PUBLIC HEALTH - URBAN LANDSCAPING RELATIONSHIP AND USER'S PERCEPTIONS

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ABSTRACT

This paper focuses on landscape features which make it possible for people to be healthy physically and psychologically and connected socially. The research is based upon a questionnaire, observation and related literature. The questionnaire design consists of questions which would identify people's preferred choice of the outside places (to overcome stress, bring peace of mind and relaxation). It also questions what is the people's opinion and expectations about the design elements which are placed in the outside places. For this reason, this questionnaire was given to different social groups (age, gender, etc.) in Ankara, Turkey in order that their opinion and expectations about the design features of landscape places (especially parks, streets, open space, shopping centers) where they voluntarily spent their time in their daily life are distinguished.

This work considers generally the urban area design which encourages the physical activities in urban life as well as its preventing elements. It considers which elements support the individual's psychological health, which elements are a powerfully support for social connection, and result in positive effects on urban life.

Keywords: urban green space, urban design, urban health, user's perceptions, landscape design, social interaction

Introduction

According to World Health Organization (WHO), "health" is defined not only as an individual not having any illness, but also is determined as an individual's "feeling himself or herself well", "being glad" in physical, psychological and social spaces. The health of the individual affects the health of the society directly. The physical environment created by urban design element decisions directly affects the psychological, physical and social health of the individual and, in turn, society as a whole. Urban places (such as streets, parks, green space, squares, open space, etc.) should be located so the user may easily find them and use them. Once there, the user should be able to move freely and feel comfortable, interacting with social groups, with the environment providing security and comfort. The quality of environment directly affects the health of the individual. Although the health of an individual is determined to a large extent by eating and drinking habits, economic status, genetic history, factors such as urban planning and design are also important. Urban planning elements play an important role in an individual's life habits like walking, physical movement and driving. In printed form for filling in statistics 1, the matters about urban planning and design, which affect urban health (in terms of physical, psychological and social areas), are explained in details (**Table 1**).

If the printed form for filling statistics is examined carefully, health problems, which appear in physical, psychological and social areas, have more than one cause. For instance, while dense populations and traffic patterns affect urban health physiologically, they also aggravate problems such as loneliness, individualism, etc. Elements which affect urban health have a mixed structure and they are related to the physical conditions and socio-cultural reasons at the same time.

While the urban setting brings many attractive elements, it also brings many problems. People living in urban areas are faced with an array of social problems (increase in crime rate, unemployment, drug addiction, individualism, loneliness and increase in poverty). They are also faced with physical illness (obesity, cardio vascular diseases, asthma and allergies) and psychological problems (depression, stress, anxiety and worry). All of the world's urban settings, either developed or developing, are faced with these problems in the same manner. On the other hand, the solutions of these problems, which are created by the urban life conditions, also lie in the urban setting. These conditions can be improved with rational planning and administration.

Urbanization is the most dominant tendency all over the world today. Although, at present, nearly 50% of the world population lives in urban areas, according to United Nations (1), in the next 30 years, this contingent will be 61% (14). According to Rees, in the first years of 2000, although 80% of the population of the developed countries is living in urban areas, 50% of the whole world population is living in cities (26). If the expectations of United Nations about population diversion in rural and urban areas all over the world between the years 1996-2030 are examined carefully, it is clearly seen that the urbanite population ratio is higher than the rural population.

Largeness of the urban areas has increased in very important ratio because of the urbanization phenomenon during the last

