

Evaluation of Open Spaces in the Residential Environment

Case Studies From İstanbul

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INTRODUCTION

In today's cities, one of the main problems resulting from rapid urbanization without proper planning, especially in developing countries, is the disregard of open space requirements and use of open spaces to provide for the most effective recreational activities (Yiğiter, 1990).

Urban open spaces can be defined as those areas which have either been planned and organized for public use, or come into being without planning. These open spaces, which are part of the urban structure, are places where different activities of public life take place, and are open to all regardless of age, sex, occupation and culture (Bakan, 1987).

Urban open spaces that are used outside of their functions as determined by socio-cultural and physical conditions, can be defined as lost spaces. Lost spaces are the left over unstructured landscape at the base of high-rise towers, unused sunken plazas away from the flow of pedestrian activity or unused spaces remaining between housing blocks in the city.

Over the past few years, radically changing economic, social and cultural patterns have further exacerbated the problem of lost space in urban core. Urban open spaces seem to have turned into lost spaces due to the fact that, for

economic reasons, buildings are mostly being designed without taking their environments into consideration. However, it is possible to bring these lost open spaces, which in time came to be unused areas, back into use by means of appropriate design and development strategies.} These areas, which have negative effects on the environment and on the users, should therefore be redesigned and reorganized (Tarancik, 1986).

The aim of this research is to determine open space use in the residential environment in İstanbul, the kinds of possible actual uses and the requirements of the users both in properly planned developing urban areas and in the historic parts of the city.

In this context three residential areas, namely Zones 9 and 10 of the Ataköy Housing Estate, the Soyak Housing Estate in Göztepe and the Emirgan İ.E.T.T. Social Housing Estate have been chosen as examples of properly planned developing areas. The Beşiktaş-Abbasağa, Kumkapı and the Kadıköy-Yeldeğirmeni settlements have been chosen as examples of historic residential areas.

The paper begins by briefly examining open space requirements, urban open spaces in the 20th century, and the functions and the uses of some open spaces like squares, streets,

OPEN SPACE REQUIREMENTS

The need for urban open spaces in the modern sense was not felt until the beginning of 19th century, when there was a sharp increase in the population and building density in big cities. As the industrial revolution continued in the 1880s, the area of city parks was enlarged in order to avoid the negative effects of agglomeration (Tarancik, 1986). Urban open spaces underwent a dynamic change in their types and potential uses as a result of motor traffic entering city life. In historic Turkish cities religious foundations around the mosques provided the most important open spaces which were used as meeting places. The commercial centers, bazaars and cafes around these religious foundations provided for the local people's open space requirements (Pamay, 1974).

Urban Open Spaces in The 20 th Century

Today, people have requirements for different open spaces depending on their age, culture, occupation, social and economic status, which leads to the formation of different types of open spaces (Yıldızci, 1982). Urban open spaces can generally be classified as follows

*Private Open Spaces: gardens, areas under agricultural cultivation, military zones, social and sports clubs;

*Public Open Spaces: forests, woods, water surfaces and shores, parks, squares, footpaths, playgrounds, sports fields, exhibition areas, botanical gardens, zoos, parking lots (Akdoğan, 1979).

The functions of urban open spaces are as listed below:

*to provide a balancing factor in the physical structuring the city;

*to facilitate pedestrian and vehicle traffic;

*to provide natural light and air currents into the city;

*to contribute some natural elements to city planning;

*to provide suitable areas for various recreational activities;

*to contribute more organic tissues to the city, thus softening its rigid structure;

*to establish a more acceptable equilibrium between the human inhabitants and the material environment of the city.

Classification of Urban Open Spaces

As urban areas grow in population and building density, the need of the inhabitants for green and open spaces also increases. The scope of this need changes according to the intensity of the requirements, the necessary land potential, financial resources and the level of consciousness on the part of the private and the public sector. Besides, each city has its own specific natural, physical, social and cultural structure. For this reason, it is not possible to give standards based on commonly and definitely applicable principles (Akdoğan, 1979).

In determining the standards for open spaces, factors like the functions of the area, the age level of the users, their cultural and economic levels, recreational inclinations, possibilities offered by the physical fabric of the city

and demographic projections should be taken into consideration. A general classification of urban open spaces can be made as follows: squares, streets, pedestrian precincts, playgrounds and sports fields.

SQUARES: These are areas which offer rich possibilities in terms of both social and physical characteristics and provide space for all kinds of activities. The most important factor attracting people to squares is again the human factor. The movement of the people, the quality of the scenery, the capability of the square to satisfy people's needs for resting, promenading, picnicking and other types of entertainment render them attractive places in commonly shared living areas (White, 1980).

Sculpture, water elements like ponds and fountains, and trees are the most important features of a square which add to its attraction. Furthermore, the ground material, the fabric and the composition of the square, the surrounding buildings, and the nearby environment all contribute to the quality of a square (Doğan, 1986).

