

OPEN SPACE AND SOCIAL INTERACTION; THE CASE OF BALCHA CONDOMINIUM IN ADDIS ABABA

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A thesis

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CHAPTER ONE

1. INTRODUCTION

The rate of urbanization is fast in the world especially in developing countries. Most of the urban spaces are paved and the building structures hold large amount of urban space that affects the availability of open spaces which has a great role for social interaction. Time after time the land value in the city increases; that also affects the size of open space within the city.

Open spaces are significant for the establishment and strengthening of interpersonal relations and for social interaction which means they are the place where people come and interact (Mitkovich, et al, 2004).

As population grow their need for housing and other infrastructure need also increases that directly affect the provision and availability of open spaces for different purpose such as recreation and interaction.

This paper focuses on how the availability and quality of open space contribute for peoples' need for interaction. The result found in this study suggest that the open space availability by itself is one strong point however its availability alone cannot guarantee for its contribution for social interaction rather the design quality also matter the dwellers to come and interact on the outdoor open space.

1.1. BACKGROUND

Urbanization is the increase of population number of cities in relation to the region's rural population. It is the growing number of people in a society living in urban areas or cities (New world encyclopedia, 2015). The process of urbanization has special features and elements that differs itfrom rural areas. The differences

explained in terms of number and size of population, quality of human life, technology, diversity of people, and population density (New world encyclopedia, 2015).

The growth of cities was inevitable and fundamentally beneficial to society, that the incorporation of parks and natural landscapes into the urban fabric could counter many of the negative effects of this growth (John Wiley, 2006). Understanding the relationship between people and their environment is an essential component of urban design (Kashef 2008; 416). Society and culture influence the choices people make in any given setting (Mathew Carmona et al, 2010).

In the process of urbanization urban greenery has not been well managed relative to development. For example, the number of trees in US cities declined to 30 percent over the last 15 years, while paved surfaces increased by 20 percent (Gary Moll, 2003)

Social space is mandatory within the community. This implies that space creates interrelation between the social and the space (Katharina Manderscheid, 2010). Social interactions are directly attached with a space and the design of that space affects peoples' ways of life. The divisions that people draw between things and places harden into objective facts which in their turn organize social meanings and social action (Fran Tonkiss, 2011).

In the establishment and development of Addis Ababa population growth plays a great role (Fasil, 2009).The need for housing provision affects the size and quality of open spaces in Addis Ababa (Ibid). Housing is the main concern forthe city government of Addis Ababa. The solutions forwarded for this need affects social life significantly. Globally from 1980s onwards large numbers of community gardens where the society interacts were cleared to make way for new development

(Kristina E. Gibson, 2010).As the city grows and expands loss of urban open spaces will happen as a result (Hayriye et al, 2010).

The newly provided condominium housing design and organization of its open space either fosters the former strong social setup or it weakens it. The space has a great role in this aspect. Community has its own culture and way of living within open spaces. The changes that time and need for better living condition have their own effects on people's way of life.

Housing is the major problems in many cities including the city of Addis Ababa. In Addis Ababa alone, 300,000 units are required to meet the deficit. The housing deficit is set to increase concurrently with the foreseen high population and urbanization growth. In order to solve this problem the city administration has started building condominiums for the dwellers (Haregewoin, Y. 2007).

Resident areas including condominium need to have open spaces because they are one component among the whole that make the area a neighborhood. Open spaces have health, social, and environmental benefits for the society (Helen Woolley, 2003). When open spaces are well provided in the dwelling environment the three, the health, social and environmental benefits are automatically achieved.

Open spaces also enhance the quality of urban dwelling qualities in a way of attracting people to spend most of their time in their residential space (MITKOVIĆ et al, 2004).

Open space is success while it becomes conducive place for social interaction (Danisworo 1989; Whyte 1985) and accessible for all class and age of people, including disable people (Ghel, 2002, CABE and DETR 2001). Adapting new open spaces provision in the housing development affects people's way of life and their former social organization.

The successful open space systems are often planned around distinguishing landscape features or local themes that exhibit the unique qualities of a community (John Wiley, 2006). The only successful approach to designing great cities for people must have city life and city space as a point of departure (Gehl, 2010; 198).

1.2. PROBLEM STATEMENT

The space concept is not new for condominium residents' of Addis Ababa. It affects people's way of life both positively and negatively. It needs common management system. The designs of these condominium houses have their own impact in the social interaction of the dwellers. The society has a demand on the open spaces and there are values of the society that are common. This can be categorized at different levels based on the age group within the community; the children, the youth and the old. These community members have different needs in space usage.

- The children need play grounds,
- The youth need recreation and learning center and
- The old people need spaces for their functional uses and for social interaction that include: places for cooking, gathering places for different purposes such as Community Based Organization (CBOs such as edir, equib), coffee and funeral ceremony.

Open spaces are provided in the condominium housing for the common use of the dwellers. The major problem of open space within the condominium housing is; absence of consideration of the social demand which basically affected by the creation of new urban spaces formation. How the open space provisions are contextualized in a way of peoples' living is the main problem.

In designing space societal need must be considered because the owner and user of that space is the society. It should get people's approval and acceptance. Do the

people living there accept their living area from social dimension through open space provision and its design? This is the major question that would be answered through this research paper.

Within condominium housing, different people are living there in their income level and age. The common life of these different people brings its own challenge in the social interaction and space usage because there are different needs for open space usage according to their age and income level.

1.3. OBJECTIVE OF THE RESEARCH

1.3.1. General objective:

The principal objective of this study is to assess the contribution of the open space for social interaction, the management of the open spaces and its accessibility by all.

1.3.2. Specific objective:

The specific objectives of this study are:

- To investigate the open space usage and their contribution for the social interaction.
- To examine the dwellers' perceptions of the open spaces.
- To analyze the issue of accessibility in condominium open spaces for all members of the community.
- To identify the responsible body for the open space management.

1.4. RESEARCH QUESTIONS

- How the provided open space contributes to the dwellers' social need?
- How does the present design affect the social interaction?
- Which social groups have more access to the open spaces?

- How is the open space significant for the dwellers social needs?
- Who is the responsible body for the open spaces?

1.5. SIGNIFICANCE OF THE RESEARCH

This thesis paper will be significant and provides an input for both the dwellers and for the housing agency. It shows a way to the designers and construction owners on how to consider the social dimension in future design and development. It shows a way to the dwellers on how they can manage and use the available open spaces in keeping their common social value.

This research is also significant for urban managers, urban designers, municipal sectors officials, real estate developers and social welfare philanthropical agencies. These all have a great role in the urban development as they are the stackholders in the provision and development of open spaces.

1.6. SCOPE OF THE RESEARCH

This research has geographical, conceptual and social scope. These are the physical and conceptual scope. The research is limited in Addis Ababa Lideta sub city woreda 8 kebele 07/18.

The thematic scope of this research is on the open spaces that integrates the social lifestyle of the dwellers. It only focuses on the outdoor activities on the available open spaces and its usage and significance of the open space for the dwellers for their social life and its liveliness.

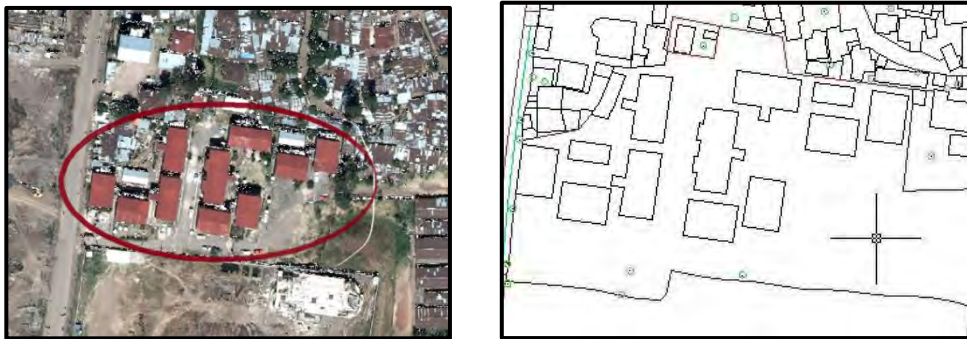
It covers the societal scope based on their age, employment condition and level of need for the open space.

1.7. STUDY AREA

This thesis refers to the open spaces utilization in A.A,sub city of Lideta in Woreda 8. In the case study area 102 households are dwelling in Balcha condominium with 632 number of total population.

The site covers 0.86 Hectare and has ten blocks. Among the total area open spaces (in this case open space includes the streets, playgrounds and left over spaces generally spaces excluding the built up area) holds 0.66 hectare. The dwellers have been living there since 2005 G.C.

Map 1:1 study area



1.8. LIMITATION OF THE RESEARCH

Limited information source within the concerned bodies and shortage of written documents especially on contextual background part was the major limitation of the research because there is less publicized documentation on the issue of open spaces to use as a reference. Willingness of the respondents for the questionnaire and interviews was another limitation of this research.

CHAPTER TWO

2. METHODOLOGY

2.1. RESEARCH DESIGN

The research design includes both the qualitative and quantitative methods. Qualitative method can be used to improve quality of survey based quantitative evaluation by strengthening the design of survey questionnaires and expanding or clarifying quantitative evaluation findings. Quantitative research method plays an important role in impact evaluation by providing information useful to understand the processes behind observed results and assess changes in people's perceptions of their well-being. Quantitative survey applied in this research along with the qualitative method in order to get results that help in making logical conclusion based on the collected data based on numbers.

2.2. CHOICE OF METHOD

This is an exploratory type of research that uses the combination of qualitative and quantitative data in studying the use of the open spaces around condominium housing on the social space demand.

The methodology for this research is a case study that helps to take detailed look of the issues raised in the topic by selection of specific site. The methodology of the case study type is taking one site to take as a sample to represent the whole area. To get an appropriate information and quality data that helps for best conclusion and recommendation rely on the research uses a hybrid kind of different method.

2.3. SAMPLING

Sampling is an essential statistical concept that helps to reduce costly data collection. It is hard to collect data from the whole population and it is a must to

use sampling. A sample refers to a limited number of items taken from a population which is being studied. There are two types of sampling:-

- a. Random sampling
- b. Non-random sampling

In Addis Ababa there are different condominium sites. In this research Balcha condominium is taken as a sample among all condominiums. The study area contains different population in their age, employee, and size of family. For this specific research work the whole site is taken as a sample.

There are 102 household that dwell within 12 blocks and all 12 blocks are selected and interviewed because the site itself is taken as a sample. Each block contains studio, one bed room, two bed room, and three bed room sized houses. Studying on the basis of bed room size different family size, age composition and their need of open space can be found.

2.4. DATA COLLECTION METHODS

The research uses two types of data collection. These are the primary and secondary data collection method. Primary data collection was done through interviews with the dwellers of Balcha condominium, who are the user of the open space, interviews from the designers and professionals and direct observation and pictures.

Secondary data collection includes information that can be collected from books, websites, and maps.

2.5. DATA COLLECTION TOOLS

Data collection tools are instruments used to collect information for performance assessments, self-evaluations, and external evaluations. Data can be collected by

using tools and it includes Case Studies and Content Analysis, In-Person Observations and Secondary Participation.