TABLE 1

Urban planning and design matters which affect being healthy

Matters about Health	Factors (about urban planning/design)
About physical matters Obesity Cardio vascular diseases Allergies Asthma Diabetes, etc.	-less activity because of life style (TV, internet, etc.); -urban planning which gives precedence to motorize vehicles; -insufficient green space; -quality, insufficient dispersion and amount of existing green space; -insufficient bicycle and pedestrian-friendly roads, etc.; -wrong choice of plant species for cultivation (e.g polen producing plant and others), resulting in allergies; -pollution; -noise; -urban ecology (environmental pollutants, reflection, etc.)
In Social Areas Individualism Isolation Loneliness Loss of self-personality Alienation	-life style related loneliness (TV, Internet, etc.), multi-flat building structure, lack of recreation facilities; -migration from rural to urban areas (socio-cultural conflict); -lack of facilities predisposing to socialization; -security problems; -apartment house life; -lack of urban integration; -insufficient mass organizations which gather communities together (meetings, festivals, fairs);
In Psychological Areas Depression Stress Winter blues, sick building syndrome, etc.	-density of buildings, surroundings full of artificial materials; -traffic jam, time spent in traffic; -density of people; -alienation, social isolation; -insufficient sunlight (impeded view of sky, diminished natural light due to tall structures); -security related anxiety (crime, terror, pickpockets, etc.)

century. There are nearly more than 300 cities which have population of one million and 16 urban areas are determined as a 'mega city' (1, 14).

The fact that the urbanization tendency is so strong means that urban populations will continue to grow, and in turn, many more people will be affected by the problems mentioned above. The spread of the urban spaces like an invasion into the rural areas causes environmental problems and this condition threatens the world's future. With the increase in the urbanization ratio, balance between environmental quality and human health is changing continually. Because of that, finding more healthy places in urban areas can be difficult and is the common trouble for the entire world's urban regions nowadays.

Aim and scope of the work

The research question is determined as "***How the urban places are installed and with which features are they designed which will support the creation of a healthy society?***

The work is shaped according to the assumption explained below. It is considered that physical, psychological and social health of citizens requires that the services and functions placed in the urban setting are many and varied. Urban places require three components in order to support the optimal health of the individual. These three components are:

1. Possibility for physical activities

It is a reality that physical illnesses such as cardiac diseases, diabetic disease and obesity are related to an individual's physical activities. Therefore, the environmental conditions in which the individual lives must contain elements which encourage physical activity. These features are explained in the printed form for filling in statistics in detail.

2. Relaxing features for psychological condition

The use of natural design elements such as water, plants, and animals, in the design has a positive effect and supplements the abatement of psychological illness such as depression, stress, anxiety and care.

3. Features in places supporting social influence and togetherness

The urban design must include places provided for groups to congregate, which will decrease the loneliness of the individual (isolation) and provide the opportunity for powerful social influence. The function and organization of these places will make it possible for common activities, including activities in which people will both participate or observe and which will bring together different social groups.

In printed form for filling in statistics 2, the condition of being healthy and features of appropriate place design are explained in details (**Table 2**).

The relationship between the health of the urbanite and the physical condition of the city cannot be denied. The overall health of the citizen is affected positively with the possibility of physical activities and the inclusion of peaceful, quiet, relaxing places and socialization areas in the urban design. As a matter of fact, many researches about urban health and environmental conditions support that idea. There is a strong relationship between the health and well being of the citizen and the existence of nature in urban environments; and between the style of urban planning and health in different fields (such as medical, public health, city planning, etc.).

Nature and health relations

Many works have studied the effects of the qualities of city design features on human health. Nicholson stated that living in nature was in the human genetics (24). According to him, although human beings are living in the cities which are opposite to their nature, they can adjust to these conditions.

TABLE 2

Condition of being healthy and features of appropriate place design

Condition for being healthy	**Type of place and its features**	**Features of appropriate design**
1. In the physical areas **2. In the psychological areas** Peace of mind for the individual; decrease to a minimum of the factors which result in stress and depression; Opportunities for a relaxed and peaceful state of mind	-place features which encourage physical activities such as walking, running, etc. -convenient transportation; -security; -comfort; Pedestrian and bicycle roads or paths (creating recreational traffic possibilities for non-motorized devices such as roller skate, etc.)	-appropriate sidewalk height; -appropriate access for the handicapped or people with babies; -places free from physical obstacles; -high quality plant design; -climate control; -events (special days, festivals, fairs); -appropriate slop/distance, course; -secure exercise courses, which consist of alternatives, varying in degree of difficulty (without vehicle traffic); -appropriate plant design;
	Green places	-diversity and quality; -attractive design elements (access to water, plants, pets); -security (prevention of crimes such as theft, annoyance, etc.);
	-stations; diversion of non-motorized traffic	-alternative routes;
	-in activity areas	-security, -attention and management;
3. In social areas Socialization, individual's feeling of belonging to society, prevention of isolation, minimizing the social conflict;	-design of quiet and peaceful places; -places free of noise and pollution; -orientation friendly design; -security; -access to natural elements such as sky and sun; -public places providing social influence and communication (roads, parks, etc.); -places for different social groups; -places for alternative activities (active and passive places - for running, physical exercises, observation, relaxing areas, etc.); -design of elements that bring different groups such as adults, children and women together (pets, flowers, water, etc.); -orderly attention, -administration manners (special days, organizations, fairs and festivals); -participation in common activities, observation areas;	

