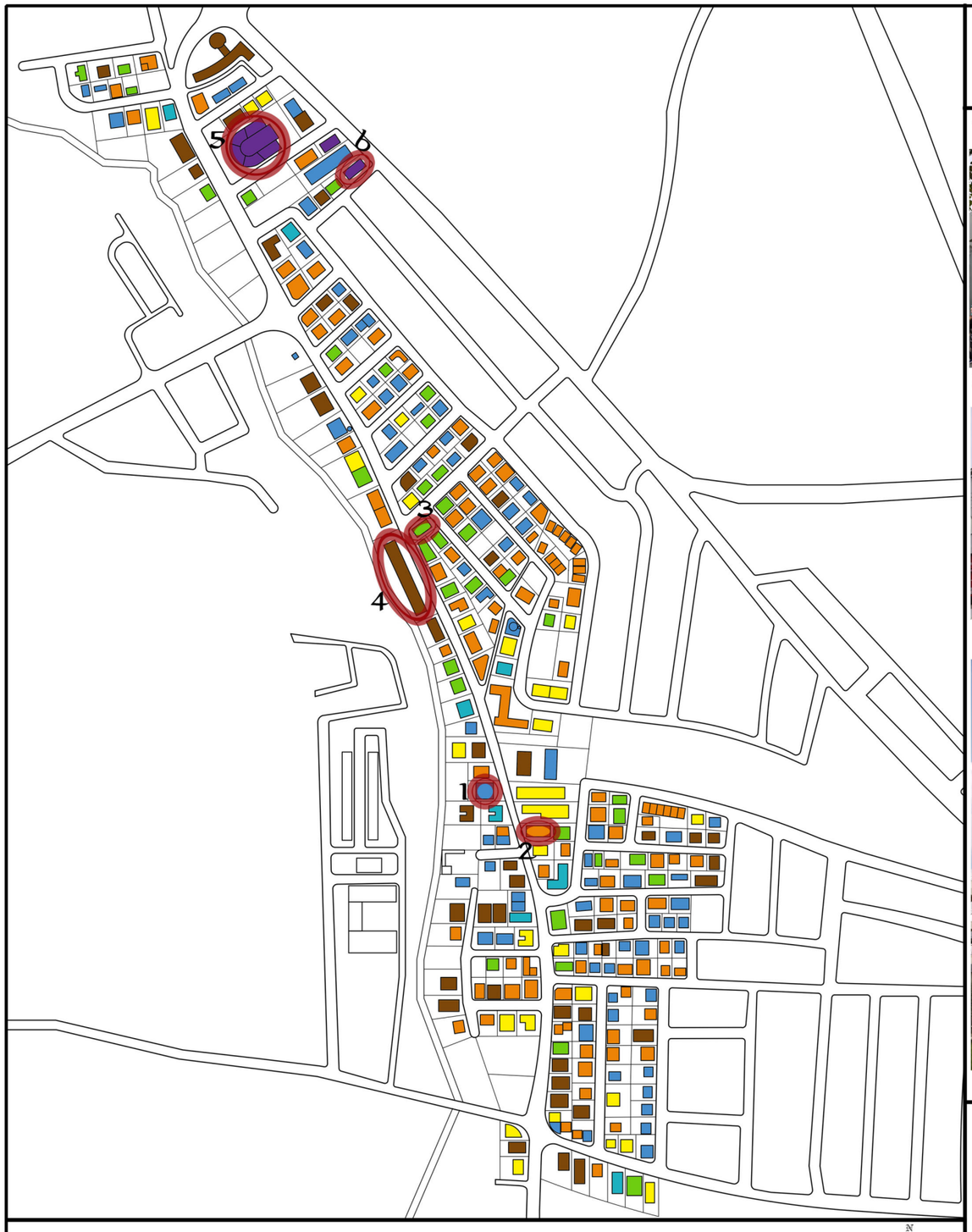


Figure 3.15: Percentage of satisfaction from harmony and balance



Analyzing the Aesthetic Quality of Street through User Preference: A Case Study of Mehmet Akif Ersoy Street, Nicosia, Cyprus

Building height analysis shows that the majority of buildings along the Mehmet Akif Street are between 2- 5 storey , it has just five building in the face of the street that it has 6 storey and the Golden Tulip Hotel which is the tallest building among the street. it means that it has a kind of harmony in the height of the buildings.

Formal Aesthetic Components
Enclosure
Spatial containment
Continuity
Complexity
Novelty
Diversity
Visual richness
Order
Clarity
Harmony
Balance
Legibility
Permeability

Symbolic Aesthetic Components
Naturalness
Nature of illumination
Upkeep
Intensity of use
Style
Building configuration
Spatial configuration
Material
Color

LEGEND

- One Storey
- Two Storey
- Three Storey
- Four Storey
- Five Storey
- Six Storey
- Ten Storey and more