Today, due to different reasons, designers construct squares below or above ground level. Although there may sometimes be good reasons for the construction of such squares, they are not usually preferable due to social considerations. For these types of squares are cut off from the movements of everyday life; it may even be said that they interrupt the natural flow of people's movements. To make the squares really living places, it is essential that they should be made attractive by allowing for those types of activities people prefer and enjoy (White, 1980).

STREETS : Streets are sometimes the starting points or continuation of squares. Activities that begin at the squares continue in the streets, decreasing in density but not losing much in terms of their influence. The main difference between streets and squares is that people find themselves relatively far from each other in squares, whereas they frequently meet on the streets although they may not know one other. In favorable weather, streets are commonly used for recreational purposes like promenading, socializing, playing games etc. (Ashihara, 1981).

PEDESTRIAN WAYS CLOSED TO TRAFFIC : Today, some streets are closed to traffic so as to form pedestrian precincts. These provide the public with safe areas in which to develop their social relations, to realize their commercial activities and to satisfy their recreational requirements (Brambilla

& Longo, 1977). Pedestrian ways are mostly situated at city centers, thus lending themselves easily to intensive commercial activity. Pedestrian precincts created in residential areas are mainly used as playgrounds (Süher, Ocakçı & Yılmaz, 1986).

PLAYGROUNDS: Playgrounds are areas with the equipment necessary to hopefully satisfy the recreational needs of children belonging to different age groups, and they are closed to traffic for safety reasons. The equipment installed in these playgrounds should be classified and located at different places according to the physical capabilities of each age group (Yıldızcı, 1982).

SPORTS FIELDS: Sports fields can be defined as areas used not only for sports activities but for some other connected activities of recreational quality taking place in the nearby surroundings, such as resting, promenading and watching games.

Types of Activities in Urban Open Spaces

Activities taking place in urban open spaces can be divided into three main groups which display different characteristics in the physical environment:

- necessary/compulsory activities;
- optional activities;
- social activities

COMPULSORY ACTIVITIES : Compulsory activities have to be realized independently of the environmental conditions, like going to school, work, shopping, waiting for buses etc.

OPTIONAL ACTIVITIES: Optional activities are realized at appropriate places at chosen times, like taking walks, sitting, resting etc. These are performed whenever the external conditions are favorable and the physical environment is attractive. Recreational activities are good examples of optional activities.

SOCIAL ACTIVITIES : Social activities comprise all types of contacts between individuals arising as a result of compulsory or optional activities in open spaces. Therefore these activities could equally be defined as "resultant activities" (Gehl, 1987).

The Need for Open Spaces in Turkey and İstanbul

In urban areas, the increase in land values and land speculation have led to significant amounts of urban land being owned by the private sector and to over-construction. The strong tendency of the people in general towards private ownership has brought about the present excessive division of land. As a result the size and the capacity of urban open spaces in all Turkish cities have been reduced (Evyapan, 1981).

When Per capita open space in Turkey is compared to some other countries in the world, the following differences emerge:

Table 8.1. Amount of Per Capita Open Space in Selected Countries (Süher, Ocakçı & Yılmaz, 1986).

Country	Open Spaces m ² /per capita
Great Britain	52.5
Poland	30
Sweden	56
Norway	36
USA	21
Finland	94.7
Germany	13
Pakistan	5
	156

Table 8. 2 Amount of Per Capita Open Space in Selected Cities in Turkey (Suher, Ocakçı & Yılmaz, 1986).

Cities	Open Spaces m ² /per capita
Kars	0.6
Kütahya	0.2
K.Ereğli	1.8
Antakya	1.0
Antalya	1.5
Edirne	0.1
İstanbul	2.1

The tables above show how insufficient the existing open spaces are to meet the requirements in Turkish cities (Table 8.2), compared with the importance given to the need for open spaces in the other countries and the standard they have adopted in meeting these needs.

In studying urban open spaces between buildings in residential environments based only on statistical data for İstanbul, it is found that 44,128,464 m² of open space is lacking according to the standards set by the Ministry of Housing and Settlement. This open space deficiency is about eight times the total existing open spaces. The average per capita open space allotment in İstanbul is 6.6 m². However, only 2.1 m² of this average open space can actually be used. Accordingly, some local average per capita open space for different municipal districts is shown in Table 8. 3. (Atalık, 1978).

Table 8.3. Average Open Space for Istanbul's Municipal Districts (Atalık, 1978).

<u>Quarters</u>	<u>Open Spaces m²/per capita</u>
Beyoğlu	0.42
Eyüp	0.25
Fatih	0.18
Gaziosmanpaşa	0.07
Kadıköy	0.46
Şişli	0.6
Zeytinburnu	0.2

THE ARRANGEMENT, SUFFICIENCY AND USABILITY OF OPEN SPACES BETWEEN BUILDINGS IN RESIDENTIAL ENVIRONMENTS

For planned settlement areas the arrangement of open spaces between buildings in residential environments and their sufficiency and usability have been studied in three cases, namely Zones 9 and 10 of the Ataköy Housing Estate, the Soyak Housing Estate in Göztepe and the Emirgan İ.E.T.T. Social Housing Estate (Yiğiter, 1990).