However, this adaptation comes with a costly price for human beings. Moreover, people whose adaptation is high are facing some kind of problems because of living in urban areas. These problems include some illnesses such as depression, winter blues, cancer and sick building syndrome.

At the root of these problems there are such causes as insufficient oxygen in the air, air pollution, insufficient natural light (sun light), use of construction materials such as concrete and asphalt altogether with insufficient vegetation. Light and oxygen are the necessary main substances for both physical and mental health. If the ratio of oxygen in the air is less than 10-12% and sun light is insufficient, it affects the secretion of the hormone melatonin. It is also a known reality that cancer cells increase in anaerobic environment rapidly.

The lack of natural environs in the cities creates environments which produce stress for human beings. However, there are reasons that bring hope. The discussions, now international in scope, concerning these ideas are including suggestions about the importance of natural elements which can create appropriate, healthy urban life conditions that will actually nurture human nature. One of these suggestions is that cities are transformed from *grey urban* to *green urban*. Hough defined the concept of "*green urban" a*s the integration of urbanization and nature (16). He has developed many ideas, widespread in scale, from city and district planning, structure scale to ecological structure design which consist of ecological plantation in and around the urban environment, using clear energy, decreasing car-addiction, limiting the spread of cities trough the rural areas, etc.

Natural areas placed in urban areas have positive effects on both ecology and on the physical and social aspects of human health. Different researchers report that being in natural areas or just watching from distance brings positive effects on human's physical and psychological health. Ulrich states that the possibility of watching nature from a hospital window has an improving effect on patients who had gall bladder operations (28). Moreover, in his work, he ascertained that the duration for recovery was shorter for the boarding patients who could see trees from their hospital rooms than the boarding patients who could see just walls. The patients who could see trees required less pain-killer medication and had fewer negative thoughts.

In addition, Moore stated that prisoners who could see nature from their window became less sick (23). In the same way, Handy et al. stressed that prisoners who saw natural views had fewer physical symptoms, including fevers (15).

The important advantages of natural areas placed in cities are enjoyed not only by adults and seniors, but also by children. Scandinavian researchers ascertained that children playing in the playgrounds designed with many more natural elements showed improved concentration, motor abilities, and social interaction. (8, 13, 19). Assortment in topography and vegetation in playgrounds which are designed with natural elements improve the children's motor abilities (8). Additionally, Grahn (13) observed that children in public nursery for infants designed with natural elements suffered less illnesses than the children in public nursery for infants without natural playgrounds. Moreover, Ulrich et al (29) stressed that even the view of a natural area decreased their stress (19).

In USA, after orderly playing activities in green areas and playgrounds designed with natural elements, children with attention deficit disorder were observed to demonstrate much more positive behaviour. In addition, it was ascertained that the playgrounds in natural areas had some peculiarities concerning improvement of the abilities in focusing especially in children who had difficulties in concentration (6, 19). Research done in Chicago observed that children moved and played much more and were more creative playing in a playground with abundant vegetation. On the other hand, in the areas with less vegetation, children were observed as less active (6, 19).

Ulrich et al. (29) appraised the effects of pictures, which consisted of trees and natural views and photographs which showed a construction area in a city, on the human brain. He ascertained that alpha waves, which demonstrate relaxation, were at higher levels in the brains of those people that observed the natural scenes than those who looked at the construction photographs. Moreover, 120 persons who had just watched a stressful movie were observed to relax quickly after looking at the natural pictures just after the movie.