Figure 3.16: Buolding Heights Analysis

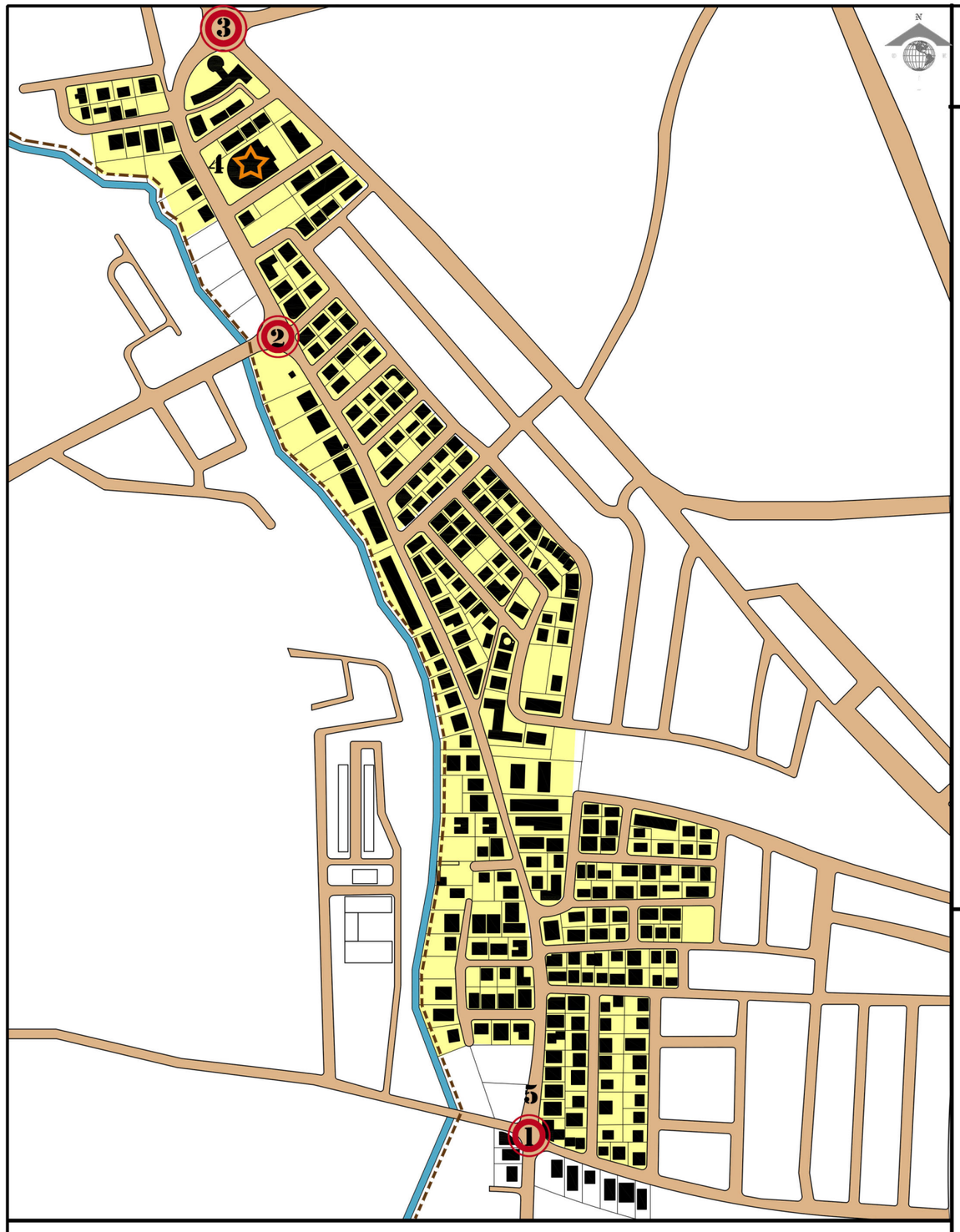
- **Legibility**

Lynch analysis method (Figure 3.17) is employed in this section, to evaluate the legibility. Accordingly, streets are commercial and places of entertainment, without any social nodes. Considering the case study, Golden tulip hotel was mentioned as the landmark, although not being obviously visible while walking along the street (Figure 3.17).

Figure 3.17: landmark view from the street

From physical legibility point of view, Mehmet Akif Street is not legible, according to the analysis. Moreover, due to the similarities between the street sides' buildings, having similar textures, colors, materials, etc., although people can find their way easily, there is no element in the street, giving a clear and accurate image to it. Therefore, people find it difficult to familiarize with it.

In a brief way, Mehmet Akif Street is not considered physical and activity legible, due to not being easy to find way in the street, and lack of particular uses, respectively.



Analyzing the Aesthetic Quality of Street through User Preference: A Case Study of Mehmet Akif Ersoy Street, Nicosia, Cyprus

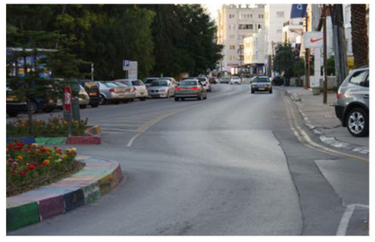
1 NODE

2 NODE

3 NODE

4 LANDMARK

5 PATH



6 EDGE

This map shows the Lynch analysis for determining the level of Legibility in Mehmet Akif Street. Edge of the street could be the Pedieos River that leads the construction of the West does not extend. Golden Tulip hotel as a tallest and biggest building could be the landmark for this street, and also due to its function. As shown in the map street has three node, which are acting just as a traffic node, therefore lack of social node could be the problem in legibility analysis. Street has small blocks and small district as well.

Formal Aesthetic Components
Enclosure
Spatial containment
Continuity
Complexity
Novelty
Diversity
Visual richness
Order
Clarity
Harmony
Balance
Legibility
Permeability
Symbolic Aesthetic Components
Naturalness
Nature of illumination
Upkeep
Intensity of use
Style
Building configuration
Spatial configuration
Material
Color

LEGEND

Edge
Path
District
Node
Land Mark

Figure 3.18: Legibility Analysis

- **Permeability**

As it is indicated in permeability analysis (Figure 3.19), the entrance of buildings in the studied street, those located in the eastern side, because of smaller blocks, sufficient physical permeability is received. On the other hand, due to the existence of Pedieos River in the western side some buildings have not adequate physical permeability, because of the big blocks. Considering the visual permeability, in most cases, no visual element are defined in the street. Moreover, according to the questionnaire, 50% of the participants rated the street as an accessible one. (Figure 3.19)

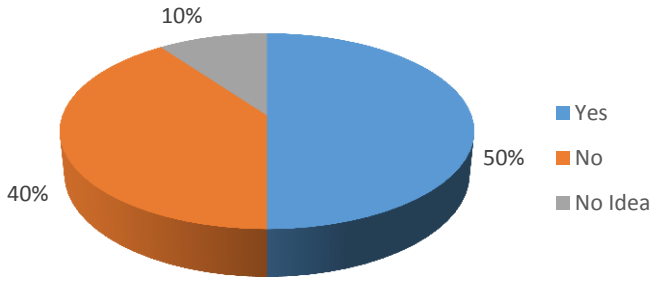
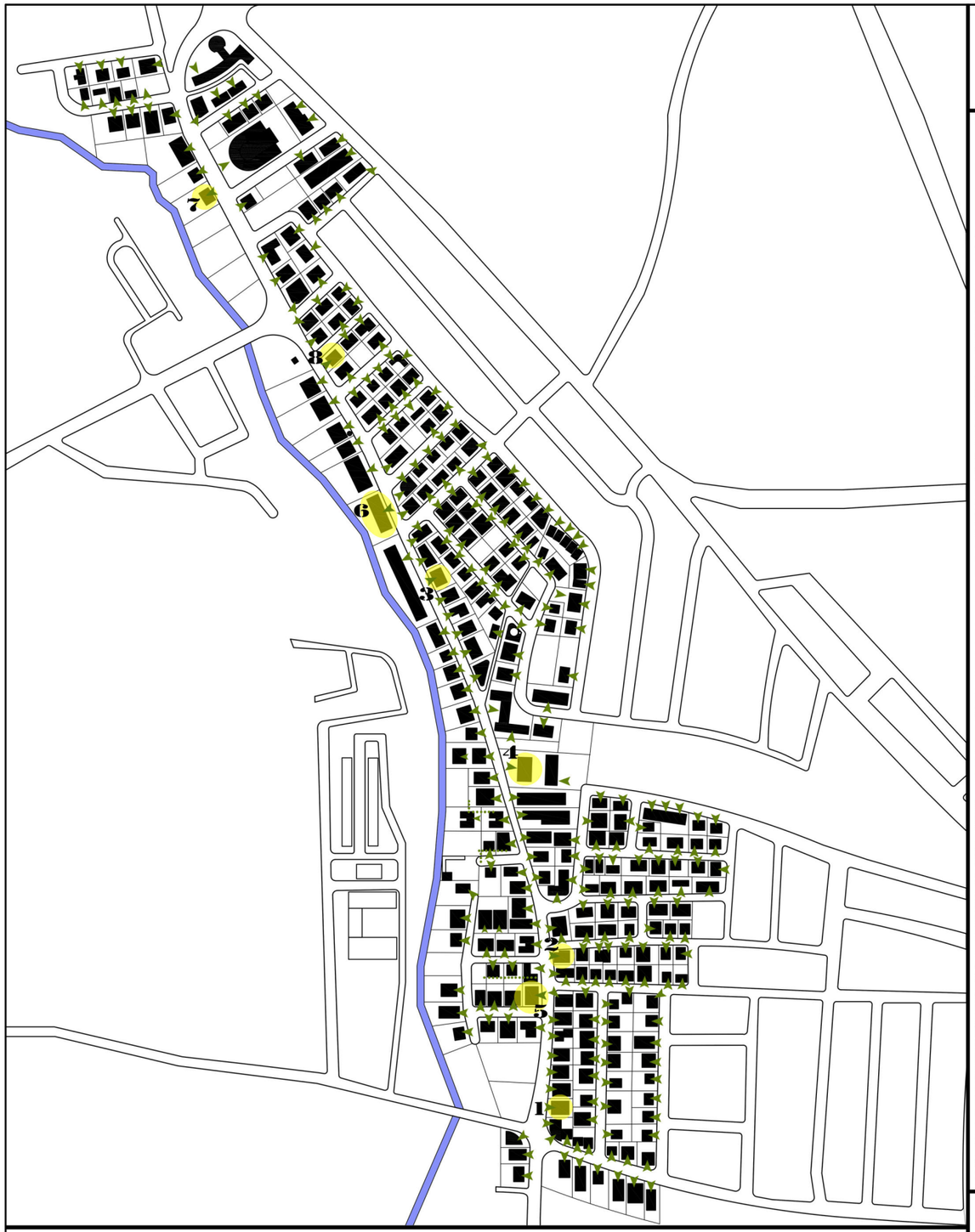