Zones 9 and 10 of the Ataköy Housing Estate is an example of social housing, in this case built by Emlakbank (a state owned bank which specialises in housing development). The Soyak Housing Estate in Göztepe was constructed by a private developer, while the Emirgan İ.E.T.T. Social Housing project is an example of a cooperative housing society established by the employees of the the Istanbul Municipal Network of Electricity and Transportation (İ.E.T.T.). In all three cases various surveys, observations and questionnaires have been used to gather information. Twenty families chosen at random were asked to respond to a questionnaire consisting of eleven questions. The aim of the survey was to establish how much of the planned

D, E and F, of which A and B have 15 storeys; type S has 10 storeys and types D, E and F have 5 storeys. The distribution of these types of apartment block

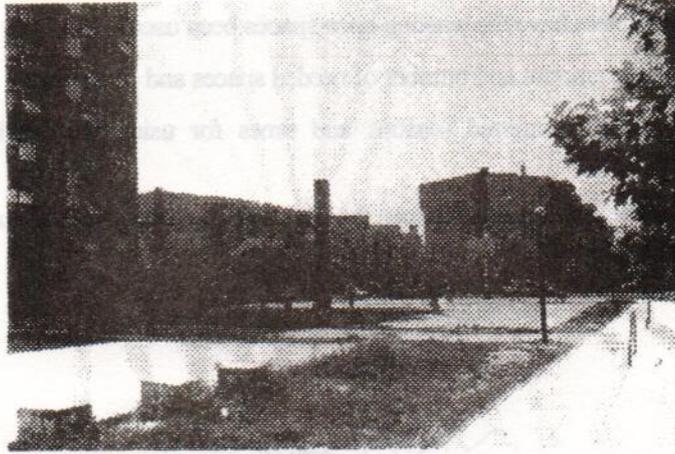


Figure 8.2 Open Spaces on the Ataköy, Estate Zones 9 and 10



Figure 8.3 There are Insufficient Open Spaces Between Buildings at the Soyak Settlement in Göztepe



Figure 8.4 A View of İ.E.T.T. Housing Estate

is as follows: type A 19 blocks; type B 33 blocks; type D 26 blocks; type E 3 blocks; type F 1 block; and type S 5 blocks, accommodating 3805 families altogether. The population living in these zones of the estate is 11500. The open spaces designed and applied in this particular settlement are as follows (Yigiter, 1990):

- *Playgrounds
- *Resting areas
- *Walkways and promenades
- *Sports facilities (sports fields, tennis, basketball, football, etc.)
- *Chess corners
- *Skating and cycling rinks
- *Parking lots

Zones 9 and 10 of the Ataköy estate consists of 52 fifteen-storey blocks (60%), 5 ten-storey blocks (6%) and 30 five-storey blocks (34%). Each of these blocks contains units ranging from 39 m² single-bedroom flats to those over

100 m² with two or three bedrooms. Nuclear families consisting of three members, i.e. one child families, make up 54.5% of the families living in this part of the estate. Forty-six percent of the occupants are house-owners, and 91% have their own cars. The reason for the high percentage of tenants in this section of the Ataköy estate may be the fact that it is quite a long way from the city center and therefore these flats are bought as an investment by their owners. As of 1990 the lowest rent paid for the flats in this settlement was TL500,000 and the highest was TL1,500,000. Considering that the minimum wage is TL414,000 the occupants of this estate evidently belong to the high-income bracket.

SOYAK HOUSING ESTATE IN GÖZTEPE: The Soyak Housing Estate in Göztepe is located on the Asian side of İstanbul. The construction of this settlement commenced in 1985 and it is planned for completion in 1994. The Soyak Settlement was originally planned as 88 blocks of apartments to accommodate 1536 families; i.e. a population of 6500. The estate will eventually consist of 17 six-storey blocks (15%); 22 eight-storey blocks (25%) and 49 ten-storey blocks (56%)

In this settlement which covers a total area of 175000 m², a population of 3000 dwellers - 844 families - presently live in the completed 49 blocks.

The open spaces planned to be included in this settlement area are as follows:

- playgrounds
- resting areas
- walkways and promenades
- sports facilities (tennis, basketball, football, etc.)
- parking lots

All of the seven types of flats in the 10-storey blocks in the Göztepe Soyak Settlement are larger than 100 m². The occupants of these flats are nuclear families with one child (45%) or 2 children (20%), and there are no single occupiers. Where ownership of the flats is concerned, 65% of the occupants are owners and 35% are tenants. Rents range between TL450,000 and TL1,000,000, with 80% of the occupants having private cars. The occupants

of this settlement can be said to belong to the high-middle income level.

