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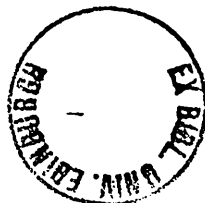
THE SOCIAL NEEDS OF THE USERS IN PUBLIC OPEN SPACE

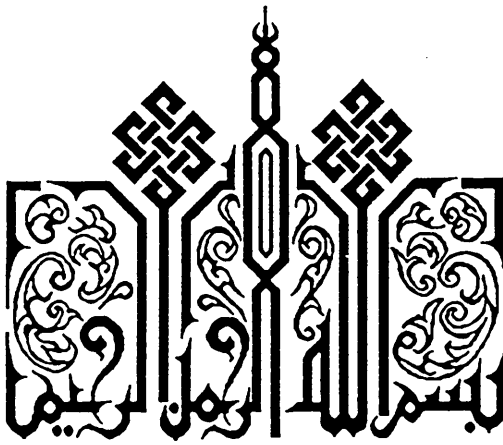
"The Involvement of Socio-Cultural Aspects in Landscape Design of the
Outdoor Urban Environment in Ar-Riyadh, Saudi Arabia"

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In the name of Allah, the Compassionate, the Merciful

*To my parents, I respectfully dedicate this work;
and to my devoted wife and my two children Shaimaa and Anas.*

ABSTRACT

With the modern development and urbanisation in the city of Ar Riyadh, the capital of Saudi Arabia, public gardens were introduced as the major public recreational facilities. The establishment of the public gardens commenced at the beginning of the 1980s. Since that time, the number of public gardens has reached 34. They vary in size, the smallest is about 3,000 sq. m. and the largest is about 455,000 sq. m. The rapid development of these facilities, in such a short time, did not allow for extensive assessment of the residents' needs. Rather, the design of these gardens emerged without precedent, based on foreign examples.

Because of the adoption of foreign design ideas, the outcome did not respond to the socio-cultural aspects which existed in and were respected by the society. The study was an attempt to recognise and understand the relationship between the socio-cultural aspects that govern and guide people's behaviour and the outdoor recreational environment. In order to investigate the relation between human behaviour and the physical environment, three research techniques were defined by which the various dimensions and details concerning the socio-cultural aspects which govern human behaviour can be identified, described and clarified. The techniques used are archive search, observing the behaviour-environment and a questionnaire survey.

As a results of the analytical process, specific issues which strongly related to the socio-cultural aspects of human behaviour in the outdoors were identified as important in determining the level of compatibility between the intended behaviours and their meanings and the physical setting of the recreational environment. In order to

create a coherent built environment that responds positively to the intended functions expected by certain people, knowledge and understanding of their socio-cultural values and behaviours must be acquired and applied in the design process.

ACKNOWLEDGEMENT

Praise is due to Allah the Almighty in whom I totally believe and depend on, for without His mercy and help none of this work would have been accomplished. He is first to be acknowledged and my countless thanks will never be sufficient; and may His peace and blessings be upon His Prophet Mohammad.

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Without the co-operation of many governmental officials and the assistance of many individuals in the search and collection of materials and information, this work would not have been accomplished. It is impossible to thank every one of those who provided assistance, encouragement, and advice along the way, but I owe a special

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TABLE OF CONTENTS

ABSTRACT.....	i
ACKNOWLEDGMENT.....	iii
TABLE OF CONTENTS.....	v
LIST OF FIGURE.....	x
LIST OF TABLES.....	xiv
SYSTEM OF TRANSLITERATION.....	xv
CHAPTER I	
INTRODUCTION.....	1
CHAPTER II	
BACKGROUND INFORMATION.....	10
Location and Topography.....	11
Historical Perspective.....	12
The Processes of the Change.....	16
The Emergence of the Contemporary Recreational Facilities.....	23
CHAPTER III	
LITERATURE REVIEW.....	30
Definition of Socio-Culture.....	30
The Relationship Between Socio-Cultural Aspects and Built Environment.....	32
Behavioural Aspects Related to Socio-Cultural Values.....	35
The Culture of Saudi Society.....	37
Socio-Cultural Values of Saudi Society in Regard to the Outdoor Environment.....	38
Privacy.....	40

I. Privacy between Sexes	43
II. Family Privacy	45
Nature of Activities	47
I. The activity itself	48
II. How it is carried out	49
III. How it is associated with other activities and combined into an activity system.....	49
Territoriality	50
CHAPTER IV	
RECREATION AND THE SAUDI ARABIAN MODEL - HISTORY AND IMPORTANCE.....	52
Concept and Definitions.....	53
Brief Historical Perspective on the Issue of Recreation	55
Recreation in the Twentieth Century.....	62
Historical Perspective of Recreation in the Middle East.....	67
Famous Islamic Gardens - Concepts and Characteristics	73
Recreational model in Saudi Arabia.....	80
Recreation in Modern Saudi Society.....	82
CHAPTER V	
RESEARCH METHODOLOGY AND FIELD WORK PROCEDURES	89
Research Intentions.....	89
Research Design	90
Archive Search	90
Observing the Behaviour Environment.....	93
Step 1: What to Observe (an observable measure).....	95
Step 2: Select the Environmental Setting and Sampling Strategy.....	96
Step 3: Observer Strategy.....	97
Step 4: General Strategies	98
Questionnaire Survey.....	99
Formatting the Questionnaire.....	99
Type of Questionnaire Items	100
Developing the Questionnaire	101
Sampling Technique.....	103

Research Analysis	108
Archival Analysis.....	108
Observation Analysis.....	108
Questionnaire Analysis.....	109
CHAPTER VII	
FIELD WORK STRATEGIES, EXPERIENCES, AND ANALYSIS.....	111
Observation Technique.....	112
Step 1: An Observable Measure (What to observe).....	113
Physical Settings (Type of places).....	114
Activities (What happens)	115
Users (Who is/are)	116
Step 2: Select the Environmental Setting.....	117
Criteria for selecting observed settings (gardens, paved roadsides, and vacant lands)	118
Step 3: Observation Sampling Strategies.....	121
Step 4: Observer Strategy.....	121
Step 5: General Strategies.....	122
Observational Analysis Scheme.....	123
Field Analysis	124
Site Analysis.....	126
Al-Hizām Garden.....	126
Date of the Observation and Other Relative Information	126
General Description of site.....	127
Description of Elements.....	127
Ring Road-East (site no. 3)	129
Date of the Observation and Other Relative Information	129
General Description of the Site.....	129
Description of the Design Elements.....	129
Thematic Analysis	131
Transportation Means and Accessibility of the Sites.....	131
Accessibility in Reaching the Site.....	133
Accessibility within the Site	135
Characteristics of Preferred Areas (Where do people sit)	138
Areas at the Edges of Open Spaces	138
Visually Protected Areas	141

Settling in the Selected Area.....	147
Users' Sitting Arrangement.....	147
Members' Position Arrangement.....	149
Arrangement of Belongings and the Marking of Territory.....	151
Children Play - Areas and the Needed Ranges.....	153
Activities Taking Place (What people do in the outdoors).....	155
Passive Activities	156
Active Activities.....	158
Users (Who are).....	160
Time of Intensive Use.....	161

CHAPTER VIII:

QUANTITATIVE PERSPECTIVE, STRATEGIES, EXPERIENCE, AND ANALYSIS

Survey Strategies	162
The Importance of Using Survey Techniques in this Study.....	162
Questionnaire Design.....	163
Distribution and Collection Process and Experience.....	166
Obstacles Facing the Survey Process.....	168
Survey Analysis.....	169
Data Analysis.....	169
Characteristics of Respondents.....	171
Respondents' Preferences and Opinions.....	174
Preferences	174
Opinions	180
Social Aspects.....	183
Respondents' Comments	188

CHAPTER VIII:

HYPOTHESIS DISCUSSED AND REVIEWED: CONCLUSION.....

Introduction.....	191
Methodology	194
Thematic Approach.....	195

Findings and Conceptual Solutions.....	196
Summary of the General Findings.....	197
Specifying the Findings with Providing Conceptual Ideas and Guidelines.....	202
First: Guidelines for Rehabilitating the Existing Public Gardens and Establishing New Developments.....	204
Second: Guidelines for Improving the Informal Recreational Sites (pavements and vacant land).....	209
Further Research.....	210
APPENDICES	214
Appendix I. Observation Record and Survey Format.....	214
Appendix II. Site Analysis.....	237
Appendix III. Statistical Results.....	276
BIBLIOGRAPHY	305

LIST OF FIGURES

- 2-1: Map of the Arabian Peninsula Showing the location of Ar-Riyadh.
- 2-2: Ar-Riyadh in 1919 -- Philby's Map.
- 2-3: Ar-Riyadh in 1937 -- Dickson's Plan.
- 2-4: The nodes of growth of Ar-Riyadh in the late 1940s and early 1950s.
- 2-5: An-Naşriyah -- Site Plan. The first step in the transformation from the traditional pattern to the new grid pattern.
- 2-6: Al-Malaz -- Site Plan.
- 2-7: Al-Malaz public garden.
-
- 3-1: The differences in architectural forms under the same physical environment reflect the differences in the cultural backgrounds.
- 3-2: The continuity in space organisation. The continuity at different levels of design, (1) in the house, (2) in the neighbourhood, and (3) in the town level, reflects the consistency in the society's needs. The best example that demonstrate the continuity in space is found in San Cristobal Las Casas.
- 3-3: The concept of space in the traditional and contemporary Saudi urban patterns.
- 3-4: The reflection of the behaviours on the built environment.
-
- 4-1: The Central Park in New York City as it is today.
- 4-2: Diagrammatic concept of the Boston Park System. The park system was established to bring the countryside into the expanding city.
- 4-3: Planning of the city of Al-Kufh in Iraq by the second Caliph around 640 AD. gave consideration to public open spaces within the urban pattern.
- 4-4: Rough perspective for the circular city of Baghdad showing the mosque in the middle and surrounded by the gardens and other public facilities.
- 4-5: The central complex of the Alhambra Palace. The three main courtyard gardens: Court of Myrtles (A), Court of lions (B), and Court of Daraxa (C).
- 4-6: Safavid gardens of Isfahan, Iran. The central spine formed by a water channel and a long avenue is the main feature in the plan. The division style of the

spaces is also clear in the layout.

- 4-7: Plan Shalimar Bagh, Kashmir. The garden is divided to parts. The first level was open to the public, the other levels were exclusively for the Emperor and his family.
- 4-8: Plan of part of Al-Thumama National Park showing the organisation of the camping areas.
- 4-9: Plan of Al-Mansourah Public garden in Arriyadh.
- 4-10: A section in a typical motor-way. People park their cars along the paved side of the service road and sit on the pavement where their children play in the open lands adjacent to the road.

-
- 5-1: Research design diagram.
 - 5-2: Sequence of steps of the observation technique.
 - 5-3: Sequence of steps of the questionnaire survey.
 - 5-4: Map showing the segmentation of the residential neighbourhood for the distribution technique.
 - 5-5: Typical residential area in Ar-Riyadh showing sequence of systematic selection of streets.
 - 5-6: Systematic selection of houses within the selected residential areas. Every third house on the right-hand side is selected.

-
- 6-1: The locations of the selected sites for observation spreading over the layout of the city.
 - 6-2: Plan of Al-Ḥizām Garden.
 - 6-3: An open grass area in the centre of Al-Ḥizām Garden. Users usually sit against palm tree trunks or hedges. They also maintain fairly large distances between their spots. The view gives an idea of the activities that usually take place.
 - 6-4: Group of users organising their setting to meet their socio-cultural needs. This observation was conducted in a weekend night on the east side of Ring Road-East.
 - 6-5: Users usually park near the entrance way leaving the rest of the parking lot unused.
 - 6-6: The relationship between parking space and the selected used space is a critical aspect in influencing the use of the site.
 - 6-7: Pocket areas at the edges of the public space provide the best sitting areas. They are away from circulation and partially protected by the physical

- boundaries.
- 6-8: Because of the high number of users of public gardens, people were observed sitting at the edges as well as in the middle of the space. From Al-Ḥizam Garden.
- 6-9: On the vacant lands along the major roads people create their own space by placing their cars in positions where they work as edges for the space. They also control the direction of the view. This observation was conducted in a weekend night in a very popular site on the east side of Ring Road-East.
- 6-10: Newspaper caricature expressing the discomfort caused by losing female and family privacy.
- 6-11: Newspaper caricature shows a Saudi man jogging while his face is veiled so nobody can recognise him.
- 6-12: Users sit against hedges and high shrubs in pocket areas to enjoy some level of freedom and privacy. Sketch from Al-Ḥizam Garden.
- 6-13: The use of stone slabs in Ḥajar Garden created semi-enclosure areas that provide visual protection for users. Shown here part of Ḥajar Garden.
- 6-14: View into one of the kidney shape structures which are scattered in the family section of Al-Suwydi Garden.
- 6-15: Layout and arrangement of sitting on the ground in the outdoor environment.
- 6-16: Female users sit in the most protected part of the chosen area while male users sit in the exposed part.
- 6-17: The arrangement of sitting defines the private domain of the group from the public domain.
- 6-18: A large group of recreationists use cars as a physical barrier to enhance the separation between males' sitting circle and females' sitting circle. This case was observed along the Ring Road-South.
- 6-19: The two marked boundaries of territory. The inner circle marked the most sacred ground. The outer circle marked the area where no one is welcome.
- 6-20: Group of children riding bicycles on the pavement and the vacant lands.
- 6-21: Group of male recreationists sitting on mat on the paved roadside. The presence of children suggest that there is another sitting circle of females. The scattered belongings around the mat is obvious. In the photograph, some activities are recorded, such as sitting and chatting, preparing food (barbecuing) and children riding bicycles.
-
- 8-1: The derived themes and categories were the result of the set of behaviour that were the result of the interaction between the socio-cultural aspects, the outdoor setting, and the human activities.

-
- 8-2: The use of car in creating a positive space in the vacant lands. The created space is very well protected and provides the needed privacy. At the same time, it controls the direction and the orientation of extended views and activities. It also spatially makes the space part of the surrounding whole.
- 8-3: The three most important socio-cultural aspects: privacy, activities and territoriality.
- 8-4: There should be a short walking distance between parking areas and the various areas and spaces of the recreational sites. Two conceptual alternatives showing that parking should be surrounding the site instead of being at one side of it.
- 8-5: The outdoor space can be simply manipulated to increase the use of the edge and create pockets where people can sit and carry on their activities in semi-private and protected areas, while at the same time they are still part of the whole. The advantages of such manipulation is that it creates an open space in the middle for public use and interaction, especially for children, as well as allowing activities of all ages to spread towards the interior of the space.
- 8-6: The location and the height of shrubs should be considered very carefully.
- 8-7: 3 to 5 metres diameter circle is required for sitting and arranging belongings.

LIST OF TABLES

- 7-1: Statistical results of the reasons behind going to public gardens (see Appendix III, results: 3.2.8 to 3.2.15).
- 7-2: Evaluation of the privacy level in public gardens (3.2.17).
- 7-3: Responses to the different alternatives in regard to the privacy issue (3.2.19).
- 7-4: Results of the male respondents to the question with whom do they often go out for recreation (3.3.3 to 3.3.8).
- 7-5: Percentages showing the popularity of different recreational outdoor activities (from 3.3.9 to 3.3.15 and from 3.3.19 to 3.3.24).

SYSTEM OF TRANSLITERATION

This thesis adapted the system of Arabic transliteration from the Concise Encyclopaedia of Islam by Cyril Glassé (London: Stacey International, 1989).

Transliteration	Arabic Letter	Transliteration	Arabic Letter
.	ء	ʿ	ط
h	ح	z	ظ
t	ث	.	ظ
th	ث	gh	غ
j	ج	f	ف
h	هـ	q	ق
kh	خ	k	ك
d	د	l	ل
dh	ذ	m	م
r	ر	n	ن
z	ز	ah/āt	هـ
s	س	w	و
sh	ش	y	ي
ṣ	ص	t	ت
ḍ	ض		

short vowels (represented by orthographical signs placed above or below Arabic letters)

a	' (above) eg. ha =	هـ
u	' (above) eg. bu =	بـ
i	' (below) eg. bi =	بـ

long vowels

ā	آ
ū	و
ī	ي

Diphthongs

aw	او
ay	اي
iy	ي
uw	و

4. The numbering of the Koranic passages is according to Arberry.

INTRODUCTION

INTRODUCTION

The city of Ar Riyadh like major cities in the kingdom of Saudi Arabia, has undergone a rapid development in the last 40 years. Visible changes have occurred in the urban patterns of the city as a result of the evolution of modern transportation. The city no longer has the traditional tight pattern and human scale and is no longer contained within the city walls. It has spread as result of the establishment of major highways, commercial streets, and wide grid patterned residential streets. It displays a pattern similar to that of large western cities, such as New York and Chicago.

Specifically, between the mid 70's and the beginning of the 80's, the city expanded dramatically as a result of the improved economy of the country based on the oil boom. The municipality of Ar Riyadh during that period was busy launching major public projects which transformed the city from a medium size town to a major city. Among the many newly established projects are public gardens. According to the Ar Riyadh Development Authority's Recreation Study¹, the number of public gardens exceeds 34 in the city. Those recognised public gardens are scattered throughout the residential neighbourhoods. They vary in size, where the smallest is about 3,000 sq.

¹Ar-Riyadh Development Authority, Ar-Riyadh Recreation Study, Final Report, August 1986 (Ar Riyadh, Kingdom of Saudi Arabia: Fennmap Oy, 1986).

m. and the largest is about 455,000 sq. m.

Since the idea of public garden is fairly new in its contemporary form to Saudi Society and it has emerged without precedent, their design was based on foreign examples. Because of the adoption of Saudi new ideas, the designs did not understand and respond to the socio-cultural aspects existing in and respected by the society. In many cases, these public gardens have had the dehumanising effect of imposing new life styles on the users whose socio-cultural needs have been totally ignored by those who plan and design; who consciously or unconsciously have imposed foreign design values, ideas, and functions on them.

The human built environment has gone through several stages of development in the history of mankind to reach the complicated stage of the modern day. The development of human built environment depended on the advancement of man himself. The first environmental problem man had to deal with was the search for shelter in order to protect himself physically. He solved that problem in two ways: either by finding a ready made shelter or by constructing small shelters. The first constructed shelters were built out of available materials. Different societies in different geographical locations developed different forms of shelters. They were all intended to solve the same needs and to express the same idea: that of providing physical protection in the simplest possible way.

Several things have changed since early man began establishing shelters. The most important change is the ability to consider other aspects over and above the simple need of physical shelter. For example, spiritual and religious values and beliefs have emerged as significant elements forming people's social lifestyle. The emergence of socio-cultural values as organisational aspects to control the interaction of the group have influenced the layout of the built environment. Hall, in his book Beyond Culture,

stated:

"Culture is man's medium; there is not one aspect of human life that is not touched and altered by culture. This means personality, how people express themselves (including shows of emotion), the way they think, how they move, how problems are solved, how their cities are planned and laid out, how transportation systems function and are organized, as well as how economic and government systems are put together and function.²"

The socio-cultural aspects are considered to be the motivation forces behind controlling the resulting shape of the built environment. The organisation of human used spaces and their spatial relationship that links the different activities are believed to be guided by very well organised and respected set of rules shared by the users of the environment as part of their cultures. The accumulation of these rules of any society is what make the lifestyle of the people. Rapoport expressed this idea of rules in his book Human Aspects of Urban Form by saying:

"The rules which guide the organisation of space, time, meaning and communication show regularity because they linked systematically to culture ... These create a system of rules and habitats which reflect ideas and creates a lifestyle, guiding behaviour, rules, manners, the food eaten as well as built form ... In case of built environment, these rules affect the separation of objects and people according to various criteria ... What distinguishes one environment from another is the nature of the rules embodied or encoded in it.³"

The layout and shape of the built environments, the way they have been used,

²Edward T. Hall, Beyond Culture (New York: Anchor Press, 1981), pp. 16-17.

³Amos Rapoport, Human Aspects of Urban Form (Oxford: Pergomon Press, 1977), p. 14.

and their meaning to their users are what give the built environment their identity and their character. Their specific characters suggest that they are much more than physical objects. They carry certain meaning which in turn translate into action. Rapoport suggested that meaning is not something apart from function, but is itself a most important aspect of function. The human physical environments - clothes, furnishing, buildings, gardens, streets, neighbourhoods, and so on - are all materialistic things that carry meanings which in turn establish group identity.⁴ In other words, what man chooses to take in, either consciously or unconsciously, is what gives structure and meaning to his world.⁵

The meaning of the built environment to certain people is strongly related to the cultural background of certain images and ideas shared by those people which, in turn, lead to judgements and choices.⁶ Robert Sommer provided some examples that support this argument:

"During the Second World War Russians from the Great Steppes were confined in mountain resort in Switzerland and were most unhappy. Pygmies from the covered primeval forest feel exposed and helpless in a clearing, while European settlers feel trapped and depressed under the constant jungle cover. The Saskatchewan prairie dweller begins to feel uncomfortable in the scrub brush zone and distinctly unhappy when he reaches the forests of the pre-Cambrian shield.⁷"

⁴Amos Rapoport, The meaning of the Built Environment: A Nonverbal Communication Approach (Tucson, Arizona: The University of Arizona Press, 1990).

⁵Hall, Beyond Culture, p. 88.

⁶Amos Rapoport, "Culture and the Urban Order", in J. A. Agnew, J. Mercer, and D. Sopher (eds.), The City in Cultural Context (Boston, London: Allen and Unwin, 1984).

⁷Robert Sommer, "Territory," in S. Kaplan and R. Kaplan (eds.), Humanscape: Environments for People, (Ann Arbor, Michigan: Ulrich's Books, Inc., 1982), p. 269.

The resulting happiness and/or unhappiness from the interaction between man and his built environment affects the judgement of the environment which in turn leads to certain choices.

To put the different parts together, "meaning" is the study of "logic" of culture applied to the built environment. Therefore, by referring to the "meaning of the built environment", we refer to all those aspects beyond the face value of their physical properties, to all those other things in life which people attach significance and value - including their purposes, their ideas, and their beliefs. Obviously those aspects which people attach to and value are expressed through choices they make about the built environment and behaviours they carry out on the built environment. On other words, the forms and the degree of interaction between the man and his built environment is the physical expression of his feeling towards the environment and its meaning to him.

The main argument of this study stems from the previous statements about the relation between socio-cultural aspects and the built environment. The misunderstanding and misinterpretation, let alone ignorance of these socio-cultural aspects strongly affect the use and the interaction between man and his environment. There is a high degree of consensus among various researchers in the field of human behaviour in the built environment on the existence of strong relation between the socio-cultural aspects and the built environment. And in order to gain most from the built environment, there must be a fitness and coherence between the form and its purpose. In other words, the outcome of the built environment must respond to the socio-cultural needs and values of the users.

The indicator of the degree of fitness is the human behaviour in the built environment. So, the argument which this thesis supports and investigates is that the socio-cultural aspects of the human behaviour is one of the main motivations by which

the built environment is produced and shaped. Therefore, in order to understand a particular built environment we must go beyond the mere spatial organisation of the forms, to the socio-cultural needs and values of the people which, in many situations, are the invisible forces which have to be recognised through intensive investigation of the reflected behaviours and interactions.

In the recent years, sites other than public gardens, have emerged as recreational places, although that they were not designed, in the first place, for recreational use nor have they necessary facilities, such as toilets, drinking water supplies, and rubbish containers. These sites are becoming more popular among the Saudi residents of the city than public gardens which supposedly were established for recreational purposes. This confusion of the people's behaviours raised much speculation regarding the failure of public gardens and the success of other sites within the urban fabric in Ar-Riyadh city, such as the paved road-sides and vacant lands along the major roads. This thesis hypothesises that socio-cultural aspects which are reflecting the society's needs and values are the most important reasons behind the dilemma of recreation in the city and the failure and success of the various recreational environments. Because the public gardens were constructed over such a short time without considering the society's needs and values, the society had to make choices and look for alternatives.

Starting from a firm belief and support of the main argument presented earlier in the discussion, that the built environment is, after all, the result of the socio-cultural needs and values of the inhabitants and users, this study is going to investigate the influence and involvement of socio-cultural aspects in determining the outcome, form and shape of the outdoor environment. The investigation will concentrate on studying the urban recreational patterns of Saudi families and the relation of those patterns to the

outdoor recreational environment. Studying the recreational patterns will include thorough investigation of the outdoor environment itself and the human behaviour that takes place within it. Examining the resulting behaviour as expression of the socio-cultural needs and values will assess the influence of those needs and values on determining the design and outcome of the physical outdoor environment.

The research, after all, is seen as a learning experience to find out about the involvement of socio-cultural aspects in determining the outcome, shapes and forms of the outdoor recreational environments. Therefore in order to achieve the aim and the experience, certain objectives were set for this research. First, gaining insight and full understanding of the involvement of the issue of socio-cultural needs and values and the resulting human behaviour in controlling the built environment, in general. Second, determining and deciding on the socio-cultural aspects which could be considered the most important to influence the outdoor environment. Third, gaining insight about the issue of recreation, especially urban recreation, its patterns and its physical environments.

This thesis consists of eight chapters. The first chapter introduces the study by providing orientation and the needed perspective to understand the detailed information coming in later chapters. This introduction has been divided into five stages. Stage I presented the field of research and highlights the problem statement. Stage II provided more specific statements and discussion about the topic of the study through general review of other research. Stage III presented the argument and the hypothesis of the thesis. Stage IV presented the aim and objectives of the thesis. Stage V included the organisation of the study.

Chapter II concerns background information about the history of Ar Riyadh city and its urban development. The chapter gives a historical perspective, a brief idea

about the processes of change, and an insight about the emergence of the recreational facilities. Chapter III theoretically discusses the importance of understanding the influence of socio-cultural aspects on the human built environment in general and in Saudi society in particular. The chapter concentrates on determining the particular socio-cultural aspects that are most important for the topic of this study. Chapter IV investigates the issue of recreation, in general, its meaning, its forms, its patterns, and its history. The chapter presents different forms and ideas of recreation through out the history of mankind, concentrating on the Islamic and Middle Eastern ones. The investigation looks at recreation from different perspectives to gain insight about the motives behind its progress. Finally the chapter presents the different forms of recreation in Saudi Arabia with concentration on the urban ones.

Chapter V discusses the design of the research methodology. It presents the research approach of the study, the research setting, the research process and procedure. Chapter VI and VII present the analysis of the findings. Chapter VI investigates the role of the socio-cultural aspects of the users of the outdoor environment in their natural settings. The analysis is a presentation of the common themes concerning the use of the outdoor environments. Chapter VII is a presentation of the preferences, feelings and beliefs of the users of the outdoor environment in order to recognise some of the invisible aspects which influence the use of the outdoor environment.

Finally, chapter VIII is the discussion and review of findings and the conclusions. It discusses the findings from a broad perspective. The discussion takes four stages. Stage I of the discussion gives reference to the main hypothesis and purpose of the study. Stage II of the discussion provides reviews of the most important findings and their support to the hypothesis of the study. Stage III provides

a summary of major findings and issues raised in the preceding chapters and some explanations about the findings. Stage IV provides a brief discussion about the implications of the study, generalisations of the results, and recommendations for future research and practical applications.