Case Studies and Content Analysis- are data analysis tools which are based upon pre-existing research or a search of recorded information which may be useful to the researcher in gaining the required information. Some examples of this type of data collection tool would include:

- Expert opinions – leaders in the field of study
- Case studies – previous findings of other researchers
- Literature searches – research articles and papers
- Content analysis of both internal and external records – documents created from internal origin or other documents citing occurrences within the research group

In-Person Observations- are used when there is face to face contact with the participants. Some examples of this type of data collection tool would include:

- In-person surveys – used to gain general answers to basic questions
- Direct or participatory observations – where the researcher is directly involved with the study group
- Interviews – used to gain more in depth answers to complex questions
- Focus groups – where certain sample groups are asked their opinion about a certain subject or theory

Secondary Participation- requires no direct contact to gather information. Examples of secondary data collection tools would include:

- Postal mail
- Electronic mail
- Telephone

- Web-based surveys

For this research case studies and content analysis and in-person observation are used as a data collection tool.

2.6. DATA ANALYSIS

The data found from the primary and the secondary sources were analyzed by using auto cad and Microsoft office, specifically Microsoft word and excel computer programs. The primary data specially need and uses more computer programs that are helpful to the data analysis work. Microsoft excel program is used to make a graph and to show results found during the questionnaire of the dwellers in percentage that helps in drawing best conclusion based on the facts.

For the secondary sources Microsoft word and auto cad are used.

2.7. SELECTION OF THE STUDY AREA

The first reason for selecting the site is that its centrality to Addis Ababa city that makes the area more preferable to work and to live in. Its centrality and closeness to the campus makes it preferable for the research work because it helps to collect and bring data whenever there is need. The other reason is that it has been provided since 2005 that causes all the houses being held by the dwellers and full of experience in living together for many years. That can indicate the custom of the dwellers and their social demand in the provided outdoor space for the social purpose.

Its size is also manageable to take a detailed study. The site contains twelve blocks that creates a probability to everyone being interviewed and express their opinion and their understanding about the research issue that is open space and the social demand.

2.8. ORGANIZATION OF THE RESEARCH

This research is organized to create a convenient flow. It starts with research questions and objectives of the research based on the problem statement. The literature review gives strength for the importance of the issue that is raised in this research that is open spaces, housing and the social interaction. The situation analysis will proceed after the literature review that the topic might best illustrated. The organization of the research is presented below by part in detail.

PART ONE

Description of the Study

Part one of this research includes description and method of the thesis. It states the problem to describe the current open space challenge within the condominium dwelling units. The description part of the study contains objective that describes the principal and specific objective of the research which is the topic's major focus. The research questions put the stated problem in the form of question that can satisfy the objective and are very helpful to be focused in specific area during the data collection and analysis part. In this part the scope and limitation of the research is also described.

The research methodology is included in this part. The methodology contains types of data sources, data collection methodology, data analysis tools, scope of the research and criteria for the selection of the study area. Generally the methodology part contains the aspect of how the information is going to be gathered and how the collected information could be analyzed.

PART TWO

Literature Review and Contextual Background

This part focuses on what other writers say about the topic. The literature review part discusses the definition and general information on open spaces in dwelling units and their historical development and significance to show the significance of the research from the international point of view.

The contextual background discusses the same issue like the literature review but it is in the local context. It deals with the historical development of open spaces and typology of open spaces. It also deals with the current open space condition and the causes for the problem that is stated in the problem statement. The relationship between developments of built up environment and open spaces are discussed in this part.

PART THREE

Case Study and discussions

The third part of this study discusses the results found through the questionnaires distributed to the dwellers and the interviews conducted on professionals. The case study in Lideta is called Balcha condominium. The whole dwellers were questioned since there are only 102 households. The analysis has been done with tabulation and graphs in an organized format. This part discusses about the case study area, its location, size and its current condition based on the site observation, maps and questionnaires. It represents the dwellers opinion on their living environment based on the questionnaires.

PART FOUR

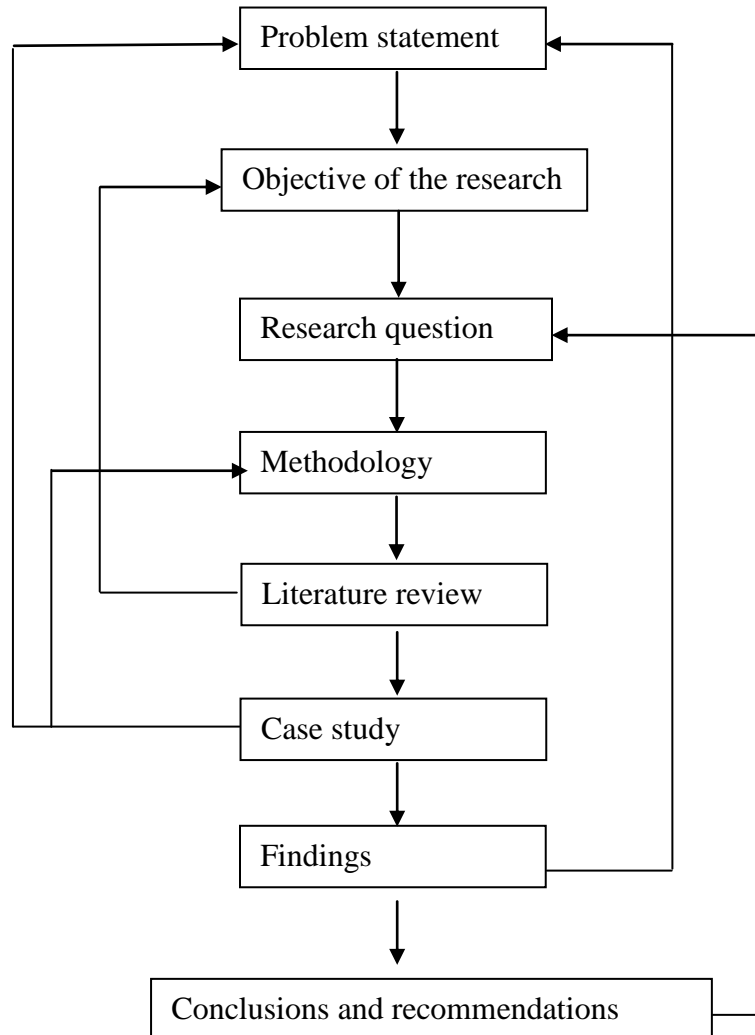
Conclusions, Recommendations and Proposals

The final part of the study has three sub parts; conclusions, recommendations and proposals. Based on the findings on the case study area the conclusions and recommendations are drawn. The design proposals would be suggested based on the conclusions and recommendations for future open space designs and to enhance the current provided spaces for the envisioned purpose that might strengthen the social interaction that may increase activities in the open spaces.

2.9. FLOW OF THE RESEARCH

The flow of the research is organized as follows.

Figure 1: flow of the research



CHAPTER THREE

3. LITERATURE REVIEW

3.1. INTRODUCTION

Urbanization is the process of population concentration. It contains two aspects; multiplication points of concentration and the increase in size of individual concentrations. Urban areas tend to attract businesses because of their large and dense population. This draws more people to the area, working in a kind of circular process (New World Encyclopedia, 2015). From this definition one of the urbanization expressions is the demographic change and as the population grows it creates burden on limited facilities. The rate of the urbanization causes for inadequate housing provision (Nebyou, 2007). To solve the housing problems there are housing constructions and this affects the existence of the open spaces. Generally this rapid urbanization caused conversion of open spaces around the city (Deniz, 2005).

Following the increasing of population number that is live in cities the need of housing became a big issue. Housing environment represents the physical and social component of satisfaction which includes the needs of educational, cultural and psychological and sociological aspects that enhance the quality of life and provides a sense of belongingness to a community (Mitković, et al. 2004). It is also a social symbol and quality of life (Thomas R. et al, 2003).

Open spaces are significant for the establishment and strengthening of interpersonal relations and contribute to socialization and getting people together (Mitković, et al. 2004). Spaces are not simply physical facts but social products (Tonkiss, 2011).

The quality of urban life is related with the provision and availability of open spaces. People went to these spaces because they value it and they own it; because it has a great significance to them in their daily life (Helen, 2003).

3.2. CONCEPTS

This research paper has key words in its topic and these words are the focal point of the study. Therefore the key words must be defined. The key words are condominium, open spaces and social interactions.

3.2.1. CONDOMINIUM HOUSING

Encyclopedia of urban studies defines social housing as a collective term for the public service provision of decent and safe, subsidized shelter for eligible low income families or other vulnerable groups, such as the elderly and persons with disabilities, in a society (Belinda Yuen, 2010). On the other hand Condominium housing is the integration of two concepts: condominium and housing. Condominium means common ownership by two or more people. The concept of condominium is a form of joint ownership of real property (guide book, 2011).

Housing is living accommodations available for the inhabitants of a community. (Nebyou, 2007). It represents one of the largest expenditures in the average family's budget; this is because of its importance for everyone (Thomas R. et al. 2003).

Condominium housing is the accommodation of common ownership built residential environment for the purpose of housing.

3.2.2.OPEN SPACES

Different authors give different definitions for open space. The definitions of some authors are summarized in the table below.

Table 1: definition of open space

Author	Definition for open space	Year
Gold	Land and water in an urban area that is not covered by cars or buildings, or as any undeveloped land in an urban area.	1980
Tankel	Open space is not only the land, or the water on the land in and around urban areas, which is not covered by buildings, but is also the space and the light above the land.	1963
Cranz	Open spaces are wide-open areas that can be fluid to the extent that the city can flow into the park and the park can flow into the city.	1982
Gehl	He defines open spaces as arenas that allow for different types of activities encompassing necessary, optional and social activities.	1987

Open spaces integrated with recreation activities can be defined as spaces where the recreational activities take place (active and passive urban recreation) and the green surfaces (Gehl, 1987). The sociologists address open as the social public realm as the location of everyday interactions where identities and shared meanings are constructed (Ray, 2010).

Open spaces include streets, alleyways, passageways, avenues, parking spaces, and malls, leftover triangles, parks, playgrounds, waterfronts, railways, rooftops, and more are all places we use and which create the communal life we call “city” (Halprin, 1979).

Necessary Activities: necessary activities are compulsory activities that need open space. The activities hosted in this category include going to school, work, shopping and waiting for a bus. These activities are non-dependent on the weather condition. Whether the weather is good or not they happen every day since they are compulsory (Gehl, 1987).

Optional Activities: are described as taking place ‘if there is a wish and time’ and may take the form of walking for fresh air, standing, sitting or sunbathing. Being optional these activities only take place if the weather or place makes the setting desirable for any particular individual. These activities are thus very dependent upon the external environment and the quality of that environment (Ibid).

Social Activities: Social activities are considered to be an evolution from necessary and optional activities. These depend upon the presence of at least one other person and may include children’s play, greetings and conversations, communal activities and the passive activities of watching and hearing other people. The design and management of the physical environment can clearly have an impact upon the opportunities that might arise for such social activities (Ibid).

Based on the activities that happen on the open spaces Gehl (1987) describes three types of activities and this paper focuses and agrees on the third one that is the social activities. The space and the social interaction are so much integrated. The social interaction can be created by providing an open space that is comfortable to people to come and interact.

The best known form of open space that is very much related around a dwelling area is the courtyard. According to John S. Reynolds (2002) courtyards are special exterior spaces that are surrounded by walls. Courtyards are open spaces that are surrounded by buildings that might contribute for the dwellers to come and interact with each other.

3.2.3.SOCIAL INTERACTION

Social interaction is a combination of two words: social and interaction. Encarta dictionary (2003) defines the term social as:

1. Relating to society: relating to human society and how it is organized,
2. Relating to interaction of people: relating to the way in which people in groups behave and interact,
3. Living in a community: living or preferring to live as part of a community or colony rather than alone as seen in social insects such as ants,
4. Offering opportunity for interaction: allowing people to meet and interact with others in a friendly way.”