THE EMİRGAN İ.E.T.T. SOCIAL HOUSING ESTATE: The Emirgan İ.E.T.T. Social Housing Estate is a planned settlement of four-storey apartment blocks, which have been designed and constructed together with their environments, i.e. each block has a large landscaped garden of its own. Apart from these gardens, there are also open spaces for common use. These are:

- a playground
- a basketball court
- parking lots

Since the Emirgan İ.E.T.T. Social Housing Estate was planned for middle income families none of the flats in this settlement are larger than 100 m². Forty percent of the nuclear families living here have two children and 26% have one child, with 6.6% being single occupiers. However, these single occupiers do not consist of young people as in the Ataköy case but of older people i.e., mostly retired people. Fifty-four percent of the occupants are house-owners, 26% are being housed by the İ.E.T.T., and 20% are tenants. Sixty-seven percent of the occupants run their own cars. This settlement represents an example of social housing whose occupants belong to the middle-income group.

Sufficiency and Usability of Open Spaces

ATAKÖY ZONES 9 AND 10: At Ataköy Zones 9 and 10 it was observed that parking space and sports facilities were inadequate, the former because car ownership is above average in this section of the estate and the latter because the average population age is relatively young. Fifty percent of the parents with children up to age seven do not allow their children to go to the playgrounds alone on the grounds that they cannot supervise them from their high flats or they have to accompany them to the playground themselves. The percentage of occupants that can use all of the open spaces in the vicinity is therefore 36; and all types of open spaces can always be used as long as the weather is

favorable. The users also stated that, apart from the existing facilities, they would like to have swimming pools.

SOYAK HOUSING ESTATE IN GÖZTEPE: As in the case of Ataköy 9 and 10 it was found that here too there are not enough parking lots, sports facilities or playgrounds. Again 40% of the families do not let their children use the playgrounds because they live on the top floors and cannot supervise them. It was also observed that at the Soyak Settlement the open spaces are neglected and are not being used properly. Twenty-five of the surveyed families use all of the open space facilities in the environment, whereas 20% do not use any of them.

İ.E.T.T. SOCIAL HOUSING ESTATE IN EMİRGAN: At the İ.E.T.T. Social Housing Estate in Emirgan, which is our last example, it was observed that open spaces were insufficient and that the areas reserved as open spaces could not be used because they had not been laid out by the municipality. However, as this settlement happens to be located within the triangle of Emirgan Park, the Bosphorus and the Sadı Gülçelik Sports Center, the need for open spaces has been generously compensated for. Since the blocks in this settlement have only five storeys all the families with children can supervise their children in the playgrounds. Fifty-five percent of the population living here use all of the open spaces, but old people living alone do not benefit from any of them.

Intensity of Open Space Use According to Seasons

ATAKÖY ZONES 9 AND 10: It was found that the open spaces at Ataköy Zones 9 and 10 are being used throughout the year. However, the most intensive use occurs during the summer season at a rate of 60%. As long as the weather permits, the proportion of residents using the open spaces at other times is 20%, and the preferred time slot is 14:00 - 18:00.

SOYAK HOUSING ESTATE IN GÖZTEPE: However, at the Soyak Housing Estate in Göztepe seasons do not seem to be a factor affecting the use of open spaces. Eighty percent of the inhabitants stated that they use these open spaces as long as the weather is fine and 61% of users do not have a preference for a specific time slot. Twenty percent of users (mostly consisting of families with children or families with elderly members) who occupy the flats higher

than the fourth storey say they cannot benefit from the recreational areas because of the fact that they live on the higher storeys.

İ.E.T.T. HOUSING ESTATE IN EMİRGAN: At the İ.E.T.T. Social Housing estate in Emirgan open spaces are used by 48% of residents in every season as long as the weather permits. Where the influence of social structure on open space use is concerned, it was observed that social structure does not affect the intensity of open space use but the type of usage.

From these observations it can be concluded that the open spaces in these three settlements are far from being sufficient, that some of the existing open spaces are not being used at all, and that some others lack the necessary conditions for use as recreational open spaces. In addition, the existing open spaces suffer from such problems as maintenance, repair and/or layout. Thus, it can be said that the production of open spaces between buildings in new housing environments has not been sufficient. Even those open spaces which have actually been produced cannot be used to the full due to the need for regular maintenance and repair. In order to ensure regular maintenance and repair, it seems that legal enforcement mechanisms are needed and some new management models will have to be developed.

IDENTIFYING REQUIRED OPEN SPACES IN HISTORIC HOUSING ENVIRONMENTS AND POSSIBLE SOLUTIONS

In three neighbourhoods of the Beşiktaş, Kumkapı and Kadıköy districts which have been chosen as illustrative of the historic patterns specific to İstanbul, it has been investigated whether there are enough open spaces in these areas, what size these spaces are, for what purposes they are being used and if they are sufficient to meet needs. Existing open spaces in these quarters have been evaluated in terms of quality, quantity and sufficiency according to the open space needs of the users living in these neighbourhoods.

In some sample areas within these three districts various surveys, observations and a questionnaire have been carried out, and the researchers have looked into the possibility of regaining those areas which had previously been considered lost spaces. In this context, opening the backyards of certain houses to common use seems to be a potentially promising solution.