BACKGROUND INFORMATION

Location and Topography	11
Historical Perspective	12
The Processes of the Change	16
The Emergence of the Contemporary Recreational Facilities	23

BACKGROUND INFORMATION

The city of Ar-Riyadh, today, is the largest metropolitan area in the kingdom of Saudi Arabia. It has gone through an incredible urbanisation development which has changed its urban pattern from a compact traditional city to a modern city within a period of 40 years. Among the many achievements of this development is the establishment of public gardens as the main recreational facilities. There are over 34 public gardens in the city, with total area of about 990'000 square meters.⁸ The development of these public gardens has gone through several stages.

It is the author's belief that in order to study a phenomenon, especially if it is in relation to human beings and human built environment such as this topic, one ought to refer to the hidden forces that influence the outcome either directly or indirectly such as the location and history of the place and its inhabitants. In this case, the official recreational outdoor environments are the contemporary public gardens which were developed as a result of the full change of the urban pattern of the city which also has gone through various development stages. Therefore, the history of Ar-Riyadh city as well as the characteristics of the location are very important parts of this study.

⁸Ar-Riyadh Development Authority, Book of the Study of Population, Economics, Transportation and Land Use in the City of Ar-Riyadh (Ar-Riyadh, Saudi Arabia: Ar-Riyadh Development Authority, 1408), p. 30.

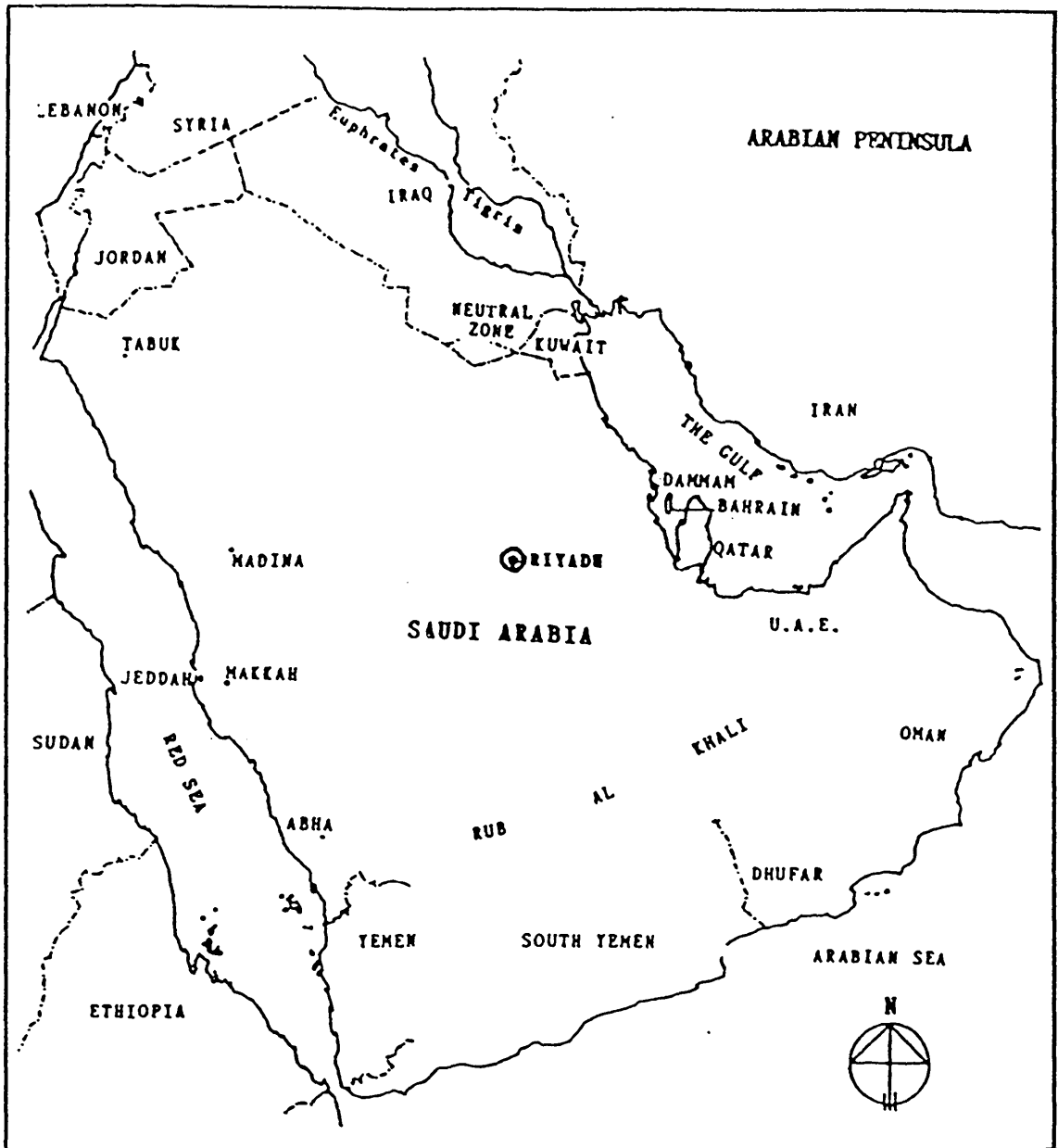


Figure 2-1: Map of the Arabian Peninsula Showing the location of Ar-Riyadh.

LOCATION AND TOPOGRAPHY

The city of Ar-Riyadh is located almost at the geographical centre of the kingdom, in the central - eastern part of the Arabian Peninsula (figure 2-1). To be precise, it is at latitude $24^{\circ} 38'$ North and longitude $46^{\circ} 43'$ East. The city is

considered to be one of the three major centres of urban concentration in the Kingdom (the other two are Jeddah in the Western Province and Ad-Dammam metropolitan area in the Eastern Province). Therefore, Ar Riyadh can be thought of as the central pole of urban activities which in turn account for most of the population and a large part of the industrial and commercial life of the Kingdom.

Ar-Riyadh lies at a height of approximately 600 meters above mean sea level on a plateau which forms part of the Najid plateau. To the west, the plateau extends to the Tuwaiq Mountains ridge, and to the Ād-Dahna sand belt on its eastern edge with a width of approximately 25 kilometres.⁹ The area is deeply carved by the erosion of a network of wadis, and Ar-Riyadh is situated between Wadi Ḥanyfah to the west and Wadi Al-Baṭha which runs along the eastern side of the old city. Wadi Nammaar which run from west to east joins with Wadi Ḥanyfah and Wadi Al-Baṭha in an area south of the city. The confluence of these three major arterial wadis was responsible for the substantial endowment of water resources which led to the early establishment of settlements in the area long time ago.

HISTORICAL PERSPECTIVE

The region of Ar-Riyadh has been a site of human habitation for centuries, though the city has only been known as Ar-Riyadh for the last three centuries. The earliest written historical references to the general area of Ar-Riyadh is dated 715 BC,

⁹SCET. International, Existing Condition, Report No. 6 (Ar-Riyadh, Kingdom of Saudi Arabia: Ministry of Municipal and Rural Affairs, 1979) Cited in A. I. Daghistani, Ar-Riyadh, Urban Development and Planning (Riyadh, Saudi Arabia: Ministry of Information, Interior Information, 1985), p. 22.

and refers to the existence of a town named Hajar.¹⁰ It is not certain whether the present city grew from the foundations of this early settlement, However, it is certain that there were many settlements in the region. The region was located on the crossing of trade routes from southern to northern and eastern Arabia.¹¹

References to Hajar were made again in 1050 AD by a Persian traveller, Nassir Khesro, who speaks of a well-fortified city surrounded by walls.¹² Later, in the 14th century AD the famous traveller Ibin Baṭūṭah speaks of Hajar where he described it as a beautiful city with plenty of rivers and trees.¹³ From this time onward there are numerous references to settlements in the region.

The present name of the city "Ar-Riyadh" was first used in 12th century AH¹⁴ (about three centuries ago).¹⁵ Since that time, the area has been given attention by the European adventurers who travelled to discover the unknown centre of the Arabian Peninsula and study the social life of the inhabitants. The first travel by a European to

¹⁰Doxiadis Associates, Riyadh: Existing Conditions, Final Report (Riyadh, Kingdom of Saudi Arabia: Ministry of Interior, 1970), cited in A. I. Daghistani, Ar-Riyadh, Urban Development and Planning (Riyadh, Saudi Arabia: Ministry of Information, Interior Information, 1985), pp. 41-42.

¹¹Ibid., p. 42.

¹²Ibid., pp. 42-43.

¹³Hassan Moanes, Ibin Baṭūṭah and his Journeys Documenting, Study and Analysis, in Arabic (*Ibin Baṭūṭah wa Rehlatoh: Tahqiq wa Derasah wa Tahlil*) (Cairo, Egypt: Dar Al Maarif), p. 113.

¹⁴AH refers to the Islamic calendar which is based on the Hijrah, the migration of the Prophet Mohammed (PBUH) from Makkah to Madinah, which took place on the 16th of July 622 CE.

¹⁵Ar Riyadh Development Authority, "Riyadh as It Has Been Described by an English Traveller 127 Years Ago, in Tatueer, a specific periodical, issued by Ar Riyadh Development Authority (Riyadh, Kingdom of Saudi Arabia, Muḥaram, 1410 AH), p. 4.

the area was slightly over 200 years ago.

The first European traveller who gave us some description of Ar-Riyadh and the surrounding villages was the British army officer George F. Sadlier who in 1819 AD crossed the Arabian Peninsula from Al-Qatif city on the Gulf to Yunbu city on the Red Sea. He stopped in Riyadh and described the greenery surrounding the city as a vast area of palm tree farms. He also mentioned a stream of water running in Wadi Hanyfah, to the west of the city, throughout the year, increasing in size in winter, the rainy season.¹⁶ This is the second historical mention of the landscape condition of the area describing, as had Ibin Baṭūṭah, the abundance of running water.

The best graphic picture of Riyadh is giving by the British traveller William Palgrave who reached the city in 1863 AD where he said:

Before us stretched a wild open valley, and in its foreground, immediately below the pebbly slope on whose summit we stood, lay the capital, large and square, crowned by high towers and strong walls of defence, a mass of roofs and terraces, where overtopping all frowned the huge but irregular pile of Feysul's royal castle.¹⁷

Then Palgrave tried to draw another picture of the landscape situation of the city and surrounding areas:

.... All around for full three miles over the surrounding plain, but more especially to the west and south, waved a sea of palm-trees above green fields and well - watered gardens; while the singing droning sound of water - wheels

¹⁶George Forster Sadleir, Dairy of A Journey Across Arabia (1819) (Naples, Italy and Cambridge, England: Falcon and Oleander Press, 1977), p. 82.

¹⁷William G. Palgrave, Personal Narrative of a Year's Journey Through Central and Eastern Arabia, 1862-1863 (London: McMillan, 1868), p. 227.

reached us even where we had halted, at a quarter of a mile from the nearest town walls. At the opposite side south-wards, the valley opened out into the great and even more fertile plains of Yamamah, thickly dotted with groves and villages, among which the large town of Manfoohah,¹⁸ hardly inferior in size to Riyadh itself, might be clearly distinguished.

.... A light moving mist, the first we had witnessed for many days, hung over the town, and bespoke the copious measure of its gardens.¹⁹

Palgrave also described the neighbourhoods of the city with details which provided a precise idea of its planning. What concerns this research in his description of the neighbourhoods is the existence of gardens. He notices that some of the houses have gardens but, the common case - as he said - in the cities of Najid region is that gardens and farms are mostly located outside the city walls.²⁰

It is clear, therefore, that the city of Ar-Riyadh was basically established on the bases of its agricultural resources. Due to the presence of water supplies, and its strategic location at the confluence of three Wadis; Ḥanyfah and its tributaries Al-Baṭḥa and Nammaar, the city flourished with its fruit and palm tree gardens and farms that gave the city its name Ar-Riyadh. The word Ar-Riyadh, in the Arabic language, is the plural form of the word "Rawḍah" which means a garden. So, the city of Ar-Riyadh means the city of Gardens.

¹⁸Manfoohah (Manfuḥah) was a town located one mile south of old Ar-Riyadh and now it is a large neighbourhood in the city of Ar-Riyadh.

¹⁹Palgrave, Personal Narrative, pp. 228-229.

²⁰Palgrave, Personal Narrative.

THE PROCESSES OF THE CHANGE

The modern history of Ar-Riyadh is defined by the day the city was recaptured by Abd Al-Aziz Al-Saud in 1902 AD. The city, in the physical terms, had few not worthy changes from then until about 1930 AD - apart from the rebuilding of the city walls.²¹ So at this time the city must have appeared not too different from the scene described by Palgrave. During this time, Abd Al-Aziz as governor of Ar-Riyadh was busy campaigning for the consolidation of modern Saudi Arabia. From that time on, Ar-Riyadh was the permanent residence of the king, and eventually the Saudi Capital.

During the first thirty years of Abd Al-Aziz's reign, the city retained its size inside the fortifications, as well as its traditional type of enclosed pattern (figure 2-2). By the 1930's the automobile had been introduced and the process of physical transformation began. It was during this period that the city first spread beyond its walls. The first effective step towards the physical development of the city was taken by the King himself when he decided to move outside the old city and construct his new Al-Murabb' palace to the north of the city (figure 2-3).

As a result of building Al-Murabb' Palace in 1937, people felt that they could live and build outside the original city, especially after new water supplies were tapped using motor-driven pumps. The demolition of the walls in 1950 allow for more urban growth especially northward toward Al-Murabb'. The well-established peace and stability combined with growing oil wealth from the eastern oil fields created even more substantial growth.

²¹ A. I. Daghistani, Ar-Riyadh, Urban Development and Planning (Ar-Riyadh, Saudi Arabia: Ministry of Information, Interior Information, 1985).

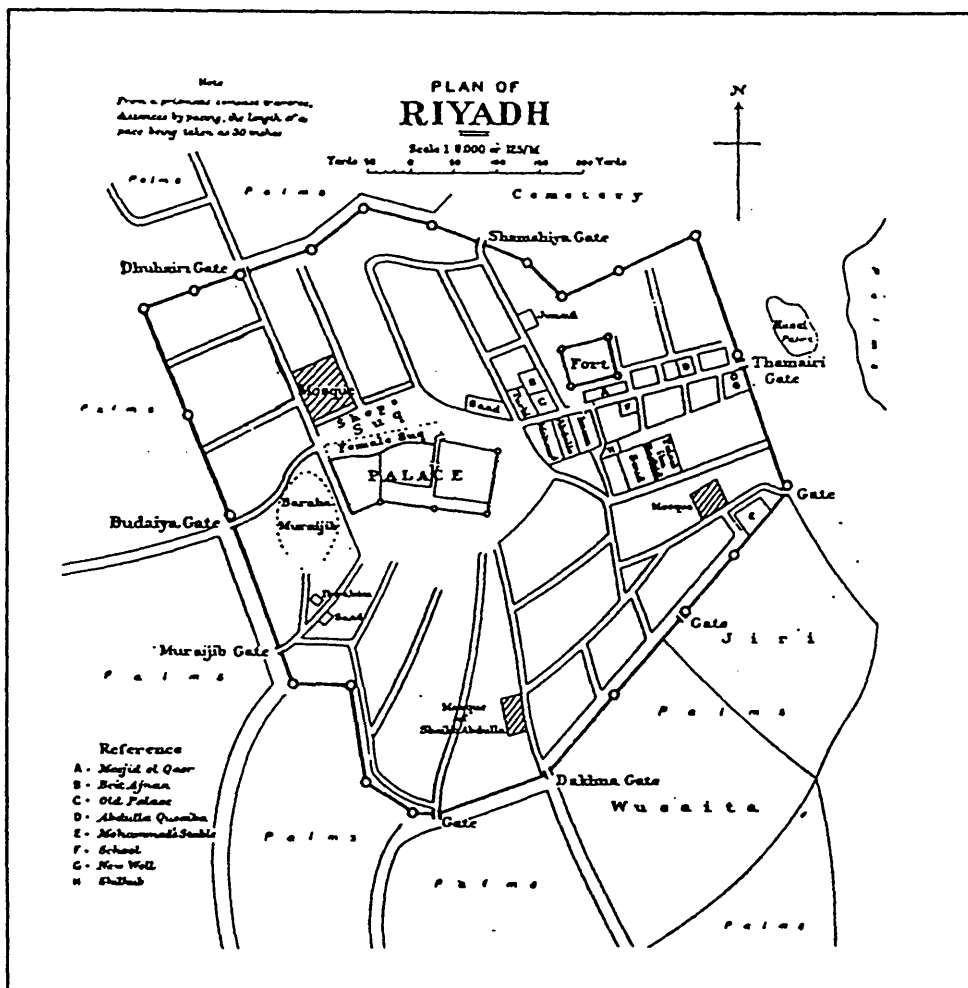


Figure 2-2: Ar Riyadh in 1919 -- Philby's Map.²²

²²H. St. J. B. Philby, The Heart of Arabia (London: Constable and Company Ltd, 1922), p. 71.

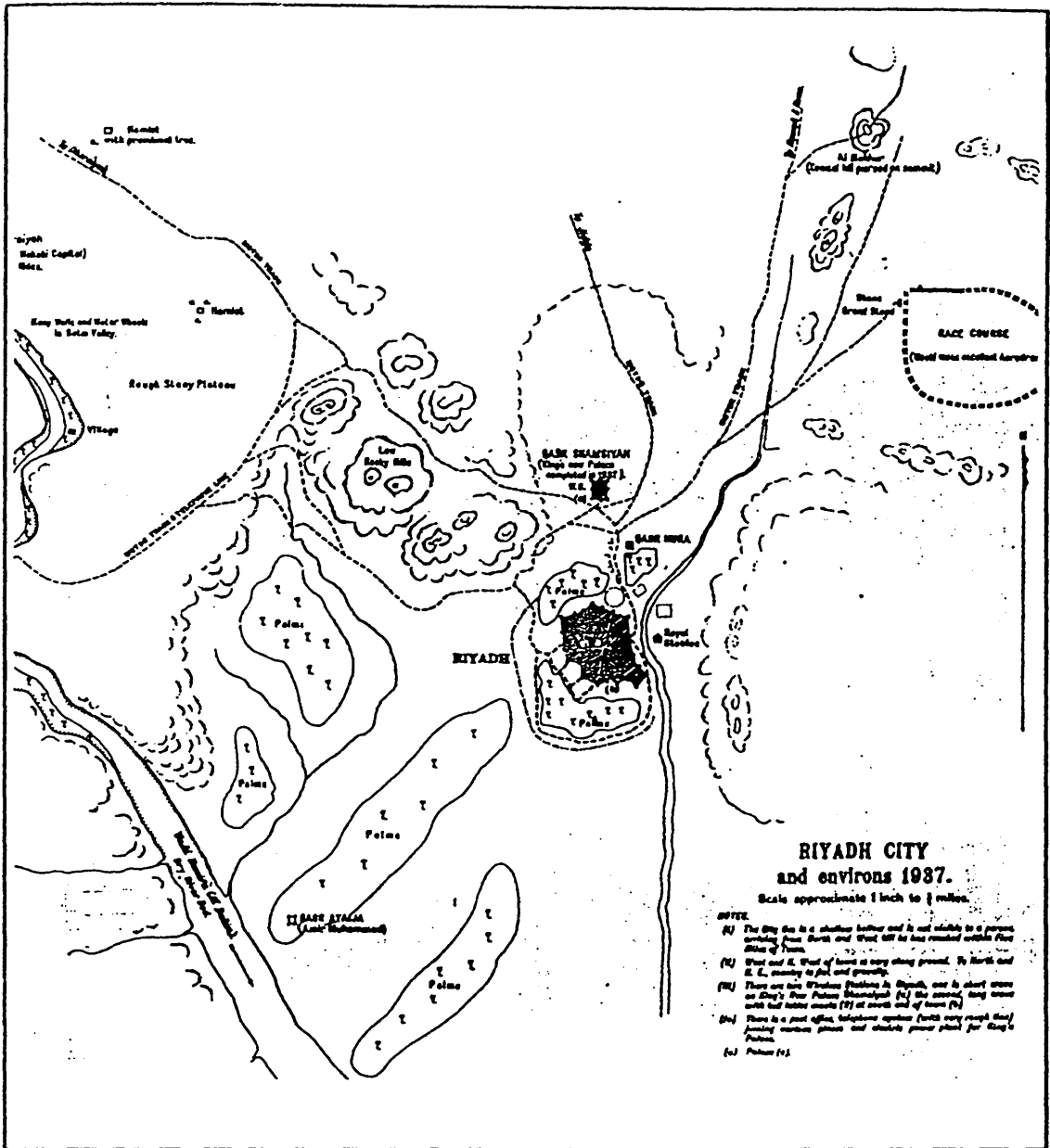


Figure 2-3: Ar-Riyadh in 1937 -- Dickson's Plan.²³

²³A. I. Daghistani, Ar-Riyadh, Urban Development, p. 59.

D. Van Der Meulen, a Dutch diplomat, who had been resident in the Kingdom in that time recorded some of the changes which were taking place in Ar-Riyadh.

..... Teams of well drillers were soon busy in and around Riyadh (*Ar-Riyadh*). Water was provided for men and camels at public drinking places inside and outside the town. The surrounding tribes soon learnt that Riyadh could in future be depended upon for water. The first necessity of life being thus assured, the King in his widely-famed generosity would take care of the second necessity: food. So they set up their tents near the walls of the town and of the palace with the ever-flowing water and the food distribution centres near by. The town spread far out into the desert.

..... People now started to build houses on the desert plateau. They were now no longer tied to the vicinity of the old wells, for the new pumps would provide water. On patches of desert gravel, people built their new houses and put mud walls around them as soon as the drillers had made sure that water could be raised with pumps.²⁴

The growth around the old city had taken a new urban pattern as the result of the availability of land and the introduction of the car as a new means of transportation. Many of the garden and farm lands, especially in the west, south-west and south of the city, disappeared as a result of the expansion of the city to accommodate the increase in population.

At the same time as the destruction of the traditional garden and farm lands, a new form of garden was introduced to the city. In early 1940's King Saud, then Crown Prince Saud, established a small estate in the north west of the city called An-

²⁴D. Van Der Meulen, *The Wells of Ibn Saud* (London: John Murray, 1957), cited in A. I. Daghistani, *Ar-Riyadh, Urban Development*, pp. 73-75.

Naşriyah (figure 4). It consisted of a well and a four-acre new style garden.²⁵ With the abundance of water, there was no necessity to be tied to the traditional compact palm trees garden. A new style of garden, open in character, and dependant on irrigation, was introduced.

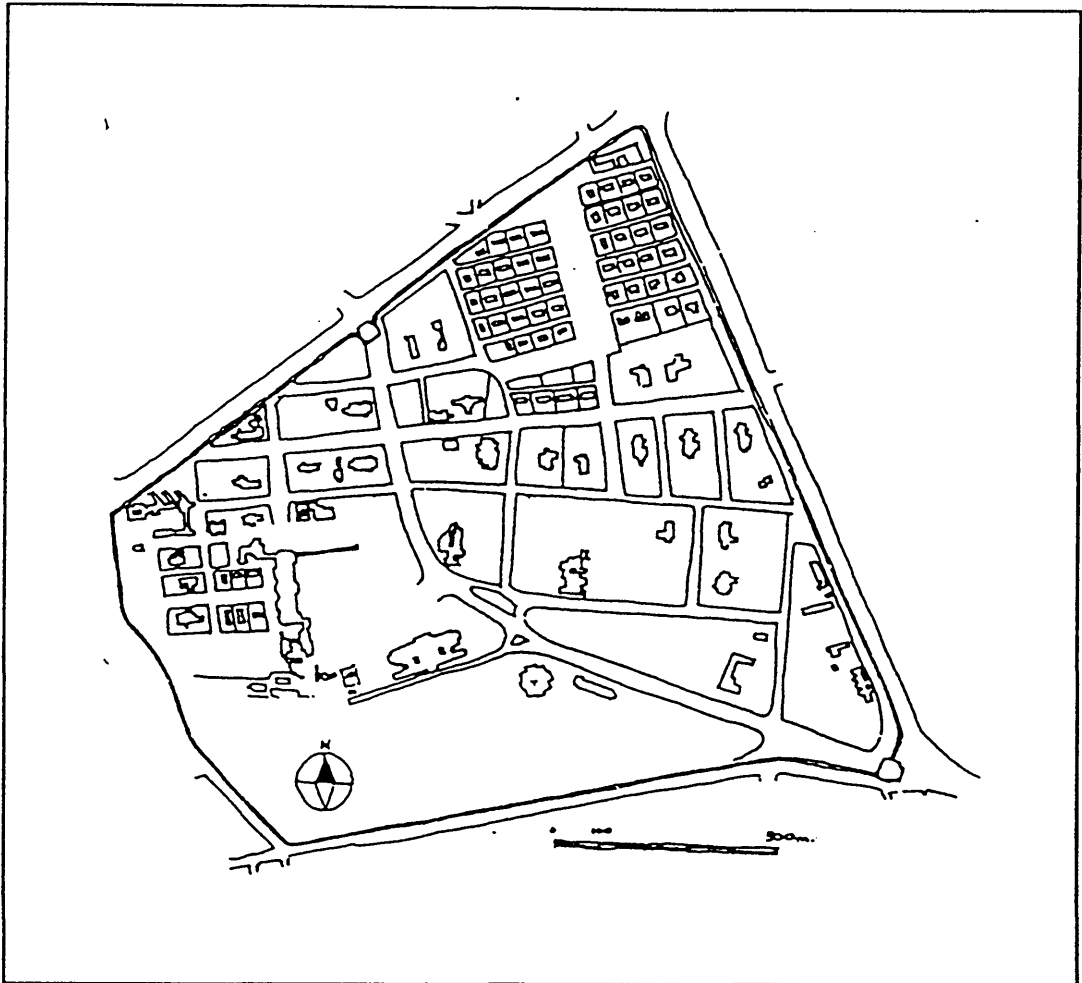


Figure 2-4: The nodes of growth of Ar-Riyadh in the late 1940s and early 1950s.²⁶

²⁵Saleh A. Al-Hathloul, Tradition, Continuity and Change in Physical Environment: the Arab-Muslim city, PhD. Thesis (Department of Architecture, MIT., 1981), p. 160.

²⁶William Facey, Riyadh the Old City: from its Origins Until the 1950s (London: Immel Publishing Limited, 1992), p. 322.

By the late 1940's, Saud decided to develop An-Naşriyah as a summer residence. Thus, new, deeper wells were dug, and the area was extended to approximately 100 acres (40 hectares).²⁷ However, when Saud succeeded his deceased father to the throne in 1953, he made two decisions that were to have a significant impact on the physical change to Ar-Riyadh. One was his decision to transfer all government agencies from Makkah to Ar-Riyadh and to begin a building program to house them. The other decision was to expand and rebuild An-Naşriyah, his country estate 3 km. west of town, as his royal residence.

An-Naşriyah was redesigned and extended to approximately 250 hectares, and plans were drawn up to include modern, luxurious palaces, boulevards and gardens laid out on a grid pattern. When the whole complex was completed in 1957, it comprised the Royal Divan, the King's private palace, the palace of the King's mother, a guest palace, four smaller palaces, thirty-two large villas, and thirty-seven smaller villas. The complex also included a museum, a library, schools, a hospital, recreational areas, gardens and a zoo²⁸ (figure 2-5).

An-Naşriyah was the first step in the process of building what later came to be known as New Ar-Riyadh, although the Al-Malaz project in particular was referred to by this name. From this point on, An-Naşriyah demonstrated an alternative way of planning and designing for the future expansion of the city. Though the An-Naşriyah was still considered a royal residence surrounded by high walls with its own gates, it

²⁷Ibid., p. 160.

