

EXTERIOR SPACES TO PLAY A ROLE IN OUR LIFE: THE CASE OF SOCIAL HOUSING UNITS IN NICOSIA

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ABSTRACT: House is one of the basic needs of people that have been built to provide shelter and protection. Residential exterior spaces, especially those in hot countries, possess great importance in daily life. This study aims to explore uses of residential exterior spaces in social housing units in Nicosia.

However, as they were interested in economic performance, in most of the housing areas they did not consider the qualities of outdoor spaces. The residents hardly ever used these spaces efficiently, as their physical and architectural characteristics did not fit the socio-cultural aspects of the residents as well as the climatic conditions.

The evaluation obtained by observations and analysis proved that, in apartment types, especially in multi-story mass housing, private and semi-private spaces seem to have no efficient physical formation and efficient uses.

In this study, exterior space, especially in social housing units in Kucuk Kaymakli, Nicosia is going to be evaluated and analyzed according to the standards, quality user satisfaction and aesthetics point of view. Various methods have been employed in different parts of the study. For the theoretical part of the research the literature review and documentary research were used. And for the analysis section was applied the user satisfaction questionnaire.

Considering the significance of exterior spaces in housing environments in Nicosia, this study aims at analyzing the uses of these spaces today's conditions. The evaluation of this study is expected to provide a framework for the improvement of the existing residential exterior spaces as well as for the creation of better residential environments.

Keywords – Exterior space, housing, Nicosia, private, residential, semi-private

1. INTRODUCTION

Housing is one of the basic needs of a human being. It is a kind of residential space that man has developed for sheltering himself in the natural environment with social and cultural dimensions. Exterior spaces are a natural and usable extension of internal living volumes.

Exterior space can be defined as an open area surrounded by buildings and having distinct social purposes in the urban context. To be more specific, for residential areas, residential exterior spaces are designed to comprise spaces around housing units and the street space in front. In housing areas, exterior spaces provide an outdoor room for communication of its users.

Climate is the most important factor for the use of exterior spaces. In North Cyprus summers are very hot and long, the effect of exterior space in residential areas possesses great importance. Today, these spaces are used for various purposes, such as sitting and socializing, receiving guests and doing house work, etc. In fact, private outdoors spaces were consciously designed and efficiently used in the past. However, in recent years, the use of exterior space in North Cyprus has declined in respect of its physical, functional and traditional purpose.

In this research, exterior space, especially in social housing units in Küçük Kaymakli, Nicosia, is going to be evaluated and analyzed according to its standards, quality user satisfaction and aesthetics point of view.

1.1. Aim of the Research

Considering the significance of open spaces in housing environments in Nicosia, this study aims to analyze the use of these spaces in today's conditions. The evaluation of this study is expected to provide a framework for the generic improvement of existing residential open spaces as well as for the creation of better residential environments.

1.2. Method of the Study

Various methods have been employed in different parts of the study. The first and second part consists of the theoretical and, the literature review and documentary research used. The first part researches about space in general and the use of exterior space; the second part is research about the meaning and uses of residential exterior spaces. Finally, the third part that the analysis section; different methods were applied to compare the other parts such as method on the user satisfaction questionnaire.

2. THE CONCEPT OF EXTERIOR SPACE

2.1. Definition of Space

This research is about the evaluation of exterior open spaces. In this chapter, space is going to be discussed and identified extensively.

According to Aristotale, space is defined as “a container of things –a sort of succession of an all- inclusive envelope, from what is ‘within the limits of the sky’ to the smallest elements. Space is therefore, limited externally and filled up internally. There is no empty space; everything has its position, its location, and its place”. (Meiss, 1990)

A number of general observations can be made concerning the enclosure of space. As stated by Isaac (1972) “a space may be defined visually and/or physically by the use of structures, by enclosure planes (vertical, horizontal or inclined) by individual or group of elements within the field of vision. A space may be partially or fully enclosed, or merely a collection of elements in the background”. Each space has a shape, size, material, texture and other qualities that best express and accommodate the function for which the space is intended.

Space is not infinite. The object that is determining its limits gives spaces its character. Points defining the edges of a space can be of various kinds. One therefore distinguishes between architectonic and, urban and natural space. These are dependent on the type of architectural element that is defining the edges. Therefore space can be classified into two groups.

