

# Dwellers' responses on meaning and use of residential open spaces : Northern Cyprus<sup>1</sup>

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## Abstract

*This study is an attempt to explore the meaning of 'open spaces' in housing areas in Northern Cyprus and to evaluate these spaces in terms of their adequacy as used by the residents.*

*The significance of open spaces in housing areas, as is widely recognised, leads us to explore these spaces from various perspectives. The quality of the residential outdoor spaces that are affected by natural, artificial and behavioural determinants sets one of the fundamental intentions as far as their quality is concerned. This paper, having concluded a previous analytical study on the fore-mentioned issues (Oktay & Onal 1998), attempts to find out the extent to which the residents attach a meaning to their exterior environment and integrate it with their lives. Accordingly, a survey was conducted on 420 residents from a variety of areas, ages and income levels. The findings revealed a high level of desire for better integration between the residences and their private open spaces. However, due to the poor quality of design in many cases, which does not take social and cultural values into consideration, the majority of the residents have responded negatively concerning these spaces, which is in consent with the author's own conclusions, as seen in 'Analysis of Residential Outdoor Spaces in Cypriot Towns'. The questionnaire was comprised of questions regarding the general level of satisfaction with the open spaces provided, their location, size and design, the relationship of these spaces with the houses and the street space, the quality of the greenery, car parking, etc.*

*In studying the significance of open spaces, the*

*present paper focuses on the most common housing patterns in Northern Cyprus by considering the changing qualities of residential development in the last decade.*

*(Keywords : Open space, Dwellers, Meaning, Use, Satisfaction, Northern Cyprus.)*

## Introduction

It has been observed that the usual method of designing housing projects usually takes user requirements into consideration at the scale of dwelling unit and neglects the need for open spaces. In fact, the spaces around dwellings have great importance both in creating and/or enhancing social interaction among residents and enriching their daily life in individual units — especially in hot climates. As Marcus and Sarkissian (1986, 13) highlighted in their comprehensive study on clustered housing, the success of housing depends more on how the spaces between buildings are handled than on interior design.

It is quite reasonable to assume that in developing countries, the reality of urban dynamics — rapid urban development as a result of the great increase in population — destroyed habits, customs, functions, interests and unavoidably changed the form and use of old city patterns. However, in Northern Cyprus, a developing country on a Mediterranean island, where no dramatic changes happen, we are still faced with deterioration of architectural and urban environment due to changes in socio demographic and environmental landscapes<sup>2</sup>. This is more clearly observed in housing developments; despite the possibility of creating locally appropriate environments, new parts of towns are shaped in a spontaneous

<sup>1</sup>This article is a more sophisticated version of a paper presented to International 'Culture & Space in the Home Environment' Symposium, Istanbul, 4-7 June 1997, organised by IAPS & ITU.

<sup>2</sup>The only case where the population has increased more significantly in the last decade is in the town of Gazimagusa (Famagusta). This is due to the establishment of Eastern Mediterranean University, the biggest university in Northern Cyprus. However, the rapid and indigent quality of urban development is observed in all towns throughout the country.