Figure 3.19: Percentage of Accessibility in terms of social analysis

Consequently, a good relation between the street and the city can be understood. Moreover, considering the street structure itself (Figure 3.21), the second part of the street is properly joint with the first part. Based on the results of questionnaire survey, 70% of the participants were complained about the public transportation to come to the street. In fact, a large proportion of people prefer using their own cars. As for the parking, almost all the participants complained about the poor parking spaces.

Analyzing the Aesthetic Quality of Street through User Preference: A Case Study of Mehmet Akif Ersoy Street, Nicosia, Cyprus



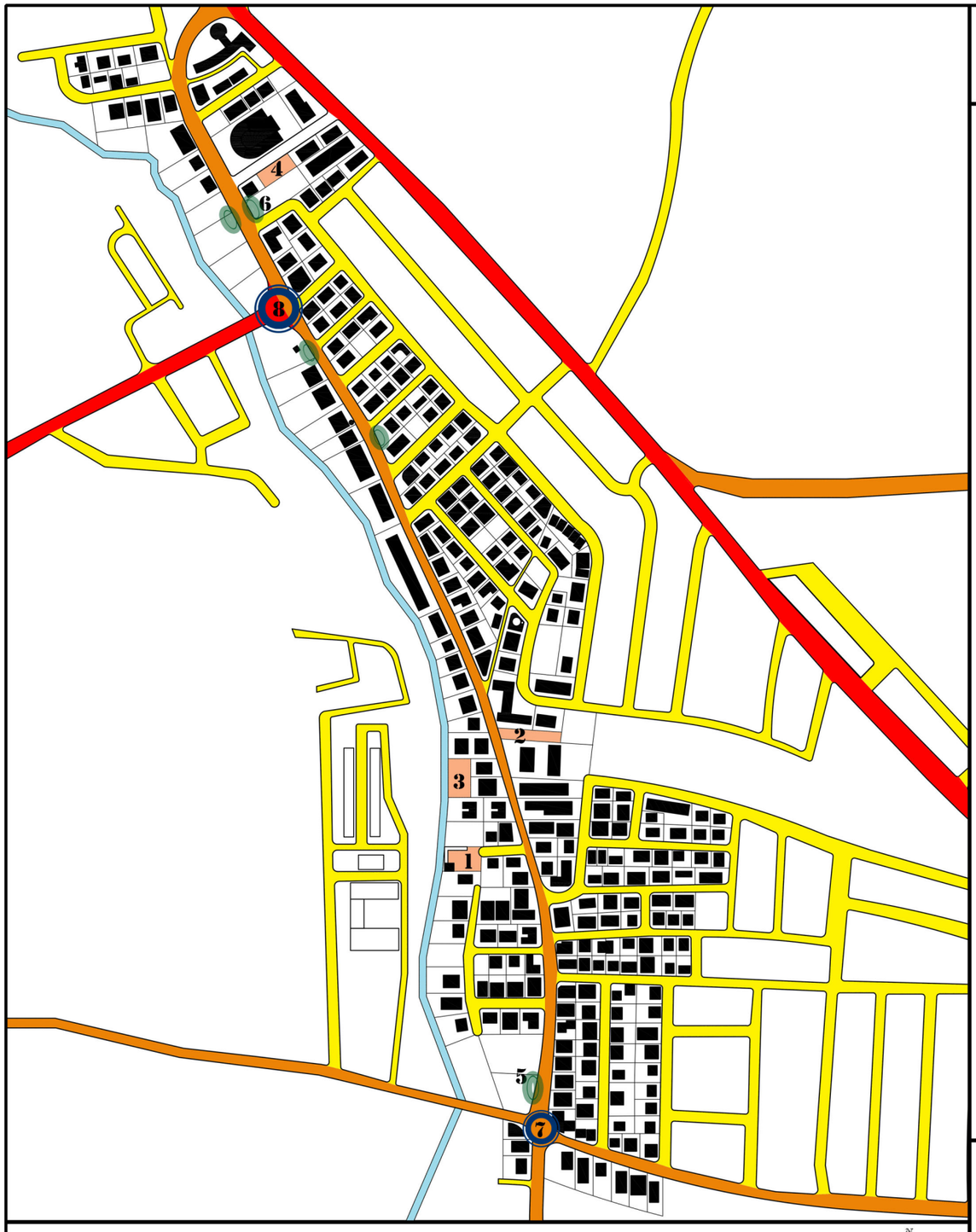
PERMEABILITY ANALYSIS SCALE 1:5000

This map shows the entrance of each building in Mehmet Akif Street, as the map shown street have good physical permeability in both side of the street.

Formal Aesthetic Components
Enclosure
Spatial containment
Continuity
Complexity
Novelty
Diversity
Visual richness
Order
Clarity
Harmony
Balance
Legibility
Permeability
Symbolic Aesthetic Components
Naturalness
Nature of illumination
Upkeep
Intensity of use
Style
Building configuration
Spatial configuration
Material
Color

➤ Building Entrance

Figure 3.20: Permeability Analysis



TRAFFIC & TRANSPORTATION ANALYSIS

SCALE 1:5000

Analyzing the Aesthetic Quality of Street through User Preference: A Case Study of Mehmet Akif Ersoy Street, Nicosia, Cyprus

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As is evident in the map the primary and secondary road has a good relation with each other and the whole city. but the parkings are not enough and has not a good location. also bus stations that shown with a green color doesn't have proper design area.

Formal Aesthetic Components
Enclosure
Spatial containment
Continuity
Complexity
Novelty
Diversity
Visual richness
Order
Clarity
Harmony
Balance
Legibility
Permeability

Symbolic Aesthetic Components
Naturalness
Nature of illumination
Upkeep
Intensity of use
Style
Building configuration
Spatial configuration
Material
Color

LEGEND

- Main Road
- Car parking
- Primary Road
- Bus station
- Secondary Road
- Crossroad

Figure 3.21: Traffic and Transportation Analysis

3.4.2 Analysis of Symbolic Aesthetic Characters of Mehmet Akif Street

- **Style**

The following factors are extracted from the literature review, to analyze the style:

Building configuration and Spatial Configuration

Based on the observations, similar building style, with particular shapes (almost rectangular) and patterns are visible in the building of the street. According to the ground map (Figure3.6) it is clear that the buildings in Mehmet Akif Street are usually compact and only a little space to reach behind the buildings is planned, making the street more complex and unified.