²⁸Ibid., p. 160; and Ali S. Bahammam, An Exploration of the Residents' Modifications: Private-Sector Low-Rise Contemporary Housing in Riyadh, Saudi Arabia, doctoral Thesis (Ann Arbor, Michigan: University of Michigan, 1992), p. 52.

nevertheless had a clear effect on Al-Malaz and other subsequent developments.²⁹

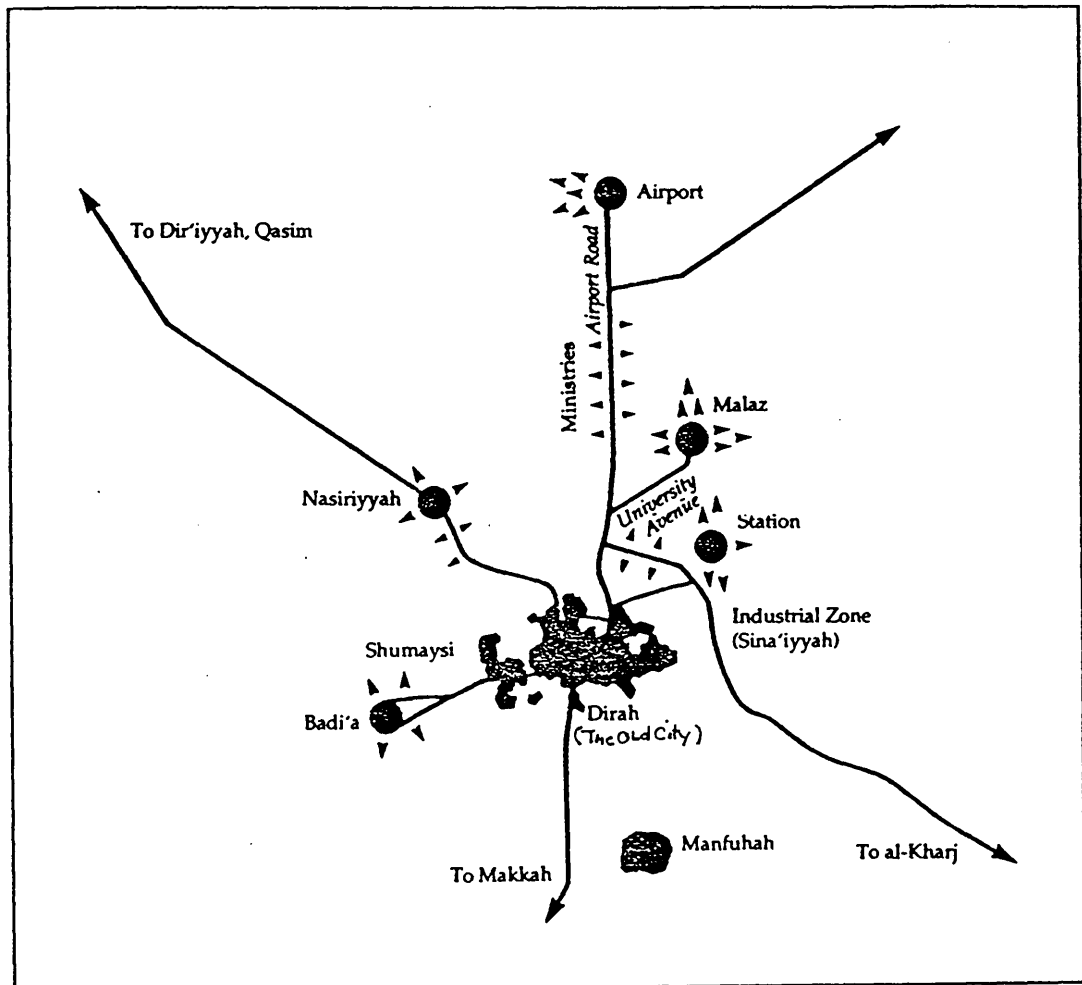


Figure 2-5: An-Nasriyah Complex -- Site Plan.³⁰ The first step in the transformation from the traditional pattern to the new grid pattern.

²⁹Al-Hathloul, *Tradition, Continuity*, p. 162.

³⁰Al-Hathloul, *Tradition, Continuity*, p. 161.

THE EMERGENCE OF THE CONTEMPORARY RECREATIONAL FACILITIES

When the government decided to move its agencies to Ar-Riyadh, the need arose for housing for the transferred government employees. The site of Al-Malaz, 4.5 km. north east of the city centre (figure 2-4), was chosen, and a housing project was initiated.³¹ The project consisted of 754 detached dwelling units (villas) and 180 apartment units in three apartment buildings. The Al-Malaz, or as it was referred to as the New Ar-Riyadh, included a municipal hall, a public library, a football field, and a school building complex which later housed the newly founded University. It also included for the first time a public garden and a public zoo (figure 2-6).

Al-Malaz impact on the size of Ar-Riyadh was obvious but, what was not clear at the time of its initiation was the impact that it later had on the pattern of the physical development, both architecture and landscape architecture, in Ar-Riyadh as well as the rest of the country. The introduction of public gardens and public zoo for the first time became models to be copied later on during the physical development that has taken place in the last thirty years in every city and town in Saudi Arabia.

The reasons why Al-Malaz become the model to be reproduced in future developments was summarised by Al-Hathloul in three main points.

The first is that the project was sponsored by the government for its employees. It was, therefore, an authoritative statement by the government on how a modern neighbourhood should be planned. As such, it reflected the government's vision and point of view on how the new and vastly growing Riyadh should be built. And, of course, it was taken for granted that what is

³¹Al-Hathloul, Tradition, Continuity, p. 162.

good and suitable for Riyadh must be good for the country's other cities as well. The second reason is that Al-Malaz was seen as a symbol of modernity in sharp contrast to tradition. It was the new as opposed to the old Riyadh. The third reason is that, in contrast to the royal residences of Al-Murabba and Al-Nasriyah, Al-Malaz was built for government employees who were part of the public.

The fourth reason, which I may add, is that this newly founded public garden provided a means of recreation for the new comers to the city, especially for the non-Saudis who had no access to the traditional privately owned gardens.

The Al-Malaz public garden mainly consisted of grassy areas with scattered Arabian tamarix trees. The design consisted of a grid footpath pattern with a semi-circle fountain constructed in the middle with sitting chairs arranged around it (figure 2-7). Two other gardens were established eventually north of the city walls. Al-Fuwṭah garden and Al-Murabb' garden (now Ar-Riyadh water tower garden). The last two gardens did not differ very much from the Al-Malaz garden in their design ideas. These three gardens were mainly used by the new transferred governmental employees and the non-Saudi residents, mainly from neighbouring countries.

In the 60's and early 70's, Saudi families used to carry on their outdoor activities in traditional orchards and farms in the suburbs of the city or among the shrubby patches on the bed of Wadi Ḥanyfah. The only public garden that used to have some popularity among the Saudis was the Al-Kharj³² city's Mashtal. The Mashtal³³ was at first established as a nursery site to provide the necessary plants for

³²Al-Kharj city is located 80 km to the south east of Ar-Riyadh.

³³The word "Mashtal", in Arabic language, means nursery.

shading the man-made water stream that carries the water from natural water springs in Al-Kharj city to the newly founded settlement aimed to settle the nomadic tribes of the area 20 km for Al-Kharj city.

The nursery was later transformed to a public garden. The site was popular, especially at the weekends because of its traditional design that consisted of small open spaces. Each space was surrounded by about 150 cm high hedges, which provided privacy, and a dense canopy of old trees, which provided shade. The site in general was small and it became very crowded in the early 70's as a popular camping site for elementary school boys at weekends.

In the periods between the mid 70's and the beginning of the 80's, the city expanded dramatically as a result of the improved economy of the country because of the oil boom. The municipality of Ar-Riyadh during that period was busy regulating and supervising the rapid and massive growth of the city. In 1982, the municipality realised that the city was nothing but concrete structures and wide highways with no useful open space facilities.

The Department of Landscape was established within the municipality of Ar-Riyadh in 1982 to take responsibility for assessing, designing and constructing all the landscaping of the city including establishing parks and gardens. In 1986, the number of public gardens reached 34 in the city.³⁴ The rapid development of these facilities did not allow for extensive assessment of the residents' needs. In fact, they all share the basic design idea of Al-Malaz public garden, such as water fountains, scattered sitting benches, small sized grassy open spaces, cafeteria, and toilets.

³⁴Ar-Riyadh Development Authority, Recreation Study, Final Report (Riyadh, Kingdom of Saudi Arabia: Ar-Riyadh Development Authority, 1986).

There is no clear definition of the words park and garden. The municipality used both terms with no clear distinction between them. For example, the word park is used to define the Al-Suwdi Garden (Park) which is 102,075 square metres in area. So to say that parks are recreational sites which are large in area is not true because the word is also used for Sulṭānah Garden (Park), 4,500 square metres in area³⁵. From the point of view of the facilities provided in the different sized sites, we find that most sites share the same kinds and levels of facilities, such as places for praying, snack shops, water features, children play equipment, toilets, and drinking water. So for the sake of this study and to avoid confusion, all the recreational sites that are recognised by the municipality of Ar-Riyadh as public parks and/or gardens will be referred to as gardens because we see no real reasons for the distinction.

³⁵Public Relation Department, Landscaping Ar-Riyadh, the Modernising Face of the City, in Arabic language (Ar-Riyadh: Public Relation Department, Municipality of Ar-Riyadh, no date).

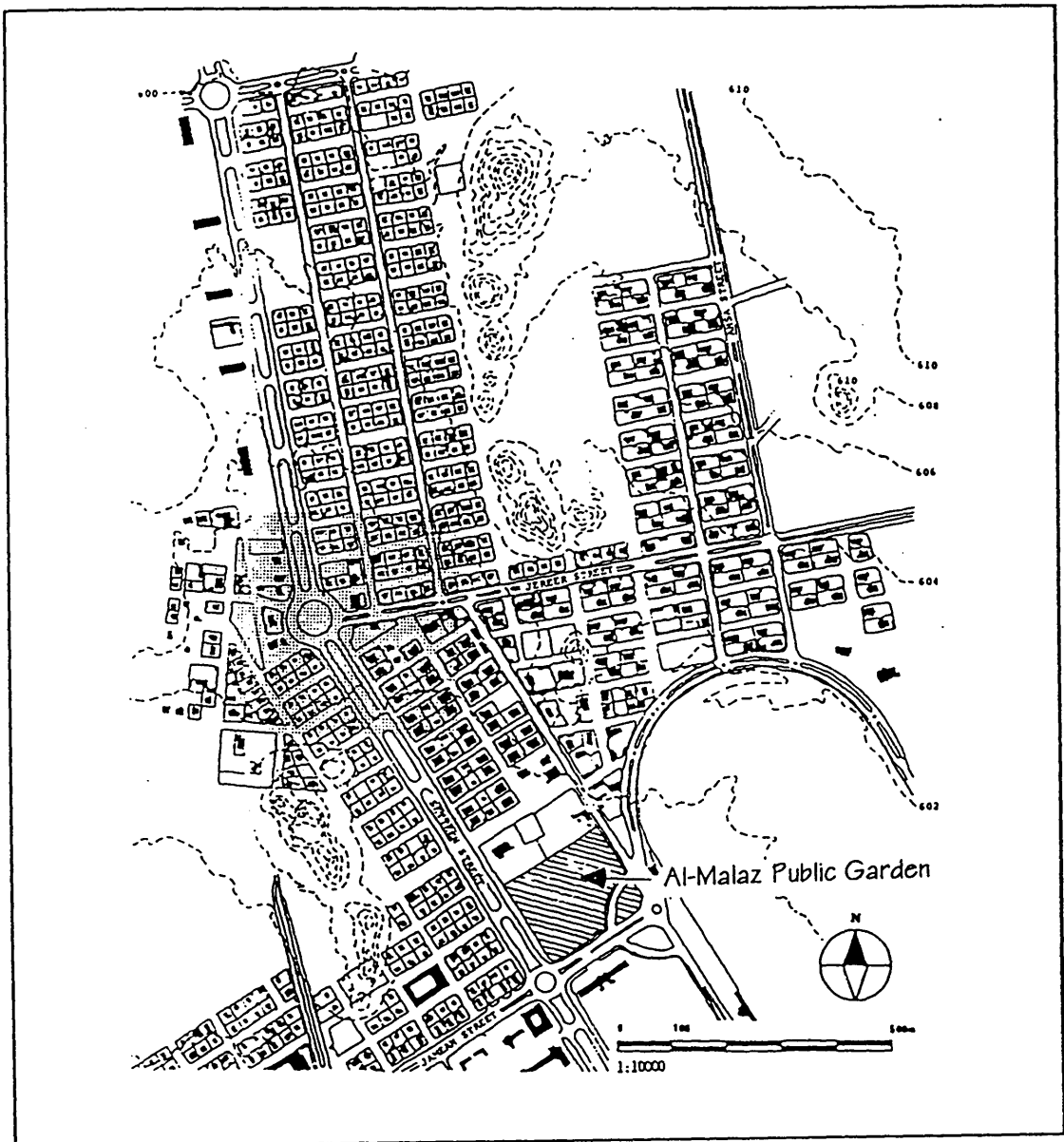


Figure 2-6: Al-Malaz -- Site Plan.³⁶

³⁶Al-Hathloul, Tradition, Continuity, p. 162.

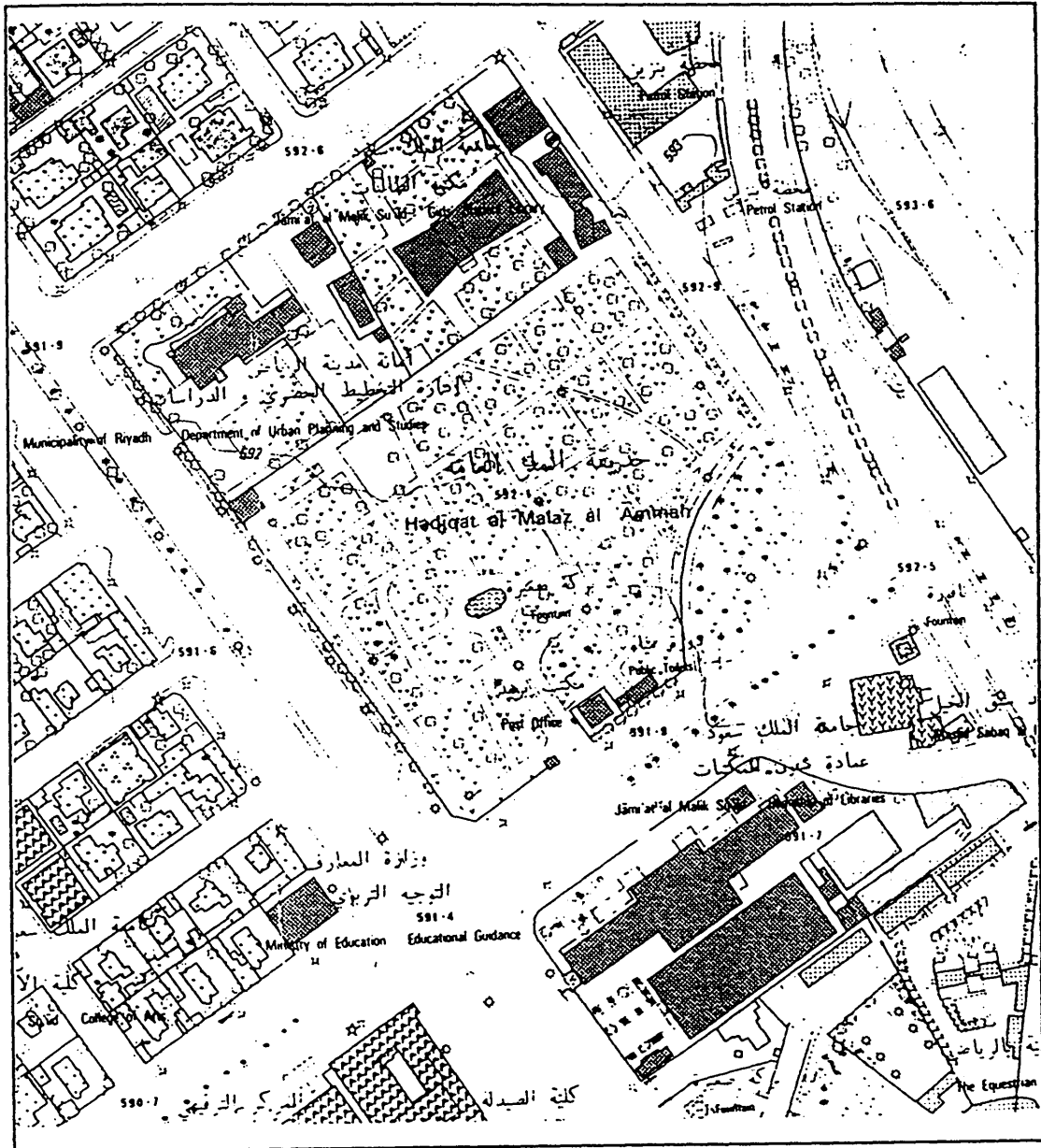


Figure 2-7: Al-Malaz public garden.³⁷

³⁷Municipality of Ar-Riyadh, Ar-Riyadh Master plan.

LITERATURE REVIEW

Definition of Socio-Culture	30
The Relationship Between Socio-Cultural Aspects and Built Environment	32
Behavioural Aspects Related to Socio-Cultural Values	35
The Culture of Saudi Society	37
Socio-Cultural Values of Saudi Society in Regard to the Outdoor Environment	38
Privacy	40
I. Privacy between Sexes	43
II. Family Privacy	45
Nature of Activities	47
I. The activity itself	48
II. How it is carried out	49
III. How it is associated with other activities and combined into an activity system	49
Territoriality	50

LITERATURE REVIEW

The contemporary public gardens, as the major urban recreational facilities in Saudi Arabia and specifically in Ar-Riyadh city have been based on a foreign design concept; a concept that was not developed from the traditional garden model nor evolved according to society's needs. These public gardens in their contemporary form were introduced to the country with the beginning of the oil exploration and have been adapted during the subsequent development of the kingdom.

They have imposed a new lifestyle on the users whose socio-cultural needs have been totally ignored. The built environment, in general, is the result of the influence of certain values, among which are socio-cultural ones. This fact is emphasised, especially when particular components are used by a large group of people as in the case of public gardens. Here the socio-cultural values play the most important role in controlling and organising the interactions between the built form and its users, on one hand, and the users among themselves, on the other.

The following section will theoretically discuss the importance of understanding the influence of socio-cultural aspects on the human built environment in general, and then relate this discussion to the outdoor recreational environments, in general, and public gardens, in particular, and the users needs.

DEFINITION OF SOCIO-CULTURE

Socio-culture is a combination of two words, socio and culture. The term socio is a combining form which is associated with social relationships³⁸ which refers to the relationships among groups within the society. Culture is a term with a broad range of meanings. For anthropologists, culture usually means the total socially acquired lifestyle of a group of people including behavioural patterns, attitudes, repetitive ways of thinking, feeling, and acting.³⁹

The Sociologist Sir Edward Burnett Tylor was the first to define the concept of culture in the English-speaking world in 1871. His definition consists of behavioural patterns and attitudes, as well as patterns of thought, feeling and acting:

"Culture ... taken in its wide ethnographic sense is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society. The condition of culture among the various societies of mankind, in so far as it is capable of being investigated on general principles, is a subject apt for the study of laws of human thought and action."⁴⁰

However, Altman and Chemers⁴¹ identified four different components of the

³⁸Webster's Encyclopedic Unabridged Dictionary of the English Language (New York: Gramercy Book, 1989).

³⁹Edward T. Hall, The Silent Language (New York: Doubleday and Company, 1959); and Marbin Harris, Culture, People, Nature: An Introduction to General Anthropology (New York: Harper and Row, Publishers, 1985).

⁴⁰Marbin Harris, Culture, People, Nature: An Introduction to General Anthropology (New York: Harper and Row, Publishers, 1985), p. 114.

⁴¹Irwin Altman and Martin Chemers, Culture and Environment (Cambridge: Cambridge University Press, 1984), pp. 1-2.

term culture which could be used for the sake of this study. First, it refers to beliefs and perception, values and norms, customs and behaviour of a group or society. Culture includes what people believe to be true of the world, their lives, and the environment. It also includes their values, or what they hold to be good and bad, acceptable and unacceptable. Also another part of culture is a set of rules and beliefs about how to behave or do things.

Second, culture is used to indicate that cognitions, feelings, and behaviours are shared among a group of people in a consensus way. Third, it implies that these shared beliefs, values, and styles of behaviour are passed on to others, especially children, and that the socialisation and education of new members of the culture help preserve consensus from one generation to the next. Forth, culture appears in objects and in the physical environment. The physical environment explicitly reflects the values and beliefs of a culture.

The term socio-culture encompasses a combination of social and cultural factors. This definition signifies the unity between society and culture which forms a system or a set of rules that govern the human behaviour of a group of people. Human behaviour includes a wide variety of human concerns and responses related to attitudes, moral, ethical and environmental values, tests and judgement, qualities, and lifestyles.⁴²

⁴²M. Francies, "Behavioural approaches and Issues in Landscape Architectural Education and Practice," Landscape Journal, vol. 1, no. 2. (1982).

THE RELATIONSHIP BETWEEN SOCIO-CULTURAL ASPECTS AND BUILT ENVIRONMENT

Our everyday life is in touch with the world surrounding us which consists of many things such as, flowers, trees, stone, earth, wood and water. These things comprise what we call environment. As Schulz⁴³ says, the concrete word for the environment is place. It is common usage to say that acts and occurrences take place. It is meaningless to imagine any happening without reference to a locality. Place is evidently an integral part of existence⁴⁴

What, then, do we mean when we use the term built environment? Obviously, we mean something more than the abstract location of the random assemblage of things and people. We mean the totality made up of a pattern that is being organised in a certain form.⁴⁵ Spatial-object and people are related through various degrees of separation in and by space. When the environment is being built or designed, it means the space is being organised and structured in a way that reflects certain rules or ideas.

Practically speaking, however, space is the three dimensional extension of the world around us, the intervals, distances and relationships between people and people, people and things, and things and things. Space organisation is then the way in which these separations occur and is central in understanding, analysing, and comparing built

⁴³Christian Norberg-Schulz, Genius Loci: Towards a Phenomenology of Architecture (New York: Rizzoli International Publications, Inc., 1984).

⁴⁴Ibid.

⁴⁵Amos Rapoport, Human Aspects of Urban Form: Towards a Man Environment Approach to Urban Form and Design (New York, Oxford: Pergamon Press, 1977).

environments.⁴⁶

In any given culture, there are rules or defined system that govern the choices about which elements are important. These elements are followed and respected, consciously and/or unconsciously, by most followers of the particular culture. The implications of these elements will then tend to vary in their importance and involvement. This fact, as Michelson and Reed⁴⁷ stated, may apply to the environment in its physical form as well as to the life-style of the people who make choices among available alternatives and may allocate their limited resources and material differently.

The order of the importance of the choices among possible alternatives is partly based on cultural interpretations. The specific nature of the choices made, tend to be lawful, reflecting the culture of the people concerned. In fact, one way of looking at culture is in terms of the most common choices made.⁴⁸ It is this lawfulness of the choices which makes places, behaviours, and structuring of space recognisably different from one culture to another (figure 3-1).

By examining many examples of the built environment, it appears that there are two kinds of aspect that influence the outcome of the final form.⁴⁹ The socio-cultural aspects, as primary, and the ecological or the physical aspects such as climate, as

⁴⁶Ibid.

⁴⁷W. Michelson and P. Reed, The Theoretical Status and Operational Usage of Lifestyle in Environmental Research (Toronto: University of Toronto, Centre for Urban and Community Studies, Research Paper No. 36, September, 1970).

⁴⁸Amos Rapoport, Human Aspects.

⁴⁹Amos Rapoport, Human Aspects.

secondary. The human needs for shelter and protection against the outside physical world comes as the first step in his development. But, the involvement of socio-cultural values as important factors became the primary force affecting the design.

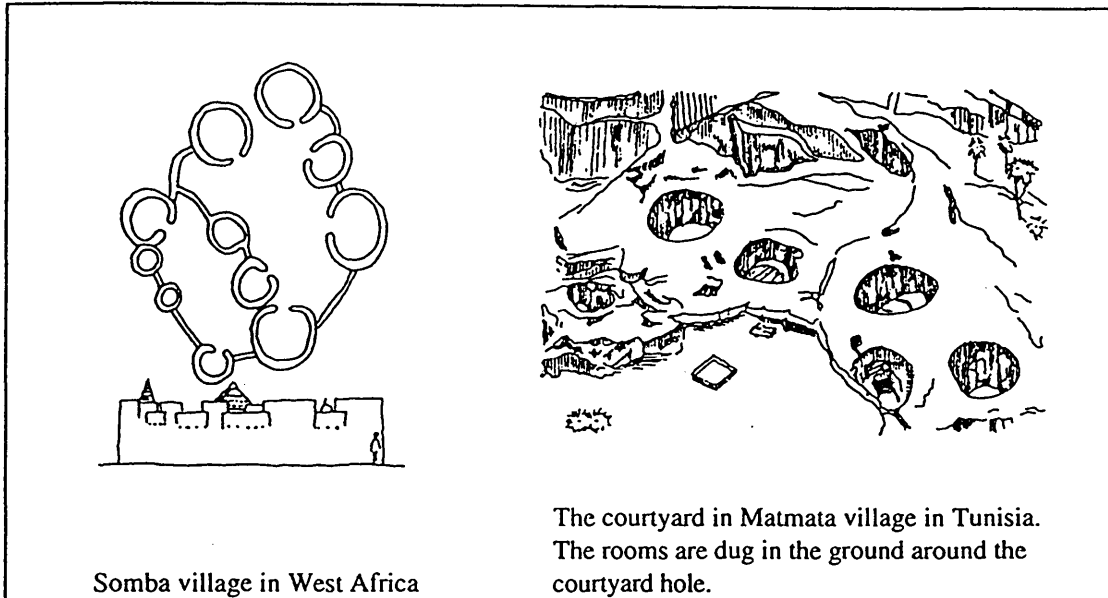


Figure 3-1: The differences in architectural forms under the same physical environment reflect the differences in the cultural backgrounds.

Westin, in his book Privacy and Freedom, expressed the existing reality of socio-cultural values in affecting the environment by stating:

"Indeed, People in different cultures experience the world differently not only in terms of language but also with their senses. They inhabit a different sensory world, affecting the way they relate to one another in space, in matters ranging from their concepts of architecture to furniture arrangement."⁵⁰

The effects of cultural background on the built environment is obvious. The different architectural styles and designed forms in the world are clear evidence of that.

⁵⁰Alan F. Westin, Privacy and Freedom (New York: Atheneum, 1970), p. 15.

The example in figure 3-1 illustrates that idea. Despite the existence of similar ecological and/or physical conditions, the style of building is completely distinguishable between the Somba village in west Africa and the Matmata village in Tunisia. The relationship between the cultural background and the built form is definitely important.

BEHAVIOURAL ASPECTS RELATED TO SOCIO-CULTURAL VALUES

It is clear by now that people react to the physical world according to their background. The role of culture in interpreting and analysing things seems to have a distinguishing mark on our daily lifestyle. It also accounts for the most differences resulting among the various social group in the world. Everything which falls within the range of our senses does reveal a certain meaning to each one of us. We react to the physical world in terms of what it means. This also applies to the built form as part of our daily life. Rapoport, in his book Human Aspects mentioned that people react to environments globally and effectively before they analyse them and evaluate them in more specific terms⁵¹ Thus the whole concept of environmental quality is clearly an aspect of people liking certain urban areas, housing forms, and garden designs, because of what they mean to them.