The space has been categorized in to two groups as interior (internal) and exterior (external) spaces. Therefore, since every architectural volume, every structure of wall constitutes a boundary, a pause in the continuity of space, it is clear that every building functions in creation of two kinds of space, its internal space completely defined by the building itself, and its external or urban space, defined by that building and the others around it. (Zevi, 1993)

2.1.1. Interior (Internal) Space

Interior space is determined by its enclosure. It is a kind of architectural space that provides a shelter and a great amount of privacy to its users.

Interior space is a very important concept in architecture. The quality of interior space primarily defines the quality of architecture. The most exact definition of architecture that can be given today is that which takes into account interior space.

“Beautiful architecture would then be architecture in which the interior space attracts us, elevates us, and dominates us. Spiritually, ugly architecture would be that in which the interior space disgusts and repels us”.

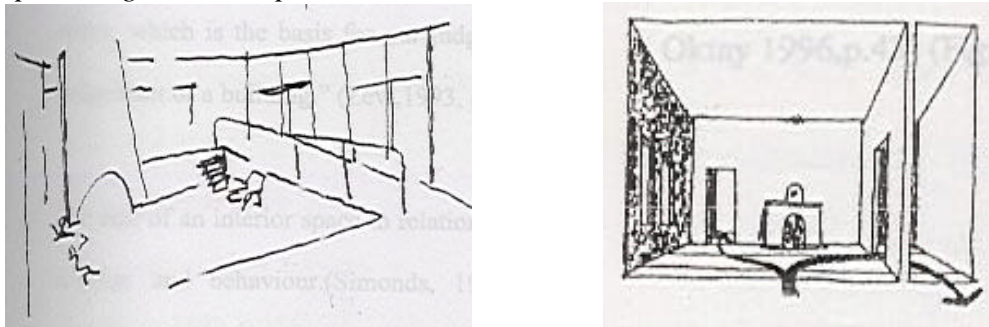


Fig. 1. Interior (internal) space

2.1.2. Exterior (External) Space

Exterior spaces are outdoor spaces Synder and Catanese (1974) define it as: “an area surrounding building and having a district social purpose in the urban pattern”.

As stated by Simonds (1983):

“exterior spaces are outdoor volumes. They may be finite in scope, limited only by the horizon, or they may be finite as space between two cedar fronds”.



Fig .2. Exterior (external) space

All exterior volumes controlled or free, are formed by three volumetric elements; the base plane, the overhead plane and the vertical plane.

A. The Base Plane

The base plane is closely related to the arrangement of usable areas. For, it is on the volumetric floor that we are most concerned with use. The base plane surface is often the natural surface of the earth.



Fig. 3. The base plane

B. The Overhead Plane

In the shaping of outdoor space, the overhead plane may be defined by the canopy of trees or pergolas. Even the open sky, has its limitations. (Pasaogullari, 1999)

Also in a large open airspace, a suspended or supported overhead plane may provide psychological and physiological functions. If the overhead plane is solid, it can give protection for sun and rain. (Fasli, 1997)

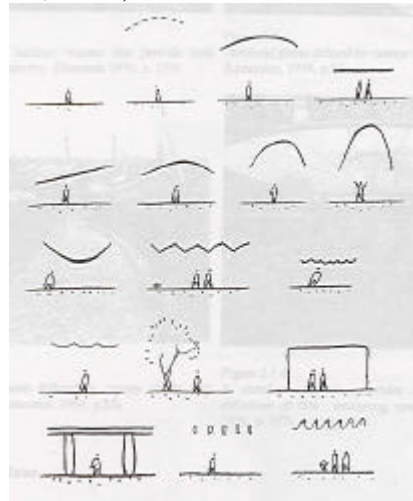


Fig. 4. The overhead plane

C. The Vertical Plane

The vertical elements are the space dividers, screens, baffles, and backdrops on the three volumetric planes. They are the most apparent and the easiest elements to control and define the indoor as well as the outdoor spaces. (Simonds, 1983)