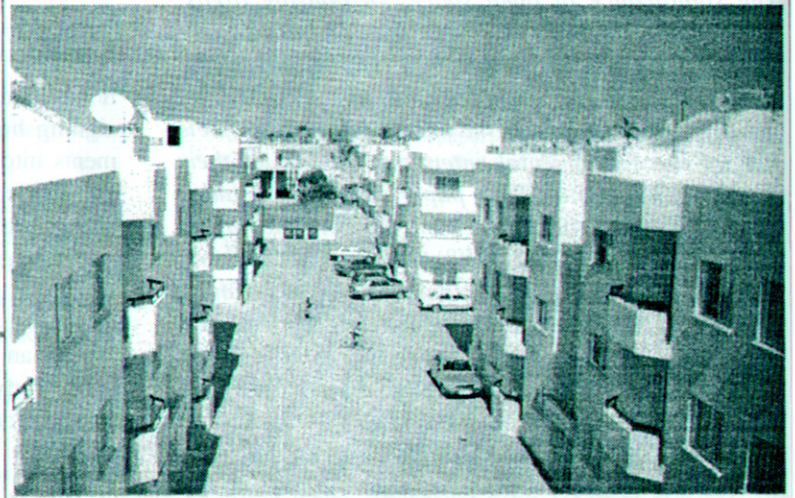
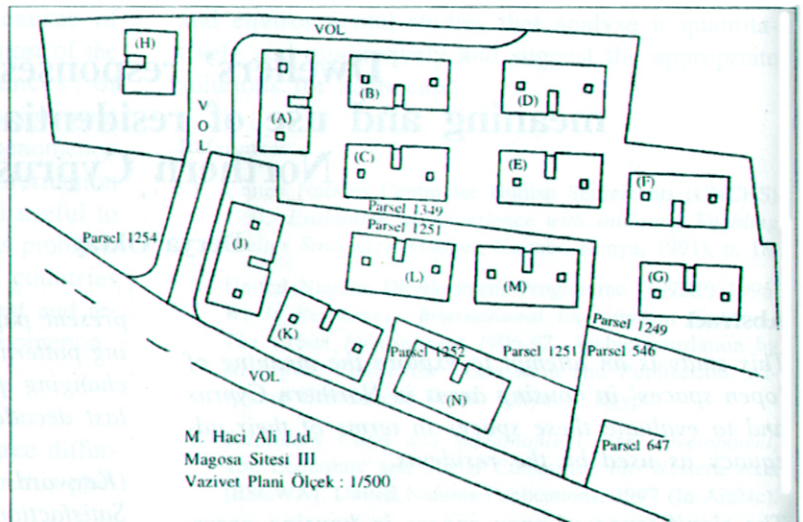
way, without following a prepared master plan. In this way, the outcome is an urban layout that lacks cohesion and an environment that does not respect the local aesthetic, social-cultural and climatic requirements (see figs. 1 to 3). Since the hot climate (hot-arid in midlands, hot-humid in coastal areas) is an important element in the daily life in Northern Cyprus, this study assumes that open spaces are potential outdoor rooms for local dwellers, and attempts to explore their significance by evaluating these spaces in terms of their adequacy as used by the residents.

### 1. Research issues and methodological framework

As is common to all developing countries, the provision of sufficient and adequate housing is one of the most important issues in Northern Cyprus. The problems regarding the use of new residential environments become more apparent, with the formation and use of private, semi-private and also common open spaces.

Preliminary observations have revealed that a number of problems are experienced by the residents of housing areas in Northern Cyprus in relation to the physical layout of open spaces and the general living environment provided. As seen in the author's previous studies (Oktay & Onal 1996, 1998), residential exterior spaces are unsympathetic to and inadequate for the users' needs, their life style and their socio-cultural conditions. This is especially true in the case of multi-storey housing developments which contravene many social and cultural norms in Cypriot towns<sup>3</sup>. In the design of these schemes, neither the physical or aesthetic characteristics of the outdoor spaces nor their functions and uses have been considered. They appear as isolated wastelands of space; streets have become mere vehicular channels without any definition and public use. The general appearance of the housing areas does not reflect a logical balance between the open spaces and built-up spaces,

<sup>3</sup> It is only thirteen years since multi-storey housing was comprehensively introduced in Northern Cyprus.



Figs. 1 and 2 ✓ ✓

Site plan and view of a new housing complex in Famagusta (Gazimagusa)



Fig. 3

View of a typical government social housing complex in Famagusta (Gazimagusa).

TABLE 1

Areas of survey (the selection is based on the density of population)

Town	Lower income	Moderate income	Higher income
Gazimagusa/Famagusta (220 residences)	Suriçi/Old city (40)	Maras houses (40) Social houses (40) S. housing/Rows (40) Levent apts. (20)*	Karakol — New houses (40)
Lefkosa/Nicosia (140 residences)		Soyak apts. (20) Soc. hous./apts. (20) Soc. hous./rows (40) Türksen apts. (20) Levent apts. (20)*	Efruz bey houses (20)
Girne/Kyrenia (40 residences)	Türk mahallesi (old quarter) (20)	Social housing/ Rows (20)	
Guzelyurt (20 residences)		Social housing/ Rows (20)	

rather they present a monotonous view of a group of concrete blocks. Hence, these spaces seem to have no meaning for their owners.