Interaction can be defined as “communication or collaboration: communication between or joint activity involving two or more people” (Ibid).

The social science uses the concept of social by connecting it to the interaction among people. It basically studies the way how people behave and interact among themselves through the group life (Ibid).

Therefore, social interaction is the concept of how people live together in a well-organized manner and healthier way. Society can be understood as any self-perpetuating human grouping occupying a relatively bounded territory

that interacts in a systematic way and possesses its own culture and institutions (Mathew Carmona et al, 2010; 134).

The city can be seen as serving a specific function where people encounter social diversity and gain a greater understanding of each other by sharing the same space (Jan Ghel, 2010; 109).

3.3. THE INTEGRATION OF CONDOMINIUM, OPEN SPACES AND SOCIAL INTERACTION

The physical environment has a determining influence on human behavior. The public realm (in this case the open space) has two components namely the physical and the social dimension. The relationship of people and space (the physical and social dimension) is a continuous two way process in which people create and modify spaces while at the same time being influenced in various ways by those spaces (Matthew Carmona et al, 2010).

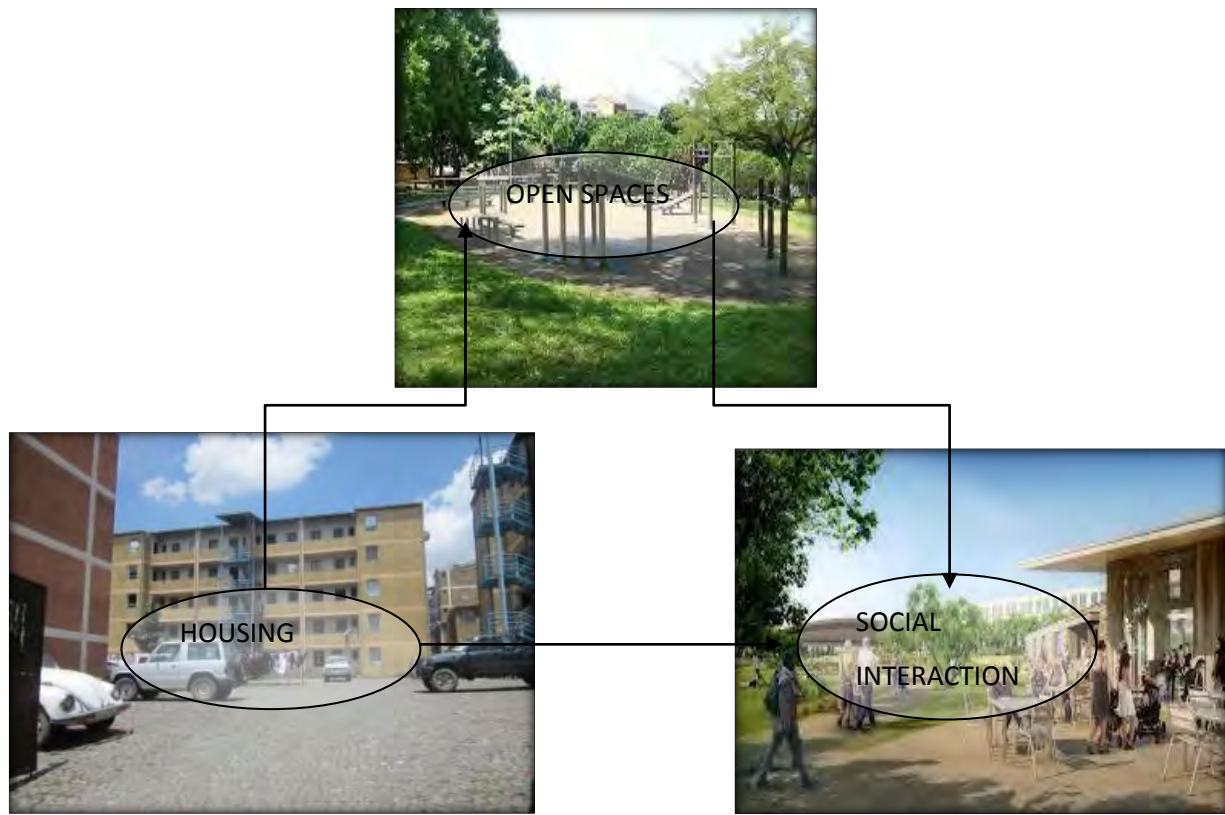
Housing is a basic need for every individual. Housing is a place where people reveal themselves for the society as productive members and for the well-functioning of the family as a primary social group. In this basic human need people need a place for leisure time and open spaces give this service.

Joffre Dumazedier (2004) defined leisure time as: The leisure time is the set of activities that an individual, of his own free will, may undertake, whether it is rest or entertainment, whether it is becoming more informed or educated, whether it is a voluntary social engagement, or realization of his creative capacities, after he is free from his professional, family and social duties.

Open spaces are essential urban content which complement and enrich the dwelling function. The social interaction takes place in these open spaces within the housing environment meaning on the social space (Katharina, 2010).

Housing is the basic need for the individual and family as a shelter. Open spaces are one of the elements within the dwelling environment and improve the quality of residential zones. These open spaces provide significant role in the establishment and strengthening of interpersonal relations and contribute to socialization and getting people together. On the other hand open spaces become a public places if social activities are there, unless there is no activity on the open space it cannot be a public realm, simply became a vacant space (Jan Gehl, 1996).

Figure 2: integration between housing, open space and social interaction



3.4. THE HISTORICAL SIGNIFICANCE OF OPEN SPACE IN DIFFERENT ERA

Historically we can see the concept and significance of open spaces as a public realms in two aspects: in the one aspect the early cities and the other in modern cities. The cities before the 20th century are considered as the earlier and the cities that were developed after 20th century are considered as the modern cities because it was the major era when urban planning and urban design dramatically changed.

3.4.1. THE EARLY CITIES

Cities exist in this era because humans are social beings, variously tribal, communal and mutually supportive (Jay Brown et al, 2009; 28). It refers to the cities before the 20th century that include the earliest urban settlements through Mesopotamia, Egypt, Greek, Roman to the industrial cities including medieval cities, Renaissance and Baroque cities (Gehl, 1987).

In this era urban open spaces had three functions: these are as meeting places, market place and connection space.

- **Meeting place:** is a place where the city was the scene for exchange of social information of all kinds.
- **Market place:** the city spaces served as venues for exchange of goods and services as an open market.
- The **city streets** provided access to and connections between all the functions of the city.

Open spaces in these eras had totally served the social function. This open space settlement and usage allowed the society to interact freely (Gehl and Gemzøe, 2001). As time goes the population number increased causing reduction in space

availability and usage. The existing open spaces were unable to accommodate the need for the dwellers in the cities. This led to the modern open space setup (Ibid).

3.4.1.1. MESOPOTAMIAN CITY

Mesopotamian major urban forms are housing and street system. The Mesopotamians had a courtyard housing typology that means each residence had private open space at their backyard. In the courtyard water as a fountain or as a pool provided. The climate was the major factor for this kind of housing typology and open space usage (Morris, 1994; 21, 22).



Figure 3: Mesopotamian city

3.4.1.2. EGYPT

The Egyptians had linear city planning by following the river of Nile. In the city they had different housing typology; the rich people had courtyard houses and had open space within their houses. The lower class had built their houses along the streets and at vacant spaces. The income level and economic condition of the population affects the availability and usage of the open spaces in this era (Morris, 1994; 28).



Figure 4: early Egyptian city map

3.4.1.3. THE GREEKS

The Greeks were more focused on public arenas and had an urban component called agora, stadium and gymnasiums that strengthened the social life within the city. The agora was the central zone of the city- its living heart. It was an intense and sustained concentration of varied activities. It was the constant resort of all citizens and the daily scene of social life, business and politics(Morris, 1994; 41).



Figure 5: Greeks civic centers

For the purpose of intellectual discussion¹ or collective activities and for the citizen leisure time they built specialized building types, including theatre, gymnasium and stadium each which was regarded as essential in every city.

¹ In the Holy Bible it is also described in the city of Athens there was a place for the discussion in the book of Acts chapter 17 verse 19

The theater, gymnasium and stadium were the place where leisure and cultural function grouped together. The availability of these open spaces caused the city to have strong social and cultural life (Ibid).

3.4.1.4. THE ROMAN

The Roman had open spaces for celebration of holidays and recreation areas that contain public bathes, circus and Colosseum. However the purposes for these open spaces are to amuse the peoples to not rebel at the government, it had a great role in creating active social interaction within the city (Morris, 1994; 65).



Figure 6: Romans coliseum

3.4.1.5. MEDIEVAL CITIES

This was the time where urban planning and design declined. The people of this period were more focused on the religious arena than innovating and building new urban forms. During this period the religious movement was more dominant and there were less open space and recreation center. The market places on the street as an open air were the major public space that create the social interaction (Morris, 1994; 93, 94).



Figure 7: Medieval town

3.4.1.6. RENAISSANCE AND BAROQUE

As the name itself indicates it is the rebirth of classical knowledge and modern world. This is the time where urban design got its rebirth from its silent age of medieval period. The provisions and design of big gardens and squares were its unique character that helped peoples to come and interact (Morris, 1994; 159).



Figure 8: Renaissance and Baroque

3.4.1.7. INDUSTRIAL CITIES

The industrial cities began in the late 18th century and lasted until the 20th century. They were characterized by the concentration of factories, migration from the countryside and the use of coal as the primary source of power, development of the mechanical transportation of goods and people, harsh condition of urban pollution,

high rates of infant mortality and successive cholera and typhoid outbreaks and concerns for public health and working class housing conditions brought about other philosophy. The concern of this age was building grand factories and houses for the workers. The concept of open spaces was neglected (Rodwell, 2007).



Figure 9: Industrial cities

3.4.2. MODERN CITIES

In this era the concept of open spaces shifted from the social dimension to the urban quality of life. It aimed to provide cleaner and healthier urban environments instead of a square or a plaza that had a great importance in social interaction. The open spaces were provided outside the dwelling places as parks (Jan Gehl, 2010). The architectural design movement in this era contributed for the loss of outdoor spaces.

From 1930 to 1960s the buildings were considered as free standing elements and the outdoor spaces such as streets, squares, greenery and the like were ignored. In this era the interior building space became more important than the outdoor activities. The design of spaces between the buildings were also ignored (Tsidale, 1942).

In this era the concept of zoning was highly acceptable that weakened the social interaction and the importance of open spaces for this use. Zoning policy and urban

renewal projects in this era caused the loss of traditional urban spaces which had a great contribution for social interaction.

“The CIAM Athens charter of city planning (1933) laid down the new rules and stated that residences, work, recreation and transport should be strictly separated in the modern city.” (Ibid)

The reasons for the shift from the traditional (early) cities to the modern one are:

- Changes in economic conditions: changed the concept and physical appearance of open spaces.
- Ideological change: change in philosophy and reasoning
- The invention and invasion of motor cars: cause to the need for parking and accommodation of spaces for them reduces the provision of open spaces for the urban public life.