A questionnaire of 19 questions investigated the following points in the sample areas:

- the social structure of the areas under study;
- the current use of open spaces;
- the number of used balconies and terraces, and their effects on open space use;
- the use of streets as open spaces;
- the use of backyards; the kinds and intensity of use;
- activities and user preference for the abovementioned common public spaces;
- readiness to join up backyards so as to open them to communal use.

Some questions on house ownership, car ownership and family size were also asked in order to determine the social structure of the inhabitants.

Physical and Social Structure of the Settlements under the Study

ABBASAĞA SETTLEMENT IN BEŞİKTAŞ: The first sample settlement, the Beşiktaş-Abbasağa Settlement, consists of four storey reinforced concrete blocks with a public park of 1.7 hectares and a building area coefficient of 21%. Thirty three percent of the families living in Abbasağa have two children and 26% have only one child. Five-member families, which are the third largest group in this settlement, make up only 15% of the population. Sixty percent of the users are house-owners and 40% are tenants, paying average rent of TL350,000. The rate of private car ownership is 30%.



Figure 8.5 View of Existing Backyards in the Abbasaga Settlement

KUMKAPI SETTLEMENT : The second sample area, the Kumkapi Settlement, is characterized by an old urban pattern with historic and monumental buildings. The only organized open space in this quarter, where the building area coefficient is 18%, is the main square. The most prominent characteristic of the social structure in Kumkapi is the existence of an Armenian community. The size of the families here range from one to ten members. Five-member families form the largest group at 20%. It has been established that 45% of the population here are tenants, 50% are house-owners and 5% live in buildings owned by the church. The lowest rent is TL50,000, and the highest TL200,000, with 10% car ownership.



Figure 8.6 Children Playing on the Street in Kumkapı

YELDEĞİRMENİ SETTLEMENT IN KADIKÖY: The third sample area, the Kadıköy-Yeldeğirmeni Settlement, also has a historic pattern where there are no organized open spaces. The building ratio here is 35%. Family size in the Kadıköy-Yeldeğirmeni settlement ranges from one to seven members, with 40% of families having four members and 30% of families five members. Sixty percent of families own their own homes and 40% are tenants. The highest rent paid is TL300,000. The rate of car ownership is 25%.



Figure 8.7. View of Yeldeğirmeni Settlement

Sufficiency and Usability of Open Spaces

Balconies as Open Spaces :

Balconies are used as open spaces in the historic residential areas where there are not enough open spaces for public use. Therefore balconies in these areas have been regarded as open spaces for the purposes of the study.

ABBASAĞA SETTLEMENT : Observation of balcony use in the Abbasağa Settlement revealed that 74% of the flats have balconies which are used for hanging laundry and as recreational space. The balconies were also used for keeping fuel tanks or for storing other items (Yiğiter, 1990).

KUMKAPI SETTLEMENT : In Kumkapı, 70% of the dwellings have balconies. Whatever the size of the balcony, all are used for hanging laundry. As a secondary function, balcony spaces are used as sitting and/or storage spaces.

YELDEĞİRMENİ SETTLEMENT : Seventy-seven percent of the dwellings in the Yeldeğirmeni Settlement have balconies, which are used in more or less the same way as in Kumkapı.

Streets as Open Spaces:

Apart from their normal functions, streets are used as parking lots and children's playgrounds, which seem to represent the most intense activity types here.

ABBASAĞA SETTLEMENT : In the Abbasağa Settlement, 38% of the children play in the house, 28% in the streets, 19% in the gardens and 15% in the park. And The adults use the streets primarily as parking lots and sometimes as socializing areas.

KUMKAPI SETTLEMENT : It is interesting that the intensity of street use in the Kumkapı Settlement is much higher compared to the other sample settlements. The reason for this may be that this specific settlement area does not have organized spaces or large enough gardens. Here the streets are used as playgrounds, recreational and/or socializing areas. Residents use the streets for these purposes at the rate of 82% in summer and 20% in spring and autumn.

YELDEĞİRMENİ SETTLEMENT : In the Yeldeğirmeni Settlement, the same types of street usage are common. Along with other users, teenagers use the streets as socializing areas or as football pitches.

Backyards as Open Spaces:

To facilitate the assessment of backyards in terms of their sizes it was found useful to classify them as follows:

0 - 50 m²; 51 - 100 m²; 101 - 250 m²; over 250 m².

The backyards in all the sample settlements have been evaluated on the basis of this classification, and the most common backyard size was found to be 0-50 m² (64%), and the least common 250 m² (3%).

ABBASAĞA SETTLEMENT: In the Abbasaga Settlement, only 53% of the backyards are still being used, the rest being neglected or out of use. Types of usage include hanging laundry, growing flowers and/or vegetables, playgrounds for children and storage spaces for fuels and other items.