Because very little baseline data had been generated regarding the preferences and attitudes of people about 'residential open spaces' in Cypriot towns, the research is aimed at understanding how these spaces are being evaluated by their users. Consequently, a questionnaire was designed in line with the previous observations and certain preconceptions concerning the meaning and use of private and semi-private spaces<sup>4</sup>.

The survey was directed in a way that analysed the responses of residents from different housing types, and the most common values were highlighted. The questionnaire form was specifically designed and prepared for this research and included 35 questions, 18 scaled and 17 open-ended. Basic themes addressed in the form were 'general characteristics of the residents and their houses', 'perceptions and evaluations regarding private and semi-private open spaces and their expectations', and 'evaluations of the surrounding environment'.

The survey was conducted in various districts in the four towns, Lefkosa (Nicosia), Gazimagusa

(Famagusta), Girne (Kyrenia), and Guzelyurt, and included the most common housing patterns, individual/detached or row houses and apartments/flats. (see Table 1 above).

Although the sample areas were selected with respect to the socio-economic level of the local residents, the distinctions were not significant and therefore not reflected in the evaluations. Rather, the distinction between the different types of housing was treated as significant.

## 2. Characteristics of the respondents

In general, the study dealt with moderate-income residents from various areas and age groups. 270 dwelling units out of 420 were individual houses, and 150 were apartments/flats. The survey evaluated the responses of the residents both in general and in each group separately. One person was interviewed in each unit on behalf of the household.

### House ownership

There is a clear difference between the residents of flats and of individual houses in terms of ownership; most flat residents (64%) were tenants and slightly more than one-third (36%) were owners. On the contrary, a large majority of the house residents

<sup>4</sup>Post-occupancy evaluations of housing environments are providing architects with insight into how their buildings are being used, valued, and modified by tenants and management. Therefore, most of the design research in many countries takes the user surveys as its basis. In the present paper, the SPSS programme has been used in the evaluation of the survey data.

(85%) were owners, whereas less than one-fifth (15%) were tenants or of other status.

### *How long have they been living in their houses ?*

Half of the flat residents (50%) had lived in the same house for only one or two years. Over one-third (40%) had lived there for two to five years, and only one-tenth (10%) had lived there for a longer period. These figures are comparatively higher in detached houses. More than a quarter of the residents (28%) had lived in the same house for five to ten years, a quarter (25%) had lived there for ten to twenty years, another quarter (25%) had lived there for more than twenty years, less than one fifth (14%) had lived there for two to five years and only a handful (8%) had lived there for two years or less.

### *Ages*

Almost two-thirds of the flat residents (63%) were between the ages of 31-40, less than half (44%) were between 18-24, less than one-fifth (17%) were between 25-30<sup>5</sup>. The average age was higher in individual houses. Two-fifths (41%) were between 41-50, less than one-fifth (16%) were between 31-40, one-fifth (16%) were between 51-60, only a handful (12%) were between 18-24, very few (10%) were older than 60, and the remaining (5%) were between 25-30.

### *Number in household*

The average number in the household differs in different housing patterns. In apartment flats, a quarter (26%) had three persons, over one-third (39%) had four, less than one-fifth (15%) had two, less than one-fifth (16%) had five, and only a few (4%) had 1 person as household. Half of the individual houses (50%) had four persons, more than one-fifth (22%) had three, less than one-fifth (16%) had two, a handful (10%) had five persons, and a few (2%) had one person living in the unit.

### *Where did they live before ?*

Almost half of the flat residents (45%) had lived in detached houses before, and less than one-quarter of the house residents (24%) had lived in apartments/flats previously.

## **3. Findings**

In the main part of the questionnaire, householders were asked about their satisfaction in terms of the

organisation, use and general comfort of their open spaces. The results are as follows :

### *3.1 Open and semi-open spaces in general*

The traditional Cypriot settlements reveal a cohesive character with well-scaled narrow streets and cul-de-sacs and organic open public spaces at the intersection of streets. Connecting a group of houses with each other and to a larger circulation artery, the street is the most rudimentary of intersections between the private and public domains. The street space is almost an extension of home where diverse group activities are accommodated within the limits of privacy (Oktay 1998, 1999).