Building height analysis (Figure 3.16) shows that the majority of buildings along the Mehmet Akif Street are between two to five stories. In fact, only five buildings in the face of the street have six stories, added to the Golden Tulip Hotel, which is the tallest building along the street. Meaning that a kind of harmony is in the heights of the buildings.

From spatial configuration point of view, a clear description can be given for the space, with having both horizontal and vertical lines; in vertical and horizontal spaces, inclinations are towards up or down and right or left, respectively. Moreover, the density of the street is moderate.

Material and color

Pedestrians, which are narrow sidewalks in the street, are the main tools to think and perceive the building's façade; therefore, the main perception of façade of buildings in the studied street comes from the façade of first floor. First floor facades are mostly those of street front store, which are mainly made of glass, with soft edges (Figure3.24).The glassy façade, which is mainly colorful with commercial

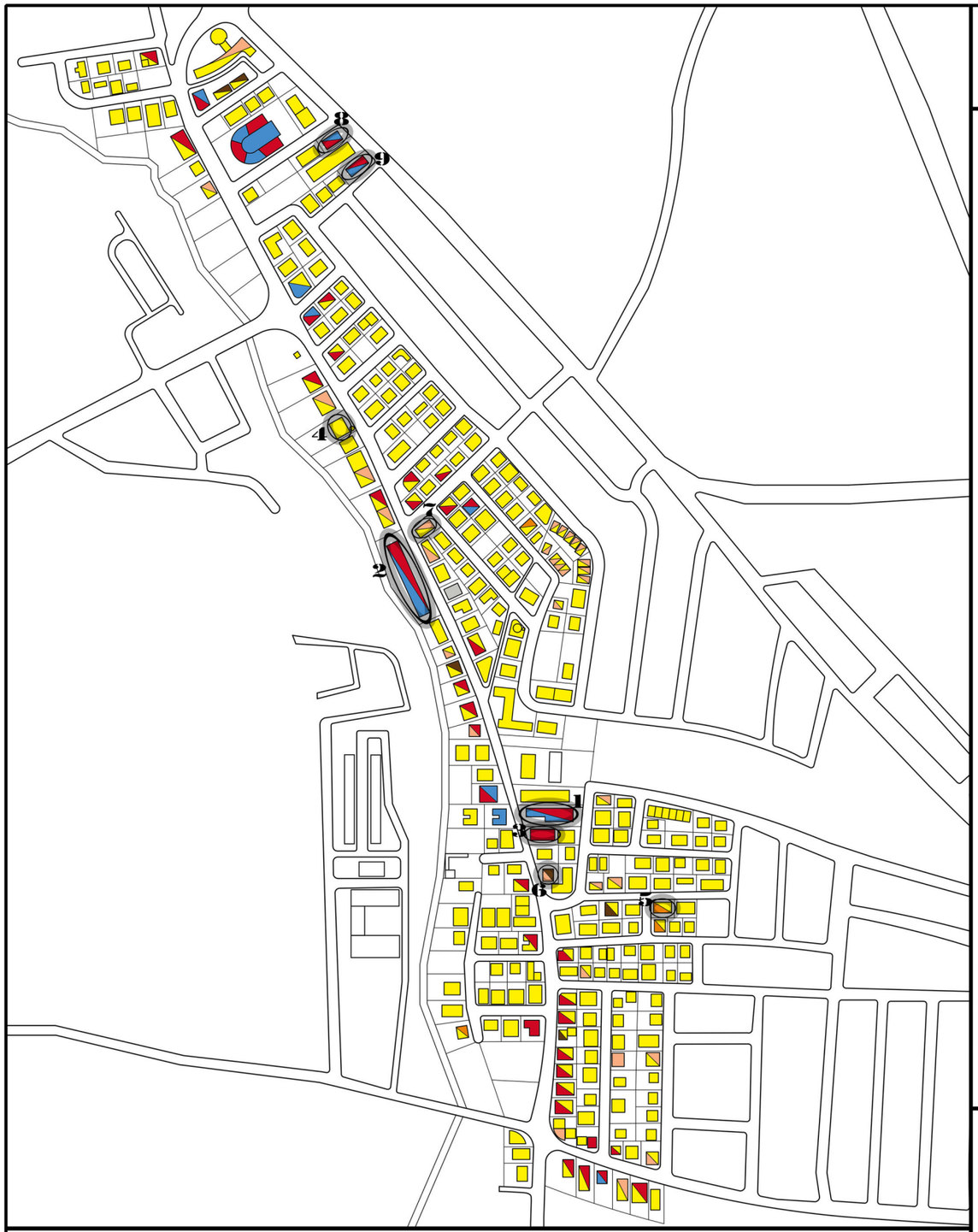
decoration, enables the owner the show the interior environment of the store and attract more customers. (Figure 3.22).

Figure 3.22: Colorful commercial design in Mehmet Akif Street

Facades of newly constructed buildings are mostly including advertisements; they are built in relatively large scales, with aluminum and glass as their main materials (Figure 3.23).

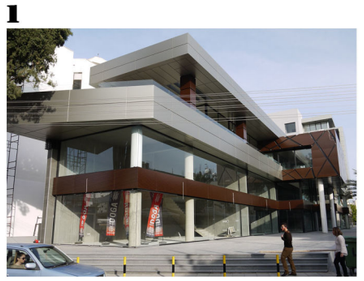
Figure 3.23: New construction in Mehmet Akif Street

Although most of the questionnaire survey participants were satisfied from the design styles, colors and materials employed in the ground floors of the street's buildings, a strong agreement was expressed by nearly all of them that the upper-floors' designs, materials and colors are poor.



BUILDINGS MATERIAL ANALYSIS (Ground Floor) SCALE 1:5000

Analyzing the Aesthetic Quality of Street through User Preference: A Case Study of Mehmet Akif Ersoy Street, Nicosia, Cyprus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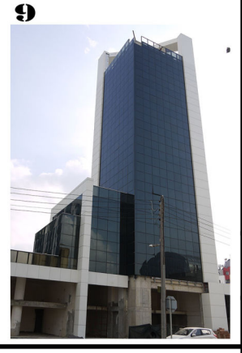
9

Facade analysis performed to achieve the amount of complexity and order in buildings material and color, according to analysis most of buildings located in bout side of the street using the glass and steel for ground floor to make a transparent facade. In upper floor, most of them are using concrete as vernacular material, and the less using stone and wood for decoration.

Formal Aesthetic Components
Enclosure
Spatial containment
Continuity
Complexity
Novelty
Diversity
Visual richness
Order
Clarity
Harmony
Balance
Legibility
Permeability
Symbolic Aesthetic Components
Naturalness
Nature of illumination
Upkeep
Intensity of use
Style
Building configuration
Spatial configuration
Material
Color

LEGEND

- Steel
- Brick
- Concrete
- Glass
- Wood
- Stone

Figure 3.24: Buildings Material Analysis

- **Naturalness**

This factor is evaluated through natural analysis and questionnaire survey. It was revealed that people mostly prefer to have daily trips with longer distances to observe more elements that are natural. 70% of the survey participants rated the street as a poor one in terms of natural elements and greenery conditions. Although some green areas could be observed in the street such as, trees along the Pedieos River (Figure 3.25), or Kumsal park which is blocked by inappropriate car parking design causing disconnection of main pedestrian path from the street (Figure 3.26).