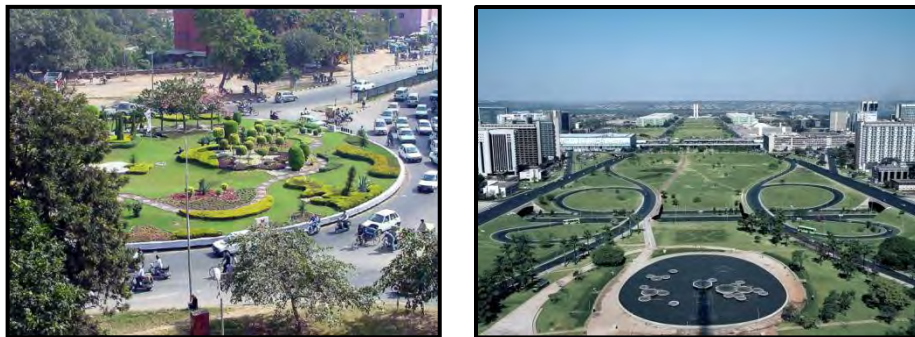


Figure 10: modern cities

3.4.3. POSTMODERN CITIES

Postmodern cities emerged because of post-modernist architectural movements that complemented the growing historic preservation movement. It challenged the dominance of modernism and the industrial aesthetics in architecture and advocated a return to the historic order and helped form public spaces. They

resurrected the strong diagonals, axial streets, spaces and views and the use of focal points for social interaction (Lance Jay et al, 2009; 72, 13).

Summary

Beginning from the 1980s, large numbers of community gardens and open spaces on public land were cleared to make way for new developments. Due to increasing land values, municipal governments began selling off community garden lots for housing and business projects (Kristina E. Gibosn, 2010).

Urbanization is directly related with population number increase that causes the need for more building used for dwelling and working space. Following the above historical trend the following conclusion can be made. As urbanization became intense the open space for social interaction and social life weaken. Modernism was precisely the period in which the human dimension has been seriously neglected (Jan Gehl, 2010; 198). Learning from the mistakes that modernism brings postmodern cities turns their focus to historic elements and design for the society.

3.5. THE NEED FOR OPEN SPACES

Urban areas need open spaces because of their benefits in many ways. The benefits are;

- In providing psychological and recreational services open spaces contribute a vital role in many ways (Burke and Ewan, 1999). Open spaces have cultural, social, recreational and ecological function in the urban environment. The current land use development in the rapid urbanization process affects the availability of open spaces (Patar Mitkovic, et al, 2004).
- In its function open spaces can be considered as public realm which contributes the common ground for social interaction, combination and

communication; and as a stage for social learning, personal development, and information exchange (Loukaitouet *al*, 1998).

According to Z.V. Nederal(1993) open spaces roles in the housing zone are: spaces for communication, leisure time and recreation, varied usage spaces such as the integral spaces with the city content, preservation of the environment, formation of the urban image of the city, segregation of the built-up city area.

Open spaces have benefits for all members of the society. These members of the society are children, youth, elderly, and peoples with disabilities. The benefits of open spaces are different for these peoples in using it and also its meaning differ accordingly.

The social benefit of open space is related with the concept of opportunities for people to do things, take part in events and activities or just to be on the space (Helen, 2003). When we talk about the society it includes the children, the youth and the elderly.

3.5.1. OPEN SPACE AND ITS MEANING FOR CHILDREN

Children need a space to play in because it helps them obtain and keep a healthier approach and they have a clear connection between their play and health. Playing together helps children in many ways (Helen, 2003).

As Taylor (1988) found in his research: Play is shown to be important for social development including collaborative skills, negotiating skills, confrontation and resolution of emotional crises, management of conflicts and development of moral understanding.

Most young children learn about the surrounding world by physically interacting with it. For them, life is movement and sensory stimulation (Piaget, 1952). The

neural pathways of the brain are developed through movement, revealing a clear inter-dependence between physical activity, language acquisition and academic performance (Hannaford, 1995). Play is the motivating force that produces physical activity (Pellegrini et al., 1998) and social interactions with other children and adults (Frost et al., 2001; Moore and Wong, 1997).

Vegetation was identified as making a significant contribution to children's play in research undertaken in a public housing scheme in Chicago (Taylor et al. 1998). Nearly twice as many children were observed playing in outdoor common spaces with 'many' trees as in spaces with 'few' trees. In addition more creative play was observed in spaces with higher levels of trees than in spaces with lower levels of trees (Ibid).

To provide safe and interesting environment for children within the dwelling unit, the study taken in England sets a standard. The principles for play grounds are:

- Best if the pavement is porous
- 10 to 12% slope and if it is greater there must be a ramp and staircases
- Dynamic space composition for the purpose of climbing, sleigh riding that gives children relief and joy.

3.5.2. THEYOUTH AND OPEN SPACES

Young people's has a need for access to open spaces as a public realm that support their healthy development as individuals and members of society; engagement with the public domain is an important part of this development and public space offers a key environment for teenagers/young people (Catharine Ward et al., 2007).

Open space has its own meaning for the youth in relation to their age. Open spaces for them are the stage for performance and contest with their peer and they

enjoy the outdoor environment to hang out with their friends. This helps them in developing a sense of self identity within the society (Travlou, 2003; Ward Thompson et al., 2002).

3.5.3. MEANING OF OPEN SPACES FOR THE ELDERLY

When we talk about the elderly people social scientists addressed issues such as social interaction, privacy, personal space, safety and security and neighborhood mobility (Clare Cooper et al., 1998; 93).

According to the study that is taken in New Jersey in 1887, 82% of the total elderly dwellers liked to sit outdoor (Cranz 1987). Again in 1990 a study in San Francisco shows 75% of the dwellers using the provided outdoor open spaces for sitting and exercise (Clare Cooper, 1990).

As the studies show majority of old people desire to sit, exercise and use the outdoor spaces around their homes (Cooper et al., 1987). The things that make the open spaces important for them are opportunities for meeting others and socialization (Ibid).

3.5.4. OPEN SPACE FOR PEOPLE WITH DISABILITIES

Physical disability should not preclude enjoyment of the outdoors. People with disabilities have a need for open space and parks because the healing powers of exercise and contact with nature have long been recognized (Clare Cooper, 1998; 95).

The limitations of most common disabilities can be minimized by manipulating and enhancing the physical environment (Ibid).

As a **summary** open space has the following benefits.

- Human social benefits such as reduced fear and/or crime (Pincetl et al 2003, Conway, 2002; Kuo and Sullivan (a). 2001; Kuo and Sullivan (b), 2001; Kuo, Bacaicoa and Sullivan, 1998)
- Improved mental and physical health (Taylor et al. 2001a; Olds, 1987; Epstein et al. 1999)
- It enhances the desire for people to interact (Coley, 1997; Burgess et al. 1998)
- improves environmental quality by providing natural ecosystems in the urban environment (Daily and Ellison, 2002)
- Economic benefits such as increased property values (Crompton, 2001, Garvin, 2000, Leinberger and Berens 1997).

3.6. TYPES OF OPEN SPACES

Open spaces can be classified in to three based on their size and function. This classification is done by summarizing the work of Z.V. Neđeral, R. Galić, B. Mirković and B. Maksimović (Mitković, et al., 2004)

3.6.1. RESIDENTIAL OPEN SPACES

These are open spaces that are developed as the integral part of housing. This category consists of gardens, balconies, roof terraces.

3.6.2. COMMON RECREATIONAL SPACES OF THE RESIDENTIAL UNIT GROUP

Open spaces interfacing the residential units can be categorized into four. This classification is done based on their size. (Ž.V. Neđeral, et al, 2004)

- a. **Recreational spaces of the primary housing group** – belong to the housing group up to 1000 residents, and they are located immediately near to the housing structures, at 50 – 100 m distance. It has free space with the sitting benches, greenery and central fountain for a group of residential buildings.
- b. **Recreational spaces of the secondary housing group** – belong to the housing block with 350-450 household, that is, 1-2000 residents, and they are located at 150-200 m distance from the place of residence.
- c. **Recreational spaces of the neighborhood**–belong to the residential neighborhood with around 4500-8000 residents, and the walking distance is 250-300m. An example of the recreational space of the neighborhood with 6 primary residential groups whose open spaces are opened towards the central open space, can be a park intended for recreation and isolated from the motor traffic.
- d. **Recreational spaces of the housing complex**- belong to the residential community with residents, and the walking distance radius is 500-600m. There is a recreational space of the housing complex with 10000 residents:

3.6.3. TERTIARY OPEN SPACES

In this typology there are two categories:



- a. **Open spaces of the residential district**- these are open spaces intended for the residents of the residential district with 30,000-50000. The service radius is 1000-1500m, and the walking distances are 15-20 minutes. Those are the specialized or multi-purpose independent recreational spaces, open recreational spaces which are not a part of the residence (within a school, shopping mall), linking open recreational

spaces (parks, squares, promenades, connecting greenery) and the recreational park for 40,000 users.

- b. Leisure time centers** – they represent the recreational spaces of the city and they are intended for the daily use and the spare time during the weekends, for the rest, sport, recreation, and entertainment. Apart from the greenery for the passive rest, they also contain the sports terrains and the spaces for the child's play, as well as the covered sport arenas, so that they can be used regardless of the season.

Office of the Deputy Prime Minister Planning Policy of London Guidance 17 classifies urban green spaces into nine according to their function

Table 2: open space typologies

	<p>Parks and gardens – including urban parks, country parks and formal gardens</p>
	<p>Natural and semi natural green spaces (such as woodlands urban forestry, scrub, grasslands and wetlands)</p>

	<p>Green corridors – including river and canal banks, cycle ways, and rights of way</p>
	<p>Outdoor sports facilities</p>
	<p>Amenity green space – most commonly, but not exclusively in housing areas – including informal recreation and other spaces in and around housing, domestic gardens and village greens</p>
	<p>Provision for children and teenagers–including play areas and skateboard parks</p>

	<p>Allotments, community gardens and city (urban) farms</p>
	<p>Accessible countryside in urban fringe areas</p>

3.7. SUSTAINABILITY OF OPEN SPACES

One generally accepted definition of sustainable development is from the Brundtland Report:

‘Sustainable development is development that meets the needs of the present generation without compromising the ability of future generations to meet their needs. New buildings to meet the requirements of sustainability would have to be flexibly planned so that they could be adapted for different uses over their lifespan’ (Cliff Mought, 2003; 192).

Social sustainability is democratic dimension that prioritizes equal access to meet others in public space. For cities to achieve social sustainability, attempts must reach far beyond physical structures. If cities are to function efforts must focus on

social and cultural aspects that have great significance on how the people perceive the city (Gehl, 2010; 109).

3.8. INDICATORS FOR BEST OPEN SPACES

The success of open spaces can be measured by the following indicators.

- a. **Ownership**-this is about to whom the open space belong, whether the space is publicly or privately owned and if the open spaces are owned by somebody it is easy to manage and the users to come for using it(Matthew Carmona et al, 2010).
- b. **Access**-by its nature public spaces have free access to the public, and whether the public has access to the space (Matthew Carmona et al, 2010). Open spaces must be accessible for all class and age of people including disable people (Gehl 2002, CABE and DETR 2001). City wide the lively city tries to counter the trend for people to promotes the idea of a city that is accessible and attractive to all groups in society (Jan Gehl, 2010; 109).
- c. **Use**-this is about how usually and actively the open space is used. Whether the space is actively used and shared by different individuals and groups (Matthew Carmona et al, 2010). Open spaces must be conducive place for social interaction and should attract many visitors to do their activism in there (Dianworo, 1989; Whyte 1985) with a wide range of activities (Rivlin, 1994; CABE and DETR 2001).
- d. **Permeability**- the number of alternative ways through an environment (Ian Bentley et al, 1996; 10-11).
- e. **Variety**- variety of uses and choices of experiences (Ibid).
- f. **Legibility**- how easily people can understand it's lay out. Designing the massing of the buildings and the enclosure of public spaces (Ibid).
- g. **Robustness**- places which can be used for many different purposes offer their uses more choice rather than fixed use (Ibid).