The typical dwelling form in the older parts of Northern Cyprus is the low row-house with a porch and small front yard facing the access street and a private outdoor backyard (*avlu/courtyard*) behind the house (see Fig. 4 on the facing page). This form of dwelling with both front yard and back yard provides a valuable freedom of choice between staying on the public side of the house or on the private side. The courtyard, with its fruit trees, flowers and small vegetable plot, is the closest relation the house has to nature; and thus it also provides the inhabitant with direct access to nature.

The other types of houses which are very characteristic in the towns are those with front and side gardens with local fruit trees and flowers<sup>†</sup>. These outdoor spaces are well integrated with the house by means of semi-open spaces, such as *verandas*.

More than half of the flat residents (57%) were not happy with their open and semi-open spaces in their apartment flats, whereas almost two-thirds of the individual house residents (64%) were happy and one-third (36%) were not happy with them.

More than half of all the respondents' (60%) judgements about their dwellings were influenced by the quality of their open spaces; two-fifths (40%) did not consider it significant.

More than two-thirds of all the residents (68%) would not be satisfied with the possibility of an

<sup>5</sup> These low values are probably due to the fact that some of the flats are being shared by university students.

<sup>†</sup> In most of the houses, a jasmine tree planted at the gate marks the entrance to the house.

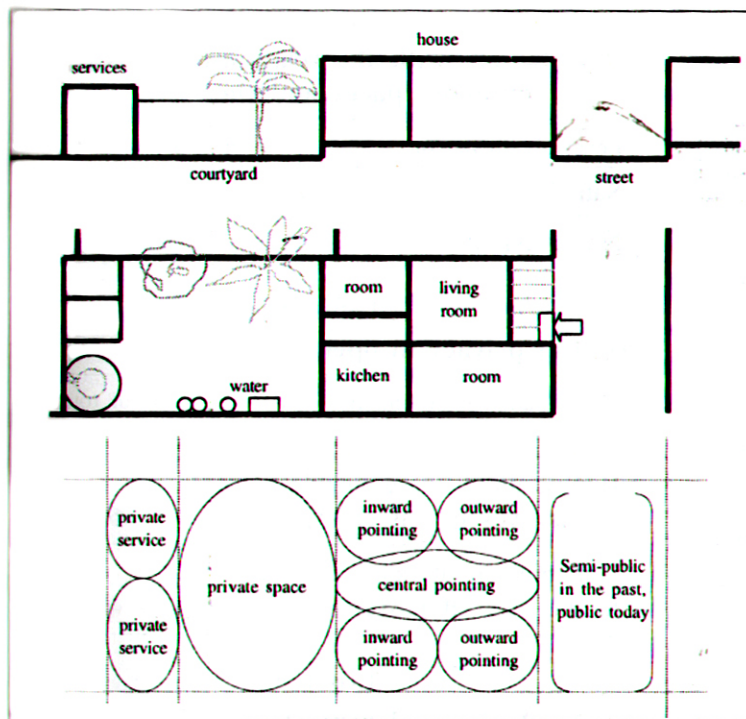


Fig. 4

Plan, section and territorial structure of a typical courtyard house

aesthetically pleasing view from their gardens or balconies as a single quality; they would prefer multi-functional spaces; only one-third (32%) would be satisfied with this single quality.

Most individual house residents (75%) stated that the open and semi-open spaces of their house affected the overall aesthetic quality; a quarter of them (25%) did not think so. These values are quite the opposite in apartment flats, where less than one third (31%) approved the aesthetic role of open spaces overall, and 69% did not.

A quarter of the respondents (24%) was dissatisfied with the relationship between their outdoor spaces and indoor spaces. On the other hand, most respondents (74%) were pleased with the relationship between their outdoor spaces and the street, and the remaining quarter (26%) was not. As regards privacy, most residents (60%) did not complain about being exposed to the eyes of passers-by in their gardens or balconies; only two-thirds (40%) considered it a problem. In line with these considerations, most residents (76%) would like to watch the activities or passers-by in the street, and about a quarter (24%) would not.