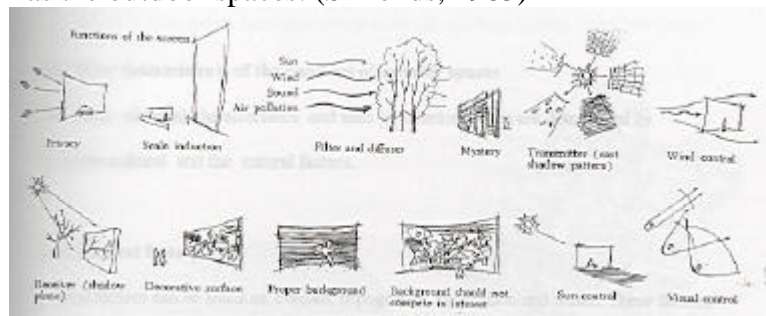


Fig. 5. The vertical plane

2.2. Use of Exterior Spaces

The form and physical characteristics of exterior spaces are determined by socio-cultural and natural factors. “The socio-cultural factors which affect the use of exterior spaces mostly relate to the way of life of the society living in. For example in Islamic cities, the city is organized as a continuous range from private, than semi-private/semi-public, public spaces”. (Önal, 1996)

Depending on the users and the activities that take place in it, the spaces can be arranged according to this hierarchical order.

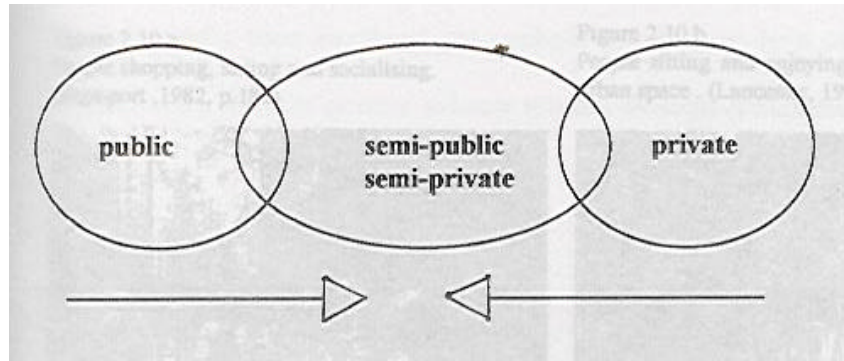


Fig. 6. Relation of spaces

2.2.1. Public Space

Public means open to, share by all the people. Superior authorities give decisions about public spaces. It is place where all obey the same rule and have the same rights. Public spaces include; streets, squares, common outdoor rooms (sport areas, children play grounds, passive green areas) which people are free to use and congregate upon, if they wish to do so.

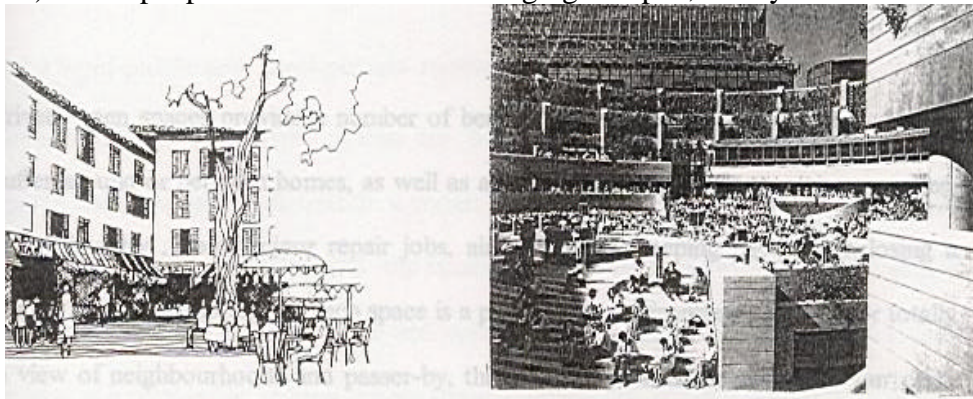


Fig. 7. Public space

2.2.2. Private Space

Private spaces are the places where the use is restricted to a small number of people. As its name suggests, it provides a certain amount of privacy to its users. Especially in residential quarters, private outdoor spaces possess greater significance. These spaces provide usable complimentary elements of internal living volume, which affect user satisfaction. The gardens of the private houses or the balconies of the apartment blocks are the private spaces for residents and their guests. (Fasli, 1997)

Private open spaces provide a number of benefits. “Functionally, it can offer a visual buffer around or between homes, as well as a space for growing flowers or vegetables, drying

laundry, doing minor repair jobs, airing clothes, keeping pets, or enclosing a toddler to play. Symbolically, such space is a piece of the environment, partially or totally in view of other neighbourhoods and pedestrians. It is a personal space that we can stamp our own identity onto. Psychologically, these functional and symbolic areas can be a welcome relief from stressful work activities or tense in-house relation. (Marcus& Sarkissian, 1986)