- h. Visual appropriateness-** the interpretations people put on places (Ibid).
- i. Richness-** developing the design for sensory choice (Ibid).
- j. Personalization-** making the design encourage people to put their own mark on the places where they live and work (Ibid).

3.9. THE ROLE OF ENHANCING AN OPEN SPACE FOR THE PURPOSE OF SOCIAL INTERACTION

A well maintained open space creates a vital contribution to the quality of urban life in the health and social aspects. Access to green space is a powerful weapon in the fight against obesity and ill-health. The neglected open spaces attract anti-social behavior and have the potential to undermine regeneration of deprived neighborhoods. On the other hand if the open spaces are well maintained in protects the anti-social behavior (National Audit Office, 2006).

The existence of high quality urban green space contributes to wider Government objectives such as improved health, more sustainable neighborhood renewal and better community cohesion, especially in more deprived communities (Ibid).

According to the study that is taken in England over 80 percent of England's population lives in an "urban" environment – that is, in towns and cities of over 10,000 people. Urban life can be exciting and full of opportunities. But the urban environment can also be noisy, crowded and less healthy. Green spaces offer the chance for city dwellers to find calm, be sociable, take exercise and escape the pressures of city life.

The quality of open spaces can be enhanced by planting trees. Trees, especially large species, not only provide shade but play the role of public buildings, and become a substitute for the arcades, porches and covered outdoor spaces that

are part of the normal urban fabric. Where large trees exist, they become the focus of public gathering places (Donald et al, 2003).

3.10. THE BENEFITS OF OPEN SPACES

According to the council of Europe open spaces have different benefits. It is stated as follows: Open space is an essential part of the urban heritage, a strong element in the architectural and aesthetic form of a city, plays an important educational role, is ecologically significant, is important for social interaction and in fostering community development and is supportive of economic objectives and activities, In particular it helps reduce the inherent tension and conflict in deprived parts of urban areas of Europe; it has an important role in providing for the recreational and leisure needs of a community and has an economic value in that of environmental enhancement (Council of Europe, 1986).

Generally open spaces have four benefits; these are social, health, environmental and economic (Ibid).

Social benefits: urban open spaces provide the opportunities for people to do things, take part in events and activities or just to be. The social benefits of open spaces include children's play, passive recreation, and active recreation, a focus for the community or a cultural group and education. Such benefits and opportunities will be available to a different extent in each of the open spaces that one might experience in one's daily, weekly or annual use of such spaces (Helen Woolly, 2003).

Health benefits: as the World Health Organization describes Health is not the mere absence of illness, but means physical, social and mental wellbeing (The World Health Organization, 2003). Open spaces in urban areas are considered to have benefits for both physical and mental health for many years. In the promotion

of physical activity for children, the health professionals recommend the provision of safe, clean play area as well as healthy eating (Ibid; 38).

Environmental benefits:One function of open spaces is that of helping to improve the quality of the air in a neighborhood. During this process carbon dioxide is taken up by vegetation and oxygen is released in to the air. Thus open spaces play a vital role in air improvement in the urban environment (Francis et al., 1984).

Three scales, macro, meso and micro, at which climate can impact on the city have been identified (Dodd, 1988). The macro-scale is the environment of a town, city or region while, the meso-scale is defined as the environment of a village, parish or close-knit group of buildings such as those within a hospital or university campus. Finally the micro-scale environment is described as relating to an individual building or small group of buildings (Helen Wooly, 2003; 48).

The improvement to the air quality of the city will require an increase in green areas by approaches that include the protection of existing forest areas; the introduction of new forest areas; the establishment of new parks, recreation grounds and green sports grounds; the planting of street trees and improved care of parks and gardens (Ibid; 54).

Economic benefits: Some quality of life factors have been identified as having an impact on where people choose to live. This has clearly been shown to be the case of leisure and recreational opportunities (Marans and Mohai, 1991).

Writings about early urban park developments in several countries indicate that the value of land and or property adjacent to park developments was higher than land or property further away from the park. It has even been claimed that Birkenhead Park, constructed in Liverpool in 1847, was primarily constructed to raise land

values in the area (Hoyles, 1994), the second annual report of the West Chicago Park Commissioners reports that land plots immediately adjacent to the new parks increased in value by between three and five times and the president of the Commissioners cited the experience of other cities with respect to the value of land near parks increasing (Danzer, 1987).

3.11. THE DECLINING OF OPEN SPACES USAGE IN THE MODERN ERA

The leader and beginner of the modern architecture movement is United States of America. Contemporary social interaction is affected by the conflict within public space between social space and movement space, with private cars facilitating an essentially private control over public space (Matthew Carmona et al, 2010: 141). The vehicles have more importance than the pedestrians. The open spaces are taken by housing and commercial buildings at the center of the city. In the modernist model open spaces are provided between buildings without social activities (Tsidale, 1942).

The relocation projects also causes for the loss of open spaces in urban areas. The value system of urban renewal projects rejects the elements of the traditional old towns such as public spaces for the social activities and interactions (Ibid).

Currently many of the social and civic functions that traditionally occurred in public spaces have been abandoned by more private realms as activities such as leisure, entertainment, gaining information and consumption can increasingly be satisfied at home through the television or the internet (Ellin 1996: 149 20th century).

CHAPTER FOUR

4. CONTEXTUAL BACKGROUND

4.1. HISTORICAL DEVELOPMENT OF ADDIS ABABA

Addis Ababa is found in the central part of Ethiopia at an elevation of 2440m above sea level (Encarta 2008) and its total size is estimated to be around 520km². Addis Ababa was founded during the late 1880s. The main reason for its development is the settlement of Menelik's government due to its potential to be strategic for his political control over his kings. He selected Addis Ababa specifically Entoto during that time by following the prophecy that orally believed Entoto had served as the settlement for the Shewan kings. He moved to Entoto from Ankober.

The availability of wood and hot spring of 'filweha' also is the other main reason to settle in Addis Ababa. The name Addis Ababa means new flower literally and it was called by Taitu Bitul, the wife of Menelik.

Taitu had a desire to build permanent residence by following the existence of the hot spring called 'Filweha'. Her desire caused Addis Ababa to be found.

Figure 11: the hot spring of Filweha at the beginning of 19th century



Source: The City and Its Architectural Heritage: Addis Ababa 1986-1941: by FasilGiorghis and Denis Gerard

Factor for the establishment and development of Addis Ababa was the arrival of the Ethio-French railway from Djibouti to Addis Ababa through Dire Dawa in 1917 that facilitates the increase of imported goods into the city.

4.2. OPEN SPACE IN ADDIS ABABA IN THE EARLY ERA

During emperor Minilik era open spaces were used as public gathering for religious, recreational, economic and political purpose. To celebrate religious sermons peoples used large open spaces typically to celebrate ‘meskel’ (the holiday to celebrate the founding of the true cross) and ‘timiket’ (Epiphany).

Horse racing that was held at ‘Jan meda’ was the major outdoor recreational event during that time. During Minilik’s era the market was an open air market that gave the open space significance. Peoples from different direction came and gather to exchange goods.

In the history of Addis Ababa most open spaces that were found within the compound were used for only functional purpose and they planted trees for the purpose of shading (Fasil, 2007).

Figure 12: Jan Meda and Meskel square during Menilik era





4.3. THE CURRENT CONDITION OF OPEN SPACES IN ADDIS ABABA

Ethiopia is currently at a cross road in its political, economic and social development. The country is gradually being drawn into a global economic network that has begun to leave its traces on the constitution of urban spaces. The challenge is now that Ethiopia as a country faces the pressing question of how to modernize while simultaneously maintain its identity (Dirk and Bisrat, 2010).

Currently because of the explosive urban growth, the number of areas available for new development in Addis Ababa is rapidly decreasing. This causes the decrease of available space that will only contribute to greater social challenge, such as an increase in crime and delinquency, since residual spaces have traditionally served as makeshift sites for community or religious activities. It is high time that public spaces in the city be protected and properly organized, if not created a new (Fasil, 2010).

4.4. OPEN SPACE PROVISION STANDARD IN ADDIS ABABA

The office for the revision of Addis Ababa master plan states in the norms and standards of the Addis Ababa structure plan components:

- One plot one tree for plots of area up to 150 m sq. and 1 tree for every additional 100 m sq. plot area.
- 12-25 % of a plot area should be unsealed (for greenery and natural open space so that rain water should percolate to the ground, decrease water discharge and reduce runoff).
- Green areas of different standards (Neighborhood-city level) should be provided and developed according to the norms and standards provided in the Social Facilities component.
- In any case an average of 0.5-1m sq. /person should be reserved for green spaces (Norms and standards of the Addis Ababa, 2002).

The standard is general about the open space. It does not put a clear specification about the purpose of open spaces and the activities that take place on it and also in what condition.

According to the planner who works in the Lideta sub-city during an interview there are no specific standards to provide the open spaces except for the above and that they design by improving mistakes made from the former works and design of condominiums. There is no consultation with the public which are the primary users of the open space.