Considering the positive qualities attached to the courtyard house and the fact that multi-storey housing is a new phenomenon in Northern Cyprus, it is not surprising that the responses of the flat residents in the survey are more negative than those of the house residents. (See Tables 2 to 9).

### 3.2 Balconies

Balconies can be an important and valued amenity for some individuals; they provide a psychological outlet as well as being functional (for growing flowers, sitting, eating, etc.). They are essential in many contexts.

In this survey, balconies were referred to as the most disappointing elements. Two-thirds of the flat residents (66%) complained about the small size; more than one-third (36%) complained about inefficient sun orientation; more than one fifth (23%) stated that there is a lack of privacy; and less than one-fifth (14%) considered the street noise as a problem. On the other hand, slightly less than one-third (30%) of the house residents complained about the small sizes of their balconies; more than one-fifth (22%) complained about the street noise; one-fifth (20%) considered the sun orientation a problem — that they were not able to receive enough sunshine.

TABLE 2

#### General satisfaction with open and semi-open spaces

Level of satisfaction	% of total for flats	% of total for houses
Satisfied	43	64
Not satisfied	57	36

TABLE 3

#### Influence of open spaces on the general judgement

Level of influence	% of total in general
Positive and negative aspects are important	60
Positive and negative aspects are not important	40

TABLE 4  
Satisfaction with aesthetic view  
as a single quality

Level of satisfaction	% of total in general
Happy with the aesthetic view as a single quality	32
Unhappy with the aesthetic view as a single quality	68

TABLE 5  
Influence of open and semi-open spaces  
on the overall aesthetic quality

Level of influence	% of total for flats	% of total for houses
Agreed on the influence	31	75
Disagreed on the influence	69	25

TABLE 6  
Satisfaction with the relationship between  
outdoor spaces and interior spaces

Level of satisfaction	% of total in general
Satisfied	76
Not satisfied	24

The use of balconies included various functions such as sitting, receiving guests, drying laundry, watching TV, etc. Half of the apartment flat residents (49%) used their balconies for sitting on throughout the year, and one-third (55%) for the summer time only. More than one fifth (23%) used them to dry clothes, slightly less than one-fifth (17%) to receive guests, and almost one-third (32%) to watch TV. On the other hand, more than two-fifths (42%) of the house residents used their balconies during the summer, more than one-third (35%) for sitting on throughout the year, more than a quarter (29%) to dry clothes, and one-fifth (21%) to receive guests.

A large majority of the flat residents (89%) were disappointed by the lack of opportunity to grow plants on their balconies; only a handful (11%) were

TABLE 7  
Satisfaction with the relationship between  
outdoor spaces and the street

Level of satisfaction	% of total in general
Satisfied	74
Not satisfied	26

TABLE 8  
Need of privacy in open and semi-open spaces

The situation regarding the need for privacy	% of total in general
Happy about being visible to the eyes of passers-by	60
Unhappy about being exposed to the eyes of passers-by	40

TABLE 9  
Need of visual contact with the street

The situation regarding the need for visual contact with the street activity	% of total in general
Wish for direct contact	76
No wish for direct contact	24

pleased with the situation. On the other hand, slightly less than two thirds (64%) of the house residents were pleased with the situation, and more than one-third (36%) were not happy with the provided setting.

As a result of this expressed dissatisfaction, residents of both types made some changes in their balconies. A tenth of the flat residents (10%) and 7 per cent of the individual house residents changed the railings of their balconies<sup>6</sup>. More than a tenth of the flat residents (15%) and a smaller group (5%) of the flat residents introduced sun screening elements (canopies, etc.) in their balconies. With regard to the balcony flooring, more than a tenth (12%) of the flat residents and 12 percent of the individual house residents changed the flooring on their balconies. Similarly, 12 percent of the individual house residents changed the floor pavement in their balconies. (See Tables 10 to 13).

<sup>6</sup> Changes to railings were mostly related to their height, which blocked the residents' view and negatively affected the visual interaction between the balcony and the outer environment.