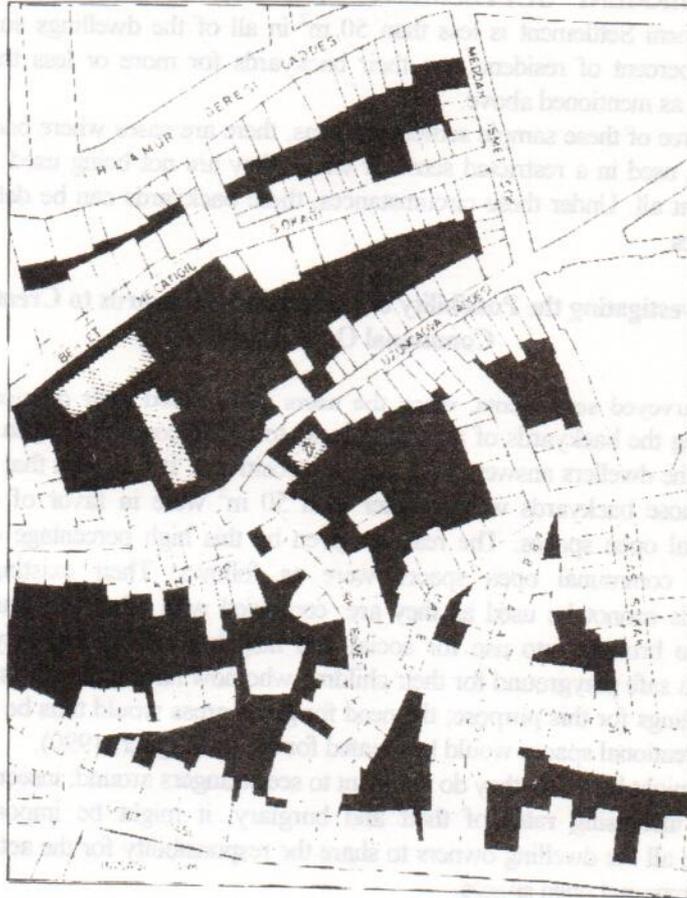


Figure 8.8 Existing Backyards as Lost Spaces in Abbasaga

KUMKAPI SETTLEMENT: In the Kumkapı Settlement it was found that 65% of the buildings did not have backyards, and that 25% of the existing gardens are smaller than 50 m². Sixty-seven percent of residents with backyards use them; and the 33% who do not use their backyards say that they are not large enough to be used. The functions of those backyards large enough to be used are hanging laundry, growing vegetables, and storing fuels or other property. Here backyards may also be used for socializing purposes.

YELDEĞİRMENİ SETTLEMENT: The size of backyards in the Yeldeğirmeni Settlement is less than 50 m² in all of the dwellings surveyed. Seventy percent of residents use their backyards for more or less the same functions as mentioned above.

In all three of these sample settlement areas, there are cases where backyards are being used in a restricted sense or where they are not being used for any purpose at all. Under these circumstances, these backyards can be defined as lost spaces.

Investigating the Possibility of Combining Backyards to Create Communal Open Spaces

In the surveyed settlements, when the users were asked their opinion about combining the backyards of adjacent blocks to create communal open spaces, 60% of the dwellers answered the question positively. It was seen that 63% of users whose backyards were smaller than 50 m² were in favor of creating communal open spaces. The reasons given by this high percentage of users favoring communal open spaces were as follows: Their existing small backyards cannot be used as they are; combined with other backyards they would be brought into use for social and neighborly relations; they would provide a safe playground for their children who now have to use the streets or the dwellings for this purpose; the need for green areas would thus be met and new recreational spaces would be created for adults (Yığiter, 1990).

There might be noise; they do not want to see strangers around; insecurity and fear of increasing rates of theft and burglary; it might be impossible to convince all the dwelling owners to share the responsibility for the activities in these communal open spaces.

reasons cited by the 35% of residents who were against this proposal were that they did not have backyards anyway and that other backyard owners would not agree to the realization of such a project. Projects have been designed for the three sample settlements under consideration

In areas whose development is the responsibility of the municipal administration and based on related local development plans, unless the planning decisions contain a clause stipulating that the municipal administration is to landscape specified areas the administration is discouraged from doing so by legal and financial problems. Moreover, as these areas are the property of the municipal administration, the local people are prevented from landscaping the areas themselves.

As a result, in order to create open spaces of the necessary size and quality, it seems to be a prerequisite to resolve the legal, administrative and organizational problems.

In the light of the issues discussed so far, the possibility of landscaping and bringing back into use as communal open spaces the backyards in the three historic housing environments, namely the Abbasaga, Kumkapi and Yeldeğirmeni settlements, has been investigated according to current development regulations.



Figure 2.10 Existing Backyards as Open Spaces in Kandıracak

YELDEĞİRMENİ SETTLEMENT - When the main question was put to the residents of the Yeldeğirmeni settlement, 67% agreed that backyards remaining between blocks should be converted to create communal open spaces. The



Figure 8.11. Proposed Backyards as Open Spaces in Kumkapi

Thus, taking into consideration the percentage of empty spaces in each sample settlement, it has been suggested that the backyards between building blocks should be combined in order to create communal open spaces. Projects have been prepared to illustrate proposed open spaces in the three settlements. These projects have been designed on the basis of data collected from the sample areas, the existing situation, the present uses of these areas and user preferences expressed in the questionnaires.