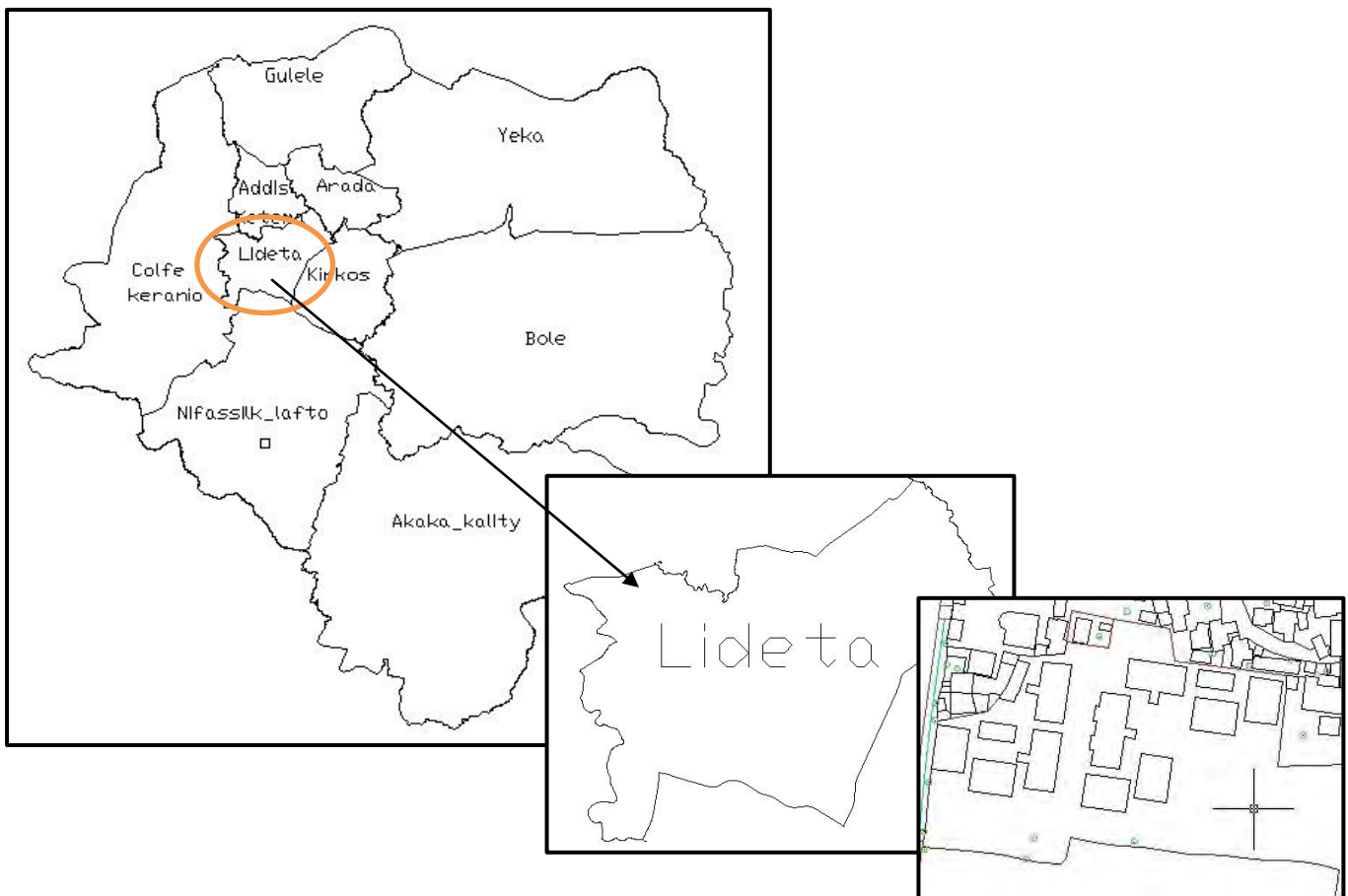
CHAPTER FIVE

5. CASE STUDY

5.1. INTRODUCTION

The study area is located in the center of Addis Ababa Lideta sub-city Woreda 8 (See map 1:2). The site is easily accessible to transportation means due to its location. The site covers 0.86 Hectares the building holds 0.2 hectares and the rest 0.66 hectares accounts for the open space that includes the streets, play grounds, parking and other leftover spaces.

Map1:2Location of the study area



The dwellers of Balcha condominium started living since 2005. It was one of the first developed model condominiums. As the dwellers orally said before the development of the condominium it was a soldiers' camp especially during the 'dergue' regime commonly called Mehandis literally meaning 'engineers'. It was a center for these technicians and engineers those administered under the military body.

The dwellers lived there since 2005 and currently 102 households dwell there. The total population of the case study area is 457 with 263 female and 194 male dwellers. The buildings are G+2 with common open spaces as a block (collection of individual buildings).

Table 3 Population composition of the study area by sex

No	Sex	Number of population	Percentage
1	Female	263	57.5
2	Male	194	42.4
3	Total	457	100

Source: compiled from field survey (2015)

5.2. CURRENT CONDITION OF OPEN SPACES IN STUDY AREA

The study area has different building collection pattern and the open spaces arrangement differs according to the number and pattern of the buildings. Based on the pattern of the open spaces the site can be classified in to four parts to make the analysis work easy. The open space uses are different according to their shape and size within the area.

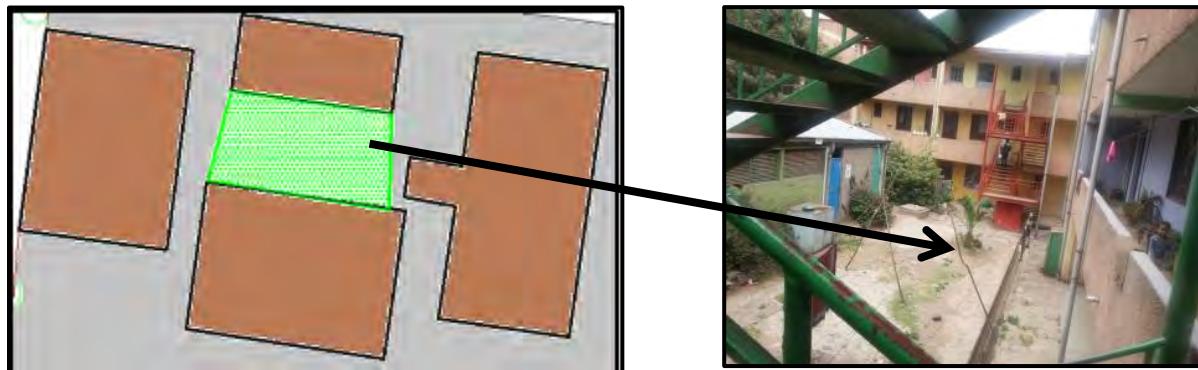
5.2.1.PATTERNS OF THE OPEN SPACE

The case study area open spaces can be categorized in to two according to their shapes. The first typologies of the open spaces are courtyard type (enclosed by the buildings) with a size of 92.9m² and 299.6m². The other typology is non-courtyard and it is as a meadow or a field.

THE COURTYARD TYPOLOGIES

The first courtyard typology is enclosed by three condominium buildings and one communal building. The total number of households that use this open space are 30. The open space is small compared to the household living there. The total area of open space divided by the households' number, the ratio for open space per household become 3.1m². On the average 5 persons live within the household that means 0.62m²per person.

Map 1:3 courtyard typologies



The second courtyard typology is enclosed by four buildings and denser than the first courtyard typology and the total households' number that dwell in those four buildings account 45. The average number of the family size is 5 and totally 225

persons use the open space which has a size of 299.6m^2 . The ratio that each individual has on the open space is 1.33m^2 .

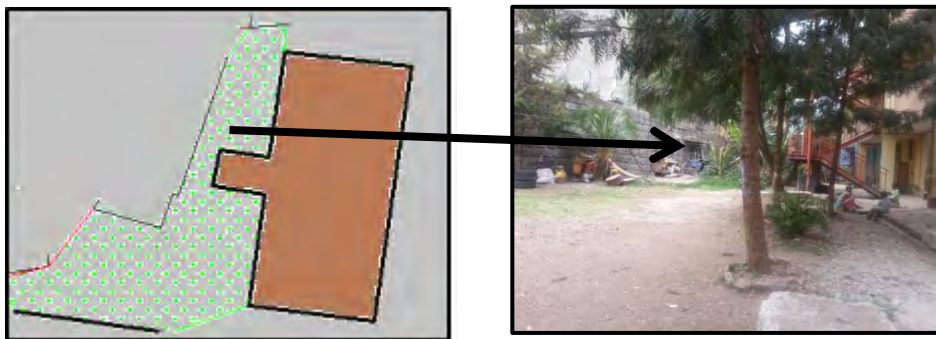
Map 1:4 courtyard typologies



THE MEADOW TYPOLOGY

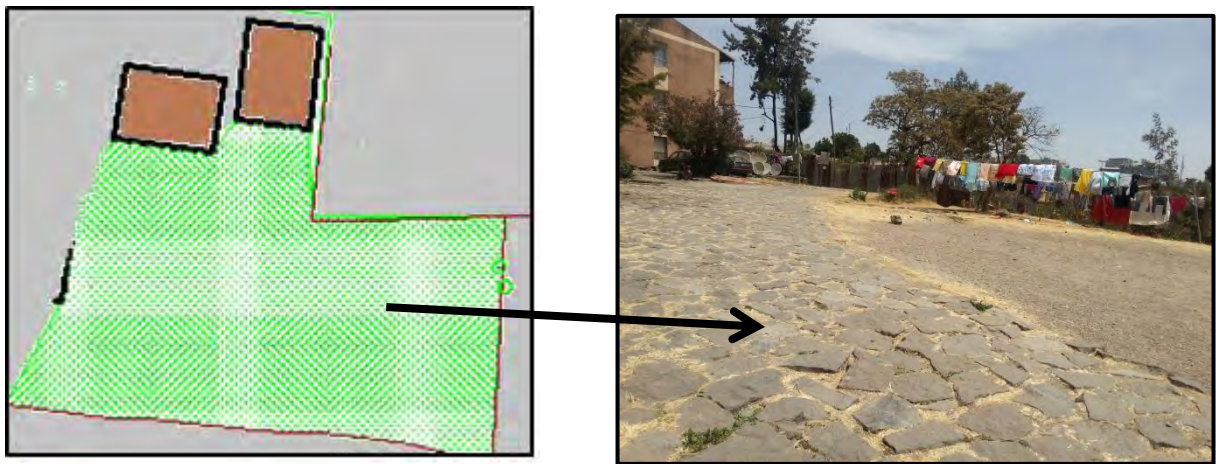
The second category that found in this area is the open space with the character of a field or a meadow type. The first of this typology has one building and in front of it there is an open space provide for 12 households. The size of the open space is 143m^2 . By considering the average number of the family size is 5 totally there will be 60 persons and the open space ratio is 2.3m^2 per person.

Map 1:5 Meadow typologies



The second one that falls in the meadow open space typology differs from the first one in its size and because of its size it seems a vacant land and the whole dwellers use it. The size of the open space is 2662.9m². The activities taken place in this open space includes building a tent for different purpose like funerals and wedding. This space is also used for parking. It is a multi-purpose open space.

Map 1:6 Meadow typologies



5.2.2.THE CURRENT USAGE AND PAVEMENT OF THE OPEN SPACES

The open spaces are currently used by the dwellers for different purposes at the time that the site observation was taken. The activities that are hosted at the open spaces are for drying clothes and crops and children play on it according to their sizes. The open space that has a small size is used for cloth and crop drying activities. The open spaces that have larger size are used for children playing. The wider open space within the compound hosts combined activities such as drying clothes, children playing and car parking also. The dwellers also store some materials on the open space.



Figure 13: The current usage of the open space

The result that was found from the site observation shows that the open spaces host limited activities. The pavements of the open spaces are bare land and stone however some of the stone paved areas became gravel. The open spaces are not well managed and the pavements are not proper and not maintained as well.

The open space per person ratio is going aligned with the Addis Ababa standard and some of the open spaces even have provided even more than what the standard puts.

5.3. FINDINGS

5.3.1. AGE DISTRIBUTION

From the total population 52.1% are fall under youth category. In this study the age category that falls under the youth ranges from 16th to 35th. Secondly 34.9% accounts for the children. The children those age ranges from 6th month to 15th accounts 114 from the total of 457. Finally the elderly in this study includes the age group those are above 35 years that holds 23% of the total population.

Table 4: age distribution

Age	Children from 6 th month to 15 th	Youth From 16 th to 35 th	Elderly Above 35	Total number
Number	114	238	105	
Percentage	24.9%	52.1%	23%	

Source: compiled from field survey (2015)

5.3.2. EMPLOYMENT CONDITION

The employees in the study area hold 26%. The unemployed account more percent because the students and the children hold large number that is 42.6%. The student accounts 27.1% and the kids that are not old enough for schooling accounts 4.2%.

Table 5 employment level

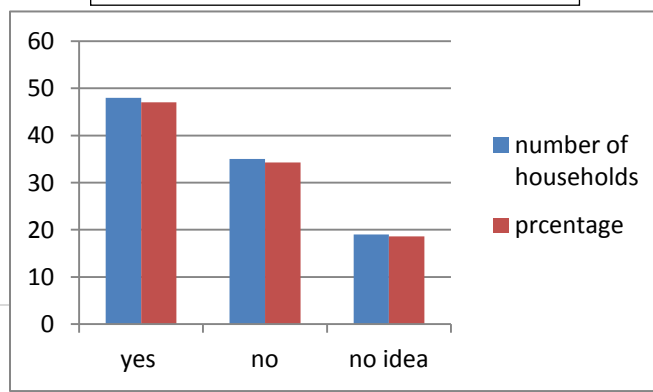
Employment Condition	Employed	Unemployed	Student	Other
Number of individual	119	195	124	19
Number of employees in Percentage (%)	26	42.6	27.1	4.2

Source: compiled from field survey (2015)

5.3.3.SUFFICIENCY OF OPEN SPACES IN THE SIGHT OF THE DWELLERS

The dwellers use the open space for drying clothes and crops and based on this function they gave their own opinion in the availability and sufficiency of the open space. From the total 102 households 47% say yes for the availability of the open spaces. They say yes because they can use it for drying clothes and crops and for that purpose they say it is sufficient. 34.3% say no for the availability of open space. Their reason for this is because of the small size of the open space from its provision during the design stage.The last category says I do not have any idea. That accounts 18.6%.