TABLE 10

**The things which the residents did not like in their balconies**

Dislikes	% of total for flats	% of total for houses
Small balcony	66	30
Insufficient sun orientation	36	20
Lack of privacy	23	19
Street noise	14	22

TABLE 11

**Use of balconies**

Type of use	% of total for flats	% of total for houses
To sit in throughout the year	49	35
To sit in during the summer	55	42
To dry clothes	23	29
To watch TV	32	9
To receive guests	17	21

### 1.3 Gardens

*"Architects must design gardens as much as they design buildings to be able to develop an understanding of aesthetics, to acquire mystic values and to learn how to enjoy them"*

— Luis Barragan

The Cypriot town was well known for its fruit gardens in the early years. These gardens were an important component of the hierarchy of exterior spaces, extending from public square to semi-public street, semi-private courtyard and/or private garden. The colourful landscape of the Cypriot settlements was sensitively described in Lawrence Durrell's, *Bitter Lemons of Cyprus* (1959, 55):

*"...I was not prepared for the breath-taking congruence of the little village which surrounded and cradled it against the side of the mountain. Fronting the last rise, the road begins to wind through a landscape dense with orange and lemon trees, and noisy running water. Almond and peach-blossom graze the road, as improbably precise as the décor to a Japanese play."*

TABLE 12

**Satisfaction with the opportunity to grow plants in balconies**

Level of satisfaction	% of total for flats	% of total for houses
Satisfied	11	64
Not satisfied	89	36

TABLE 13

**The things which the residents changed in their balconies**

Type of work	% of total for flats	% of total for houses
Change of railing	10	7
Addition of sun screening element	15	5
Change of floor covering	12	12

Referring to the urban texture in old Nicosia (Lefkosa), Saalman (1968, 25) indicated that "scattered houses stood here and there amid fields and vegetable gardens, a kind of country within the city. As also proved by the writings of Alexander Drummond, who visited Nicosia (Lefkosa) in 1750, the town provided room for a great number of gardens, planted with orange, lemon, cypress, mulberry, olive, and almond trees. These trees exhibited a delightful variety to the eye of one who walks upon the ramparts (Cobham 1969, 286).

However, these gardens are no longer tended: in most cases, they have been abandoned for parking lots and lumberyards. Considering the role of greenery in the creation of a healthy environment, re-establishment of green areas in towns should not be neglected. A hierarchy of private, semi-private and public gardens should be established in order for the towns to sustain their most significant qualities.

In today's detached houses (individual villas or row houses), the use of front gardens included functions such as growing flowers, sitting, car parking, passing through, receiving guests, etc. Growing plants is the most common function of all. The majority of the residents (72%) used their front gardens for this purpose; summer sitting was the second activity people preferred (64%). More than one-fourth (29%)

TABLE 14

## Use of front gardens

Type of use	% of total for houses
To grow flowers	72
To sit in during the summer	64
To sit in throughout the year	29
To park cars	22
Only for access	20
To receive guests	17
To grow vegetables	6

TABLE 15

## The things which the residents did not like about their front gardens

Dislikes	% of total for houses
Small garden	17
Insufficient Sun orientation	22
Lack of privacy	13
Street noise	18

used them for sitting in throughout nine months of the year; more than one-fifth (22%) for car parking, one-fifth (20%) only for access, almost one-fifth (17%) to receive guests, and a handful (6%) to grow vegetables.

All residents mentioned the same problems about their front gardens, *viz.* too small, poor position *vis-a-vis* sun, privacy and street noise. Almost a quarter (22%) complained about the inefficient sun-orientation, slightly less than one-fifth (18%) complained about the street noise, and less than one-fifth (17%) complained about the small size of their front gardens.

The use of rear gardens in individual houses was quite different compared to those of front gardens. More than half of them (52%) used their rear gardens for laundry drying, slightly less than half (48%) for growing flowers, more than one third (36%) for growing vegetables, almost one-fifth (19%) used them for storage, slightly less than one-fifth (18%) to keep pets, less than one-fifth (18%)

TABLE 16

## Use of rear gardens

Type of use	% of total for houses
To dry clothes	52
To grow flowers	48
To grow vegetables	36
To store goods	19
To keep pets	18
To sit in	18
For other types of house-work	17

to sit in, and less than one-fifth (17%) for other types of house work. (See Tables 14 to 16).