As a result of the observations and the assessment of the present open space use in historic housing environments, it has been established that there are not enough open spaces to meet the needs of the users in the three sample quarters.

The users defined their needs for open spaces as children's playgrounds, sports facilities, recreational areas and flower and/or vegetable gardens.

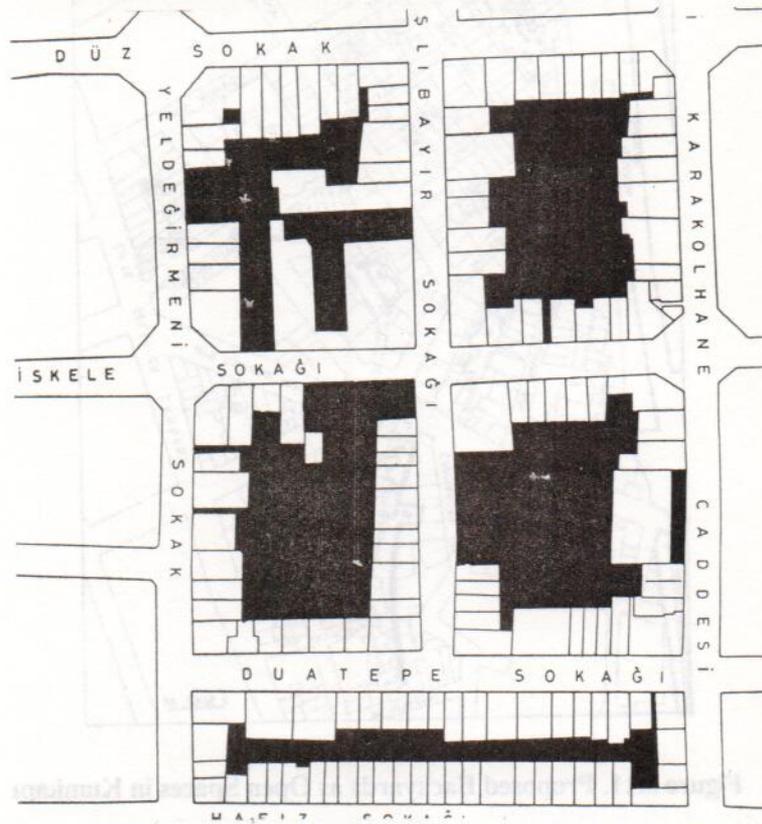


Figure 8.12. Existing Backyards as Lost Spaces in Yeldeğirmeni

The inhabitants of the Abbasağa, Kumkapı and Yeldeğirmeni settlements have to meet some of these needs using the balconies (if they have them) and/or streets. Balconies can be used for sitting, resting, and for growing flowers and the streets can be used as playgrounds, for sitting and resting, for socializing with neighbors and even for hanging laundry.

It should be noted that those users who do not have backyards or balconies tend to use the streets more often for recreational and socializing purposes.

The results obtained from the survey indicate that primarily backyards and secondly balconies are used as open spaces. However, the backyards between building blocks, when combined together, have the potential to become

communal open spaces large enough to meet the needs of the inhabitants. In fact, 60% of the users in Abbasaga, 33% in Kumkapi and 65% in Yeldeğirmeni approved of the suggestion that the backyards should be brought into use as communal open spaces.

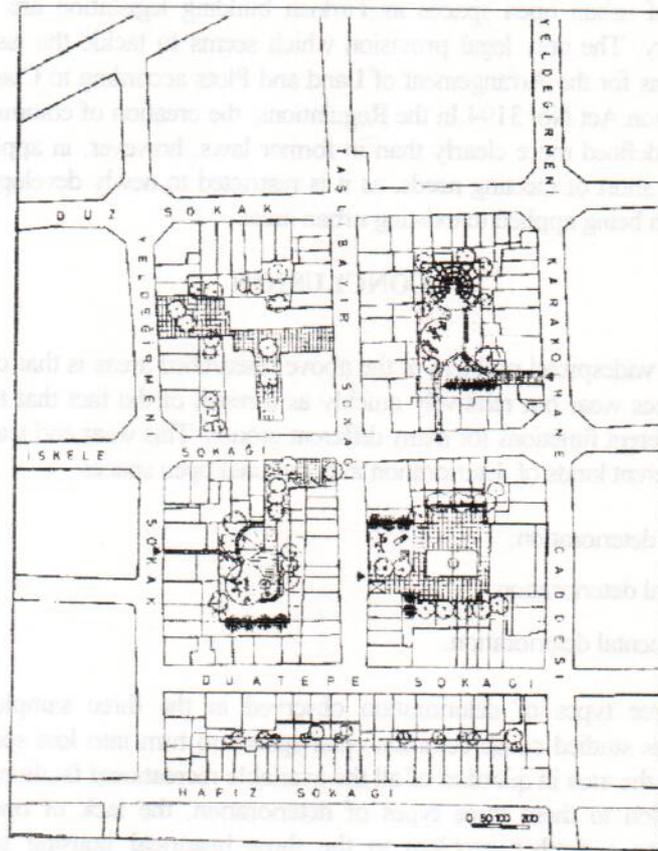


Figure 8.13. Proposed Backyards as Open Spaces in Yeldeğirmeni

It has become clear that some sort of initiative and/or organization (by the municipality or by other local organizations) will be necessary for this to be realized.