As it shown in figure 3.27, due to lack of variety and poor design, they are not proper for public open space uses. Missing natural elements like water, heel, etc., within the area is also another additional reason for it to be considered as an inappropriate one.

Figure 3.25: Trees along Pedieos River

Figure 3.26: Kumsal Park and existence of Parking

NATURAL ANALYSIS

SCALE 1:5000

Analyzing the Aesthetic Quality of Street through User Preference: A Case Study of Mehmet Akif Ersoy Street, Nicosia, Cyprus

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As the map shows There are lots of trees along the Pedieos River , and some green land, that gives the opportunity to create green areas,however, they're not designed as a public spaces, furthermore Mehmet Akif street doesn't have any natural element or landscape designing in sidewalks for pedestrians.

LEGEND

GREEN AREA

TREES

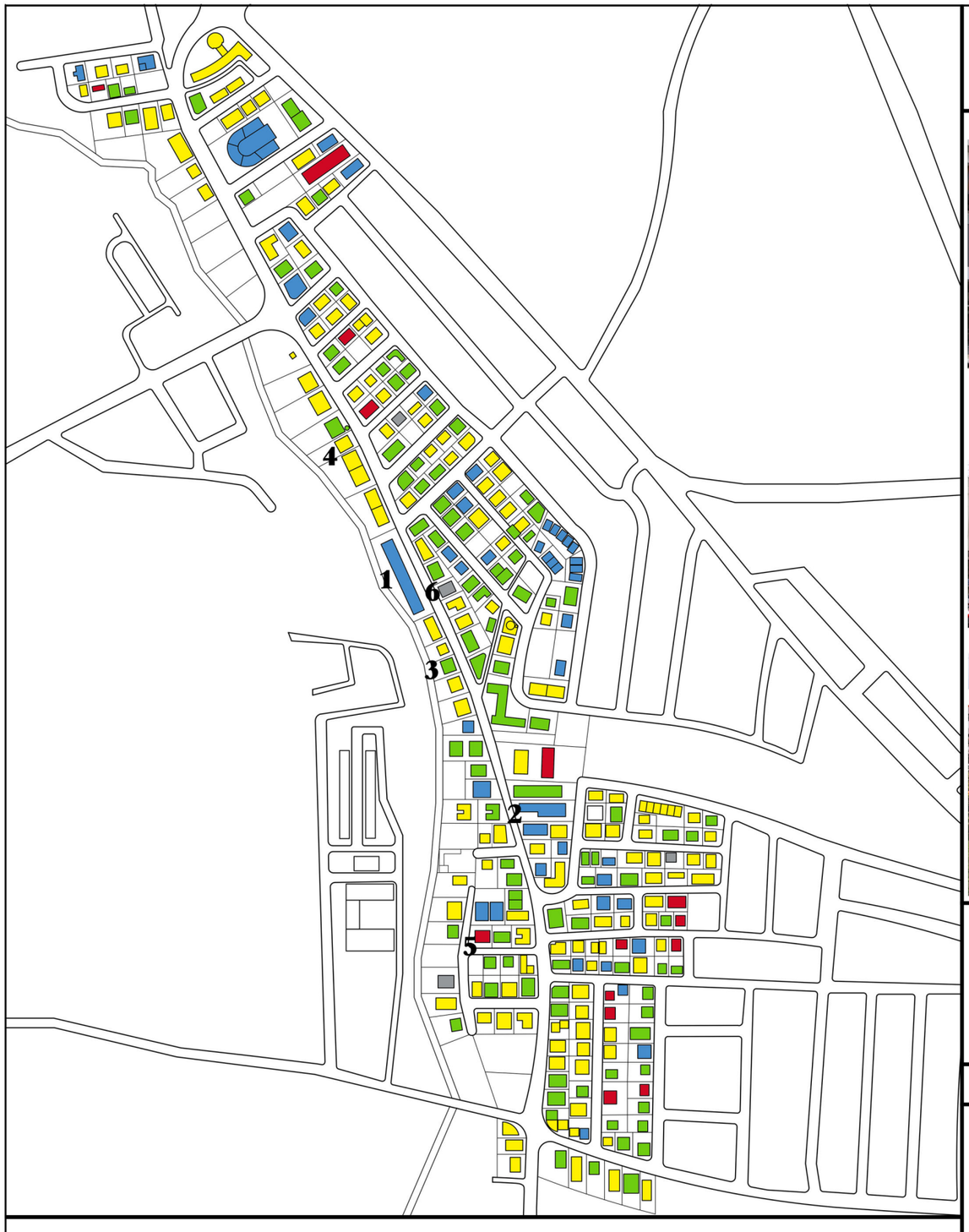
Formal Aesthetic Components
Enclosure
Spatial containment
Continuity
Complexity
Novelty
Diversity
Visual richness
Order
Clarity
Harmony
Balance
Legibility
Permeability
Symbolic Aesthetic Components
Naturalness
Nature of illumination
Upkeep
Intensity of use
Style
Building configuration
Spatial configuration
Material
Color

Figure 3.27: Natural Analysis

- **Upkeep**

Upkeep of an environment, as also mentioned in chapter two, can be evaluated through parameters associated with cleanliness, maintenance, and safety. As for the case study analyses, two separate parameters are the indications of upkeep, which are façade, the chilliness of the materials and qualities of shops signs, like contrast, size and etc, and the second one is maintenance of street, the pedestrian, landscaping, street signs, vegetation and the street's stripping. To perform the analysis, observations, façade analysis (Figure 3.29), and social analysis are employed. According to façade analysis, in the most cases that a building is facing the street, goof façade conditions are observed, however in some buildings, lack of preservation is a negative point affecting the visual perception of the street (Figure 3.28). Based on the questionnaire survey, most of the participants were satisfied with the building's façade and signs upkeep in the street, however a large group of them also complained about landscaping and vegetation upkeep. In terms of percentages 40% and on the other hand 36.67% of the participants marked fair and poor options, respectively.

Figure 3.28: Maintenance of buildings and pavements in the Mehmet Akif street



FACADE CONDITION ANALYSIS SCALE 1:5000

Analyzing the Aesthetic Quality of Street through User Preference: A Case Study of Mehmet Akif Ersoy Street, Nicosia, Cyprus

Analysing the facade condition is important due to the significant impact in the visual appropriateness of the street. It can be seen that the most of buildings which faced in the street has a good and fair condition and also some new buildings are constructed.

LEGEND

- Under Construction
- New Buildings
- Good Condition buildings
- Old building with preserved fasade (Fair Condition)
- Old building (Bad condition)

Formal Aesthetic Components
Enclosure
Spatial containment
Continuity
Complexity
Novelty
Diversity
Visual richness
Order
Clarity
Harmony
Balance
Legibility
Permeability

Symbolic Aesthetic Components
Naturalness
Nature of illumination
Upkeep
Intensity of use
Style
Building configuration
Spatial configuration
Material
Color

N

Figure 3.29:Fasade Condition Analysis

- **Intensity of Use**

Assessment of this parameter can be performed by social analysis and land use analysis (see Figure 3.12), to find the major function of each building in the street, understand the intensity of each activity and the surroundings urban environment. It is revealed that the ground floor of those buildings which are facing the street are mainly used for commercial or leisure purposes such as shops, coffee shops, restaurants and etc, along with a few other functions like accommodation (hotel), religious (mosques), educational and public services. This mixture of functionalities serves to improve the variety of the street and attract more visitors. Based on the questionnaire survey results, the highest intensity of using the street is in the afternoon, for shopping and at nights for leisure purposes (Figure 3.30). Commercial opportunities and land complexities cause more diversity (according to the results of land use analysis), although bringing more crowded urban life in the afternoons and at nights.