Chart 1: sufficiency of open space



5.3.4. THE USUAL USAGE OF THE OPEN SPACE

The trends in the usage of open spaces show both extreme cases. Some of the users use the open spaces daily. Others never use the open spaces. In percentage 1% of the dwellers use the open space daily. While 3.9% of the dwellers use the open spaces twice a week. The weekly users of the open spaces hold the greater percentage that is 72.5%, 2.9% used the open spaces monthly, and 10.8% of the dwellers never used the open space. The activities that are held on the open spaces are drying clothes and crops, to manually grind crops in cultural ways and at some part for children playing. The reasons for the non-users of the open spaces are there are no sufficient space to use and also the open spaces are not comfortable to use.

Table 6: open space usage in different

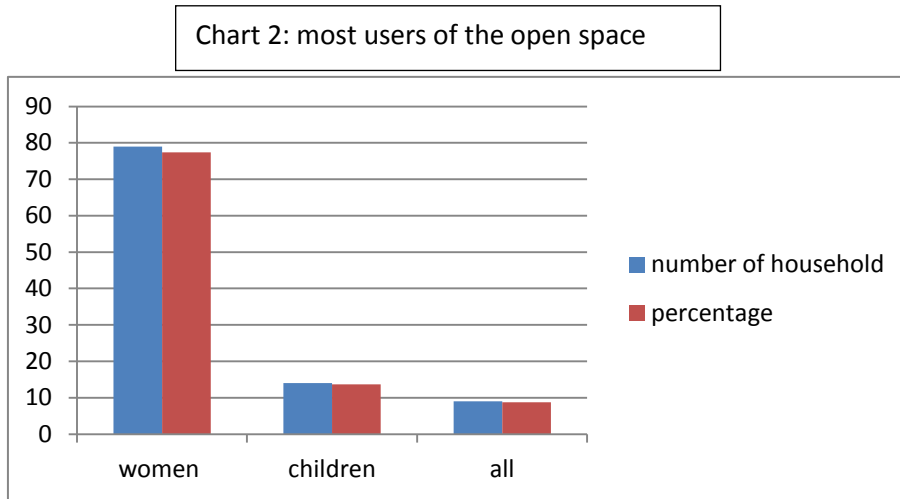
No	Open space usage in time	Number of users	Percentage (%)
1	Daily	1	1
2	Twice a week	4	3.9
3	Weekly	74	72.5
4	Once in 15 th days	9	8.8
5	Monthly	3	2.9
6	I don't use	11	10.8

Source: compiled from field survey (2015)

5.3.5. MOST USERS OF THE OPEN SPACES

The result found from interviews with the dwellers show that the women are the most users of the open spaces that account for up to 77.4%. The reason for women using the open space is the size and the design of the open space causing to host

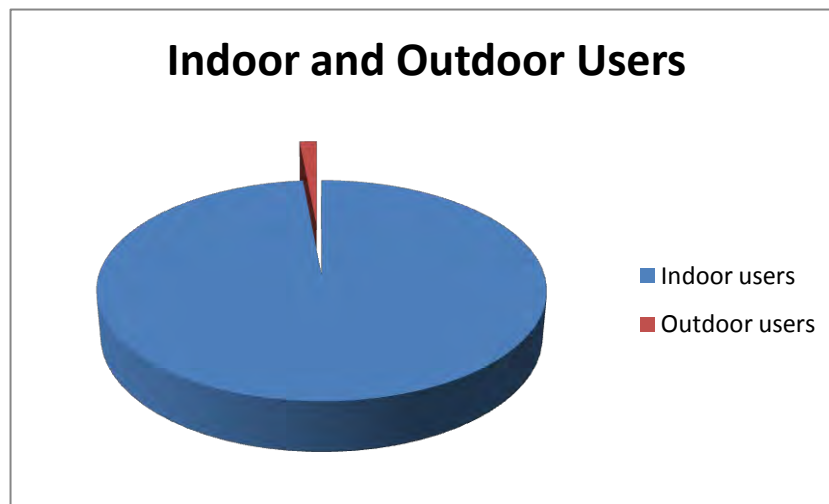
limited activities in it which are only for drying clothes and crops. 13.7% of the respondents say the open spaces are used mostly by children to play and 8.8% of the respondents say the open spaces are used by all the dwellers equally.



5.3.6. INDOOR AND OUTDOOR (OPEN SPACE) USAGE

When they spent their time of leisure at weekend and on holydays the dwellers have two options (staying in the house or use the outdoor open space). In percentage 98.5% of the dwellers like to stay home, the reasons for this, as the dwellers explain, are there are no enough space to use for recreation, the pavement is not convenient and even the shape of the open spaces are not comfortable and the condition of the open spaces do not invite the dwellers to stay and interact.

Chart 3: Indoor and outdoor activity



Source: - field survey (2015)

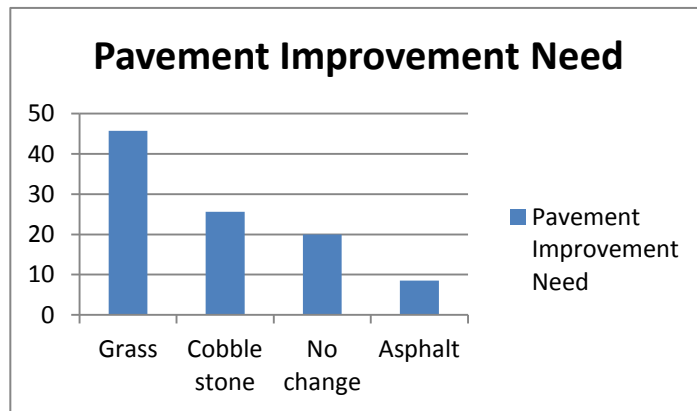
5.3.7. CONTRIBUTION TO THE OPEN SPACES

The dwellers contribute to the open spaces in labor (cleaning) and once a year during the end of summer they contribute money from 5 to 10 Birr for the removal of the grass. Except for these purposes the dwellers are never been asked to contribute money for the enhancement of the open spaces. Their reason for this is that there is no responsible body for the enhancement and control of the open spaces.

5.3.8. FUTURE PAVEMENT IMPROVEMENT

The dwellers express their need for the improvement of the pavement in the future. The dwellers that account for 45.6% need the pavement to be grass. Their reason for this is that if the pavement is grass it would be comfortable for the children to play and the adult would get a space to sit on and interact in. The 25.6 % of the dwellers say yes for cobble stones. Their reason is that it reduces the dust during the winter time and mud in the summer. 20% of the dwellers need no change for the

pavement. Their reason is that the site was rocky before the building of the houses and the current stones have historical significance for them. Finally 8.5% of the dwellers need [Chart 4: dwellers need for pavement improvement] reason is similar with the peoples need for coble stone to reduce dust and mud.



5.4. DISCUSSIONS

The findings that are found in the study area agreed with national Audit Office, 2006 in England that shows the quality of open spaces affect the social life and community cohesion. As the open spaces are well provided and when they have good quality people are attracted to come up and interact on it.

The indicators for best open spaces (Matthew Carmona et al, 2010) are also poor in the site. The open spaces are owned by the committee of the dwellers but the committee ignored them. The users of the open spaces are limited. The users are women using the spaces for some limited purposes. Its accessibility also is limited because of the poor quality of the open spaces. The design of the open spaces is not comfortable for people with disabilities. Children are playing on the walkways rather than in the open spaces and it is also connected with the poor quality of the open spaces.

Permeability of the open space is good; people can arrive in the open space by different ways. Variety, robustness and richness of the open spaces are poor. The dwellers use the open space for limited and fixed purpose.

Legibility, visual appropriateness and personalization characteristics of the open spaces are also poor. The open spaces are not well designed and have nothing up on them. The dwellers cannot have legibility and visual appropriateness that would invite them to see, understand and interpret the spaces. It is just an open and bare space. The dwellers have not any mark to put on the open space because they are not even clear about the concerned body that is responsible for the open space that makes personalization character of the open space in question.

Generally when open spaces, which are found in the case study area, are evaluated by the indicators of successful open spaces they do not fulfill most of the indicators.

5.5. MAJOR PROBLEMS

The major problems that have been seen during the site observation and interviews from the dwellers are:

1. The sizes of the open spaces to person ratio are enough when it is compared with the norms and standards of Addis Ababa. However the shape and the current condition of the open spaces (this majorly include the pavement and quality of open spaces) do not allow the dwellers to use them for social purpose.
2. There is no hierarchy of uses; all uses are hosted in the open spaces. Non compatible uses puttogether. Parking lots and children playing space put together. That may cause the crush of cars glass and also the car may cause for personal injury on the other hand. The open space is all in one, the

parking with playing grounds and at the same time it serves social purposes like funerals and weddings.

3. The open spaces seem neglected for social interaction and recreation purpose. The dwellers use the open spaces for limited activities such as drying clothes and crops for their daily activities.
4. The responsible body of the open spaces to control and to enhance them is not clear. The dwellers believe it is the responsibility of the committee and the committee is doing nothing with this regard.
5. Lack of security is another issue. The parents are not willing to send their children to the open spaces because they have the fear of their children falling and being injured since the pavements are not comfortable. They are also afraid of vehicles within the compound.

5.6. SUMMARY OF THE SURVEY RESULT

From the interviews and the site visitation the following results are found:

- Balcha condominium is well provided with the open spaces size wise.
- The youth age group accounts for high percentage in the age distribution being an indication for there must be recreation area and youth centers for the interaction. The youth must be the target group in designing and enhancing the open spaces.
- The unemployed account for more number in the site that may be causes for stress.
- In percentage 72.5% of the dwellers use the open spaces weekly for drying clothes only. The open space users' use the space for limited activities which weakens the significance of the open spaces for interaction and recreation.
- The most usual users' of the open spaces are women. However the youngsters account for the significant and large number of the population in the site.

- The dwellers (98.5%) choose to stay at home than to go out and use the open spaces for interaction and recreation due to the issue of convenience and security.
- Nobody is officially responsible for the management, enhancement and control for the open spaces that causes hardship to design and enhance the open spaces for the social interaction and recreation purpose.

CHAPTER SIX

6. CONCLUSIONS AND RECOMMENDATIONS

6.1. CONCLUSIONS

- Open spaces have a vital role in strengthening the social interaction. The society who lives in specific area needs social space to interact. The level of the interaction is affected by the availability, convenience and quality of the open spaces. In the case study area of this research called Balcha condominium, the open spaces are well provided according to the standard. However the users' and the activities on the open spaces are limited. There is a gap between the dominant number of the population and the users of the open spaces age wise. The youth holds the greater number within the site and the women who are housewives use the open space for limited purpose.
- The open spaces are provided for communal uses including for funeral, wedding occasions and children play grounds as well. However currently they are used only for drying clothes and crops. The dwellers use their own house and their corridor for such purposes than using the open spaces. Their reasons for this are: first in their opinion it is not sufficient, second the current condition of the open spaces is not convenient.
- Parents do not let their children go to the open spaces to play because it is not convenient for their children. The pavement is stone and some parts became gravel because of time that causes insecurity to let their children to play on it.