The creation of convenient open spaces that meet people's needs and provide protection depends primarily on the adoption of reliable policies in the creation of open spaces and legal sanctions. Existing regulations concerning the creation of urban open spaces in Turkish building legislation are far from satisfactory. The only legal provision which seems to tackle the issue is the Regulations for the Arrangement of Land and Plots according to Clause 18 of Construction Act No: 3194. In the Regulations, the creation of communal open spaces is defined more clearly than in former laws; however, in application it has fallen short of meeting needs, as it is restricted to newly developing areas rather than being applied to existing urban areas.

CONCLUSION

The most widespread problem in the above researched areas is that communal open spaces wear out relatively quickly as a result of the fact that they serve many different functions for many different groups. This wear and tear leads to three different kinds of deterioration in communal open spaces:

- physical deterioration;
- functional deterioration;
- environmental deterioration.

These three types of deterioration observed in the three sample housing settlements studied cause common open spaces to turn into lost spaces, thus depriving the area in question of all the available recreational facilities.

In addition to these three types of deterioration, the lack of open spaces emerges as a further problem in the three historical housing settlements researched in this paper.

Contributions by the municipal administration and inhabitants are not sufficient to supervise, create and maintain the open spaces in housing environments. Production of open spaces that satisfy public needs and protection of existing ones depends on the existence of open space policies which are supported by legal measures.

As legislation only compels flat owners to contribute to improvements made

in covered spaces, not much can be done to make them contribute to the arrangement of communal open spaces to be created in these settlements: either legal sanctions will have to be introduced or some sort of local community organization will have to be created.

Another reason for the deterioration of open spaces in these sample settlements is that open spaces and street furniture are not designed according to the tastes and habits of the people using them. It should be remembered that the social characteristics of the users (age, level of education, occupation, sex, etc.) are important factors influencing open space use.

It is clear that a management model will have to be developed in order to guarantee the maintenance and repair of open spaces in those sample settlements where open spaces between buildings are provided along with the buildings themselves.

The open spaces in the environment remaining between buildings constructed by cooperatives and private companies in urban areas are organized according to the financial resources of these organizations.

Existing backyards can be united to achieve new communal open spaces in the historical settlements. In order to provide such spaces, legal and administrative problems should be solved. The majority of inhabitants of the researched areas expressed their agreement with this proposal. Successful implementation of plans to get new open spaces by uniting existing backyards and ensuring the continuity of these spaces depends on the importance attached by municipal administrations and the active support of the inhabitants.

References

Akdoğan, G., (1979), **Doğa Düzenleme Ders Notları**, İ.T.Ü. Faculty of Architecture,

Anon., 3194 Sayılı İmar Kanunu, **Resmi Gazete**, 9 Mayıs 1985. (Construction Act, Act No: 3194, Official Gazette, May. 9th, 1985.)

Ashihara, Y., (1981), **Exterior Design in Architecture**, Tokyo.

Atalik, G., (1978), İstanbul'un Bir Kamuya Açık Alanlar Planlama Stratejisi Geliştirilmesindeki Olanaklar ve Sınırlılıklar, Green Area Problems of Greater İstanbul Symposium,

Bakan, K., (1987), Türkiye'de Kentsel Dış Mekanların Düzenlenmesi, TÜBİTAK and Türkiye Yapı Araştırma Enstitüsü,

Brambilla, R. - Longo, G., (1977), For Pedestrians Only: Planning Design and Management of Traffic Free Zones,

Doğan, N., (1986), Endüstri Ürünleri Tasarımında Kent Mobilyaları, Türkiye Yapı Araştırma Enstitüsü,

Evyapan, G., (1981), Kentleşme Olgusunun Hızlanması Nedeniyle Yapılar Yakın Çevresi Düzeyinde Açık Alan ve Mekanların Değişimi, O.D.T.Ü.

Gehl, J., (1987), Life Between Buildings - Using Public Space, New York

Pamay, B., (1974), Şehirciler İçin Peyzaj Planlama Ders Notları, İ.D.M.M.A.

Suher, H. - Ocakçı, M. - Yılmaz, Ü., (1986), Ulaşım Kapatılan Yollardan Kazanılan Çocuk Oyun Alanları, Transportation Symposium, İ.T.Ü.

Trancik, R., (1986), Finding Lost Space: Theories of Urban Design, New York,

White, W. H., (1980), The Social Life of Small Urban Spaces, U.S.A.

Yıldızcı, A. C., (1982), Kentsel Yeşil Alan Planlaması ve İstanbul Örneği, İ.T.Ü. Assoc. Prof. Thesis.

Yiğİter, R. G., (1990), Konut Yakın Çevresi Açık Alanları Değerlendirilmesi ve İstanbul'dan Örnekler, Master Thesis, İ.T.Ü.