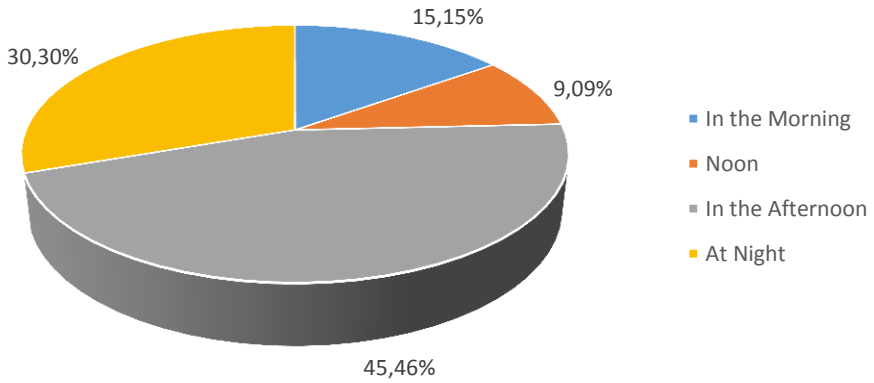


Figure 3.30: Intensity of use during the day

Considering to the analysis conducted in this section, Summary of the Chapter part will be demonstrate overall result of the study in the case of Mehmet Akif Street.

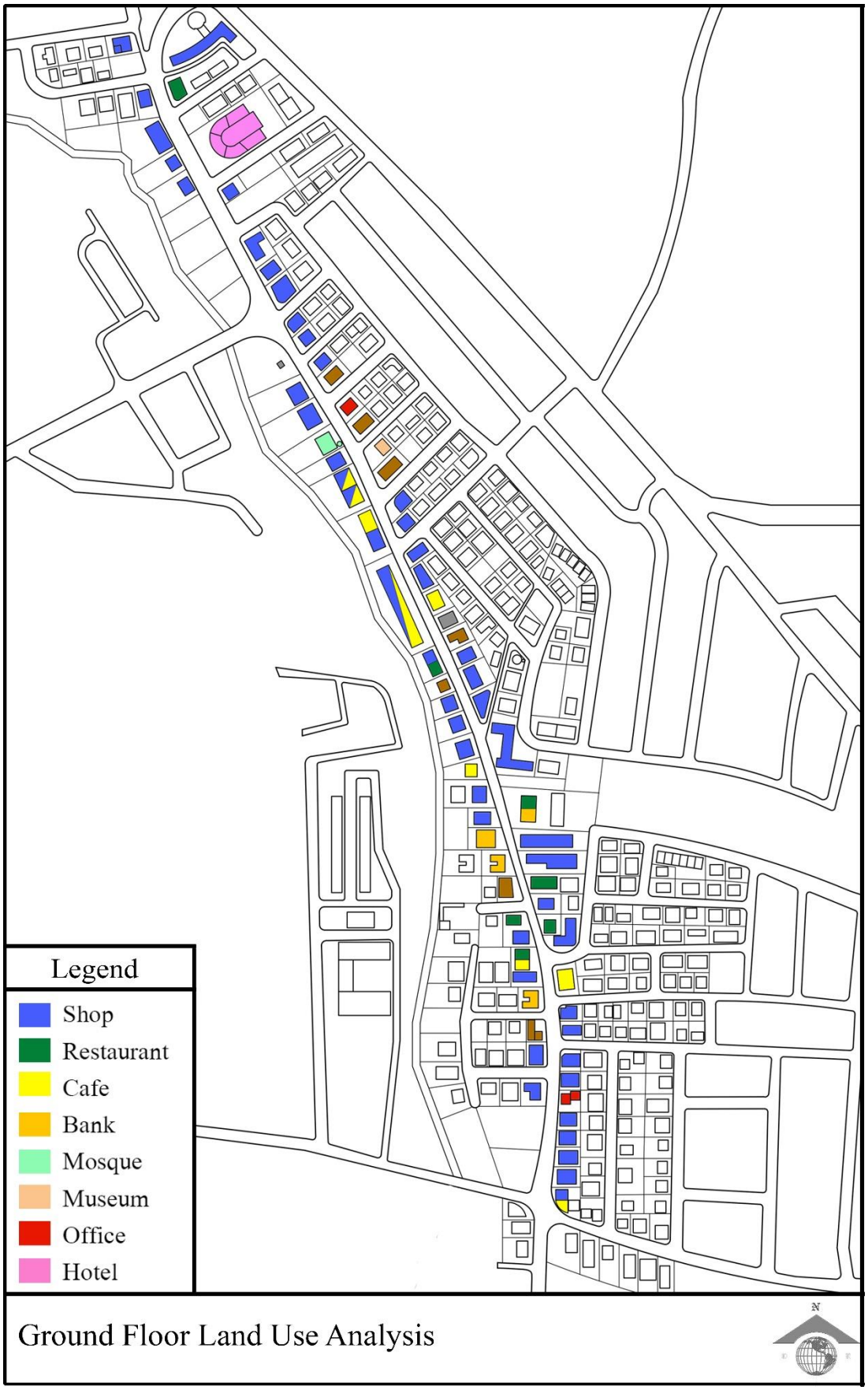


Figure 3.31: Ground Floor Land Use Map

3.5 Summary of the Chapter

Although continuity is kept well along the street, considering setbacks, skyline and path, weaknesses can be observed in terms of enclosure and spatial containment, especially in view of street furniture, ordered floor cape and vegetation, lacking resting spaces, plazas, or parks, for resting and relaxation.

In terms of complexity and diversity the street is somewhat qualifies, considering façade arrangement, building shapes, materials and colors. Although diversity is well qualified, in terms of visual richness and novelty, disqualifications are observed in terms of visual richness and novelty.

Evidences of the qualify balance and harmony in the street are the homological materials repetition, proportion, and structural frame. Proper organizations can also be seen in the street regarding surface inclination, colors, and textures improving the order in the street. However, visual scenes are not effective in giving clarity to the space.

Lacking public facilities and spaces is the major problem associated with the street. It worth referring to not having social nods, mentioned in the **legibility** analyses section. Other problems are mainly lacking street furnishing and landscaping, proper lighting, and spaces for people to stay for social activates (without having shopping or entertainment purposes).

As it is demonstrated, Mehmet Akif Street is quantitative regarding **permeability** analysis, the entrances of buildings in both sides have sufficient physical

permeability, and the good relations between the street and the whole city can be interpreted.

Particular shapes and patterns of the buildings indicate its building configuration, and in terms of spatial configurations, the street is moderate in density.

First floor facades are mostly in good conditions, with soft and colorful materials, because of the commercial advantages. However, in upper floor, some maintenances are needed. In general, style qualities are somewhat satisfied in this street.

Other weaknesses of the street can be counted as lacking natural elements, greenery, and shelters and landscaping, leading the street to be unqualified in terms of naturalness. Bearing the upkeep factor in mind, façade materials and shop signs cleanliness are good; however, there are weaknesses in terms of landscaping, vegetation, street stripping, and sidewalks.