- The dwellers need the pavement to be changed into a green area. That can create an interest to use the open space for interaction, recreation for the youth and playground for the children.

6.2. RECOMMENDATIONS

Balcha condominium fulfills the open space standard of Addis Ababa size wise. The recommendation has two parts: theoretical and design that can solve the current problem.

Theoretically the ownership of the open space management must be clear. It should be under some body. It will be best if it is owned by the committee because it makes simple management and helps to enhance and control the open spaces.

The design solution can bring an improvement for the success of the open spaces by the indicators. The space should be designed to create variety of uses, to make it accessible, permeable, and legible and to enhance the quality of the open space that can attract the dwellers to come and interact.

For the dwellers the open space is important for their daily activities like drying clothes and crops. For such purpose the proposal of different pavement solution must be forwarded. For clothe drying and crops the coble stone pavement strongly recommended and for children playing and social interaction purpose like sitting to chill the green space should be used.

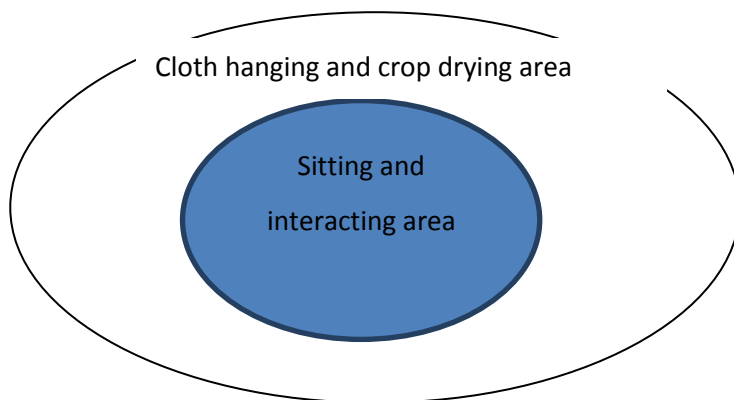
For the youth group the recreation area should be proposed that contains basketball court; they can play football on it as well. The recreation area can also satisfy the need of all age group if it contains sitting areas, green area and trees for shading that can attract the dwellers to come and interact.

6.2.1.DESIGN CONCEPTS

The design concept includes:

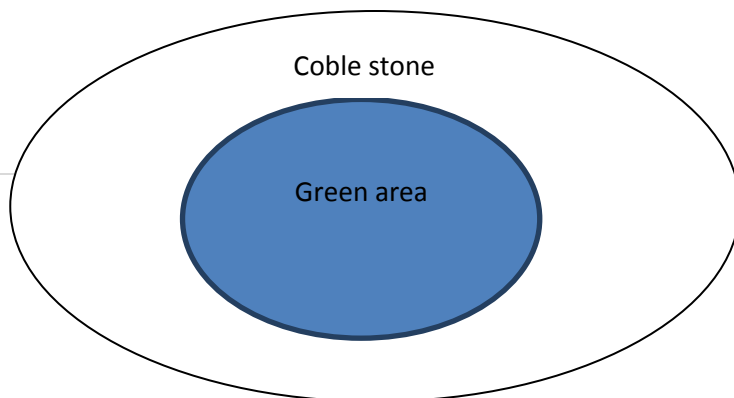
1. Segregation of uses on the open space

When the spaces are segregated they can be used for specific purpose and it creates a space for interaction area.



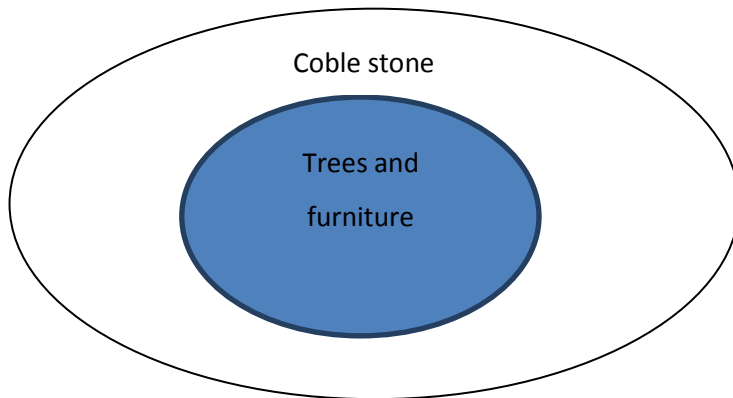
2. Pavement improvement

Using different pavement materials guides the type of activities that must happen in the space. The coble stone encourages people to walk and use for drying clothes and the green area invites people to come and interact.



3. Landscape improvement

Designing the landscape enhances the quality of the open spaces and provides shading that can attract all dwellers to come and interact.



6.2.2. DESIGN RECOMMENDATION

Design program

The open space in the study area serves the following function:

- Cloth hanging and crops drying
- Cooking for special ceremony (for occasions)
- Children play grounds
- Sitting spaces
- Youth outdoor open recreation center

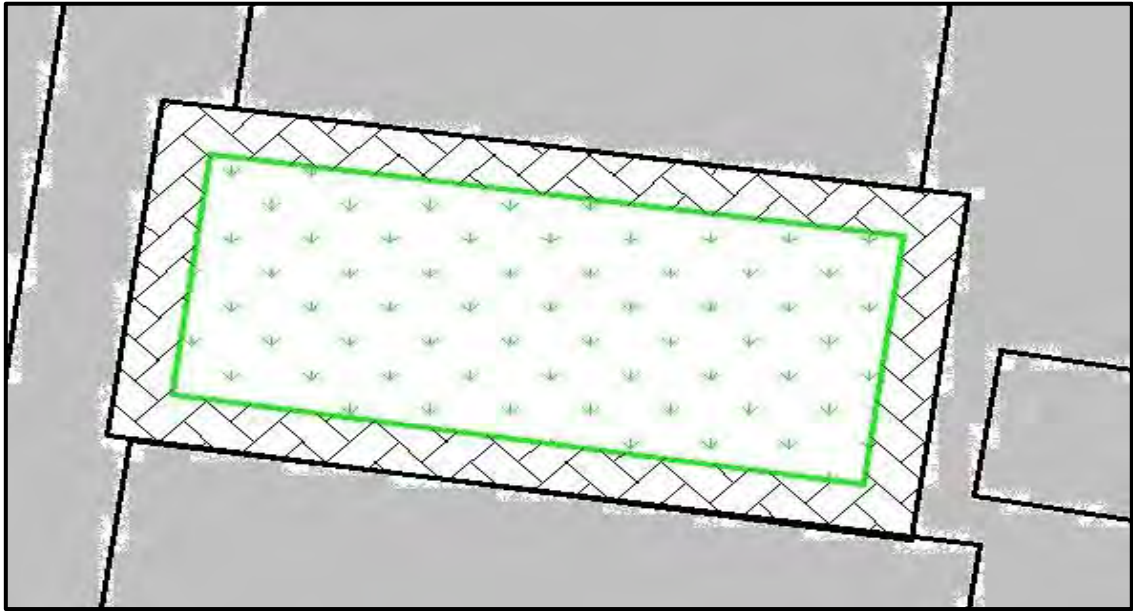
For the whole site multi-purpose holistic open space is provided. This open space has:

- Basketball and football court together
- Sitting area
- Children play ground

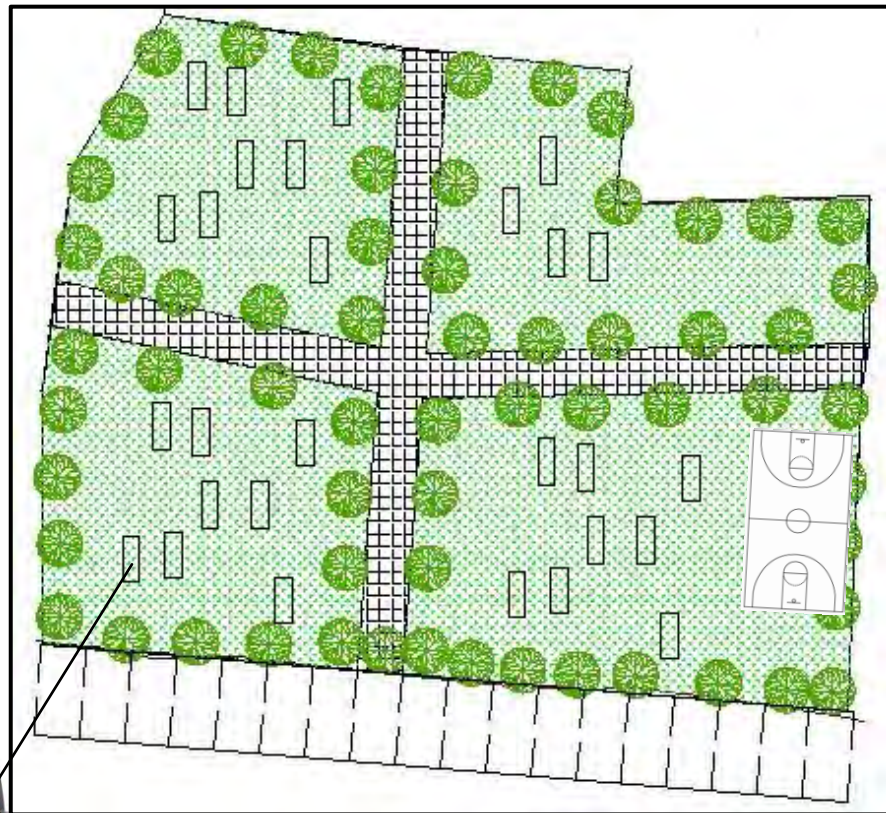
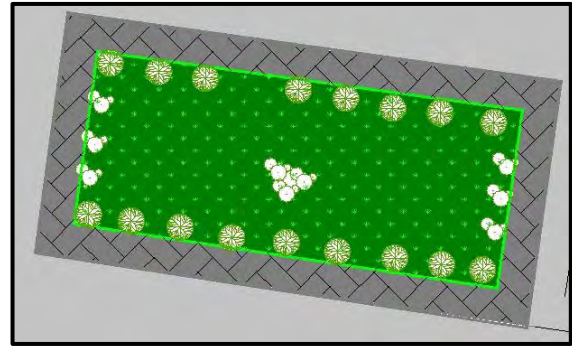
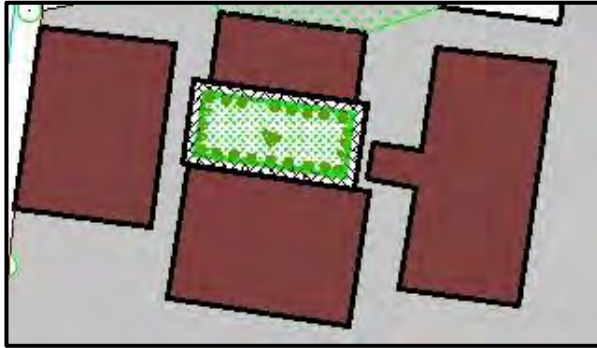
The purpose of this holistic center is to invite all member of the dwellers” to come and use the open space.

1. Segregation of uses





2. Pavement improvement, landscape enhancement and facility provision



6.2.3. 3D ILLUSTRATION