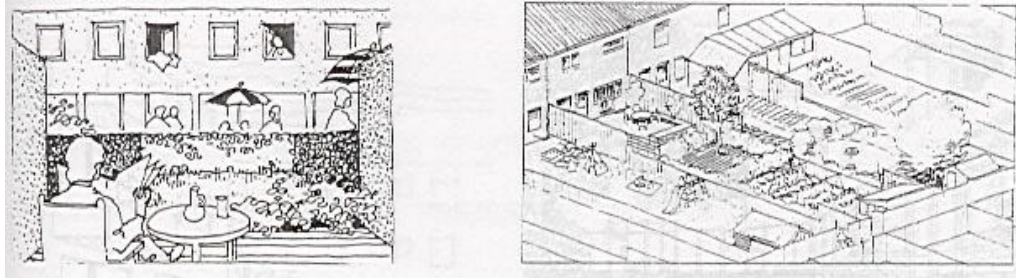


Fig.8. Private space

2.2.3. Semi-Public and Semi-Private Spaces

Semi-public and semi-private spaces are between public and private volumes. The use of such spaces is allowed by a certain number of people, such as those that live and work in the vicinity. The transition space between inside and outside; terraces, patios and front gardens can be used as a semi-public or semi-private space in certain conditions. (Fasli, 1997)



Fig.9. Semi-public and semi-private space

3. THE RESIDENTIAL EXTERIOR SPACES IN NORTH CYPRUS

In North Cyprus, outdoor spaces in residential areas possess a great significance, due to local values. Recognition of the problems occurred in most of the housing areas, led us to search these spaces beginning with the individual lot, through to the streets and surrounding neighbourhoods in order to create liveable environments for the residents.

3.1. Types of Residential Exterior Spaces in North Cyprus and Their Uses

The housing design process must include careful attention to the houses surrounding the environment, as mentioned in the above paragraph. Immediate exterior spaces are a natural and a usable extension of the internal living space, often expanding from the floors plan. In order to provide usable outdoor spaces, the public and private spaces of the housing must be defined. The strength of the boundary is essential for the neighbourhood. If the boundary is

too weak the neighbourhood will not be able to sustain its own identifiable character. (Fasli, 1997)

Streets; streets are the most potent public places for social activities to occur, and the most effective element in linking separate entities. The traditional street patterns were narrow and organic in North Cyprus. Those spaces were not only linked to urban spaces but also provided places for social activities. Today, a streets primary function is for the transportation of motor vehicles. Even through some of the residents prefer to use the street spaces for sitting and socializing especially on hot summer nights.

Cul-de-sacs; Islamic city planning is based on certain principles in order to satisfy privacy and the life style of its residents. The street pattern was organized in a hierarchical order. There are public streets, which are open to everyone and private cul-de-sacs. These spaces provide safe and calm areas for the residents as they prevent vehicular speed.

Courtyards; courtyards are the complementary elements of the internal living volume. In Cyprus due to the hot and dry Mediterranean climate, courtyards are being planned in response to climatic and physical necessities. Many family activities such as cooking, baking, preparation of food for winter storage, weaving, wood carving, pottery and basket making were carried out in the courtyard. Today, changing architectural characteristics and life styles influence the form and uses of courtyard.

Gardens; in North Cyprus, today, private gardens are consciously designed and effectively used by residents. Generally, hedges, fences or other vegetation defines gardens in order to provide a visual definition. A garden can be classified as front and rear due to their locations. Front gardens are often used for growing flowers, sitting and watching the activities in the street during the day, and at night, they bring their TV set outside and watch it there. Rear gardens are generally more isolated from the street and they are used for private activities such as drying laundry, growing flowers and vegetables.

Transition space; as stated by Alexander (1977), “the experience of entering a building influences the way you feel inside the building. If the transition is too abrupt, there is no feeling of arrival”. In North Cyprus transition spaces are the most useful and complementary elements to the internal living volume. Transition spaces are used for sitting and socializing, receiving guests and as a passage, etc.

Car parking areas; the process of arriving in a house, and leaving it, is fundamental to our daily life; and very often it involves a car. In North Cyprus most of the residents prefer to park their cars at the nearest point to their houses. Accordingly, car owners have to leave their cars on pavements or by the sides of a street that not only creates a bad view but also interrupts vehicular and pedestrians’ circulation.