Land use and social analyses give out the intensity if use of Mehmet Akif Street. Large portion of people use the street space for shopping in the afternoon and for shopping at night. Various functionalities helps in improving the streets intensity of use and make it qualified in this regard.

Accordingly, overall results of the formal and symbolic aesthetic analyses in Mehmet Akif Street are collected in Table 3.3 as follows:

Accordingly, overall results of the formal and symbolic aesthetic analyses in Mehmet Akif Street are collected in Table 3.3 as follows:

Table 3.2: Mehmet Akif Street aesthetic Quality Analyses, Developed by Author, 2013

Formal Components	Balance	**Somewhat Qualified**	**Not Qualified**
Enclosure		●	
Spatial containment		●	
Continuity	●		
Complexity		●	
Novelty			●
Diversity		●	
Visual richness			●
Order		●	
Clarity			●
Harmony	●		
Balance	●		
Legibility			●
Permeability		●	
Symbolic Components	**Qualified**	**Somewhat Qualified**	**Not Qualified**
Style		●	
Building configuration		●	
Spatial configuration		●	
Material	●		
Color	●		
Nature of illumination			●
Upkeep		●	
Intensity of use	●		

From social analysis point of view, the weakest point is lack of greenery and street furnishing (Figure 3.32).

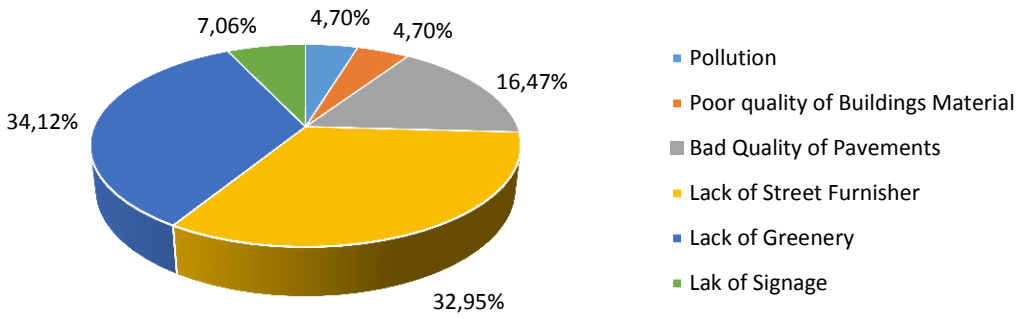


Figure 3.32: Negative Points of Mehmet Akif Street According to people perception

Along with the mentioned problems associated with the street, there are also advantages, which provide the opportunity of future development to the place. Good location of the street makes it easy to access for the people (Figure 3.20). In addition, large amounts of leisure and shopping centers (shops, restaurants, etc.) improves the variety of users, bring profit to the place, and also makes it a safer place, especially at nights, when the users can have their commercial demands provided.

The street is a commercial one, with its specific characteristics, which are emphasized by the famous brands shops, located in it. Livability and being multipurpose (providing various demands) are the most important considerations, according to the analysis and questionnaire survey results (Figure 3.33).

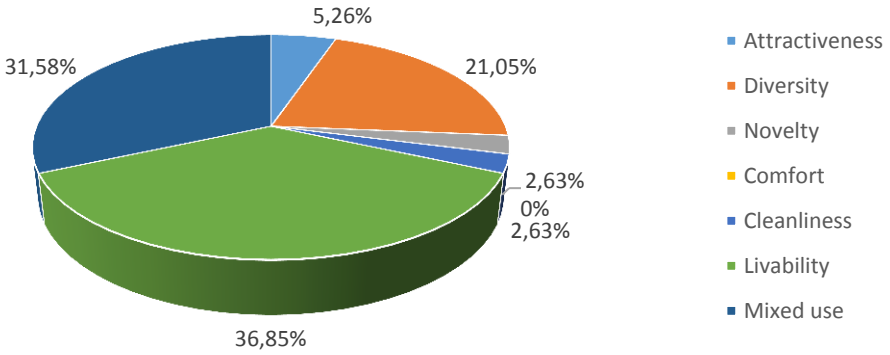


Figure 3.33: Important people Consideration in Mehmet Akif Street in terms of aesthetic quality

To sum up, according to the social analysis, around 66.67% of the participants unsatisfied with the street's aesthetics quality, while about 43.33% re relatively satisfied. In the next chapter, conclusions will be made according the analyses and their results, and subsequently some suggestions will be given to improve the quality of the street.

Many of the problems associated with the commercial street of Mehmet Akif Street, which is a commercial street, are found, and counted in this chapter.

Chapter 4

CONCLUSION AND RECCOMENDATIONS

Streets are believed to be important urban spaces, which are significantly effective on the quality of people's lives, both positively and negatively.

In the city of Nicosia, one of the most remarkable places is the Mehmet Akif Street, which is known as a commercial pathway, role-playing as an attraction center for the people of not only Nicosia, but also the other surrounding cities like Famagusta, as shopping and entertainment center. Unfortunately, nowadays this street is facing various problems, including pavement materials, lack of pedestrian, furniture, greenery etc., along all its advantages.

To determine the current situation of this street, evaluations have been done mainly in terms of aesthetic qualities. The first chapter is mainly giving a brief introduction. Chapter two is mainly presenting explanations about urban aesthetics and user preferences in the streets to extract the main ideas, concepts and important criteria of design. Chapter three is mainly dealing with explaining the evaluation methods of each parameter, testing the findings from chapter two about symbolic and formal aesthetics (according to Carmon, Nasar and Lang), and their variables in the case study, along with giving a brief history of the street. The main goal of this study is to evaluate the aesthetic qualities, according to human preferences, evaluating a case study (the selected street), based on these findings and find the strong and weak

points of it. In the conclusions, to create more attractive place suggestions will be given based on improving the weaknesses.

4.1 Recommendations for Increase Aesthetic Quality in Mehmet Akif Street

The obtained data and their evaluation revealed that specific problems do exist in Mehmet Akif Street, especially in terms of aesthetic qualities. In the recommendation section, improvements will be suggested within the current physical, natural, and social situation of the street, to boost these qualities.

4.1.1 Recommendations for Formal Aesthetic Qualities

Lack of street furniture, street landscape, and public art for viewers and visitors to create a better visual scene is the main weak points of the street. Creating an ordered floor scape and landscape, arrange street furniture, and widening the sidewalks could be crate a strong sense of enclosure. Well design trees and other vegetation could also contribute the sense of enclosure and spatial containment. Sometimes uniformity are expressed through elements having the same special façade textures, creating spatial quality characteristics.

To enhance the view of the street, one method is to encourage the owners of different businesses in the street to put specific elements, relevant to their businesses, using flower boxes in front of shops or buildings, ornaments, or sculptures for create more complexity. Moreover, as the façade of front stores in the street appear in various shapes, uniform street landscape can help in enhancing its character, especially as this design should include the commercial character of it. Moreover, creating public art elements, or improving the landscapes can improve the novelty of the street. To

improve the diversity of use in the street, one method is to improve and facilitate the street by considering children and eldest.

Creation of order can simply be done by equality in the compositions, developing arrangement, values, tones, weights adjustments, placing the shapes in different positions, etc. Clarity provides the eyes with comparative significance of different design parts. Elements such as color, light, form and shadows, on a building, which can create a good design in architecture when joining together and result in a well design street in terms of unity, proportion, and contrast. Employing new design styles, especial harmonic shapes and materials in various colors, properly designed street furnisher, shelters, as the public properties of the street, and finally well-designed landscape, help in improving order in the street space.