Sturm examined carefully the relationship between living in urban areas and human health and stated that he could not find any relation between mental health issues (depression, anxiety etc.) and urban sprawl (27). Although it may be difficult to demonstrate the relationship between the disorganized urban development and mental health, it could be said that in disorganized establishments, there could be possibility of "social isolation" which could result in depression (5, 25). Consequently, if an individual feels that he belongs to the place in which he or she is living, in social settings, and as an individual, he or she may assume that in the place, there could not be any problem such as loneliness and isolation. Pedestrian districts in cities provide powerful social togetherness and allow social influence to take effect. Lund stressed that high quality pedestrian districts resulted in a more powerful sense of community and increased social togetherness and social influence between the neighbourhoods (22). In addition, Lund compared the traditional wards and the new establishments. He especially stated that traditional neighbourhood relations were in more abundance in historical or old districts than in new suburbs (22). In the same way, other research done in Chicago ascertained that places with trees lent themselves to the gathering of people from different age groups and provided more assortment in terms of social manners and togetherness than the places with fewer trees and plants (3, 19).

Research on places that encourage physical activity informs us that the advantages of streets that are designed primarily for pedestrians are too many to be denied. While they provide economical movement (4), they also support healthy air quality (4, 10). Moreover, they are important for the physical health (10). For this reason, the presence of lively streets

which are easy to access are important for both individual and society health. Humpel investigated the walking habits and environmental choice in Australia using a questionnaire which was given to 400 individuals who were at an age around 60 (17). According to this research, men's choice of a walking route was affected by the ease of access and aesthetic functions, while for women appropriateness of function was the first consideration.

Lawrence et al. (21) created a study in Atlanta, Georgia which included 10 878 participants. He looked at Body-Mass-Index, how much time was spent in a vehicle each day, distance walked each day, age, gender, income and education. The aim of this work was to apprise the individuals who were living in the city by gender and ethnicity and the relationship between the people who were physically active and those who were not, looking at the Body-Mass-Index. Participants were chosen randomly. Gender and ethnicity features were analyzed separately. According to the results, every additional hour spent in vehicle increased obesity by 6%. On the other hand, in a day, every additional kilometre which was walked decreased the obesity with 4.8%.

In a research which concerned 149 old women around age of 74, King ascertained that participants had much more desire to walk when the park, market or shopping centre was within a walking distance of twenty minutes (20).

Additionally, Humpel found by appraising 19 works that reach ability and aesthetic factors of places where people are likely to exercise, play more significant role concerning whether or not people exercise than do weather conditions and security considerations (18).

Frank and Engelke stressed that one of the habits which could improve society health was providing possibilities for activities such as walking and bicycling (11). The form or design of the city, which advantage the frequency of walking and bicycling as a style of physical activity, is the most important element which determines and affects those physical activities.

Zhang (30) determined the concept of just having one's own car for transportation to be "car-addiction". Moreover, Cervero (2) showed that choice of travel alone or sharing was affected by disorganized land usage. Therefore there is a relation between land usage and travel choice.

In green spaces such as parks and recreation areas, it is essential, especially for old or handicapped individuals, that the features of the place may be accessed easily. The relative ease of access determines whether the person's social activity will be active or passive. Also, if the problems cannot be solved, it will be inevitable that negative effects will follow each other such as social conflict, increase in crime rates and decay of society.

Frumkin drew out a very large frame with design elements from design scale to feature of urban form and everything about urban health (12). In this concept, 4 factors were determined for healthy places. These were relation with the nature (presence of trees, lakes and flowers), buildings (ecological building design), public places (streets, walking paths, parks and cafes, places for sport activities), urban form (design, decision on using land for transportation).

Questionnaire Design

The questionnaire was designed for determining features of places where the physical activities are encouraged, places that supplied the opportunity for socialization and places that predisposed to relaxation. The questionnaire consisted of 21 questions and was supplied to 360 participants, chosen randomly, in May 2006. Findings were appraised for only 352 participants as 8 participants were excluded because some of them answered with more than one choice for each question and some did not answer some questions. The results demonstrate 4 main findings which were:

- A. related to the socio-demographic structure of the participants,
- B. related to the participants' physical health in terms of their activities,
- C. related to the participants' psychological health,
- D. participants' activities which provided possibilities for their socialization.
- Data were appraised with Microsoft Excel and Minitap 13 programs.