## 3.4 Car parking

The percentage of car ownership is quite different for flat residents and individual house residents. Most residents (64%) in flats have one car for each unit; a handful (12%) have two cars; and very few (7%), probably in students' shared flats, have three cars. On the other hand, slightly less than half (43%) of the residents have one car, a similar number of residents (43%) have two cars, and a tenth (10%) have three cars in individual houses.

Users' satisfaction with spaces for car parking also differs from one group to another. Less than two-fifths of the apartment flats (40%) were happy with the situation, but more than half (60%) were not. In private houses, more than half (65%) were happy with the car parking facilities; over one-third (35%) were not.

Almost three quarters (71%) of the flat residents would like to have their car parking spaces adjacent to or near their apartment; more than a quarter (28%) would prefer to have group car parking further away from their apartment. On the other hand, a large majority (83%) of the individual house residents would like to have their parking spaces near their houses, only a handful (8%) would prefer to have group car parking in another location.

With regard to guests' parking facilities, most residents (65%) complained about the provision, while slightly more than one-third (35%) did not consider this as a problem.



### 3.6 Common open spaces

Open green space in and around cities is important for a number of reasons. These include the function of soil and its vegetation as a carbon sink; the function of the tree cover as an 'atmospheric scrubber' removing particulate pollution, the function of green areas as protectors of flora and fauna and the maintenance of bio-diversity (Edwards 1996). In addition to these environmental functions, the green areas associated with cities provide areas for recreation, food production and economic tree cropping (Moughtin 1996, 162).

There are three major benefits of creating developments taking open spaces into consideration in terms of energy saving:

- ☛ They help reduce storm-water infrastructure by creating more permeable surfaces in urban settings.
- ☛ By promoting a greater presence of trees and other vegetation, urban spaces assist in carbon sequestration, taking carbon dioxide pollution out of the air, which reduces green house gases and climate change, etc.
- ☛ By having open spaces scattered throughout the urban setting, pedestrian traffic is encouraged.

However, as clearly highlighted by the dwellers in the questionnaire, a serious dissatisfaction was observed in Cypriot settlements, regarding the quality of common open spaces, particularly with green areas. Considering the various characteristics of common spaces, residents of both types expressed similar opinions.

A large majority (89%) of the residents were not pleased with the provision of common spaces and related settings. The types of common spaces which the residents would like to make use of include passive green area (72%), sports areas (63%), common space for young people (62%) and children's play grounds (32%).

Almost one-third (31%) of the residents complained about the street noise in the common spaces, more than a quarter (27%) mentioned their inappropriate location, more than a quarter (26%) complained about the lack of view provided, one-fifth (20%)

stated that their visual boundaries were not clear.

Most residents (65%) were disappointed with their neighbours' concern towards the cleaning of common spaces. Considering the general environment, most of them (61%) were dissatisfied with the maintenance of the surrounding environment; the points of dissatisfaction included poor refuse collection, pavement decay in the street, clutter of electrical wires, etc.

More than half of the residents (53%) complained about inefficient street-lighting, and most residents (71%) complained about the lack of side walks in their neighbourhood<sup>7</sup>. On the other hand, a large majority of the respondents (89%) were unhappy with the lack of greenery in their environment. (See Tables 17 to 20).

In fact, in developed countries, a growing number of homebuilders, developers, and other businesses realised that landscaping and green space increase profits for developers while providing numerous other benefits to both the user and the community. That is why they are embracing landscaping and tree protection measures in their new developments.

In this context, the effect of trees on the social quality of housing is significant. This was proved by

TABLE 17

#### Efficiency of common open spaces in the environment

Level of efficiency	% of total in general
Satisfied	11
Not satisfied	89

TABLE 18

#### Types of common spaces which the residents would like to have

Type of common space	% of total in general
Sports areas	63
Open green areas	72
Children's play grounds	32
Common spaces for young people	62

<sup>7</sup>This was such a serious problem that some residents in Karakol, a newly developed district in Gazimagusa (Famagusta) where the average income level is high, built the sidewalks in their area themselves.