4. CASE STUDY

4.1. Exterior Space Analysis in Social Housing Units in Nicosia

The concept of space is fully discussed above in this paper. It shows that space occur with exterior and interior spaces. Exterior spaces are the complimentary elements of internal living volume. The space is organized as a continuous range from private, semi-public/private and public spaces, which are examine in theoretical part. Such different concepts can display in exterior spaces. Furthermore, types of residential exterior spaces in North Cyprus was mentioned in theoretical part which is explained the means of terms such as street, cul-de-sacs, courtyards, etc. In North Cyprus, exterior spaces in residential areas are of great importance.

Accordingly, in order to exemplify and clarify their uses of exterior spaces of mass housing settlement area in Kucuk Kaymakli is selected from Nicosia. This particular mass

housing settlement area is a good example of analyzing private, semi private/public and public spaces in order to that issues of exterior spaces. Besides that, case analyzed according to the types of residential exterior spaces. The main selection reason is this area has so main different types of exterior spaces. It is give a change to analyze all different kinds of spaces at a same time. The figure has shown all exterior spaces and their uses in this mass housing settlement area.



Fig. 10. Analysis of exterior spaces in social housing units

4.2. Description of the Questionnaire

A questionnaire survey was carried out to evaluate user satisfaction of the exterior space in social housing units in Nicosia. The aim was to identify exterior spaces, considering their quality and user density, in order to propose guidelines that can achieve a more efficient use, and more successful urban environments. The interviewers were selected randomly who are living in that housing settlement and the interviews carried out face to face. (see appendix)

4.3. Results of the Questionnaire

The questionnaire, which is testing the user satisfaction of the use of social housing unit's exterior spaces, was conducted with 40 people, 50.0% are male and 50.0% are female.

Table 1. According to the users gender

Gender	Frequency	%
Male	20	50.0
Female	20	50.0
Total	40	100

The ages of the people who have responded to the questionnaire are between 12 and 70. The results show that 12.5% are between the ages 12-18, 20.0% are between the ages 19-25, 20.0% are between the ages 26-40, 35.0% are between the ages 41-65, 12.5% are over the age of 65.

Table 2. According to the users age

Age	Frequency	%
12-18	5	12.5
19-25	8	20.0
26-40	8	20.0
41-65	14	35.0
65 and older	5	12.5

A greater percentage of the questionnaire respondents show that 35.0% are married and have children. 32.5% of the respondents are single. 20.0% of the respondents are married but do not have children. 12.5% of the respondents didn't give an answer.

Table 3. According to the users marital statue

Marital Statue	Frequency	%
Single	13	32.5
Married + child	14	35.0
Married no child	8	20.0
Other	5	12.5

According to the question of the education level, 10.0% of the respondent's education level is elementary school, 42.5% of the respondents' education level is secondary school, and 47.5% of the respondents' education level is graduate degree.

Table 4. According to the users education level

Education Level	Frequency	%
Uneducated	-	0
Elementary school	4	10.0
Secondary school	17	42.5
Graduate degree	19	47.5
Other	-	0

The evaluation has taken place according to the professions as given below 55.0% of the respondents are working people. The percentage of the working people is 15.0% who are self-employed, 40.0% are in skilled employment. But the rest of the respondents 45.0% are

not working, 7.5% of these are unemployed, 15.0% of these are student and 22.5% of these are retired.

Table 5. According to the users job

Job	Frequency	%
Self employed	6	15.0
Employed skilled	16	40.0
Employed unskilled	-	0
Unemployed	3	7.5
Student	6	15.0
Retired	9	22.5

People who have responded as working people and 37.5% them are working full-time, 17.5% of them are part-time workers. 45.0% of the respondents didn't give an answer.

Table 6. According to the working hours

Hours	Frequency	%
Full-time	15	37.5
Part-time	7	17.5
Other	18	45.0

The existing exterior spaces around the residents are in the main empty-lots. The percentage of the empty-lots is 55.0% of the respondents and the results show that 42.5% have responded that they have streets space.

Table 7. According to the type of exterior spaces

Ext. Spaces	Frequency	%
Park	-	0
Plaza	-	0
Square	-	0
Street	17	42.5
Empty-lots	22	55.0
None	1	2.5
Other	-	0

The ones who are most regularly using exterior spaces are 22.5%. The answer of "sometimes" is 50.0% of people using exterior spaces and 27.5% of the respondents never use the exterior space.