It is to say that this action of liking is based on the meaning that the particular environment (form and/or place), and particular aspects of it, have for people. To go beyond that, one can suggest that these meanings are partly a result of people's interaction with their environment. The understanding of the interactions between

⁵¹Amos Rapoport, Human Aspects, p. 14.

people and their built environment reveals its meaning. A full understanding of these complex interactions, however, cannot be reached without a full examination of both intellectual and subconscious pattern of thought. By understanding this interaction, the meaning of the design become sensible.⁵²

"The distinction between what a form is and what it means to a particular social group is the key to understanding architecture (built environment). The distinction between form and meaning, awareness of the difference, its acceptance and its recognition are the four steps leading from a naive to a mature view of architecture."⁵³

The rationale behind the composition of the built environment depends on our understanding of the forces that put demands on those particular elements. In the case of behavioural aspects in design, rationality is dependent upon our understanding of the factors that underlie the behaviour. Knowing what these factors might be is the key to being able to make proper judgements.

"People typically act in accordance with their reading of environmental cues (revealed meanings). This follows from the observation that the same people act quite differently in different settings. This suggests that these settings somehow communicate expected behavior if the cues can be understood. It follows that the 'language' used in these environmental cues be understood; the code needs to be read. If the design of the environment is seen partly as a process of encoding information, then the users can be seen as decoding it. If the code is not shared or understood, the environment does not communicate."⁵⁴

⁵²Amos Rapoport, House Form and Culture (Englwood Cliffs, New Jersey: Prentice-Hall, 1969).

⁵³Juan Pablo Bonta, Architecture and its Interpretation: A Study of Expressive Systems in Architecture (London: Lung Humphries, 1979), p. 85.

⁵⁴Amos Rapoport, The Meaning of the Built Environment (Tucson, Arizona: The

THE CULTURE OF SAUDI SOCIETY

Saudi society is an Islamic society. The Society's life-style and values are affected and controlled by the Islamic Shariyy'ah (The Islamic Legal Tradition). Before discussing the socio-cultural aspects of Saudi society regarding the built environment, in general, and public gardens and outdoor built environment, in particular, it is appropriate to give a brief definition of Islam and its sources and how it influences society's values and lifestyle.

Islam is a religion revealed to Prophet Mohammed peace be upon him (PBUH), in Makkah and Madina in the Arabian Peninsula, in the seven century A.D. Islam has two sources of legislation: the Qur-ān and the Ḥadith. The Qur-ān is the Holy Book of Moslems. It is the words of Allah (God) which was revealed to the Prophet (PBUH). The Ḥadith is the sayings and the action of the Prophet (PBUH) recorded by his companions. From these two sources the Islamic Shariyy'ah is generated and society's values and lifestyle are defined.

Islam is not just going to the mosque on Friday nor even going to the mosque five times for daily prayer, it is a tradition and a concept that relates and touches all aspects of the Moslem's acts. Therefore, Human acts are categorised, in Islam, into four types: Ḥalal (Allowed), Ḥaram (Forbidden), Musstaḥab (Commendable), and Makruh (Reprehensible). So any act of a person will be Judged according to these categories either allowed and commendable, allowed but not commendable, disliked but not forbidden, or forbidden. According to this categorisation, all aspects of life will be subject to the religion's approval.

Prophet Mohammed (PBUH) said in a Ḥadith:

"A servant of Allah will remain standing on the Day of Judgement until he is questioned about his life, how he spent it; and about his knowledge, how he utilised it; and about his wealth, from where he acquired it and in what way he spent it; and about his body as to how he used it."⁵⁵

Therefore, the human behaviour in Islam is a result of Islamic teachings. This is not to say that Islam has mentioned everything, new and old, about life, but there are basic rules that govern the minor details of human affairs. In the case of human behaviour in the built environment, Saudi society, as a Muslim society, has its values and rules that control and govern the use of the built environment.

SOCIO-CULTURAL VALUES OF SAUDI SOCIETY IN REGARD TO THE OUTDOOR ENVIRONMENT

Rapoport⁵⁶ has stated that different groups stress different things, rank them differently, and relate to them differently, so that, for any group, there is a core of elements which are important and define the group to itself and to others and which are not easily given up. Many of these elements can be detected through a series of questions - who does what, with whom, when and in what context, and which settings are appropriate?

One can, in fact, see the result of these core elements of a certain society, from,

⁵⁵A. Rabah and A. Y. Dagag,, Riyadh Al-Salhein, in Arabic (the Gardens of Righteous People) (Beirut, Lebanon: Dar Al-Ma'monn Lltorath, 1989), p. 165.

⁵⁶Amos Rapoport, "Cross-Cultural Aspects of Environmental Design," in I. Altman, A. Rapoport and J. Wohlwill (eds.), Human Behaviour and Environment (New York and London: Plenum Press, 1980).

at one scale, the landscape of a region to, at another, the furniture arrangement of a room or a small space, as the organisation of space for different purposes and according to certain rules. The consistency of these rules give a continuity in space organisation at different levels of design (figure 3-2). It can be seen, for example in the design of the house, the neighbourhood, private open spaces as well as in public open spaces.

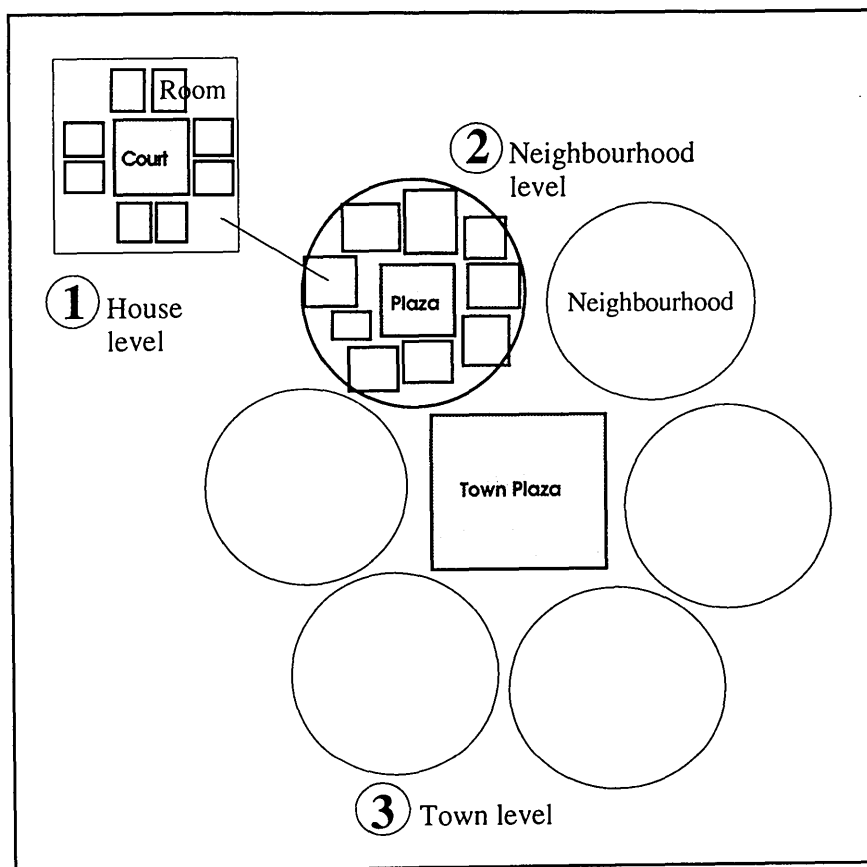


Figure 3-2: The continuity in space organisation. The continuity at different levels of design, (1) in the house, (2) in the neighbourhood, and (3) in the town level, reflects the consistency in the society's needs. The best example that demonstrate the continuity in space is found in San Cristobal Las Casas.⁵⁷

⁵⁷Amos Rapoport, *Human Aspects*, p. 11.

To design a culture-supportive environment, an important question must be addressed: which behavioural aspects are considered the most important? It is in this connection that the idea of the cultural core, those elements most important to the concerned group, becomes important. In the case of this study, in addition to its physical functions, the core can be expected to respond to the behavioural aspects of the society, the aspects that relate the organisation of the space to the society's needs. These aspects, in the Saudi culture, give the outdoor spaces different functions and meanings than in other cultures.

The following section will discuss the behavioural aspects which are the most important to Saudi society and have a strong influence on the use of public gardens. The discussion will look at these aspects from different perspectives, as well as from different levels of design, to illustrate their importance to society and its culture and to understand their involvement in design. Three main aspects are considered - privacy, the nature of activities undertaken and territoriality.

Privacy

The desire for privacy is a significant socio-cultural aspect influencing the built form in almost every society. A wide range of solutions have evolved in various cultures to accommodate people's need for privacy as one of the basic demands on form. Built forms achieve privacy through physical means by planning, arranging and creating an order of spaces which work together to provide privacy.

Lois Gottlieb expressed the need for privacy, where she said:

"The most basic function of a dwelling is to create shelter and privacy. Physical shelter is created by constructing a roof and walls that will keep the cold and the rain off one's head. But there is a need to have a feeling of shelter

that demands more of our dwelling. A glass could be made to satisfy all of one's needs for physical shelter, but there are very few people who would feel sheltered in one. ... Shelter must satisfy the need for a physiological feeling of protection, a feeling that there is something solid around one.⁵⁸

The basic need for privacy in the built form exists among all different cultures and societies. However, the required levels and forms of privacy varies from one culture to another. In every society, clear and explicit cultural and/or religious rules exist to maintain and protect these levels and forms. They can be defined and detected by examining the existing built forms of that society. In Saudi society, the built environment is controlled by explicit rules in regard to privacy. The traditional architectural space is arranged and organised to correspond with the desired level of privacy required.

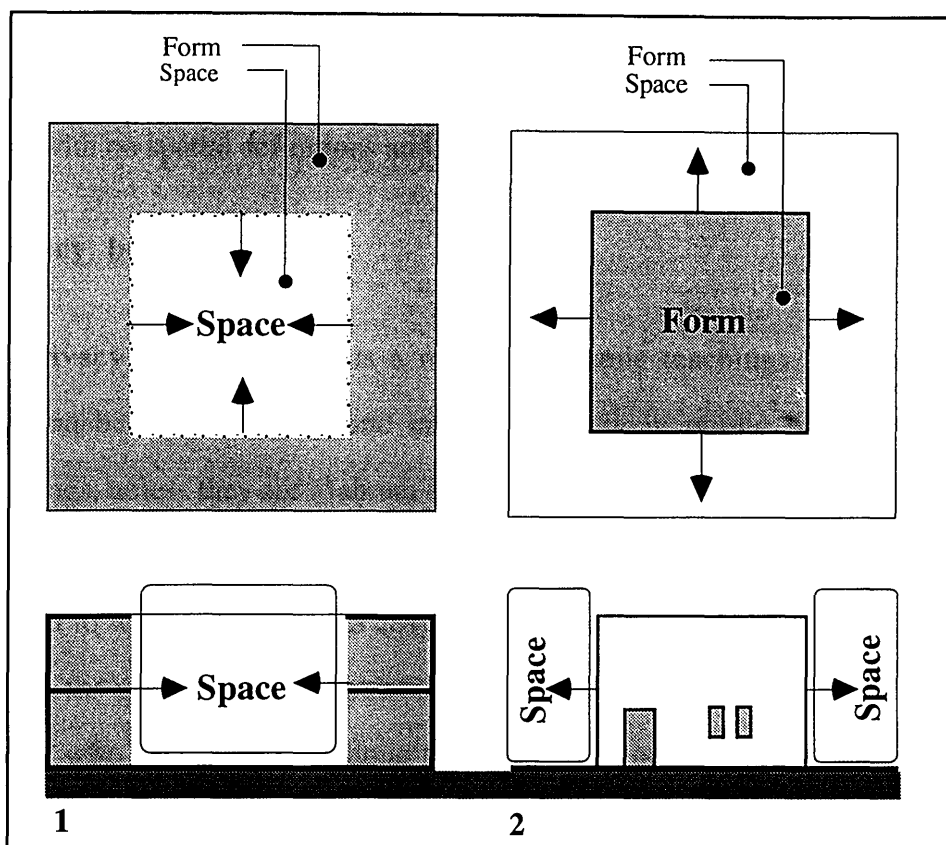
Bahammam⁵⁹ has identified two major forms of privacy, in regard to the built environment in Saudi Arabia, that play a distinctive role in organising the various levels of Social contact and distinguishing between what is public and what is private. These two forms are the privacy between sexes and family privacy. It is because of these two forms of privacy that the outdoor space not the built form, in the traditional Islamic architecture, becomes the primary focus of design. It is usually cut-out from the material forms around it and is defined by the inner surfaces of these forms⁶⁰

⁵⁸Lois Davidson Gottlieb, Environment and Design in Housing (New York, London: The Macmillan Company, 1968), p. 155.

⁵⁹Ali S. Bahammam, Architectural Patterns of Privacy in Saudi Arabia, Master Thesis (Montreal, Canada: School of Architecture, McGill University, 1986).

⁶⁰D. B. Carruthers Kenneth, "Architecture is Space: the Space-Positive Tradition," Journal of Architecture and Environment, vol. 3, no. 3, (1986), pp. 17-23.

(figure 3-3). Alexander et al⁶¹, in the book A Pattern Language, identified this kind of space as a positive one which has a distinct and definite shape although it is a space. It is as important as the shapes of the buildings which surround it.



1. Traditional house with courtyard. Space is the focal element of the design. It is defined by the surrounding material forms. Complete orientation to the inside and protection from the outside.

2. Villa type house with space surrounding the form of the building. Form is the focal element of the design. It is placed within a space and the space is defined by the materials it surrounds. Complete orientation to the outside, no privacy because space is not defined as an element.

Figure 3-3: The concept of space in the traditional and contemporary Saudi urban patterns.

⁶¹Christopher Alexander, Sara Ishikawa, Murray Silverstein, Max Jacobson, Ingrid Fiksdahl-King, and Shlomo Angel, A Pattern Language (New York: Oxford University Press, 1977).

On the contrary, form, in contemporary modern Saudi architecture, (public gardens included), is placed within a space and the space is defined by the material it surrounds (figure 3-3). The design of contemporary public gardens followed this concept where forms, such as fountains and water features, sculptures, and playground, are the dominant features of the gardens. Open spaces are leftovers in-between with no spatial definitions and no concern for privacy.

I. Privacy between Sexes

Privacy between sexes is a result of Islamic teachings. It stands on the segregation between females and males, not only in public but also in private surroundings, unless they are Maḥram (related by blood or marriage). When a Muslim woman leaves her house, she is obligated to observe certain rules regarding dress; she is required to wear a dress which covers all parts of her body so as not to reveal her figure. In the presence of her husband, family, male relatives (e.g. brothers, uncles, and so on who according to Islamic teachings, cannot marry her), or close women friends, she can wear whatever she pleases.⁶²

This Qur-ānic verse dictates a special form of privacy to protect Muslim woman from being looked at by strangers. At the same time, men are commanded, in Islam, to lower their gaze and not stare at women. It is considered to be an unlawful act to do so. Prophet Mohammed (PBUH) said to one of his companions by the name of Ali:

"O Ali when you see a woman ,don't continue looking at her, the first look is

⁶²Ali S. Bahammam , An Exploration of the Residents' Modifications: Private-Sector Low-Rise Contemporary Housing in Riyadh, Saudi Arabia, Doctoral Thesis (An Arbor, Michigan: University of Michigan, 1992), p. 249.

yours, but you have no right to the second one."⁶³

In this Ḥadith, the Prophet advises Ali that if your sight fell on woman, don't keep looking at her figure because whatever you see of her after the first glance will be considered as Ḥaram or forbidden act.

A woman in the presence of male strangers, or in public, is required to wear a Ḥejab that covers all parts of her body, except the hands and face which can be left uncovered, according to some scholars. Other scholars say that the face, too, should be covered.⁶⁴ In the Qur-ān (Surah 33: verse 59), Allah says:

"O Prophet! Tell thy wives and daughters, and the believing women, that they should cast their outer garments over their persons (when out of doors): that is most convenient, that they should be known (as such) and not molested. And Allah is Oft-Forgiving, Most Merciful."⁶⁵

This type of privacy is translated into reality in many forms and actions. It is clearly visible in the daily dress of Saudi women, in the form of the Ḥejab which provides total privacy for her body. The reflection of this behaviour is clear in the Saudi traditional built environment. The architectural form is oriented towards the inside with few openings to the outside in order to provide the desired privacy to the interior.

⁶³Al-Saied Mohammed S. Al-Kanoji Al-Bokari, Hosn Al-Ossoh Bma Thabata mn Allaha wa Rasoluhu fi Al-Neswah Beirut, Lebanon: Moasasht Al-Resalh, 1985), p. 369.

⁶⁴B. Aisha Lemu, Women in Islam (Leicaester, UK.: Islamic Foundation, 1978), cited in Ali Bahammam, An Exploration of the Residents' Modifications, p. 251.

⁶⁵The presidency of Islamic Researches, IFTA, Call and Guidance (revised and edited), The Holy Qur-ān : English Translation of the Meanings and Commentary (Al-Madinah Al-Munawarah, Saudi Arabia: King Fahad Holy Qur-ān Printing Complex, 1410 H), pp. 1264-1265.

The distinction between public and private domains is clear in the *Ḥejab* covering the entire face and body of a woman in public as well as the entrance covering the inner spaces from the public. In the private interior, a woman's *Ḥejab* is removed in the company of family; also the inner spaces are open, but with total privacy and no visual intrusions from the outside (figure 3-4).

II. Family Privacy

Family privacy is the other form of privacy that Saudi Society insists on. This is the privacy between the family members and other people. This form exists mainly in the dwelling units where there would be a distinction between the private domain and the outdoor domain. This form of privacy is visible in the traditional architectural pattern. The concept of the courtyard design which provides total protection for the family members against the outside intrusion is a good illustration of this type of privacy.

Family privacy is a very important aspect influencing the design of contemporary public gardens because most users of those gardens are families. Certain activities, such as eating and chatting, that concern the family members need some sort of privacy in order to be carried on. It is the combination of these two forms of privacy (privacy between sexes and family privacy) that ought to be considered in the design of public gardens. People's intention behind going to public gardens is as a change from the atmosphere of the house and to enjoy being in the company of their families or friends, participating in shared activities in the outdoor open spaces. The concern of privacy is a vital aspects in order to make successful use of the gardens.

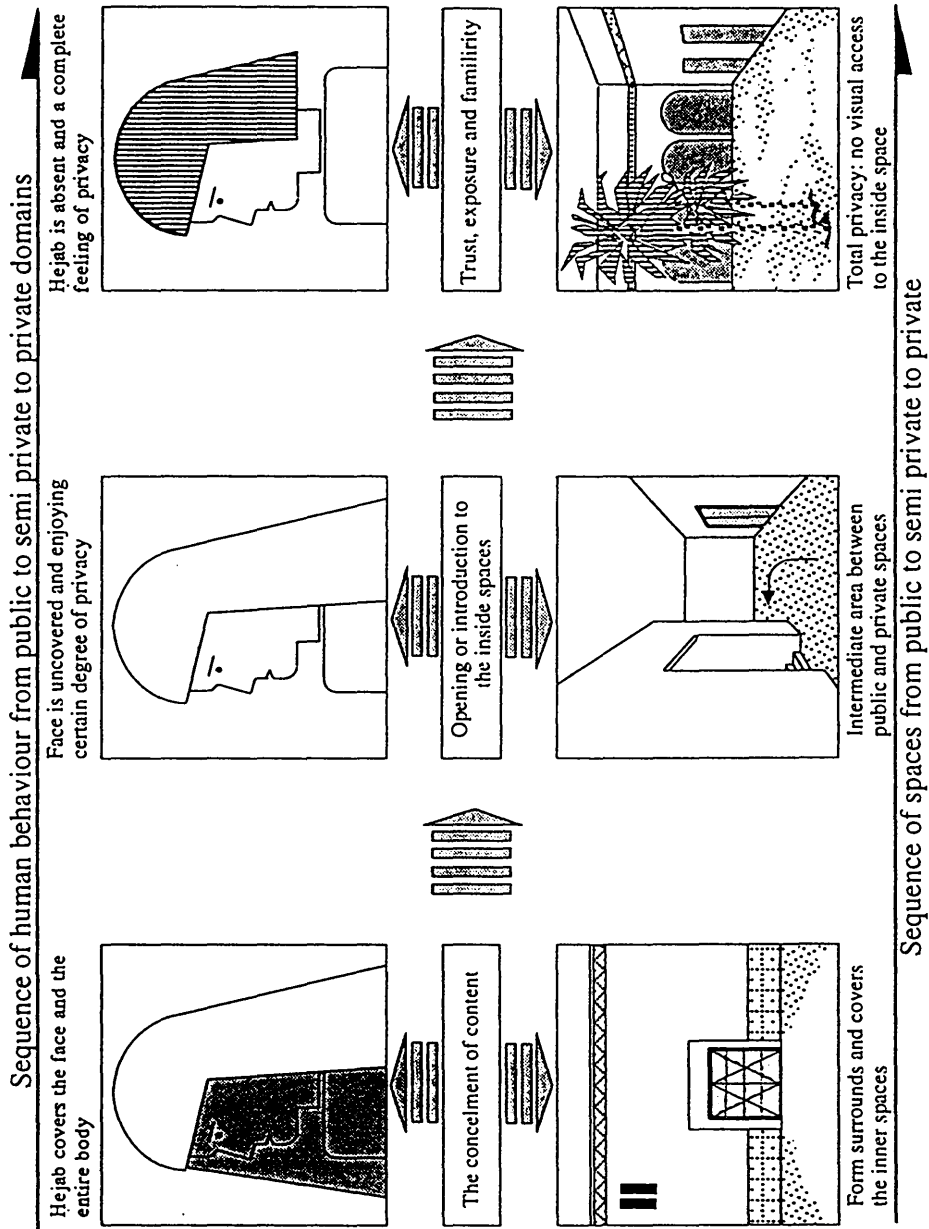


Figure 3-4: The reflection of the behaviours on the built environment

A woman, for example, will not feel comfortable in recreation if she must keep her veil over her face all the time. Also she is not going to interact properly with the rest of the family in whatever activities they are involved in. An important consideration is that people, especially families, will not go to the gardens if they are not going to experience some freedom. This, after all is why they leave their homes to seek the enjoyment of the gardens in less restrictions. The consideration of privacy as a socio-cultural aspect is therefore, essential in the evaluation of contemporary outdoor recreation.

Nature of Activities

Making places that fit human purposes has been the challenge of design since ancient times. Two things are involved in conducting, evaluating and/or analysing design - the nature of the site, on one hand, and how its users will act in it and value it, on the other. Built environments, at least in principle, are created to be supportive of the activities and lifestyle of the users.⁶⁶ Christopher Alexander elaborated on this point in his book Notes on the Synthesis of Form by saying

"It is based on the idea that every design problem begins with an effort to achieve fitness between two entities: the form in question and its context. The form is the solution to the problem; the context defines the problem. In other words, when we speak of design, the real object of discussion is not the form alone, but the ensemble comprising the form and its context. Good fit is a desired property of this ensemble which relates to some particular division of the ensemble into form and context. The form is a part of the world over

⁶⁶Amos Rapoport, "Systems of Activities and Systems of Settings," in Susan Kent (ed.), Domestic Architecture and the Use of Space: An Interdisciplinary Cross-Cultural Study (London, New York: Cambridge University Press, 1990), pp. 9-20.

which we have control, and which we decide to shape while leaving the rest of the world as it is. The context is that part of the world which puts demands on this form; anything in the world that makes demands of the form is context."⁶⁷

The notion of fit between the built environment and users' actions is the key reason behind design. Several questions ought to be raised in regard to this issue. What kinds of activities take place, who does what, with whom, in what context; is there enough space to carry out the actions, is the site equipped and managed for them?⁶⁸ These questions can be seen as consisting of three main components.⁶⁹

I. The activity itself

This component describes the activity or activities that take place. The intended activities behind the design determine the physical setting of the built environment. For example, a children's play ground has to be arranged to fit the intended activities. In public gardens, the kind of activities that take place within the various elements determine the physical arrangement of those elements. If the physical setting is not appropriate to the kind of activities, the space will not be used as it was intended.

In contemporary public gardens, the elements or form are mostly structured without considering the context or the kind of activities the users desire. For example, the seats or benches in most gardens are located along the footpaths for people to sit

⁶⁷Christopher Alexander, Notes on the Synthesis of Form (Cambridge, Massachusetts, and London, England: Harvard University Press, 1964), pp. 15-16 & 17-18.

⁶⁸Rapoport, Human Aspects, and Kevin Lynch, Site Planning (Cambridge, Massachusetts: The MIT Press, 1984).

⁶⁹Amos Rapoport, Human Aspects, and John Zeisel, Social Research in Architectural Planning, PhD. Thesis (New York: Columbia University, 1972).

and enjoy watching people walking by. But in fact nobody uses those benches because by sitting a long the footpaths the person exposes him/herself to the passers by which means that the sitting person is losing a very important aspect of the Saudi culture which is the desire for protection and privacy.

II. How it is carried out

This component describes the physical setting of the activity in addition to describing the activity. Different activities require different forms and spatial arrangements. Eating as an activity, for example, could be performed in many different forms either on a table or on the ground as it is in Saudi Arabia and many other cultures. It is very important to know how the activity, that is going to take place in the space, is carried out.

One of the activities that Saudi families like to do in public gardens, for example, is to sit together on the ground in a circle, chatting and eating snacks or dinner in the evenings. The conflict appears when the sitting areas in the gardens are furnished with benches, seats, and picnic tables which do not suit the users needs and at the same time reserve a place in the open space.

III. How it is associated with other activities and combined into an activity system

This component describes not only an isolated activity but also describes the relationship between the main participant and other people whose presence or absence is essential to the social importance of the activity. For example, the relationship between children's playgrounds and sitting areas. These relationships are very important in determining the efficiency of the design.

Rapoport⁷⁰ has stated that variability with lifestyle and ultimately culture goes up as one moves from the activity itself, through ways of carrying it out, the system of which it is part, and its meaning. Considering the activities as a system involves many variables that are very important in determining the performance of these activities and the required behaviours. Important variables, such as in what order or sequence they occur, the nature of these sequences, how they are linked or separated, who is involved or participates (or is excluded), and so on, where and when they occur, need to be considered as part of the system of activities in order to address the main questions of who does what, where, when, including or excluding whom and why.

Territoriality

Human beings are territorial by instinct. We define spaces, mark them for specific uses, create visible and invisible boundaries, establish cultural conventions of behaviour toward those boundaries, and will defend the territory against unwanted intrusions. Except for the privacy, territoriality seems to be the most prevalent aspect of the behaviour environment. There are many definitions for the term territory, some of which are dealing with it as an animal instinct while others are presenting several definitions, some for animals and others for humans. Altman presented the following definition which corresponds with the aims of this research:

"Territorial behavior is a self/other boundary - regulation mechanism that involves personalization of or marking of a place or object and communication that it is 'owned' by a person or group. Personalization and ownership are designated to regulate social interaction and to help satisfy various social and physical motives. Defense responses may sometimes occur when territorial

⁷⁰Rapoport, Human Aspects.

boundaries are violated."⁷¹

Despite debates over its applicability, territoriality has become a popularly discussed social concept and a less widely applied design construct.⁷² The dimensions of a territory can change but shift through time, its size and location depend on its socio-physical context.⁷³ The territorial markers can be conceptual or physical, verbal or non-verbal. The territorial aspects can be seen in public gardens, for example, in the intrusion of single males into the territory of nearby seated families. Their physical presence and/or their noises usually disturb the families and sometimes make them leave the place.