TABLE 19

**The things which the residents did not like in common spaces about their neighbourhood**

Dislikes	% of total in general
Noise	31
Lack of protection against the elements	6
Lack of view	26
Insufficient daylight and street lighting	20
Lack of visual definition	20
Inappropriate location and size (too small)	27

a survey in a Chicago housing project conducted by the scientists at Human-Environment Research Laboratory at the University of Illinois. In this survey, the buildings and their populations were surrounded by many trees, while other buildings were surrounded only by paved areas. Interviewees living in buildings surrounded by trees reported significantly better relations with their neighbours, stronger feelings of unity with their neighbours, and a greater feeling of security, compared to those living in buildings without trees (Sullivan & Kuo 1996).

The reason why trees might contribute to better relations among neighbours could be explained by the fact that outdoor spaces with trees are used significantly more often than identical spaces without trees. In urban areas, trees create outdoor spaces that attract people. When people are drawn to spaces with trees, they are more likely to see and interact with their neighbours, and so they are more likely to get to know each other and become friends.

Further, a natural environment with a range of vegetation offers children the best opportunities for free play. When we make neighbourhoods and towns without nature, we destroy the places of fantasy and autonomy that children need.

#### 4. Concluding remarks

It has been observed that the usual method of designing housing schemes usually takes user requirements into consideration only with regard to dwelling unit and neglects the need for open spaces. In

TABLE 20

**The things which the residents did not like in their streets**

Dislikes	% of total in general
Street noise	33
Children's noise	14
No provision for shade when walking	24
No greenery	46
No interaction with the residences across the streets	7
Disturbance by cars parked in the street	30

fact, spaces around dwellings have great importance both in creating and/or enhancing social interaction among residents and enriching daily life in individual units — especially in hot climates.

Changes in the socio-demographic and environmental landscape of Northern Cyprus have raised issues in relation to the quality of urban environments. As habits, customs, functions and interests were destroyed, the form and use of old city patterns have unavoidably been changed. The problem is more clearly observed in housing environments, especially in open spaces that are assumed to be significant in a hot climate. Comparing to the characteristics of the urban pattern of the past, open spaces, particularly gardens, have been abandoned for parking lots and lumberyards, despite the fact that the creation of a healthy urban environment demands the re-establishment of oases of greenery.

It has been evident by this survey-based study that open spaces are a cornerstone in the daily life of people in Northern Cyprus and satisfaction with their dwellings greatly depends on the quality of their private and semi-private open spaces. However, as a confirmation of previous observations and discussions (Oktay & Onal 1996, 1998), these spaces lack the qualities which provide positive meaning and availability for use by the residents; furthermore, there is serious dissatisfaction with the provision and/or qualities of collective open spaces in housing areas.

It appears that the meaning and use of open spaces is quite different between the two types of housing, apartment flats and individual houses. The differences are not only due to the building type, but also to the characteristics of the residents (their ages, house ownership, duration of residence, etc.)

Satisfaction was lower in general for apartment type housing, where private open spaces, usually in the form of balconies, are far from being an extension of the living environment. Fundamental to the success of apartment living are efficiently designed — well proportioned, well climatized, well ornamented — open spaces that are appropriate for sitting, eating, receiving guests, drying laundry, watching TV, etc. Maintenance of the semi-private open spaces and the surrounding environment is another issue that affects people's satisfaction with their dwellings. Therefore, these spaces must be considered early in the design process in terms of location, greenery, visual boundaries, view, protection against the elements (rain, sun, etc.).

On the other hand, residents of individual houses had many problems in their private open spaces, such as inefficient sun, street noise, insufficient size, lack of privacy in some cases, etc. Findings indicate that front gardens play a very important role in the lives of the people considered, and are preferred by many for various activities. This confirms that despite the theoretical possibility of making all sides of dwellings equally important, Cypriot culture retains a strong sense of 'front and back'. Therefore, in order that the outdoor living area is a 'success', the design of front yards in terms of position (*vis-a-vis* sun orientation), size, etc. must be carefully considered.

Since the experience of housing residents in Northern Cyprus demonstrates the negative impact that poorly-designed open spaces can have on the quality of people's lives, the future of attractive and well-developed open spaces depends on the thoughtful, sensitive and insightful acknowledgement and handling of the users' needs and responses. This study, by identifying the major likes and dislikes of the dwellers concerning the open spaces in their home environment, is therefore expected to provide a useful

design guide for architects, urban designers and planners.

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