Findings about the Socio-Demographic Structure

This section gives information about the participants' gender, age, education, number of children and Body Mass Index. 59.38% of the participants (209 people) were women and 40.62% (142) were men. 58.8% of them (207 person) were single, 41.19% of them (145) were married. While 26.09% of the married participants had 1 or 2 children, 12.50% of them (44 people) had more than 3 children. When we looked at the diversion of age groups, while the 18-29 age group had the largest ratio with 54.25% (191 person), the group aged 49 and over had the smallest ratio with 12.78% (45 person). Concerning the participants' education level, the majority of them had university degree with a ratio of 49.15% (73 people). The findings about Body Mass Index, revealed that while the majority of the participants- 48.30% (170 people) had normal weight, the participants who were obese had the smallest ratio with 5.1 % (18 people) (**Table 3**)

TABLE 3

Diversion related to features of participants

Features of participants		**Percent (%)**	**Number**
Gender	Male	40.62	142
	Female	59.38	209
Marital status	Single	58.81	207
	Married	41.19	145

Number of children	With no children	50.51	213
	1-2 children	26.99	95
	More than 2 children	12.50	44
Age groups	18-29	54.25	191
	30-39	16.48	58
	40-49	16.48	58
	49 and over	12.78	45
Education level	Primary school	8.81	31
	High school	42.05	148
	University and higher	49.15	173
Body Mass Index	15-20 (thin)	24.72	87
	20.01-25 (normal)	48.30	170
	25.01-30 (fat)	21.88	77
	30.01 and over (obesity)	5.10	18

Findings Related to Outside Place Features for Physical Health and Expectations

Desire to go to outside for physical activities took first rank with the ratio of 80.11%. When looking at the relation between the participants' desire to walk and the environmental conditions it can be noticed that while the presence of plant elements such as tree paths was with highest ratio with 26.99% (95 person), the presence of other natural elements such as water, rivers, lakes, etc. followed it with a ratio of 20.45% (72 person). The frequency distribution of participants' physical activities such as walking and running at least 1 or 2 days in a week was a majority with the ratio of 41.48%. Moreover, the ratio of participants' period of walking between half hour and 1 hour was a majority with 55.11%. In respect to the factors concerning the restriction for doing physical activities, most of the participants (40.63%) had chosen the alternative that stated insufficient security because of drunks and drug-addicts (**Table 4**).

Findings Related to Features about Psychological Health and Opinions

According to the findings, 71.87% of the participants gave a positive answer about their desire to go to parks when they felt bad. About going to a park for relaxation the idea of being with nature in parks was the highest choice with a ratio of 39.32%. When asked what features of the places would mostly please the participants, the existence of places that contained all the elements, like water, pets, birds, butterflies, etc. was preferred by 59.38%.

Both the image of a park or a street which was dirty and neglected were the elements which mostly made the participants nervous. For parks this image had the highest ratio with 30.40% and for streets- it was with 49.43% (**Table 5**).

Findings Related to Outside Place Features Which Provide Possibilities for Socialization

The participants gave the following responces:

- Parks were preferred for socialization and the majority of the participants answered yes (53.98%) (**Table 6**).
- The thought that if some preparations are made the living area can be an urban where you can live in dominated with 45.17% (**Table 6**).
- The most important feature which provides possibilities for socialization was the presence of parks where some events such as sport, fairs and concerts can take place (26.99%) (**Table 6**).
- The most visually offensive problems on streets and in parks were problems of security, upkeep and administration and it took the first rank with the ratio of 40.34% **(Table 6)**.
- The main expectation for parks was to provide possibilities for some activities such as walking and sports clean and green milieus (30.40%) (**Table 6**).