Thus territorial behaviour can be understood in relation to other spatial studies concerned with expectations. There are specific types of territories which can be discussed from varying points of view to offer clear definitions of aspects like personal space, and privacy and boundary.⁷⁴ For the sake of this research and because privacy is considered as a major aspect in the organisation of the built environment - especially in the situation involving females or families, territoriality will be considered as the space, occupied by individuals or groups, needed for performing their activities where they would feel annoyance by any intrusion.

⁷¹Irwin Altman, The environment and Social Behavior (Monterey, Cal.: Brooks/Cole Publishing Company, 1975), p. 107.

⁷²Randolph Hester, Neighbourhood Space.

⁷³Donald Sanders, "Behavioural Conventions and Archaeology: Methods for the Analysis of Ancient Architecture," in Susan Kent (ed.), Domestic Architecture and the Use of Space: An Interdisciplinary Cross-Cultural Study (London, New York: Cambridge University Press, 1990).

⁷⁴Ibid.



4

RECREATION AND THE SAUDI ARABIAN MODEL - HISTORY AND IMPORTANCE

Concept and Definitions	53
Brief Historical Perspective on the Issue of Recreation	55
Recreation in the Twentieth Century	62
Historical Perspective of Recreation in the Middle East	67
Famous Islamic Gardens - Concepts and Characteristics	73
Recreational model in Saudi Arabia	80
Recreation in Modern Saudi Society	82

RECREATION AND THE SAUDI ARABIAN MODEL - HISTORY AND IMPORTANCE

Recreation plays a vital role in modern living. For individuals, it is a life-sustaining essential. Proper recreation maintains a healthy body and restores mental vitality. This is increasingly important as more people spend a larger portion of their time in less active occupations and walk less. The stresses of the crowded and complicated conditions of daily life in urban areas are reduced by recreation. For many who spend their time at repetitive and impersonal tasks, it is the only aspect of life that provides excitement and fulfilment. It is not only that it is a means of medical treatment to help people overcome physical and mental disabilities, the demand on recreation is increasing throughout the world. Recreation has become an essential aspect of the modern life of many societies.

Society as whole benefits from recreation. It offers opportunities for people, especially for family members and relatives, to get together in an environmental setting that makes them appreciate each other as well as other people in their communities. Recreation is a valuable educational tool; people learn more easily if education is enjoyable. It can also be an important learning opportunity for children and teenagers. Recreational travel can develop understanding and strengthen ties and relations among different parts of a nation as well as between nations. Also, recreation can lead to increased environmental awareness and understanding as people interact with and enjoy

their surroundings. Last but not least, recreation can be viewed as a great economic factor.⁷⁵ Recreation is therefore of great significance to both individuals and society.

CONCEPT AND DEFINITIONS

The term comes from the Latin word "recreatio", to restore or refresh.⁷⁶ Webster defines recreation as "refreshment of strength and spirits after toil: diversion".⁷⁷ The Oxford Dictionary says recreation is "the action of recreating (oneself or another), or the fact of being recreated, by some pleasant occupation, pastime or amusement".⁷⁸ Obviously, dictionary definitions cover a wide range of activities; depending on a person's desires and perceptions, revitalising of strength and spirits can be achieved in countless ways. This revitalising can result from different activities such as running in a marathon, sleeping late on a weekend morning, reading to children, digging in the garden, watching television, eating in a restaurant, and so on.

All these activities and many more can be used as refreshment, but not every body would accept these activities as recreation. A person who is anxious to do something else may regard, for example, reading to children or working in the family garden as unwelcome duties. Some writers attempt to establish narrow definitions for

⁷⁵M. Chubb, H. Chubb and S Hollander, One Third of Our Time? an Introduction to Recreation Behavior and Resources (New York, John Wiley and Sons, Inc., 1981).

⁷⁶Max Kaplan, Leisure in America: a social inquiry (London, John Wiley and Sons, Inc., 1960).

⁷⁷Webster's Seventh New Collegiate Dictionary (Springfield, mass., G. and Merriam Company, 1971).

⁷⁸The Oxford English Dictionary (Oxford, Clarendon press, 1933).

the word recreation.⁷⁹ Limited definitions are obviously easier to interpret, simpler to apply philosophically, and provide arguments for restricting professionally directed recreation to certain activities. This approach has its limitations. It is necessary to know each person's perception of an activity before it can be classified as recreation.

The word "leisure" is another important term that has been erroneously substituted for the word "recreation". Some recreation professionals use leisure and recreation as if they were interchangeable, ignoring dictionary definitions and common usage. Webster's defines leisure as "freedom provided by the cessation of activities; especially time free from work or duties."⁸⁰ The Oxford Dictionary defines it as "the state of having time at one's own disposal; time which can be spent as one pleases free or unoccupied."⁸¹ Therefore, in this study, the word leisure will be used in its broadest dictionary sense.

The word "recreation" will also be used in this study in its broadest dictionary sense with one condition. We will consider recreation to be any type of conscious enjoyment. It can take place at any time. The only condition is that this enjoyment has to take place in the outdoors. It may include activities that are normally thought of as basic bodily functions, such as eating, sleeping or activities that have a social structure, such as talking and story telling. In other words, recreation is used to describe any type of safe and harmless outdoor activity that provides enjoyment and refreshment to the participant(s).

⁷⁹Chubb, One Third.

⁸⁰Webster Dictionary.

⁸¹The Oxford English Dictionary.

BRIEF HISTORICAL PERSPECTIVE ON THE ISSUE OF RECREATION

The claim that recreation is essentially a product of a modern industrial society is not completely true. The magnitude and scale of it is certainly multiplied in modern times; nevertheless it existed and has been practised since early civilisations. Recreation, like other aspects of human behaviour, is constantly changing.⁸² Attitudes and participation patterns continually evolve. Major changes are still taking place. A brief historical development of recreation will help to appreciate and understand the present differences in recreational behaviour.

Since early man, recreation was practised by individuals as well as by groups for the sake of refreshment, and restoring strength and spirits after toil. It was also used to strengthen social and unity ties among members of the community through celebrating special occasions such as religious events and hunting successes. Dancing around fire, by some primitive societies, for example, might carry many important meanings to them, among which was certainly recreation. Many other forms of recreation practised by early man and by primitive societies are still existed today.

With the beginning of human civilisations and the appearance of early urban settlements by the Assyrian, Babylonians and Egyptians, recreation became more diverse. Organised recreational activities started to appear. Hunting, horse racing, wrestling, and many other martial competitions were popular.⁸³ With the progress of human civilisation, lands set aside for recreation became more extensive. The most

⁸²Chubb, One Third.

⁸³Chubb, One Third.

famous examples were the hanging gardens of Babylon and the water gardens at Karnac in the upper Valley of the Nile in Egypt.⁸⁴

When the Greek civilisation reach its peak in about 500 BC., the desirability of various types of recreation became an important issue. It was in this context that the Greeks developed what is known as their "Leisure Ethic".⁸⁵ They considered the intelligent use of free time to be the main purpose of life. As the Roman Empire grew rich from its conquest and colonies, the provision of public recreation became a major government function and expense. In AD. 80, the Colosseum arena was completed to become later the hub of life in Rome. Soon large arenas were constructed in most of the provincial towns throughout the Roman world.

With the fall of the Roman Empire, the long period of intermittent warfare that followed had a profound effect on recreation throughout the Western world. During that period, religious thought was that the main purpose of living was to prepare the soul for salvation. The human body, with its needs for food, drink, and other pleasure, was regarded as a weaknesses that had to be overcome. The situation remained the same until the fourteenth century when the Renaissance Era started. The construction of recreational entities was much more extensive during this period than in the Middle Ages, most of it private development undertaken by the aristocracy.⁸⁶

Numerous formal gardens and landscaped parks were constructed as part of private estates. A few of these gardens and parks were open to the public on a regular

⁸⁴Chubb, One Third.

⁸⁵Chubb, One Third.

⁸⁶Chubb, One Third.

basis but most were closed or open only on special occasions. It is in a way fortunate that so many gardens, estates, and preserves were established during this period of population increase and agricultural expansion; a good number are now public open spaces. An example of such gardens and estates is the geometrically shaped formal gardens at the Palace of Versailles on the outskirts of Paris; originally designed by Andre Le Nôtre for the Sun King, Louis XIV.⁸⁷

The Renaissance also produced limited improvements in urban design. Broad avenues and public squares were included in some of the new areas that developed outside the old walled cities. A few public parks or play areas began to appear as towns grew larger and residents had more difficulty in reaching pasture land for games and public events.⁸⁸ The situation of recreation and participation throughout the Renaissance period was basically the same as it was before; only the ruling classes were able to enjoy a wide range of opportunities. There were virtually no lands or programmes specifically dedicated to public recreation in this periods.

The dramatic changes in recreation occurred with the beginning of the Industrial Revolution in the late eighteenth century. By the early 1800s, steam locomotives and steam boats were revolutionising transportation and travel, and stimulating the development of cities. Cities and urban centre grew in size so that more people lived in urban dwellings than ever before. By 1851, for example, over half the population of England were urban dwellers.⁸⁹ Also the revolution in terms of

⁸⁷Chubb, One Third.

⁸⁸Chubb, One Third.

⁸⁹J. Allan Patmore, Land and Leisure (Harmondsworth, England: Penguin Books Ltd, 1972).

transportation, both domestic and international travel and immigration increased, especially from Europe to North America, speeding up the distribution of new ideas and fashions.

Attitudes toward undeveloped resources were changing. The "wilderness" was previously regarded as something that had to be conquered. During this period, Romanticism - the view that a primitive life and undeveloped scenery are valuable in themselves, grew in popularity. Exploration of the Northwest of the United States and the discovery of natural wonders such as the Yellowstone region in the Rocky Mountains led to the first protected natural park in 1872.⁹⁰

On the urban side, most urban publicly owned open space was in the form of relatively small commons,⁹¹ squares together with boulevards, and small crescent gardens in more sophisticated communities, such as London, and Edinburgh.⁹² Picnics and sports events, at the beginning of the nineteenth century, in Britain were held on open lands outside the urban areas usually common lands.⁹³ In America, similar events were usually held on private land outside the urban areas - often a pasture bordering a lake or river.⁹⁴ Rapid urbanisation and industrial expansion made it increasingly difficult for urban dwellers to reach open spaces outside developed areas.

⁹⁰Chubb, One Third.

⁹¹Patmore, Land and Leisure and Chubb, One Third.

⁹²Jonathan Barnett, The Elusive City: Five Centuries of Design Ambition and Miscalculation (London: The Herbertt Press Limited, 1987).

⁹³Patmore, Land and Leisure.

⁹⁴Patmore, Land and Leisure.

Some cities started to acquire larger parks in order to provide opportunities that had previously been obtained in the open countryside. In Europe, the lack of publicly developed recreation space was less serious. Large areas of open land around public buildings often remained vacant, and the extensive grounds associated with the homes and properties of the aristocracy were frequently made available for public use by permission of the owner, by purchase, or by seizure.

The Royal Parks which gave the West End of London so much of its character, had long been accessible to the public. Hyde Park, for example, was opened by Charles I about 1635.⁹⁵ St. James's Park, one of the ten parks in the centre of London, was originally acquired by Henry VIII and laid out as a garden. In 1828, it was redesigned by John Nash and, though remaining Crown property, was designed from the first for public use and in this sense may perhaps be considered the first English public park.⁹⁶

In some cases, the romantic attitude toward landscape also had an influence. New York City's Central Park is the classic example of the combined influences of urbanisation and Romanticism. Certain New York civic leaders and newspaper writers were disturbed by the rapid northward growth of the city on Manhattan Island. They warned the citizens that eventually no large expanse of accessible open space would be left unless a major public park was created. After much debate, the city decided to purchase 840 acres (340 hectares) of rocky swamp land just north of its boundaries.⁹⁷

⁹⁵Patmore, Land and Leisure.

⁹⁶Patmore, Land and Leisure and Chubb, One Third.

⁹⁷Chubb, One Third.

Frederick law Olmsted and Calvert Vaux's design involved the imitation of natural landscapes rather than the geometric design approach.⁹⁸ It brought the rural landscape to urban dwellers and provided opportunities to walk, ride, drive (horse drawn vehicles), boat, and ice skate in a sylvan environment (figure 4-1). Widespread acclaim of Central Park's aesthetic and functional features resulted in it being the prototype for many other grandly landscaped North American urban parks.⁹⁹

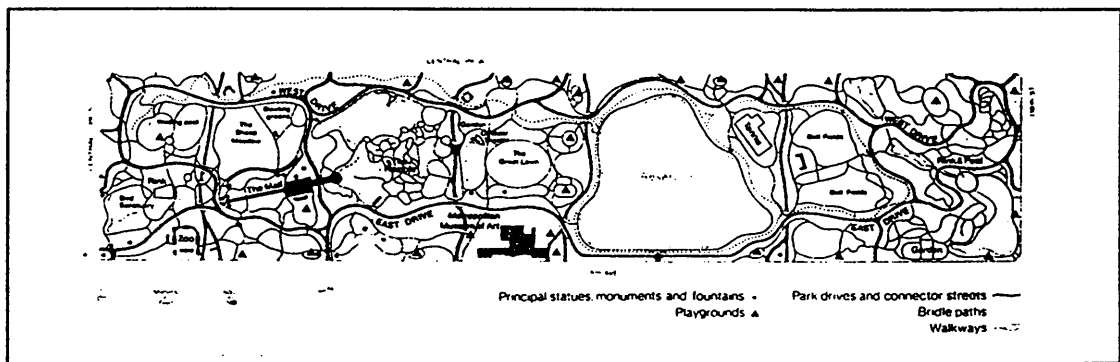


Figure 4-1: The Central Park in New York City as it is today.¹⁰⁰

Like other major American cities, Boston began applying the lessons demonstrated in Central Park soon after public acknowledgement of the Olmsted and Vaux design. The metropolitan park system envisioned by Cleveland, Copeland, Crocker, and Olmsted was developed not just to serve recreational purposes, but to solve drainage problems in the city. What distinguishes the Boston system plan was that it advocated a completely linked system, with parks connected by parkways or riverside

⁹⁸Philip Pregill and Nancy Volkman, Landscapes in History: Design and Planning in the Western Tradition (New York: Van Nostrand Reinhold, 1993).

⁹⁹Pregill, Landscapes in History.

¹⁰⁰Chubb, One Third.

paths.¹⁰¹ Boston Park System looped from Boston Common, down Commonwealth Avenue, along Muddy River, around the boundary between Boston and Brookline, and thence back to the waterfront (figure 4-2).¹⁰²

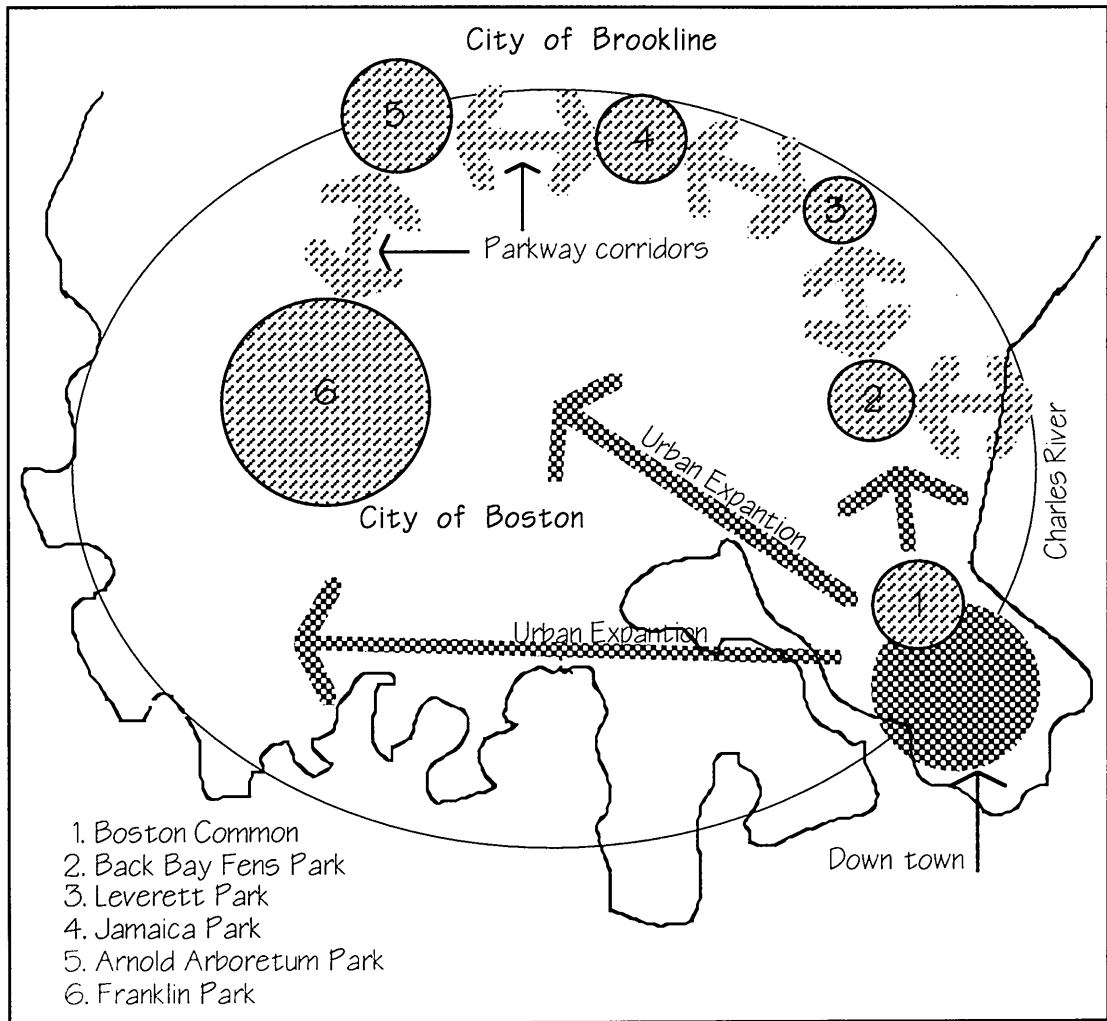


Figure 4-2: Diagrammatic concept of the Boston Park System. The park system was established to bring the countryside into the expanding city.

¹⁰¹David Schuyler, The New Urban Landscape: The Redefinition of City Form in Nineteenth-Century America (London: The Johns Hopkins University Press, 1986).

¹⁰²Pregill, Landscapes in History.

This final portion of the loop ending at the harbour was never completed, but the system of five major parks and three linkage corridors enveloped much of the northern and western edges of the city. Termed an "emerald necklace," the park system had its jewels - the large parks of Back Bay Fens, Leverette Park, Jamaica Park, Arnold Arboretum, and Franklin Park-while the corridors, Charlesgate, Fenway, the Riverway, Jamaicaway, and the Arborway, comprised the strand of the necklace (figure 4-2).¹⁰³

Since the fall of the Roman Empire until the mid nineteenth century and the beginning of the twentieth century, there have been virtually no continuing public programmes to provide recreation for the average citizen. Some of the medieval rulers and aristocracy periodically provided sporting events or entertainment to encourage allegiance or as a gesture of goodwill. The idea of using substantial amounts of tax funds for the development of recreational facilities for the general public was therefore quite revolutionary in this period. A succession of events and factors took place during the twentieth century which established governments' involvement in recreation on a major scale.

Recreation in the Twentieth Century

The reduction of working days to a five and-a-half-day week with an average working day of nine hours was one of the many factors that contributed to the expansion of participation in recreation during the present century¹⁰⁴ A large number of

¹⁰³Pregill and Volkman, Landscapes in History.

¹⁰⁴Kenneth Roberts, Contemporary Society and the Growth of Leisure (London: Longman Group Limited, 1978).

people in urban areas were beginning to have significant amounts of free time and discretionary income. Car ownership and usage increased dramatically in the middle 1920s, especially in the United States as roads were improved and the price of cars decreased.¹⁰⁵ More people travelled farther from home on weekend excursions and vacation trips as the paving of roads made both countryside and extra urban recreation resources more accessible.

One of the main contributions to the status of recreation in this century is the participation of governments in recreation. This contribution was in the form of a series of acts and the establishment of governmental and professional land - managing agencies. The most significant contribution at which the phenomenon of recreation received overt recognition as a legitimate and significant concern of government in the West was the establishment in the United States of the Outdoor Recreation Resources Review Commission (ORRRC) IN 1958.¹⁰⁶

This was an assertion by the United States government that its concern no longer extended simply to the provision of particular kinds of recreation facilities. Hence forth, its interests would embrace the total spectrum of society's recreational needs and the full range of opportunities necessary to satisfy those needs. The commission's terms of reference required it to identify the recreation wants and needs of the American people and to project these forward to the end of the century; to prepare an inventory of the resources available to meet the need for recreation and to recommend policies and programmes which would ensure that present and future

¹⁰⁵Roberts, Contemporary Society and John and Ray Oldham, Garden in Time.(London and New York: Lansdowne Press, 1980).

¹⁰⁶Chubb, One Third.

needs would be adequately and efficiently met. In short, it was to concern itself with the comprehensive supply and demand of mass recreation.¹⁰⁷

Following the U.S. initiative, several countries set out to undertake similar tasks. In 1962, a Commission to Review the Resources for Outdoor Recreation (CRROR) was established in Sweden, with the object of defining the magnitude of outdoor recreation demands and the availability of resources to provide for them.¹⁰⁸ In 1965 two national recreation studies were independently launched in Britain. The University of Keele's Pilot National Recreation Survey, sponsored by the British Travel Association, focused upon patterns of outdoor non-urban recreation activity. In contrast, the Government Social Survey study was wider in scope, the intent being to assess the patterns of participation in outdoor and physical recreation and, in particular, the frequency and manner of use of urban open space.¹⁰⁹ More and more governments followed up in the same way, involving themselves in the field of recreation development in their own countries.

The issue of human rights is one of the major factors that strongly contributed to the increase in the importance of recreation internationally in this century. A number of legislative bodies have passed laws or declarations that protect the right of citizens to participate in recreational activities. This legislation may now appear to be unnecessary in many developed nations but it should be remembered that, until quite recently, "idleness" was considered sinful by large numbers of people living in these countries.

¹⁰⁷Thomas L. Burton, Making Man's Environment Leisure (London: Van Nostrand Reinhold Ltd., 1976). and Chubb, One Third.

¹⁰⁸Burton, Making Man's Environment Leisure.

¹⁰⁹Burton, Making Man's Environment Leisure and George Torkildsen, Leisure and Recreation Management (Glasgow, Scotland: E & FN Spon, 1992).

Even now, some religious and conservative groups in the advanced nations and many more people elsewhere in the world do not regard recreation as a necessity of life and resist government attempts to provide recreation opportunities.¹¹⁰ Legislation that established recreation as a human right is therefore both an indication of its importance and a reminder that negative attitudes still exist.

A key document establishing people's rights to recreation is the United Nations' Universal Declaration of Human Rights adopted by the General Assembly in 1948. In it, the member nations agreed that everyone has "the right to rest and leisure, including reasonable limitation of working hours and periodic holidays with pay," and ". . . the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits."¹¹¹ Many nations have referred to the declaration when drafting or redrafting their constitutions, and some may have been prompted by it to include provisions regarding recreation. The declaration is also cited frequently in U.N. debates and written material as the standard that should be observed by all nations.¹¹²

Increased attention to environmental problems, in the 1970s, affected recreation in several other ways. For example, it reduced the effort made to improve recreation opportunities. Conservation - oriented organisations, citizens' groups, and public agencies found the proliferation of environmentally important public hearings, legislation, and administrative procedures often took time previously used for

¹¹⁰Chubb, One Third.

¹¹¹Chubb, One Third.

¹¹²Chubb, One Third.

recreation matters.¹¹³ Similarly, a smaller proportion of natural resource agency budgets were spent on recreation as environmental programs increased. Requirements that environmental impact statements be submitted and approved before major projects could be started also had an effect. In many cases, these requirements were beneficial to recreation but sometimes projects were delayed or abandoned.

On the other hand, there were many environmental events that were directly or indirectly beneficial to recreation. Many legislative and administrative actions passed and adapted by governments for the sake of protecting the environment resulted in greater efforts to conserve many recreational resources. For example, The Federal Coastal Zone Management Act of 1972, in the States, and supporting legislation by State governments resulted in conserving shoreline resources.¹¹⁴ These resources are extremely important for many recreation activities and essential to the production of fish and wildlife. Likewise, efforts to reduce water and air pollution, begin land - use planning programs, and re-examine forestry practices were generally beneficial to recreation.

Most nations have not experienced a recreation revolution of the same intensity as the revolutions in the United States and Canada. Other advanced European nations, Japan, Australia, and New Zealand, are at or near zeniths that will be more modest because of economic or resource limitations.¹¹⁵ Less developed nations may be decades or centuries from reaching their zeniths. Differences in culture, social goals, and economic development control the nature and timing of changes in recreation

¹¹³Chubb, One Third.

¹¹⁴Chubb, One Third.

¹¹⁵Chubb, One Third.

opportunity. Current world resource, economic and political problems suggest that few if any nations are likely to reach a recreational peak that will be comparable with those of the United States, Canada, and some European nations. Having said that, many countries have been following these examples of the advanced world in developing their recreational opportunities and resources.

Historical Perspective of Recreation in the Middle East

Recreation has a long historical background in the Middle East. Its history goes back to the contribution of early civilisations that dominated the region. The region witnessed the major events and religions that shaped our world. In the seventh century, the Middle East was home to many different powers and cultures. The Romans in the north and west, the Persians in the east and the Arabs in the south. The region witnessed serious conflicts and interactions among the major civilisations of that time. These interactions gave the region its importance as a multicultural area for all aspects of life including recreation.

In the seventh century, the powerful Byzantine Empire, which had grown out of the East Roman Empire, was at war with Persia; when quite suddenly, taking them both by surprise, extremely mobile armies of Arab horsemen appeared on their borders. These armies fought under the banner of a new faith, Islam. In less than a hundred years, the Islamic Caliphate expanded to the borders of China and India in the east, and through North Africa and Spain to France in the west. They created an Empire greater than that of old Rome.

Arabs before the coming of Islam were traders and pastoralists. They travelled through their desert peninsula as well as into the adjacent regions and empires. The recreational forms that they knew were hunting and camping, in the desert valleys and

around oasis. They enjoyed different activities and shows held on a big scale at gatherings and festivals that used to take place every year in the peninsula such as Suq 'Ukaz¹¹⁶ and other similar occasions. They also mentioned in their poems the gardens and paradise in Syria, Palestine and Iraq. Those natural as well as man-made gardens that they saw in regions controlled by Persia and the Byzantine Empires amazed them and attracted their attention.

When Prophet Mohammed (PBUH) started preaching the message of Allah to the Arabs they asked Him, as a sign of his true prophethood, to turn the valley of Makkah, which was completely waterless and grassless, into gardens similar to those that they had seen on their trade journeys to the Byzantine and Persian controlled regions, with running water and lush vegetation. In Surah 17 verses 90, 91 and 93 Allah describes that in the Qur-ān by what the meaning can be translated to:

"They say:" We shall not believe in thee, until thou cause a spring to gush forth for us from the earth, (verse 90)

"Or (until) thou have a garden of date trees and vines, and cause rivers to gush forth in their midst, carrying abundant water; (verse 91)

"Or thou have a house adorned with gold, or thou mount a ladder right into the skies. No, we shall not even believe in thy mounting until thou send down to us a book that we could read." Say: "Glory to my Lord am I aught but a man,- an apostle?" (verse 93)"¹¹⁷

¹¹⁶Suq 'Ukaz: an annual market that used to be held close to the city of Makkah. It was considered to be a big festival to celebrate all aspects of the society's lifestyle.