The public open spaces of Mehmet Akif Street are the sidewalks, and those open spaces in front of the buildings and blocks corners, as the distance of buildings from the street may be various. Narrow spaces are mostly used as sidewalks, while the wider space, especially those in front of the shops, could be places specifically employed for meeting, social activities, and relaxation purposes. Currently no distinction is made between the open and the sidewalk spaces; however, by employing a conscious design, different types of public open spaces can be defined, along the street. Having these public open spaces can serve the users to create more variation in a commercial street. As aforementioned in legibility section, this street is lacking social nods. To provide this demand, concave spaces in front of buildings can be enclosed by trees and produce small plazas, to imply more on enclosure. Significant activities can also be done to produce more legible spaces in the street.

Public transportation is another obvious weakness of the street. This problem is also associated with lacking car parking, which has to be placed near the street. Developing proper car parking, public transportation, designing specific bus stations and distinction between sidewalks, vehicle lanes, and bicycle lane is an essential issue, to assure the safety. As for the pavement materials, it should be improved in a way to encourage more people to attend to the street. In addition, regarding the permeability of the street, improvements must be increased through defining more pathways, towards this street, so that more users can obtain the chance of interaction.

4.1.2 Recommendations for Symbolic Aesthetic Qualities

Pattern or style of a street's buildings plays a significant role on the street's appearance. Spaces with one single color are known to be obviously boring and dull. To improve this weakness, textures can be employed, to lessen the level of boringness and create contrast. Objects like shadows, lights, colors and textures can improve the aesthetic qualities. Bearing colors in mind, they can be used to create contrasts and differentiate between various shapes. Employed materials in a structure can have rough or smooth textures, or can be large or small, which can be colored from dark to light, to make a design perfectly attractive.

Designers of a space must be able to mixing different materials to result in a beauty sense, shapes can be considered as a unique characteristic or surface outline. To design the space desirably, various materials with different qualities of absorption, luminance and reflectance occurring in a single material, should be employed.

Lacking green areas, like green walls, flower boxes, trees, and shelters is an obvious weak point of the street, although in the neighborhood, there exist a relatively large area of greenery and trees along the Pedieos River, creating a great opportunity to

design a street park and improve this weakness. Creating more trees along the street is also another solution, which can be considered to improve the natural landscape, produce fresh air, and shadow for the pedestrian relaxation.

The damages on the materials in the building's surface has a great affect in the image of the street. Accordingly, maintenance of building’s façade should be considered for making a pleasant image from the street. Decreasing the sizes and contrasts of commercial centers signs, removing the utilities pipes, poles, wires billboards and extra signs are known to be improving in terms of peoples’ preferences. In addition, maintaining the path in sidewalk and the street landscaping (trees and furnishing) could be effective to increase the public satisfaction from walking area point of view.

In street design, all activities in all the times must be considered during a day, to provide human demands, based on their activities. It is also possible to specify the activities, according to the interests and demands of a specific age group (i.e. elderly people, children, etc.). Defining facilities for all abilities and letting the functions to be accessed through them, is another method of considering inclusivity. Inclusivity can also be considered through multi-cultural activities or designing in a way to meet the demands of males and females simultaneously.

Preferred to create some more flexibility in the functions, to provide more various demands and include more various activity types. Create a facilities to interaction of children and eldest could be affective to create more livability during the day time also.

It worth mentioning that, as the demands' sources are human activities, all the designs and must be done in human scale, to respond its demands.

4.2 Agenda for Future Research

In this research, a case study, i.e. Mehmet Akif Street, was chosen to be studied from aesthetic quality points of views. Researches was done to firstly understand the current state of the street, according to the human preferences, and then suggestions were made to improve this situation. Future researchers from municipalities, city design offices, and prospective students can employ the mentioned suggestions.

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APPENDIX

Appendix: Questionnaire

There have been several researches along aesthetic quality of public space in terms of human response. The purpose of this research is to try to understand the preference of people in **Mehmet Akif Ersoy Street** in terms of aesthetic quality, with the intention of improving the aesthetic quality of Street.

Sanaz Nezhadmasoum Master Candidate of M.S conducts this questionnaire survey in Urban Design program, in the Department of Architecture, Faculty of Architecture, Eastern Mediterranean University, Famagusta, North Cyprus, as a part the Master studies under the supervision by Assoc. prof. Beser Oktay Vehbi. If you want any extra information about this project, please send an e-mail to: sanaz.nezhad_88@yahoo.com or call +90 533 8394028.

Direction:

Put a check (√) to your corresponding answer (if you have more than one option please mention)

Thank you in advance for your time and support.

1- Gender: □ Male □ Female

2- Age group?

□ 18 to 22 □ 23 to 29 □30 to 39

□40 to 49 □50 to 60 □Over 60

3- Your Country: ……. Your Nationality: …….

4- Are you … □ Student □Tourist □ Local

5- How would you rate complexity among the building in this street?

□Fair □Good □Excellent □Superb

6- How would you rate novelty in this street while walking along?

□Fair □Good □Excellent □Superb

7- How would you rate diversity in this street while walking along?

□Fair □Good □Excellent □Superb

8- What is the condition of façade, or shops signs?

□High quality □Average quality □Poor quality

9- What is the quality of landscape design (greenery) along this street?

□Fair □Good □Excellent □Superb

10- Is this street equipped well in terms of street furniture?

□Yes □No

If no what is needed? ……..

□Bin □lighting □Sitting element □Shelter □Paving material

□Signage □Public art

11- How would you rate the quality of lighting at night?

□Poor □ Fair □ Good □ Excellent

12- What do you think about the percentage of harmony and balance between the streets elements?

□Poor □ Fair □ Good □ Excellent

13- Is this street accessible enough?

□Yes □No □No idea

14- What is the traffic condition of the street?

□No traffic □ Low traffic □ Flowing traffic □ Heavy traffic

15- Is public transportation conveniently located near the street?

□Yes □No

16- What sort of transportation do you usually use to get this street?

□Own car □Bus □Bicycle □Other

17- How do you see the location of car parking areas near the street?

□Poor □ Fair □ Good □ Excellent

18- How would you rate preservation of this street?

□Poor □ Fair □ Good □ Excellent

19- How many times a week do you come to this street?

□less than three times □Three times □more than three times

20-When do you prefer to spend your time in the street?

□In the morning □In the afternoon □At night

21- What is the most important consideration for you to prefer to spend time in Street?

□Attractiveness □diversity □novelty □Comfort

□Cleanliness □ Livability □Mixed use

22- If any, what are the negative points of this street?

□Pollution □Poor quality of buildings

□Bad quality of pavements □Lack of sitting elements

□Lack of signage □Lack of greenery

23- How would you rate, designing style of the street elements and buildings in this street?

□Poor □ Fair □ Good □ Excellent

24- How would you rate the materials of buildings, shops and restaurants that they used along the street?

□Poor □ Fair □ Good □ Excellent

25- How would you rate the colors that they used along the street for facades, furnishing and landscaping?

□Fair □Good □Excellent □Superb

26- In general, how satisfied are you with aesthetic quality of the Street?

□Very satisfied □somewhat satisfied □Not satisfied

□Not sure

Thanks for your time and cooperation.