Conclusions

This work, although limited in participants' number, presents findings that were similar to those of earlier researchers, cited above. In individuals' outside place choices for natural elements (trees, water, etc.) were placed in the first rank. Landscape design is a science where people (their psychology, physical requirements and social desires) and nature are fundamental elements. The bridge between the landscape design and the urbanite's health will be built looking at ecological, social and physical data as fundamentals for design. Therefore, landscape design is a professional pursuit that it is not only defined by "making beautiful", but also by "making healthy". It has become essential for design to fall in step with a changing world by acknowledging the conclusions of an ever growing body of evidence, connecting design and health. It is a pursuit that needs to get up to speed by up planning with ecological care and effects designed with an eye to the social dimension. Urban health is an area that needs to be supported by different disciplines. The successful design which aims to create a healthy society will require not only the skills of a creative designer, but also the commitment of support by organizations for the management and orderly upkeep of these spaces.

Findings of research about the outside place features for being healthy on individual basis in terms of physical, psychological and social manners are ranked below.

- Historically, gardens have often been created for their healing properties. Gardens especially designed to contribute to peoples' healing, have even been referred to as 'healing gardens'. Since natural elements such as plants have positive effects on humans mental and physical health, and psychology, all parks and green areas could be called healing gardens. On the other hand, some gardens perform a specialized function when part of an institution. These gardens require more

TABLE 4

Diversity about necessary outside place features for physical health and expectations

Necessary Outside Place Features For Physical Health		Percent (%)	Number
Do you go outside for physical activity?	Yes	80.11	282
	No	19.89	70
Which environmental conditions supplied your desire to walk?	Just a walking park is enough for me	9.38	33
	Road with trees, presence of plant elements	26.99	95
	Elements like rivers, water, lakes, etc.	20.45	72
	Sufficient and comfortable sitting areas and benches	8.24	29
	Security	9.94	35
	Living beings such as birds, butterflies, animal groups	3.69	13
	I have a desire to walk in every condition	16.75	59
	Other	4.55	16
How frequently do you perform physical activities such as walking, running, and bicycling?	3-4 days in a week	19.60	69
	5-7 days in a week	7.95	28
	1-2 days in a week	41.48	146
	1-2 days in a month	21.31	75
	I never walk	5.97	21
	Other	3.69	13
What is your common walking period?	More than one hour	25.57	90
	Between half and one hour	55.11	194
	Less than half an hour	15.91	56
	Other	3.41	12
The most disturbing things which prevent you from physical activities	Insufficient green areas	12.22	43
	Insufficient and ordinary (lack of variety)	20.45	72
	Homeless dogs	12.50	44
	Insufficient security because of drunks, drug-addicts, etc.	40.63	143
	Lack of sport events	8.81	31
	Other	5.41	19

TABLE 5

Diversity related to features about psychological health and opinions

Features About Psychological Health and Opinions		Percent (%)	Number
When you fell bored or sad, do you especially prefer going to parks and similar places?	Yes	71.87	253
	No	28.13	99
Which features make you prefer parks for relaxing?	Trees, flowers and similar features make me calm	22.92	58
	All outside of the home areas make me relaxed	6.72	17
	Being together with other people in the park makes me relaxed	21.34	54
	To be among nature when in park makes me relaxed	39.92	101
	Other	9.10	23
What are the features of the places which make you feel happy, peaceful, and refreshed?	Plants	16.76	59
	Water elements	17.61	62
	Pets, bird voices, butterflies	6.25	22
	All of them	59.38	209

What makes you most nervous when in parks?	Lack of opportunities for all the activities that I want to do in parks	6.82	24
	Homeless of dogs, drunkards, drug-addicts	25.51	125
	Dirty and neglected parks	30.40	107
	Monotonous park surrounding	11.93	42
	Insufficient vegetation	4.26	15
	There are no appropriate places for bicycles, roller skates, etc.	2.84	10
	Insufficient elements such as toilets, fountains, garbage cans, etc.	4.55	16
What makes you most nervous in streets and road?	Dirty and neglected streets	49.43	174
	High sidewalks and other overpass limitations for physical activity	19.37	68
	Insufficient security	19.03	67
	Matters about the trees around the road	4.83	17
	Insufficient signs about directions and warnings	3.41	12
	Other	3.98	14

TABLE 6

Diversity related to outside place features which provide possibilities for socialization of participants