¹¹⁷The Presidency of Islamic Researches, IFTA, Call and Guidance (Revised and Edited), The Holly Qur-ān English Translation of the Meanings and Commentary (Al-Madinah Al-Munawarah, Saudi Arabia: King Fahd Holly Qur-ān Printing Complex, 1405 AH).

With the expansion of the Caliphate, cities were established as centres to house the army and the new settlers. Recreation was considered in the planning of these cities. When Omar Ibn Al-Khatāb, the second Caliph after Prophet Mohammed (PBUH), ordered his leader in the territory of Iraq to construct the city of Koffa he advised him to build the mosque on the highest spot in the site. Then to choose the best archer in his army to shoot arrows from the mosque in all directions. At the landing spots of the arrows the market zones of the town should take place. Behind the market zones the residential neighbourhoods should be planed (figure 4-3).¹¹⁸ This large area between the mosque and the market place was designated as a public area for gatherings and celebrations for all public and all recreational uses.

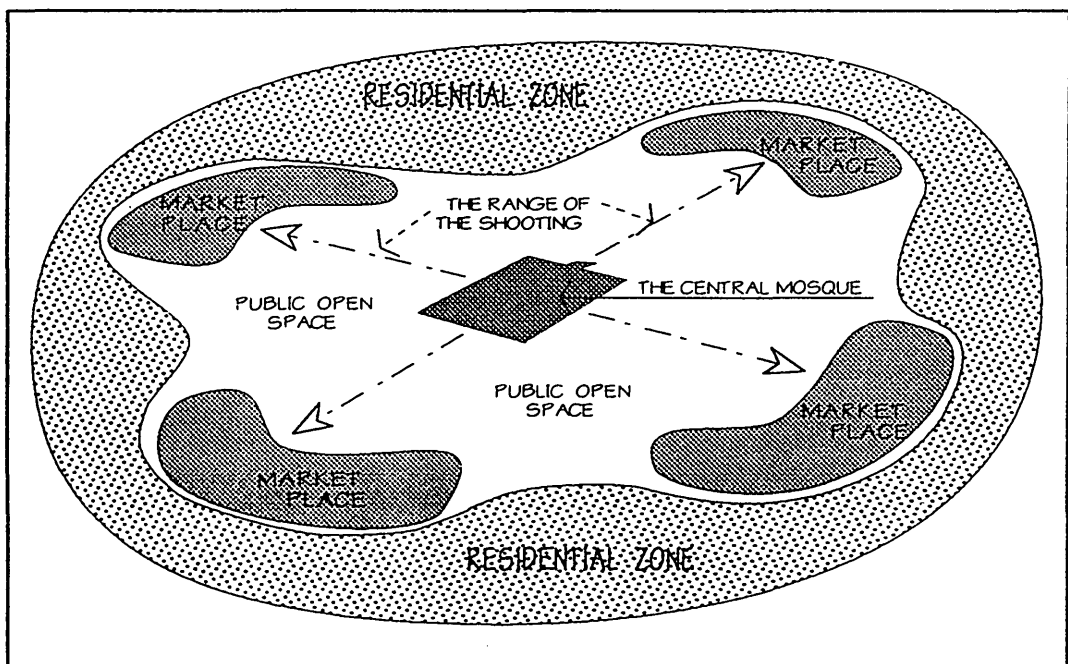


Figure 4-3: Planning of the city of Al-Kufh in Iraq by the second Caliph around 640 AD. gave consideration to public open spaces within the urban pattern.

¹¹⁸Heard from a program presented in the Holly Qur-ān Radio Station, Ar-Riyadh, Saudi Arabia, 1993.

The Muslims, in time, advanced rapidly and learned willingly from every people they interacted with. Their cities became world centres of learning. The great libraries of previous civilisations became the treasured possessions of Muslim scholars. For example, the libraries in Egypt originally collected by the Ptolemies were among those libraries.¹¹⁹ Philosophy, science, medicine, mathematics, astronomy and geography made enormous progress. The arts of poetry, literature, painting, architecture and landscape design received court patronage and flourished. Scholars, artists, architects, scientists and garden designers flocked to major cities and participated in new developments.

Some examples of Islam's contribution to the world's cultures are those by Ibn Sina (Avicenna in Latin), who wrote an encyclopaedia of medicine which formed the basis of modern medical science; Al-Khawarizmi (Khwarizion), who wrote a textbook on Algebra - a science developed by the Arabs - which served as the principal mathematics text book in Europe until the sixteenth century. In addition, the whole of the heritage of classical Greece, both scientific and philosophical, which had been decaying in the West for centuries, was given new vitality and advanced through developments made by the Muslims.

This advancement touched all aspects of life. Recreation was given attention by the highest authorities in the Caliphate. The first urban public gardens in the world were constructed in that period. When Baghdad was built on the shore of the Tigris River, by Abu Jaffar Al-Manşur (the founder of the Abbasid Caliphate) in 145 A.H.¹²⁰ (around 762-63 A.D.), recreation was considered for all citizens. The city

¹¹⁹Oldham, Gardens in Time.

¹²⁰The Islamic era is based on the Hijrah, the migration of the Prophet Mohammed

was designed to form the shape of a circle therefore, it was called the circular city.

The centre of the circle was the mosque and next to it the Caliph's residences; then a very large circular shaped open space, surrounding the mosque and the governor's residence, which was laid out with features of various species of plants and flowing water. It became what we might call today a central park. Scattered in the gardens were the most important governmental buildings such as the police, the high court and other administrative public agencies. Surrounding all of this was the residential area and then the city walls (figure 4-4).¹²¹

The central park was designed for and used by the public. With the existence of the important facilities and administrative buildings, such as the mosque, the governmental residence, the court, and the police offices, the garden became very busy and was used in more ways than only for recreation. It became part of the citizens' daily life to pass through it, to sit in it, and to enjoy it. This idea of mixing recreation with the routine of daily life was best presented later on in 1412 A.D. in the city of Bursa in Turkey. A group of public buildings were built in a green landscaped garden. Because of the intensive surrounding greenery, the facility was called the green group. The group contained a mosque as the main element and adjacent to it was a library and a school. A traditional restaurant and Turkish bath was also located within the facilities. All the components, including the landscaped surroundings, were planned to

(PBUH) from Mecca to Madina, which took place on 16 July 622 CE. The Islamic year is lunar, and has 354 days. AH stands for Anno Hegirae (hegira being the Latinized form of Hijrah).

¹²¹The sixth symposium of the Arab Cities Organisation, Altarweeh in the Arab cities (in English: Recreation in the Arab Cities) (Al-Doha, Katar, The Institute for Developing the Arab Cities, between the 1 - 4 March 1980).

work together as a public garden.

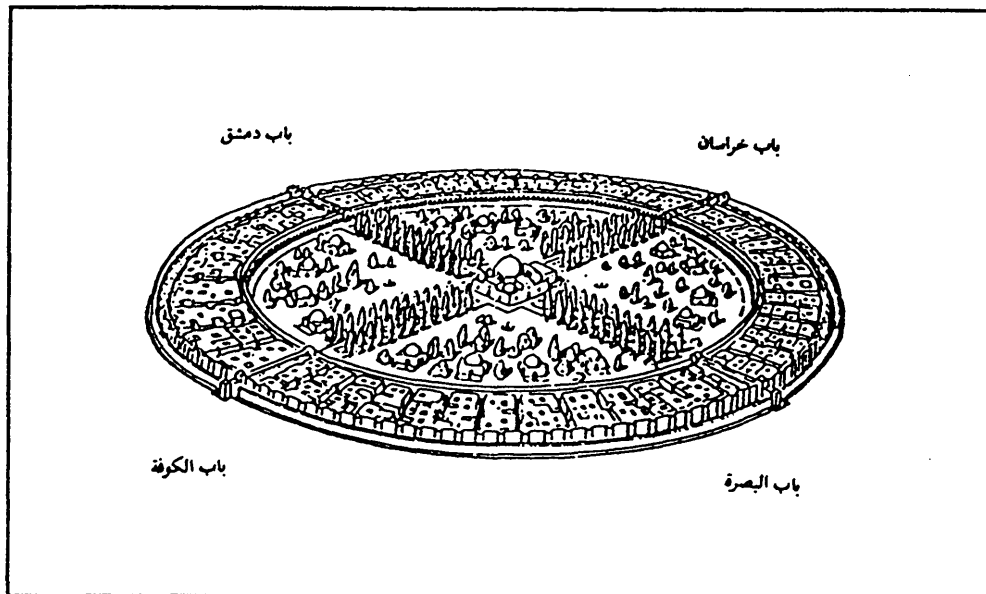


Figure 4-4: Rough perspective for the circular city of Baghdad showing the mosque in the middle and surrounded by the gardens and other public facilities.¹²²

The public gardens of Koffa, Baghdad and Bursa were special cases for limited periods of time but they were not the prototype examples that existed in every city and town in the Muslim world. In most regions controlled by Muslims, rainfall was minimal and water had to be brought for gardening by irrigation. Because of the high expense of gardening in such conditions, large flourishing gardens were limited only to the most powerful rulers. Examples of these gardens are the preserved ones in North Africa, Spain, Iran, India, and elsewhere.

Most people throughout the Muslim world had no facilities for public recreation. Because of the compactness of the cities, the harshness of the climate, and the absence of water and natural vegetation in and around settlements, courtyard

¹²²The Sixth Symposium of the Arab Cities Organisation, Altarween.

houses and open spaces in cluster houses, developed by the Assyrian in Mesopotamia around 1500 BC., were adapted and developed to a garden like element within the shape of the house to provide secluded open space for family members and relatives to relax in. The recreational function of the courtyard, besides the main physical function of providing light and ventilation, gave it more stimulus to become the most active element in the house.

Famous Islamic Gardens - Concepts and Characteristics

Most of the famous Islamic gardens were private properties for rulers and high ranking officials. The centre and the most prosperous region of the Islamic world was Arabia, together with Egypt, Syria and Iraq. Several very early mosque with courtyards still remain in this region, but largely because of climate, terrain, building techniques, and major waves of destruction throughout the region's history, the Islamic garden has best survived in countries on the periphery. Wherever conditions permitted, gardens were established throughout the Islamic world, and were to be found in south Spain, throughout North Africa, and on through to Iran, Afghanistan, and India.

Gardens, as part of the broader context of landscape design, reflect a particular relationship between man and nature. The biological and physical aspects of man could be said to form part of the universe, but on the other hand, technological achievements may sometimes encourage a feeling of being above and beyond nature, with power to reorder it. A garden possibly fulfils a subconscious need for contact with something deeper than the clamouring urban world. It is a place of retreat from daily tasks and worries. The design of a garden is a form of art, and so echoes a

particular culture, philosophy and period.¹²³

Islamic gardens are closely related and reflect a common cultural inspiration. They all unify under the Islamic inspiration. The early Muslims showed a genius for absorbing the examples of existing gardens of the countries they interacted with at the spread of Islam and developing an integrated Islamic style. Part of this Islamic style of garden design was taken from the already established civilisations. The Islamic garden performs many functions. Whether under customary private ownership or for occasional public use, it is enclosed and protected, and affords privacy. Throughout most of the Islamic world it offers relief from the stress of intense heat, while its beauty enhances the quality of living.¹²⁴

Islamic gardens share common characteristics. The use of water in creating fountains, cascades and canals, the extensive use of fruit trees, and the creating of cool and shaded spaces were common characteristics found in almost all Islamic gardens. Much of these unifying characteristics were derived from the Islamic faith. Islam as a source of inspiration promises entrance to the gardens of Eden to the believers in Allah at the Day of Judgement. Explicit descriptions of the heavenly gardens are mentioned in the Qur-ān. These ideal gardens influenced the earthly ones made by the faithful especially in their general characteristics.

In the Qur-ān in Surah 55 starting from verses 46 to 76, Allah describes some of the heavenly gardens. The meaning can be translated to:

¹²³Jonas Lehrman, Earthly Paradise: Garden and Courtyard in Islam (London: Thames and Hudson, 1980).

¹²⁴Lehrman, Earthly Paradise.

"But for such as fear the time when they will stand before (the Judgement Seat Of) their Lord, there will be two Gardens (verse 46).

Abounding in branches (verse 48).

In them (each) will be Two Springs flowing (free) (verse 50).

In them will be Fruits of every kind, two and two (verse 52).

They will recline on Carpets, whose inner linings will be of rich brocade: the Fruit of the Gardens will be Near (and easy of reach) (verse 54).

In them will be (Maidens), Chaste, restraining their glances, whom no man or Jinn before them has touched (verse 56).¹²⁵

Like unto rubies and coral (verse 58).¹²⁶

And besides these two, there are two other Gardens (verse 62).

Dark-green in colour (verse 64).¹²⁷

In them (each) will be two springs pouring forth water in continuous abundance (verse 66).

In them will be fruits, and Dates and pomegranates (verse 68).

In them will be fair (Maidens), good, beautiful; (verse 70).

Maidens restrained (as to their glances), in (goodly pavilions (verse 72).

¹²⁵Their purity is the feature hereby chiefly emphasised (source: IFTA, Call and Guidance, 1405 AH).

¹²⁶Delicate pink, with reference to their complexions and their beauty of form. The gem also indicate their worth and dignity (source: IFTA, Call and Guidance, 1405 AH).

¹²⁷"Dark-green in colour" from plentiful watering (source: IFTA, Call and Guidance, 1405 AH).

Whom no man or Jinn Before them has touched (verse 75).

Reclining on green Cushions and rich Carpets of beauty (verse 76)."¹²⁸

This is one of the many descriptions of the heavenly gardens or paradise which were mentioned in the Qur-ān as a reward to Allah's fearing men and women. These descriptions and many others inspired the human creativity to progress in creating a unique style for garden design.

The form of the Islamic garden was determined not only by symbolism but also by climate and topography, and in most of the Islamic world this meant the promotion of coolness, shade and seclusion.¹²⁹ Maximum emphasis was placed on whatever water was available. Sophisticated systems of irrigation were developed to bring water into gardens. The planting of fragrant vegetation was also encouraged.

The Andlusian gardens established by local rulers for the most part near towns, were urban in character, and were well tended. They were generally small; and even if large were divided into small linked enclosures. The layout of the garden was, as customary, strictly geometric, and defined by walls or hedge. On the flat site of Seville and Cordova, a garden as well as a courtyard was regarded as an outdoor room, forming part of the total building concept. It was in the courtyard that a large proportion of family living took place. As a result of the emphasis of family privacy, the courtyard was either wholly surrounded by the building itself or by high walls (figure 4-5).

¹²⁸The Presidency of Islamic Researches, IFTA, Call and Guidance (Revised and Edited), The Holly Qur-ān.

¹²⁹Lehrman, Earthly Paradise.

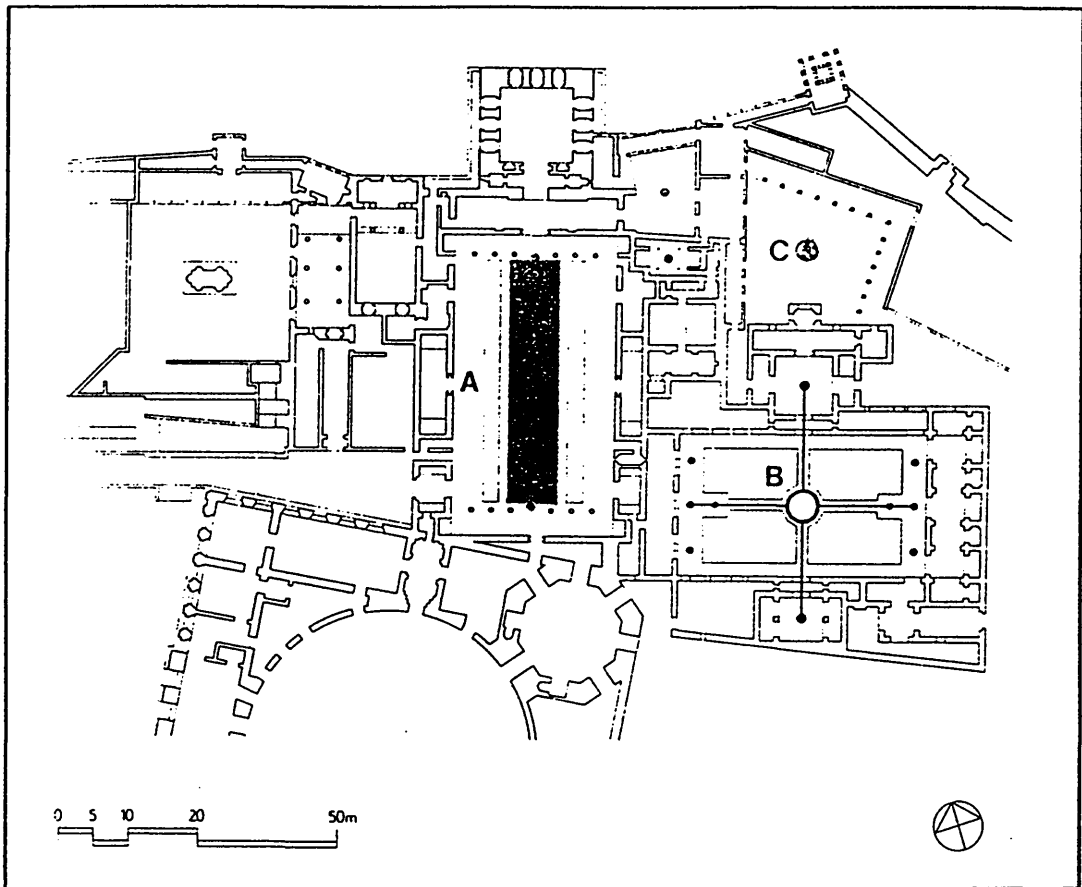


Figure 4-5: The central complex of the Alhambra Palace. The three main courtyard gardens: Court of Myrtles (A), Court of Lions (B), and Court of Daraxa (C).¹³⁰

In contrast to the Andalusian gardens, Persian gardens were usually placed in the open lands outside the urban areas. They were an oasis of quiet, where the beauty of the plants and water could be admired. The Persian gardens share common features that can be traced to the Sassanian period.¹³¹ At its simplest, it was known as "Char Bagh" or quartered gardens. In large gardens the divisions were often much more complex, and some gardens would have sixteen or more compartments divided by a series of brick paths or water channels (figure 4-6).

¹³⁰Lehrman, Earthly Paradise.

¹³¹Lehrman, Earthly Paradise.

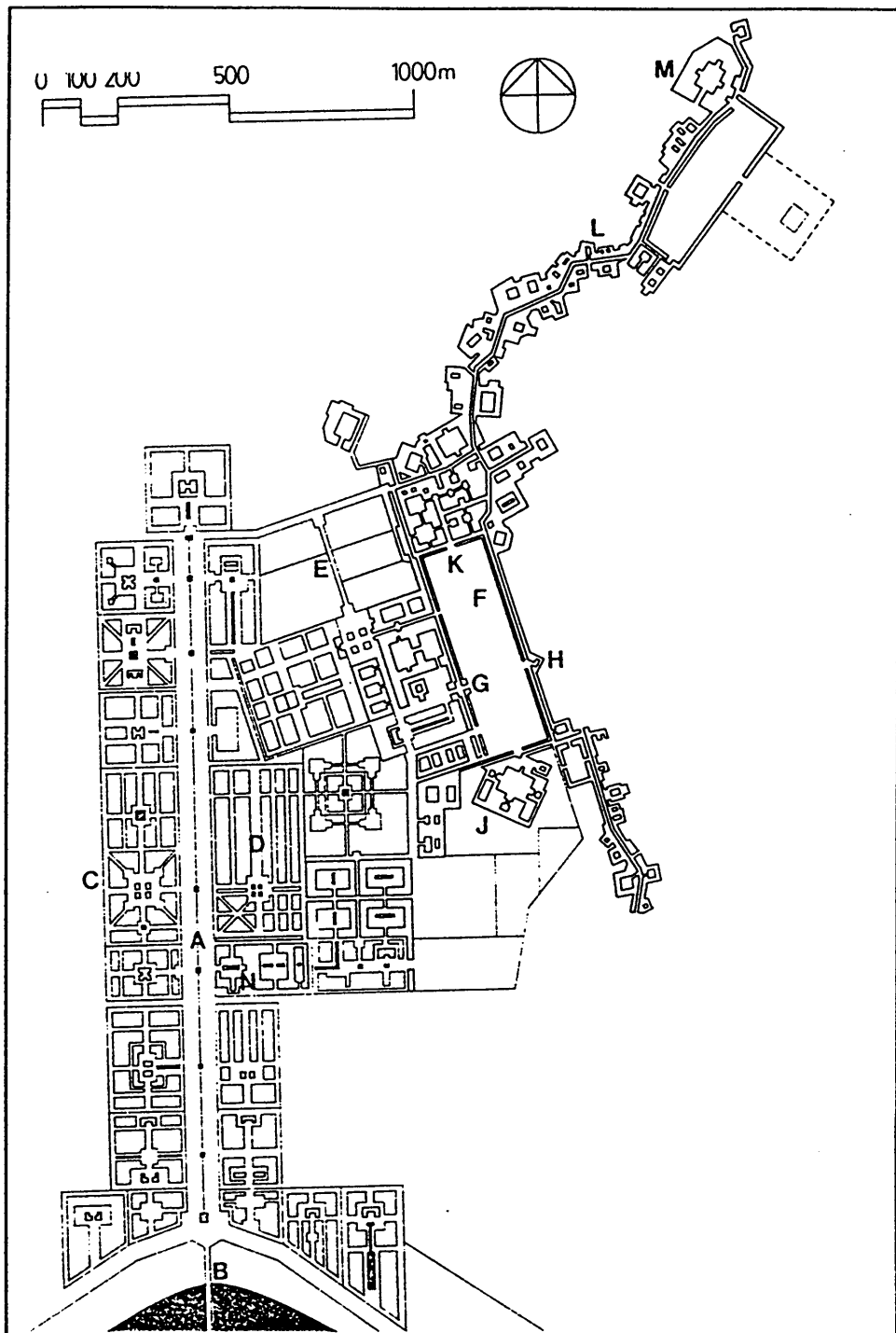


Figure 4-6: Safavid gardens of Isfahan, Iran. The central spine formed by a water channel and a long avenue is the main feature in the plan. The division style of the spaces is also clear in the layout.¹³²

¹³²Lehrman, *Earthly Paradise*.

The Mugal gardens were known for their order, geometry, symmetry, straight channels and rectilinear pools. The prototype plan was flat, almost two dimensional, and was as easily adapted to the plain of the Ganges as it had been to the Iranian plateau. Yet sloping terrain not only encouraged retention of the traditional Char Bagh pattern, but invited greater magnificence and size as well. Sites were chosen with imagination, and terraces usually overlooked lakes or rivers.¹³³ The gardens were usually constructed in a series of ascending terraces. Some of the royal gardens, such as Shalimar in Kashmir, had three terraces: the first level was open to the public, when the Emperor sat in audience; the second was his private garden; and the third was for his family (figure 4-7).¹³⁴

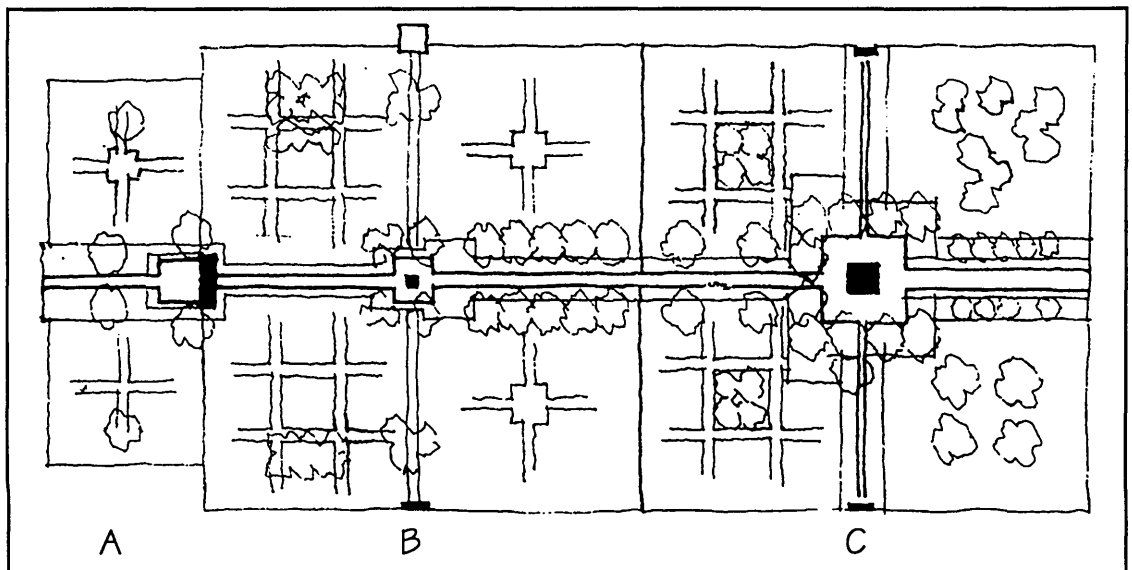


Figure 4-7: Plan Shalimar Bagh, Kashmir. The garden is divided to three parts. The first level was open to the public, the other levels were exclusively for the Emperor and his family.¹³⁵

¹³³Lehrman, Earthly Paradise.

¹³⁴Lehrman, Earthly Paradise and John and Ray Oldham, Gardens in Time.

¹³⁵Oldham, Gardens in Time.

A Mughal garden could have eight terraces. Gardens were usually approached from the lowest level, which gave a sense of anticipation when regarding the upper terraces. The focus of design for the pleasure garden was a pavilion, and when located at a lower level, it afforded a view of the garden ahead. More often, however, the pavilion, was located on the topmost terrace, and then not only the garden, but the surrounding countryside could be seen. Two more typical elements of the Mughal garden had a strong architectural character: The intensive use of water in creating cascades, fountains, and mainly channels which conformed to the traditional four-fold division. Also the garden was enclosed by massive walls which gave protection from brigands as well as a sense of privacy and peace.¹³⁶

RECREATIONAL MODEL IN SAUDI ARABIA

Recreation in Saudi Arabia is a different story. There are many factors that shaped and influenced recreation in the past as well as the present time. Among the most important factors is the climate. Of the larger countries on earth, Saudi Arabia is one of the driest. Although the Arabian Peninsula, of which Saudi Arabia forms by far the largest part, is surrounded on three sides by sea, lack of water is the dominant feature. Because of the dryness of the air reaching Saudi Arabia and the consequent lack of cloud, temperatures up to 45° or 50° C and sometimes even more in the southern deserts are recorded in summer. The cloudlessness also allows heat to escape from the surface at night, especially in winter; so temperatures drop quite markedly between day and night and between summer and winter. Rainfall is also scanty,

¹³⁶Lehrman, Earthly Paradise, Oldham, Gardens in Time, and Elizabeth B. Moynihan, Paradise as a Garden: In Persia and Mughal India (London: Scolar Press, 1979).

irregular and unreliable.¹³⁷

Until recently the difficulty of the terrain, its aridity and the consequent scarcity of good soil sharply controlled the way of life within Saudi Arabia. Saudi Arabia was able to support only a small population, estimated at 1.5 to 2 million in the 1930s. Apart from a few fishermen and traders, possibly half of this could be regarded as "rural settled" cultivators, village craftsmen and shepherds moving locally over short distances with their animals. At least a quarter of the population was wholly nomadic following a regular pattern of rough grazing of sheep, goats and camels, which involved considerable annual movement.¹³⁸

With such a harsh lifestyle, the majority of the population had neither the time nor the effort for any planned and organised recreational activities. The severe environmental conditions did not encourage any organised form of outdoor recreational activities. The common people, in such situation, had to be content with occasional celebrations and religious holidays. In the evening, when the air temperature drops down, family members and sometimes neighbourhood residents (males together and females together) gathered for coffee and story-telling. Children played in the narrow shaded streets. Only the wealthy and more fortunate people involved themselves in hunting and camping trips in the breezy and rainy seasons.