Table 8. According to "how often to use"

Usage	Frequency	%
Regularly	9	22.5
Sometimes	20	50.0
Never	11	27.5

The respondents prefer to use exterior spaces at different times 17.5% prefer autumn, 20.0% prefer spring, and 20.0% prefer summer and 42.5% don't mind when they use exterior spaces.

Table 9. According to "when to use"

Usage time	Frequency	%
Winter	-	0
Autumn	7	17.5
Spring	8	20.0
Summer	8	20.0
Don't mind	17	42.5

The reason for using exterior spaces is evaluated by the questionnaire results. 47.5% are using exterior spaces just to pass through. 12.5% are using it for fresh air. 7.5% are using

exterior space for recreational purposes. 12.5% are using for to play (kids). 5.0% are using for relaxing. 15.0% of respondents didn't give answer.

Table 10. Reasons of using exterior spaces

Spaces	Frequency	%
To pass through	19	47.5
For fresh air	5	12.5
To spend time	3	7.5
To play (kids)	5	12.5
To relax	2	5.0
To meet someone	-	0
To eat lunch	-	0
All of them	-	0
Other	6	15.0

In answer to the question of what would you like to see in an exterior space? 10.0% of the respondents want to see eating and drinking facilities. 25.0% of the respondents want to see use of landscape elements. 17.5% wants to see leisure and entertainment. 15.0% wants to see play grounds for children. 15.0% wants to see more open space facilities such as suitable seating/benching and attractive walkways. 17.5% want to see sport facilities in an exterior space.

Table 11. According to the users needs

	Frequency	%
Eating drinking facilities	4	10.0
Use of landscape elements	10	25.0
Entertainment	7	17.5
Children play grounds	6	15.0
Possibility of watching around	6	15.0
Sport facilities	7	17.5
Other	-	0

5. CONCLUSIONS

As it is defined in the introductory chapter, Nicosia is a town in North Cyprus. In this study, uses of residential exterior spaces in social housing units in Nicosia were analyzed under today's conditions.

Today, there have been transformations in both technology and changes in life style, therefore the physical setting and uses of outdoor spaces have been affected. It has led to the construction of a large number of housing units.

The government and private companies have constructed a large number of mass housing developments. Primary regard is often given to in economic performance in most of the mass housing areas, all too often scant regard and consideration has been given to environmental qualities. In private houses, exterior spaces are more appropriate considering the local values and local residents, comparing to those in apartment types, their use is more efficient. Private and semi-private outdoor spaces, especially in multi-story housing, seem to have no efficient physical formation or efficient uses. This lack of efficiency together with some other social problems, negatively affect the neighbourhood spirit in modern developments.

Considering the significance of outdoor spaces in residential areas, these spaces should be designed in a better way, particularly in multi-story housing. Today, many people are concerned about these problems regarding the quality of exterior spaces. However, due to economic reasons and the importance of "getting on the property ladder" purchasers are still

buying properties within environmentally negative housing areas. It is imperative that more importance should be given to the invaluable exterior areas at the planning stage to create a harmonious and enjoyable environment for all residents.

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APPENDIX

Questionnaire

1. Gender?
(a) Male (b) Female
2. What is your age?
(a) 12-18 (b) 19-25 (c) 26-40 (d) 41-65 (e) 65-...
3. Marital status?
(a) Single (b) Married child (c) Married no child (d) other
4. What is your education level?
(a) Uneducated (b) Elementary school (c) Secondary school
(d) Graduate degree (e) other
5. What is your job?
(a) Self-employed (b) Employed skilled (c) Employed unskilled

- (d) Unemployed (e) Student (f) Retired
6. Working hours?
 (a) Full-time (b) Part-time
7. What type of space do you have near your resident?
 (a) Park (b) Plaza (c) Square (d) Street (e) Empty lots (f) none
8. How often do you use an exterior space near your home?
 (a) Regularly (b) Sometimes (c) Never
9. When do you prefer to use exterior spaces?
 (a) Winter (b) Autumn (c) Spring (d) Summer (e) Don't mind
10. Why do you use exterior spaces?
 (a) to pass through (b) for fresh air (c) to spend time (d) to play (kids)
 (e) to relax (f) to meet someone (g) to eat lunch (h) all of them
 (i) other
11. What do you want to see in an exterior space?
 (a) eating drinking facilities (b) use of landscape elements (c) entertainment
 (d) children play grounds (e) possibility of watching around (f) sport facilities
 (g) other