Outside Place Features Which Provide Possibilities For Socialization of Participants		Percent (%)	Number
Do you go to parks and similar places in order to be with other people, to have a chat or at least for observation of nature?	Yes	53.98	190
	No	46.02	162
Which sentence describes best your feeling about the urban area (district) where you live?	This surrounding and urban place is mine and I love it	41.19	145
	I have never accepted this surroundings	8.24	29
	With some preparations it can be an urban where you can live in	45.17	159
	This surroundings are exactly the source of my unhappiness	5.40	19
According to you, which feature of the park brings people together mostly?	Some events such as sports, fairs and concerts are needed	26.99	95
	Parks which have traditional games and street happenings will be attractive	8.52	30
	Availability of such structural elements like cafes and tea houses made up of natural materials will make the park attractive	22.44	79
	Presence of completely natural green areas are important	26.14	92
	I do not think that parks are effective for socialization	12.50	44
	Other	3.41	12
What is the most visually offensive problem in the parks and streets which are in your living place?	Children, old and handicapped people are never thought for	20.74	73
	Problems concerning security, upkeep and administration are excessive	40.34	142
	Chosen plants are not enough, appropriate species are not used	6.82	24
	Monotony is disturbing	15.06	53
	There are no available places where our cultural values and special identities are respected	7.95	28
	There are no problems to complain for	4.83	17
	Other	4.26	15
According to you, which feature is absolutely necessary to be present in urban parks?	Beautiful natural surroundings and view	32.67	115
	Quiet and motionless milieu	18.75	66
	To provide possibilities for activities such as walking, sport in clear and green milieu	30.40	107
	There have to be tea gardens and restaurants	8.24	29
	Modern art of works	4.83	17
	Other	5.11	18

specialized planning. When these institutions provide educational or healing services, like schools, hospitals and rest homes, the gardens are especially designed to improve the process of education, as well as providing healing properties.

- When chooses are made about function type, plants and places, human's size, etc. comfort and security should come in first place in the design of urban places. The effectiveness of outside place is decreasing especially in the areas where there is crime like pickpocket and theft.
- Public places must be designed with functions and quality which provide possibilities for movement and recreation for all user groups (the elderly, the handicapped, including the visually handicapped, etc.) and every other group that makes up the society, remembering their differences in abilities and perceptions.
- Design characteristics which provide possibilities for socialization of the old, women, the handicapped and children should be included in parks and recreation areas. Elements which provide possibilities for solitary or group activities should also be considered. Quiet places for individuals' quiet contemplation, where a person can also watch the different groups, allowing individuals to be active or passive according to their desire. Places for a different social activities, should be provided.
- Shopping centres should be designed with generous amounts of natural elements, such as well planned gardens, water, natural light and plants. This becomes especially important during the winter when, because of the cold, people spend much more time in these centres.
- Design features help create an environment which entices people to spend time outside together, socializing, exercising or simply enjoying the outdoors in solitude. These factors include green places that are easily reachable, which are constructed in a manner that accommodates ease of movement, provides alternative services to people with special needs and at the same time a secure environment. The design will provide a common place where organized events (sport festivals, concerts, fairs, exercising gymnastics together, etc.) can take place. While these factors encourage the individual to go outside, the places themselves will become more and more in demand. Moreover, the importance of the upkeep and management of these places cannot be overestimated or overlooked.
- The perception and opinion of the users about the surroundings in which they are living, as well as their desires and expectations should be appraised by local governments.
- When characteristics of existing places concerning quantity cannot be changed, qualities should be developed. Therefore, improvement and development of parks should be appraised as a separate discipline area.
- Managements should develop contacts with groups which will organize social activities such as meetings, festivals, campaigns, etc., thus satisfying society's natural inclination for gathering together.
- Security and orderly upkeep of the area are two essential factors that users want to see as design results. Upkeep and management should be accepted as fundamental in order that a successful design is continued.
- The highest quality of urban design involves the abundant use of natural materials and providing animals, plants and water. These design elements will naturally affect the individuals' psychological and physical health positively by responding to the citizen's desire to get closer to human nature that is encoded in the genetic structure of the individual.

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