¹³⁷Daniel Schofield, (ed.), The Kingdom of Saudi Arabia (London, Stacey International, 1986).

¹³⁸Schofield, The Kingdom of Saudi Arabia.

Recreation in Modern Saudi Society

Since the discovery of oil in Saudi Arabia, there has been a great change in living and working conditions, as a result of the improved economy, in both the urban and rural environment. More and more citizens worked for the governments and as a result of that they enjoyed the privileges of short working hours, weekly and yearly holidays, and the other official holidays. Increased leisure time, better communication over long distances within the country, and the increased awareness of the world at large, through travelling and having access to different forms of media, have contributed to the overall view of recreation. People felt the importance of recreation; therefore they carried out their outdoor activities in any traditional way possible usually in traditional farms, shrubby wadis, and desert land adjacent to cities.

As cities expanded as a result of the dramatic increase in the population, the government became involved. Their first contribution to recreation was in 1375 A.H. (about 1955 AD.) when the Municipality of Arriyadh was established. Soon after that time the municipality progressed forward to include in its services the task of planting and paving major streets and the main squares in the city. Al-Malaz and Al-Fuwṭah public gardens were planted during that time and were the first public gardens in the city of Arriyadh and the country as a whole. More public gardens have appeared later as the city has expanded horizontally and the economic situation has improved. Similar development processes have taken place in other cities throughout the country.

In the 1970s, most citizens were touched by the economic prosperity that followed the rise of oil prices in the world market. The availability of the car for almost every household, and the spread of the road network throughout most of the country has encouraged people to travel for long distances looking for enjoyable forms of recreation. In the long holidays, people have travelled to remote natural unique areas

in the desert as well as attractive natural lands in Asir region. With the increased demands on those beautiful natural resources by Saudi citizens as well as by citizens of the adjacent Gulf states, the government established a department in the Ministry of Agriculture and Water for establishing and managing parks and natural resources.

Asir National Park¹³⁹ was open in 1981 on the south-western mountains in Asir Province. The park covers an area of 450,000 hectares and represents the preserved natural setting of that region. The park idea was to protect and manage the forests and the natural habitats of the region from destruction; therefore human influence is kept to a minimum. Visitors of the park have to find their way and select their preferred spots for camping or picnicking in a natural setting.

Three other national parks were constructed and designated throughout the country by the Ministry of Agriculture and Water. The Al-Aḥṣa Plantation Project, to control the movement of sand from reaching the oasis of Al-Aḥṣa in the eastern province, was designated as a national park in 1985. The park is located in the north-east of Al-Aḥṣa Oasis. It took the shape of a letter (L) with a length of 20 kilometres and a width of 250 -750 meters.

Saad National Park, the third park to be designated in the country, is located about 110 kilometres to the east of Ar-Riyadh; covering an area of 300 hectares planted with over 40.000 trees. The park was an experimental study site for planting the

¹³⁹Asir National park was established and managed by the Ministry of Agriculture and Water with an American consultation and expertise, therefore the park adapted the American definition of National Parks which is any area acquired and managed by the federal government for its superlative natural, historical, cultural and recreational areas for the perpetual benefit and enjoyment of all the people. Source: Commonwealth of Virginia, The Virginia Outdoors Plan 1984: a Plan for Meeting Virginia's Outdoor Recreational Needs and Conserving the Environment (Commission of Outdoor Recreation, Commonwealth of Virginia).

desert (afforestation project) before its designation as a national park. The first three parks were established and managed by the Ministry of Agriculture and Water. The last national park to be designated is Al-Thumama National Park which covers an area of about 250.000 square kilometres on the north side of Ar-Riyadh (figures 4-8). Most of the park is still under development by both the Ministry of Agriculture and Water and the Ar-Riyadh Development Authority.¹⁴⁰

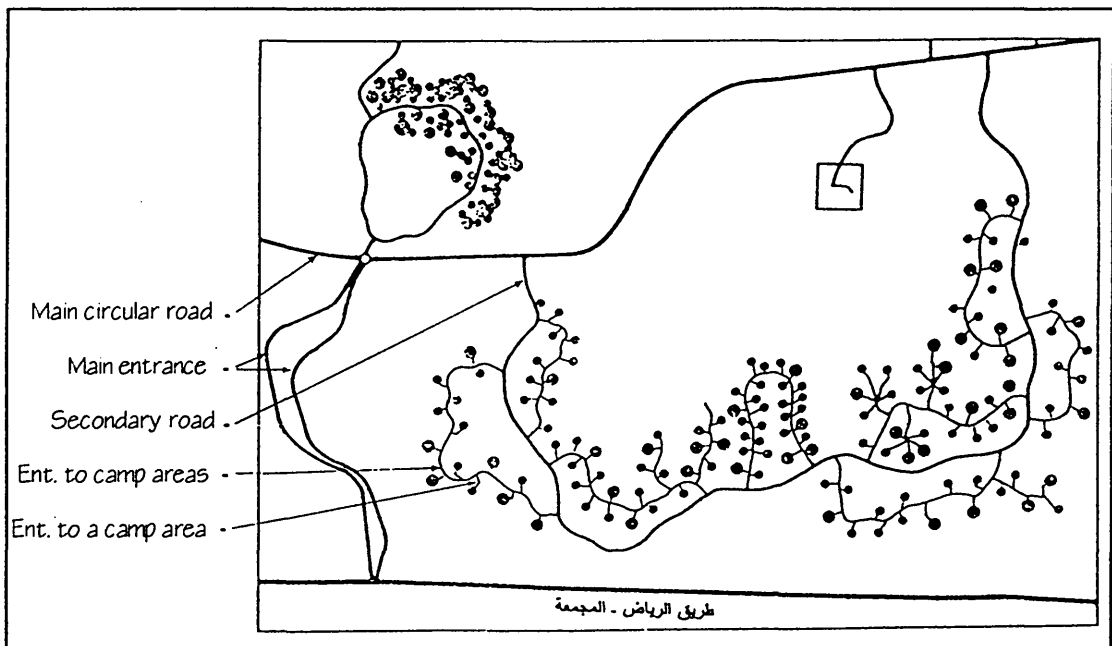


Figure 4-8: Plan of part of Al-Thumama National Park showing the organisation of the camping areas.¹⁴¹

Although these parks have been successful in the last 10 years, they are not the only means of recreation, especially for people seeking recreation outside the urban

¹⁴⁰Ministry of Agriculture and Water-National Parks, National Parks (in Arabic Language) (Ar-Riyadh: Saudi Arabia, Ministry of Agriculture and Water Dept. of National Parks, no date).

¹⁴¹Ar-Riyadh Development Authority, Al-Thumama Master Plan Report (Ar-Riyadh Development Authority, 1987).

centres. A large portion of society, especially in the last few years, tended to recreate in the desert away from the metropolitan areas. Recreation in the desert takes two main forms. The first is by spending part of the day and night in the openness of the land and then returning to the cities. This form usually takes place at the weekend in open areas around cities. The second is by camping far away from cities in the desert for a week or more. This usually takes place in the spring seasons, especially after a rainfall.

Within the urban fabric of Arriyadh, the two most popular forms of recreation are public gardens and the paved sides of the major arterial streets and motor ways in the city. These two forms are very popular in all metropolitan areas in the country. In Arriyadh, where this study has taken place, there are over 34 public gardens spread over the fabric of the city. They vary in size between 3000 square meter, for the smallest, and 102,075 square meter, for the largest. They are mostly used at night because of the hot weather. Paved road-sides of major roads and motor-ways, within the fabric of the city, are popular only at night, mainly at weekends.

Public gardens in the city of Ar-Riyadh vary in design concepts and in size. The first established gardens, such as Al-Malaz and Al-Fuwṭah gardens, were geometrically designed (figure 2-7 of Al-Malaz public garden). The later gardens have no specific style, though they share common characteristics. The layout of the hard landscape tended to take soft curved lines that match the natural forms of the natural landscape. The use of water especially fountains is one of the common characteristics. Large grassy areas are also common (figure 4-9). Very recently, a few gardens were designed following the naturalistic approach. Their design tended to echo the natural habitat of the desert landscape. This approach was introduced in the design of the gardens and open areas in the Diplomatic Quarter in the north-west of the city.

Public gardens are open to women and families. Single males are not allowed into gardens without a female member of the family. They are open in the evening from 4:00 PM until 11:00 PM. They usually get busy after 6:00 PM because most people are already off their jobs by that time and also because of the coolness of the night. Most of the gardens have an entry ticket costing 2.00 to 3.00 Saudi Riyals (the national currency) per adult and 1.00 S.R. per child (from 6 to 14 years old). Within each garden, there is a designated area for congregational prayers, a small cafeteria, a small shop, and toilets for both sexes.

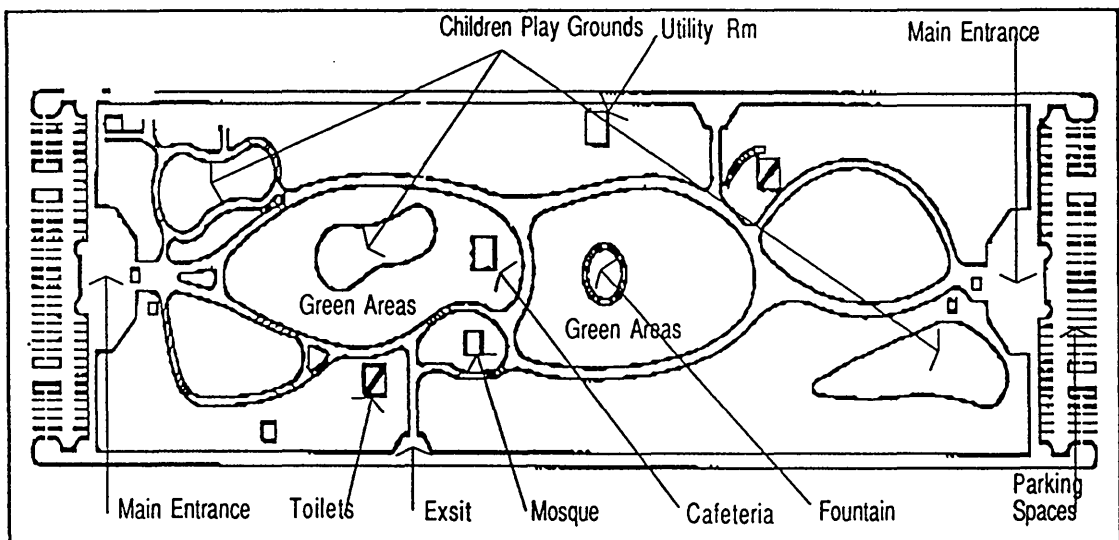


Figure 4-9: Plan of Al-Mansourah Public garden in Ar-Riyadh.

The other popular recreational sites are the paved road-sides along major roads and motor-ways, such as Ring Road-East and AD Dammam Road. These wide and well lit roads usually consist of two main separate roads for each direction. Each road consists of three lanes. To the right hand side of each road, there is a service road which acts as an intermediate road between the fast traffic lanes and adjacent areas and neighbourhoods on the sides (See Appendix II). On the edges of the roads, sidewalks approximately 3 to 4 meters wide paved with concrete tiles extend along both sides of

the road. Roads mostly have good illumination (figure 4-10).

Large parts of these wide roads have no roadside developments especially sections at the fringes of the city. Many residents of the city enjoy spending time sitting, eating, chatting on the paved sides of these major roads. They park their cars along the sidewalk on the service road or they drive into the vacant lands adjacent to the road. They sit next to their car on a mat or a small rug. Their children usually play on the vacant and undeveloped land adjacent the road away from cars (figure 4-10). These areas (roads) are used at night (usually after 9:30 PM) because of the weather factor and the privacy issue. They are popular in the weekend where users sometimes stay in their selected spot until 4:00 AM in the morning.

Public gardens will be thoroughly investigated in this study of the involvement of socio-cultural aspects of the landscape design of outdoor recreation space for two reasons. Firstly, because public gardens are considered to be the major elements of recreation within the city's urban pattern. Secondly, because public gardens are considered to be the official means of recreation which were constructed for that reason. The paved sides of major roads and motor-ways will also be included in the study because of their popularity among the Saudi Arabian nationals in the city. Study of these two recreational settings should provide excellent pointers to aspects of human behavioural patterns in the outdoor environment.

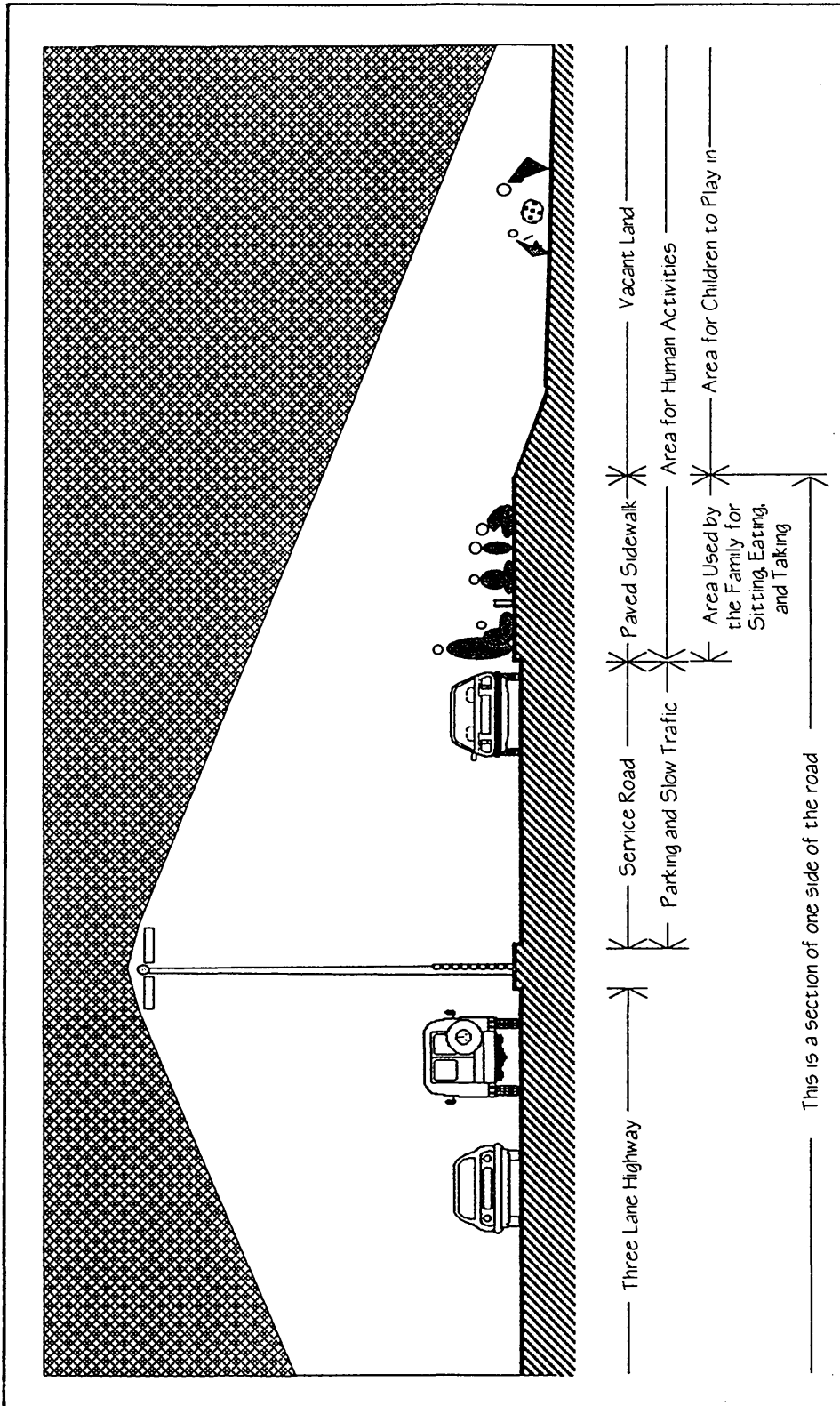


Figure 4-10: A section in a typical motor-way. People park their cars along the paved side of the service road and sit on the pavement where their children play in the open lands adjacent to the road.

5

RESEARCH METHODOLOGY AND FIELD WORK PROCEDURES

Research Intentions	89
Research Design	90
Archive Search	90
Observing the Behaviour Environment	93
Step 1: What to Observe (an observable measure)	95
Step 2: Select the Environmental Setting and Sampling Strategy	96
Step 3: Observer Strategy	97
Step 4: General Strategies	98
Questionnaire Survey	99
Formatting the Questionnaire	99
Type of Questionnaire Items	100
Developing the Questionnaire	101
Sampling Technique	103
Research Analysis	108
Archival Analysis	108
Observation Analysis	108
Questionnaire Analysis	109

RESEARCH METHODOLOGY AND FIELD WORK PROCEDURES

RESEARCH INTENTIONS

The design of the built environment should always carefully consider the socio-cultural needs of the users, as these define the functions of the design. In the case of public gardens in Ar-Riyadh, contemporary design has not only been largely without precedent, it developed without studying and analysing other traditional forms within the built environment. This study therefore attempts to define those socio-cultural aspects that are related to the functioning of a project, and to encourage future designers of public recreational facilities to consider these uniquely Saudi aspects as key design issues.

The aim of this study is to record, document and interpret the users' behavioural patterns in contemporary public gardens and other recreational sites. The study of these patterns helps to form a solid judgement about the success or failure of the gardens, on the one hand, and leads to an understanding of the conditions behind either the success and/or the failure of them, on the other hand. It also helps in identifying the user's needs in general and the socio-cultural ones in particular and finally pinpoints aspects that have to be taken into consideration by landscape architects

and municipal officials in future design and modifications in order to provide more satisfactory and functional outdoor recreational environments.

It is hoped that the findings of this study will be useful tools to enhance the design of public outdoor facilities in Ar-Riyadh and will be part of the basis for future developments of public gardens and other recreational urban facilities, either in the city of Ar-Riyadh or throughout Saudi Arabia. Hopefully it will also help those involved in the provision of outdoor recreational facilities, whether they are Saudi landscape architects, foreign designers, developers, or governmental agencies, to give greater attention to the socio-cultural aspects which influence the built environment.

RESEARCH DESIGN

The research topic posed in this study concerns the users' actions as an indicator of their level of satisfaction, especially concerning the users' socio-cultural needs. This section defines the appropriate methods by which the various dimensions and unquantifiable and quantifiable details concerning these needs can be identified, described and clarified. The techniques used are archive search, observing the behaviour environment and a questionnaire survey.

Archive Search

Zeisel gives a good and simple example of the usefulness of archive method:

"If you borrow a friend's ill-equipped country house for a winter weekend and find that the front door does not close, you might look in the basement for a screwdriver and machine oil. If these were not available and nearby stores were closed, you would find another way to close the door: an old knife and cooking oil in the kitchen, picture wire, a large nail to replace the hinge bolt. What you

uncover may serve your purposes better than the tools you originally thought you needed."¹⁴²

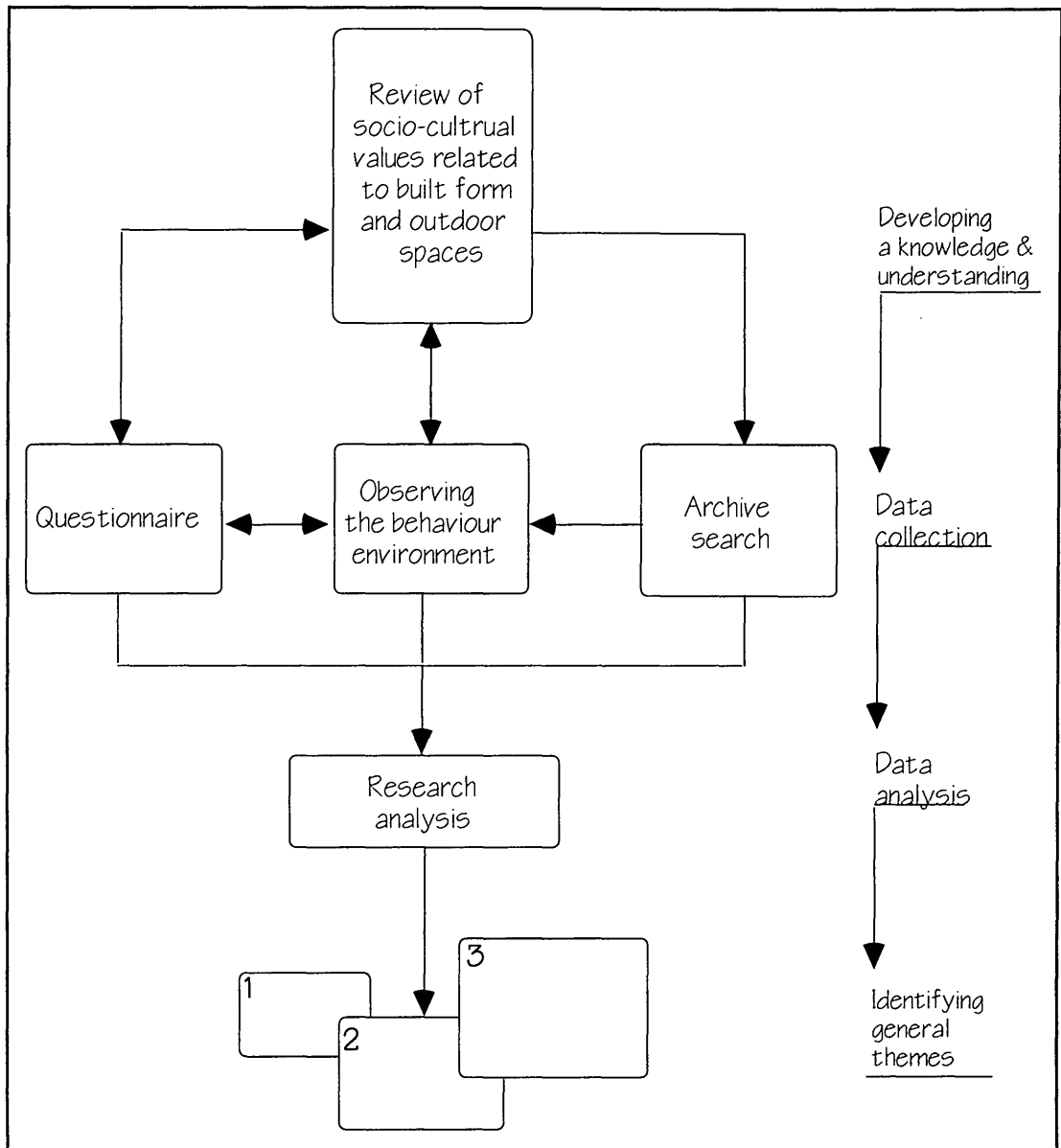


Figure 5-1: Research design diagram.

¹⁴²John Zeisel, *Inquiry by Design: Tools for Environment-Behavior Research* (Cambridge: Cambridge University Press, 1991), p. 197.

The environment-behaviour researcher is often caught in an old, cold house without a screwdriver, especially when he investigates the historical side of a problem or a past event about which he can neither interview participants nor observe behaviour.¹⁴³ Therefore, an archival method was chosen in this study to gather information that cannot be obtained through other research methods. Archival search for this study took place in libraries, antique bookstores, governmental agencies, architecture offices, and operational contractors' offices. The search covered books, journals, surveys, reports, and newspaper reports.

Historical and documentary search through Arabic literature and dairies of European travellers in the last two centuries in the Middle East provided valuable information about the historical aspects of recreation and the development of public places. It was also helpful in deepening the understanding of cultural reaction to the concept of recreation. Governmental archives provided information about the process of change in recreational patterns and the development of public gardens. The search also included looking at data that someone else had gathered for other purposes and turning them into information useful for this study.

Understanding contemporary design ideas of public gardens and other recreational facilities were mainly deduced through searching drawings and plans, reports and surveys collected from the archives of governmental agencies, architects and operational contractors. Reviewing local newspapers and magazines provided a unique and extremely helpful source of information. Newspaper reports and caricatures about local issues helped in generating new ideas and supporting some

¹⁴³Zeisel, Inquiry.

argument in the research. The accumulation of this archival search was used throughout this study.

A major issue of this research is how users of public outdoor environment are affected by the existing design condition and whether they try to adjust their needs to meet the existing situation and how. It is also relevant to know, if they did adapt to the contemporary situation, how that was achieved; and if they did not adapt why so. In order to answer these research questions, two research techniques were chosen in addition to the archival one.

The first technique is a site observation. This method helps to delineate the relations between the socio-cultural aspects of the users and the design settings. It also provides a clear picture of the forms of interaction between the users and their surroundings (other users and/or spaces). The information collected from field observation helps in interpreting the role of the socio-cultural aspects in their natural settings. This technique helps in pinpointing the most important aspects that are vital to the use and function of the outdoor environment.

The second technique is a survey questionnaire. This technique is utilised to generate information about people's feelings, experience, behaviour, satisfaction and/or dissatisfaction towards the contemporary design settings. It also helps in understanding and interpreting their behaviour and interaction patterns detected through the observation technique. Such information cannot be evaluated without using a questionnaire research technique.

Observing the Behaviour Environment

The natural setting observation technique has been chosen for this research.

This technique has been most productive in obtaining information as to how people behave in and experience their environment. The strength of this research technique is that it is possible to record and detect behavioural patterns in the actual setting in which they occur at the time of their occurrence.¹⁴⁴ To investigate the role of socio-cultural aspects in regard to the use of public gardens and other outdoor recreational sites, a sequence of steps were considered to ensure the validity and the reliability of the research (figure 5-2).

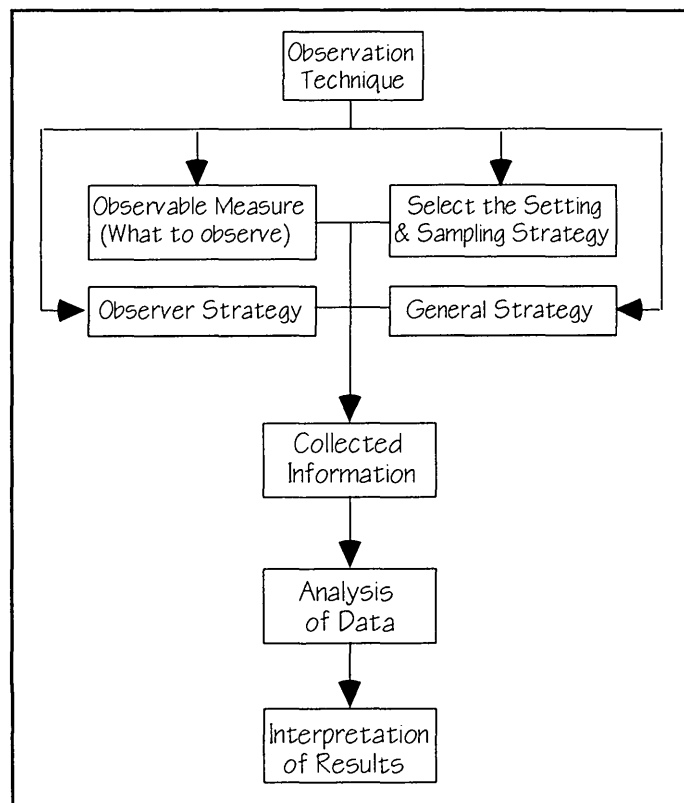


Figure 5-2: Sequence of steps of the observation technique.

¹⁴⁴J. Lang, C. Burnette, W. Moleski, and D. Vachon (eds.), "Obtaining and Using Behavioural Information," Designing for Human Behaviour: Architecture and The Behavioural Sciences (Stroudsburg, Pennsylvania: Dowden, Hutchinson and Ross, Inc., 1974).

Step 1: What to Observe (an observable measure)

The selection of the behaviour to observe is guided both by the focus of interest and by practical and ethical concerns that limit what is observable.¹⁴⁵ In this study, observation is selective as to what features and events need to be observed. It is very difficult to observe everybody and everything. Therefore, a systematic approach around clear and concise concepts of what to observe is very important. In simple terms the observation follows a non structured observation method which is based on recording events as they occur in relation to the existing physical setting(s), with emphasis on three specific points that are of concern to the topic of this study:

A. Type of place(s):

- accessibility of the site: affects the number of users and frequency of visits;
- the shape of a space: affects primarily visual and perceptual relationships;
- the size of a space: affects primarily type and size of activities;
- the orientation of localities: affects the behavioural relationships between people, especially with regard to privacy;
- the spatial relations among different localities (small areas): affects primarily the type of activities and behaviour.

¹⁴⁵C. M. Judd, E. R. Smith, and L. H. Kidder, Research Methods in Social Relations (London: Harcourt Brace Jovanovich College Publishers, 1991).

B. Activities:

- what type of activities are taking place?
- how are they being carried out?
- how do activities relate to one another spatially? and
- is there a fitness between space and activities taking place?

C. Users:

- who are the users:
 - males,
 - females, or
 - families.
- what is the approximate number of users for each space, and
- what are the approximate ages.

The specific site to be observed is divided into small spatial and temporal units. These units consist of the basic component spaces of the whole, such as sitting areas, children's play areas, green open spaces. All the major components which give character to the site and to which people react are included in the observation.

Step 2: Select the Environmental Setting and Sampling Strategy

Since setting exerts a powerful influence on behaviour, we must choose those in which the behaviour patterns can be expected to occur with sufficient frequency to

make observation worthwhile.¹⁴⁶ Within the city of Ar-Riyadh, there are over 34 popular public gardens and other sites which are used by the residents for recreational uses. In order to generalise the findings, common criteria was employed for the selection of the observed gardens and other recreational sites:

- A. The gardens have to contain the most important components that characterise public gardens.
- B. The selected sites have to be used by people.
- C. There has to be easy access to and from the garden.
- D. The selected sites have to be accessible for both sexes at the same time.
- E. If the observed garden or other site is too large, only a part is to be observed.
- F. The observed gardens and sites have to be in different areas of the city in order to cover most of the urban areas.
- G. Each site has to be observed more than once at different times of the 24 hours of the day.
- H. Different locations have to be observed within each site.

Step 3: Observer Strategy

Observational research is a human endeavour. Observers make instantaneous decisions about how to interpret and record observed behaviour. Any degree of bias may contaminate the observations. An observer can be a source of bias that effects the external validity; for example, if an observer interprets what he sees rather than simply

¹⁴⁶Judd et. al., Research Methods.

recording behaviour, a source of bias arises. To avoid this kind of bias an emphasis has been made on recording behaviour as they occur. Collected data preserves the behaviour rather than the interpretation of the behaviour. Interpretation can always be made later especially if new evidence suggests a new interpretation.

Step 4: General Strategies

The research topic of this study is very sensitive especially in a country such as Saudi Arabia. Study of human behaviour in physical settings impose some roles and limitation especially when using direct contact techniques such as observation. On the other hand, the research must be solid and comprehensive in dealing with the different issues of reality.

Conducting an observation technique (field study) especially in studying human behaviour is usually a long procedure and needs an adequate budget. On the contrary, the time and budget for this study was limited. In addition, religious aspects and cultural values are very important to be considered in the research in order not to offend any one. The privacy aspect, for example, as a religious and cultural matter is a very serious thing and must be considered.

Photography, a technique usually used in observational techniques for recording events, was not considered in this study for many reasons. First, it is illegal, in Saudi Arabia, to photograph anybody without gaining his permission. It is considered a serious offence if someone is caught photographing women or families in public areas. Second, the issue of privacy is a sensitive issue especially if the subject involves women. Therefore, photography was used only when there was no risk. Places of recreation were photographed in the morning when they were free of users.

Questionnaire Survey

A questionnaire serves as a viable means of obtaining explanations of observed behaviour when used in conjunction with observational technique.¹⁴⁷ What is sought by this technique is information concerning why people behave in a particular manner or concerning some opinions and preferences. This is very important in research because of the possibilities of observing adaptive behaviour or behaviour which has some underlying and unobservable cause.

The questionnaire is derived partly from the literature review of socio-cultural aspects in regard to the built environment. It is used as an explanatory instrument to collect data with a broader scope concerning the Saudi Society's socio-cultural values and needs in regard to the existing conditions of public gardens and other recreational public sites.

Formatting the Questionnaire

The questionnaire consists of two sets of questions. The first set is designed to assess the characteristics of the subjects, such as age, sex, marital status, occupation, education, income, number of children if any, their age group and type of transportation means they use. The second set of questions is designed to assess the respondents' behaviour, feelings, and attitude relating to the existing recreational physical environment. This set is divided into three parts each to cover a particular range of information. For more detail about the questionnaire design, go to Chapter 7 of this thesis.

¹⁴⁷Harold M. Proshansky, "Methodology in Environmental Psychology: Problems and Issues," Human Factors, Vol. 14, No. 5 (1972).

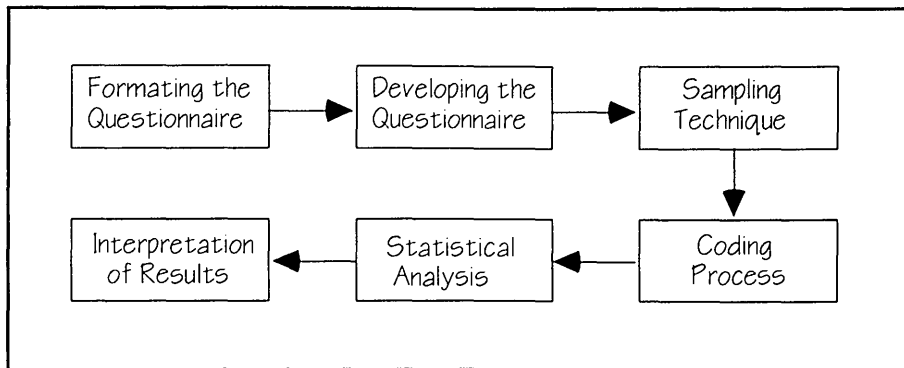


Figure 5-3: Sequence of steps of the questionnaire survey.

Type of Questionnaire Items

There are two types that one might consider; open-ended item and restricted item (or close-ended item). Open-ended questions allow the subject to provide a response in his or her own words. Such information may be more complete and accurate than the information obtained with a more restricted question format. A drawback to the open-ended question is that subjects may not understand exactly what the researcher is looking for, or may inadvertently omit some answers. Thus the subjects might give an answer that does not provide the required information.¹⁴⁸

A restricted item, on the other hand, asks subjects to respond by choosing an answer from a set of alternatives. Restricted items provide control over the subject's range of responses by providing specific response alternatives. These responses are, therefore, easier to summarise and analyse than the responses to open-ended items. However, the information obtained from the restricted item is not as rich as the information from an open-ended question. Subjects cannot be specific or elaborate on

¹⁴⁸Kenneth S. Bordens and Bruce B. Abbott, Research Design and Methods: A Process Approach, (London: Mayfield Publishing Company, 1991).

their responses.¹⁴⁹

A partially open-ended item is designed to deal with these problems, by providing an "other" category and an opportunity to specify an answer. The partially open-ended question controls the response categories while giving the subject the opportunity to provide an alternative that you missed.¹⁵⁰ Because of its advantages in overcoming the weakness of the open-ended and the restricted items, the partially open ended item was chosen for formatting most of the questionnaires. The questions were designed to provide an "other" alternative where there are chances for other answers. A set of questions were prepared for each part of the questionnaire (see Appendix I).

Developing the Questionnaire

Designing and writing a questionnaire is as much art as science. A properly designed and written questionnaire elicits precisely the information the researcher wants. A poorly designed questionnaire yields data that are confusing, difficult to analyse, and of little value.¹⁵¹ The progression of the questionnaire for this study took several steps after many considerations. After clearly defining the targets of the questionnaire and deciding the format type, the process of writing began.

The questionnaire was first written in the English language. A thorough revision and consultation took place to eliminate obvious problems, blind and unclear spots, personal bias, and simple technical defects. The questionnaire was then

¹⁴⁹Bordens et. al., Research Design.

¹⁵⁰Bordens et. al., Research Design.

¹⁵¹Bordens et. al., Research Design.

translated to the Arabic language. Friends who had conducted surveys in Saudi Arabia were consulted and some studies that conducted similar survey techniques¹⁵² were revised to avoid pitfalls and inappropriate translation. The translated questionnaire was then circulated to two of my friends who have professional degrees in traditional Arabic language for further revision.

The final revised Arabic version of the questionnaire was later distributed among twenty five Saudi citizens living in Edinburgh for their answers to the questions. Five of the twenty five were single and twenty were families. The responses of this pilot study helped in making further adjustments to the questionnaire. It was found that simplicity is the most important character of a questionnaire in order for the average respondent to be able to answer. Another consideration is that Saudis are not used to this kind of survey technique nor are they aware of its importance, so time needed to complete the questionnaire is a very crucial factor in determining positive responses. This factor was considered in the revision of the pilot study.

It was found that Saudis do not like to be asked demographic questions (personal details) at the beginning of the questionnaire. This fact was totally opposite to what had been suggested by some respectable authors of some research methods.¹⁵³ Therefore, the demographic questions were placed at the end of the sections. The final

¹⁵²Ali S. Bahammam, An Exploration of the Resident's Modifications: Private-Sector Low-Rise Contemporary Housing in Riyadh, Saudi Arabia, Doctoral Dissertation, (Ann Arbor, Michigan: University of Michigan, 1992), Fahad A. Al-Harigi, The Relationship Between the Prophet's Mosque and Its Physical Environment, Al-Madina: Saudi Arabia, Ph.D. Thesis, (University of Edinburgh, 1989), and Mohammed A Al-Shahrani, An Inquiry into Leisure and Recreation Patterns and their Relationship to Open Space and Landscape Design: the Case of Jeddah: Saudi Arabia, Ph.D. Thesis, (University of Edinburgh, 1992).

¹⁵³Judd et. al., Research Methods and Bordens et. al., Research Design.

outcome of the questionnaire was divided into two major sections. The first section was for males, supposedly the householder. The second section was for females, supposedly the lady of the house. Each section consisted of three parts: first one reveals information about recreation, second one dealt with the user's preferences and opinions about public gardens, and third one concerned the activities that take place in the existing public gardens and other recreational sites.

One totally open-ended part was added at the end of the questionnaire for further opinions and thoughts about the subjects. This allowed complete freedom to the respondent to state his or her thoughts without the guidance of the rest of the questionnaire. It proved to be successful as many good comments and thoughts were collected through this part of the questionnaire. Two covering letters were added to the questionnaire. The first was an official letter from the Dean of the College of Architecture and Planning at King Saud University, which gave legitimacy to the research and introduced the researcher to the general public. The second one was from the researcher stating the usefulness of the study; a promise that all responses would be confidential; some guidance about where to address further suggestions and comments; a statement of appreciation; name and full address (see Appendix I).

Sampling Technique

At the heart of any sampling technique is the concept of random sampling. In random sampling, every member of the population has an equal chance of appearing in the sample. It eliminates the possibility that the sample is biased by the preferences of the person selecting the sample. In addition, random sampling affords some assurance

that the sample does not bias itself.¹⁵⁴ Such sampling technique usually generates data that can be generalised in explaining and describing something about the population.

By reviewing many studies that have been conducted in Saudi Arabia, the process of carrying out a truly random survey can be described as difficult if not impossible in some cases. This is because of the nature and the cultural background of the society. Many barriers stop or hinder a systematic survey because of unfamiliarity with such a survey. In addition, the privacy aspect, especially for women, sometimes restricts and in many circumstances limits the randomisation of the survey. Therefore, consideration must be given to the survey for it to be methodologically sound.

The questionnaire of this study is directed to both males and females of the society. In order to carry out a random sample survey that has an equal chance of reaching every member of the society both a male and a female, one particular technique was chosen from among several alternatives. The survey technique went through the following sequence. First, the map of the city of Ar-Riyadh was segmented into one hundred and ninety five small areas representing the different residential neighbourhoods in the city. The hundred and ninety five small areas were given numbers. Those numbers were written on small cards and then put in a box for random picking after a thorough shuffling.

Twenty five segments of the one hundred and ninety five were randomly picked for the distribution of the questionnaire. These twenty five residential areas were spread all over the city. Twelve questionnaires were distributed in each residential area. A total of 300 questionnaires were distributed. Out of these 219

¹⁵⁴Bordens et. al., Research Design.

forms were collected. After reviewing the responses, 18 forms were eliminated. A total of 201 questionnaires were therefore considered for the analysis which represent 67% of the distributed number of questionnaires

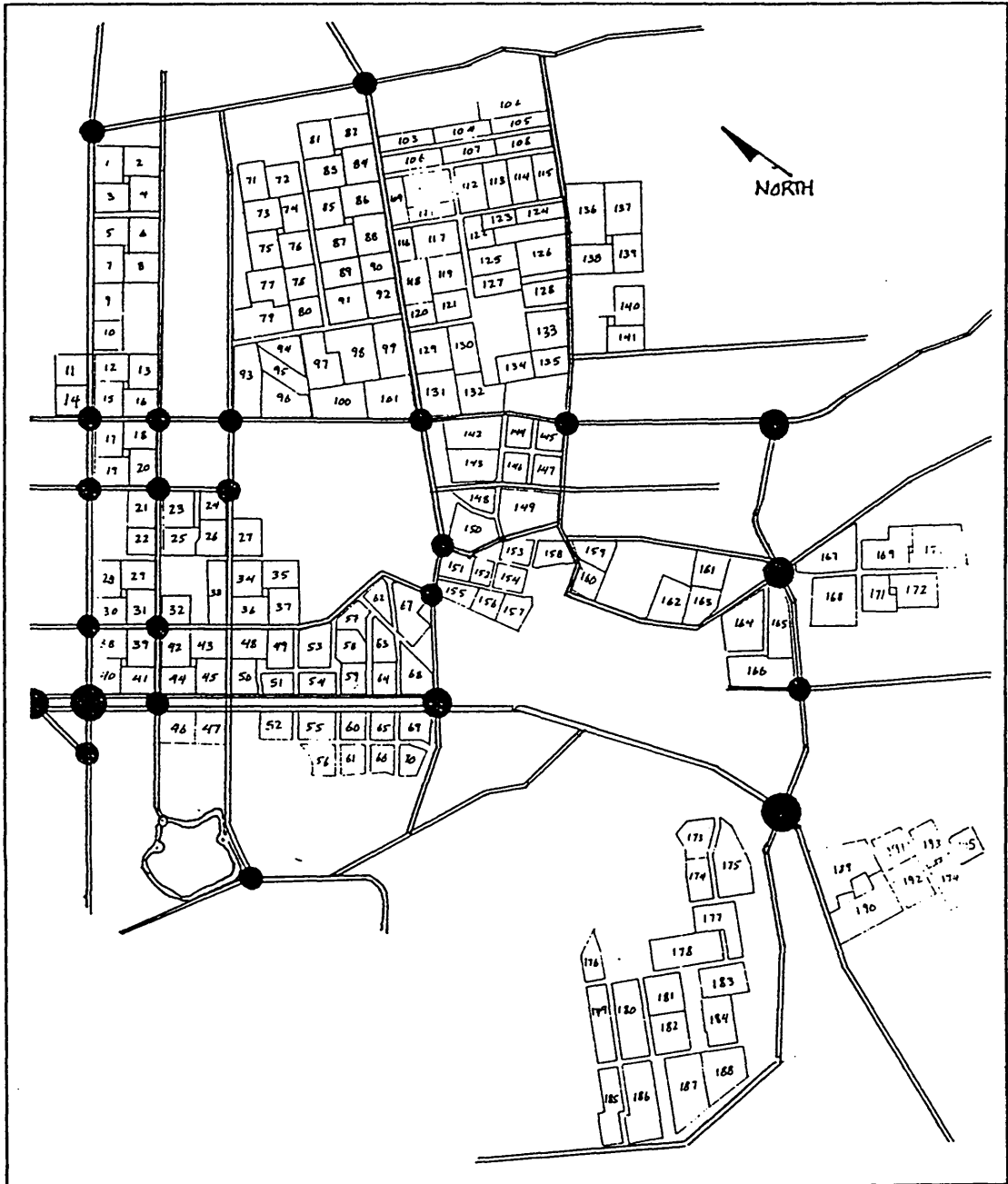


Figure 5-4: Map showing the segmentation of the residential neighbourhood for the distribution technique.

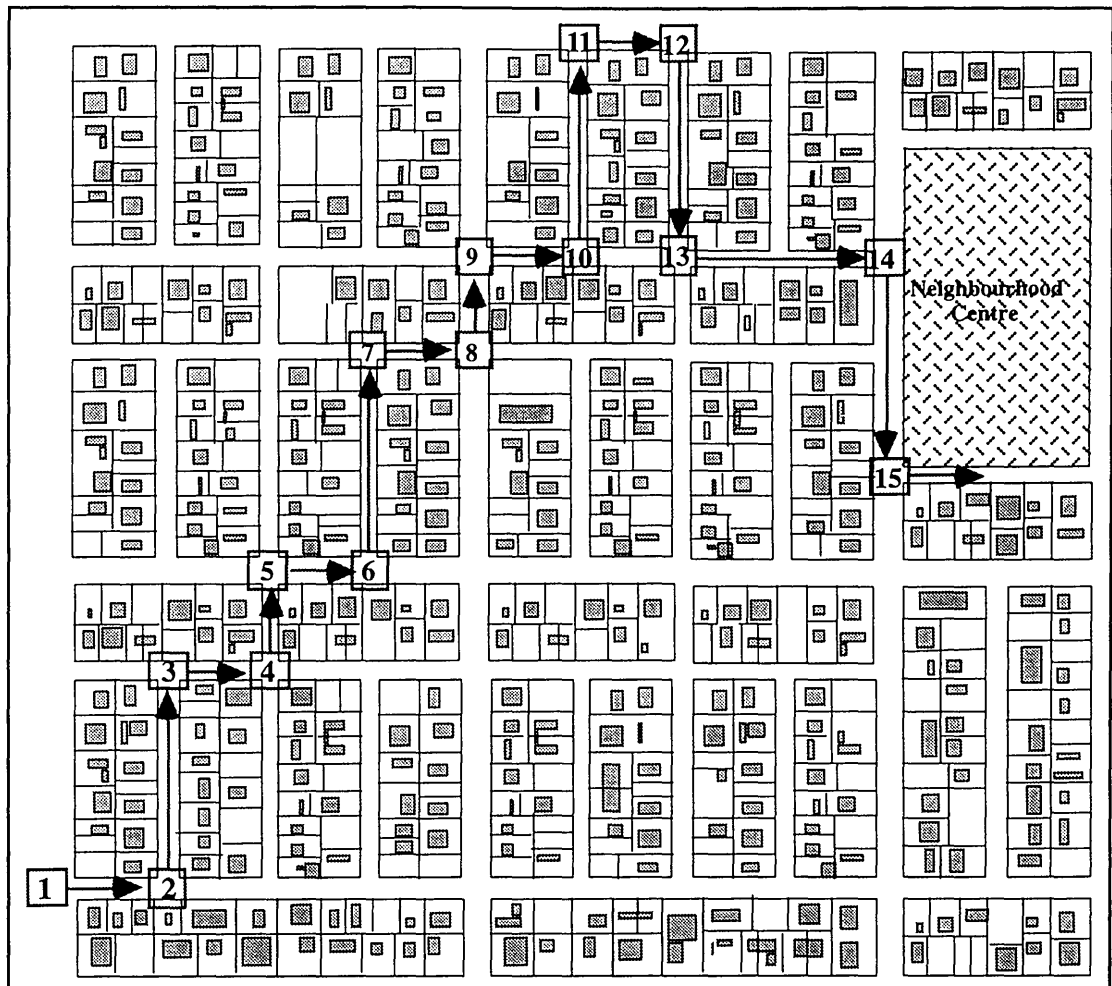


Figure 5-5: Typical residential area in Ar-Riyadh showing sequence of systematic selection of streets.

For the selection of streets and houses within the chosen residential area, two sampling strategies were employed. For street selection, the following strategies were used:

1. Every residential area was approached from its south western corner. The first street from the western side was selected.
2. The second selected street was the follow up street to the left.
3. Then the first right hand street.

4. The process continues by selecting the first left-hand street then the first right-hand one until the completion of the distribution (see figure 5-5 which shows the sequence of street selection).

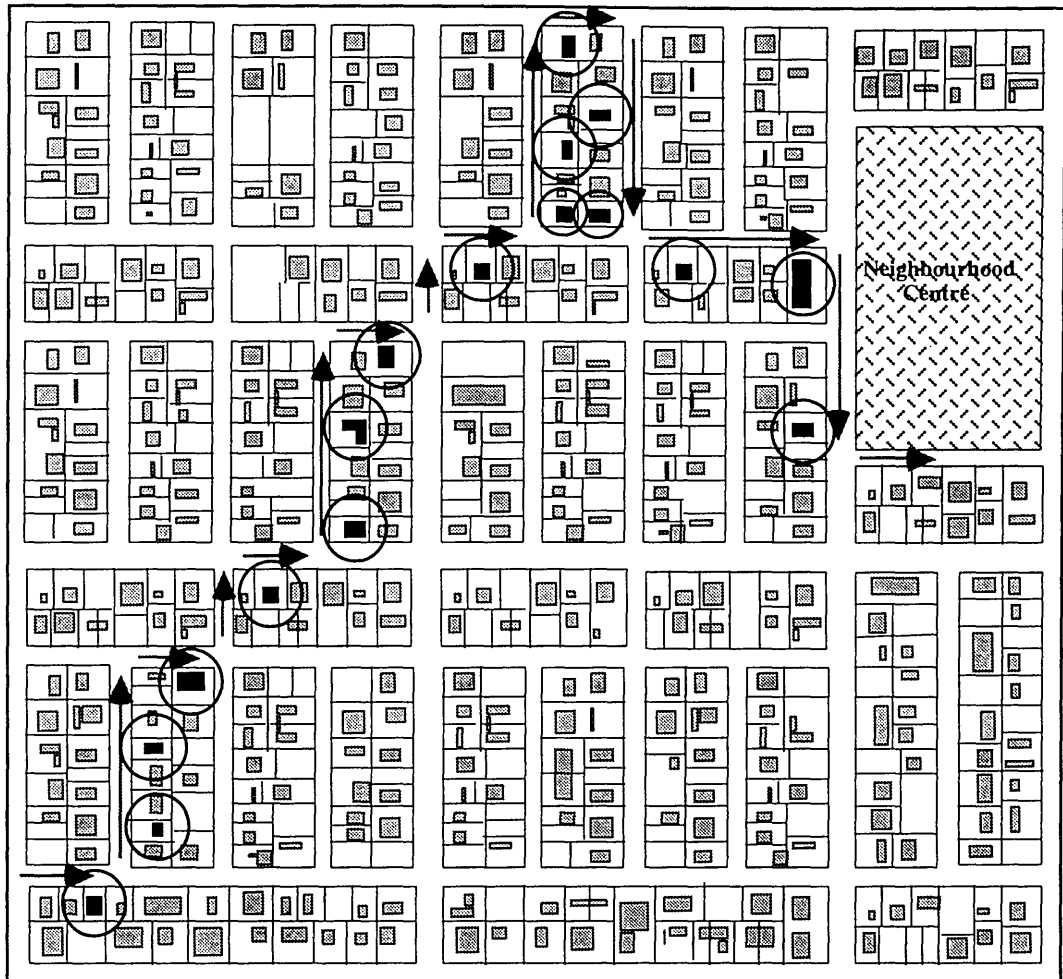


Figure 5-6: Systematic selection of houses within the selected residential areas. Every third house on the right-hand side is selected.

Houses selection strategies comes after selecting streets. For houses selection, the following strategies were used:

1. Selection of houses based on counting the houses; every third house on the right-hand side of the street is selected for the distribution.
2. Vacant lands and public buildings, such as mosques and schools were not

considered in the count. Only residential buildings were counted.

3. A residence with nobody at home or where residents refused to take a questionnaire was not considered in the count.
4. The counting of the houses continues throughout the area until the assigned number of questionnaires are distributed (see figure 5-6).

Research Analysis

Archival Analysis

The archival materials gave the starting point of the analysis stages. Obtaining base maps and information of gardens and other sites played an important role in conducting the observations. The collected information regarding the existing physical settings, the cultural backgrounds, the forces influencing the designs went side by side with the observation and the questionnaire analysis in building a natural and logical perception of the situation. It is a tool used in this study to support arguments with physical evidence.

Observation Analysis

Observation describes behaviour and events as they occur. Proper and rational explanation is given to each behaviour and event according to the circumstances that effect it. This is strongly related to the cultural and social factors of the society. The various behaviours are linked together in order to find a common ground for their initiatives and actions. Observing behaviour in the outdoor physical settings of selected public gardens and other recreation sites generated information about given places and the intended activities and relationships needed to sustain them; about regularities of behaviour; and about expected uses, new uses, and inappropriate uses

of the designed elements of the space. Analysing the collected information reveals:

A. Detailed knowledge about the users:

1. number of users,
2. ages, and
3. categories of users (males - females, singles - families).

B. The relationship between the users and the physical settings of the used spaces in regard to:

1. the characteristics of the elements,
2. the sizes of the used spaces,
3. the way they are being used,
4. the spatial distribution of different elements, and
5. the consideration of the privacy aspect for females and families.

C. The type of activities taking place in the various settings of the used spaces with regard to the following:

1. the way they are being carried out,
2. the way(s) different activities relate to one another, and
3. the fitness between the nature of the activity and the existing design.

Questionnaire Analysis

The analysis involved using a statistical program, in this case, an SPSS package. The generated information from the questionnaire went through several stages. First stage was coding which means that the information generated by research

is put into a form that makes analysis possible. The information was turned into data that can be subjected to statistical analyses. In addition, coding means that records can be kept and the data are stored in such a way that they can be referred to and used in the future. Once the data were coded, the second stage which is the analysis, proceeds. In the analysis description of the data, exploration of relationships that exist in the data were considered. The final stage is the interpretation of the results (numbers) to a sensible reality.

The data analysis of the questionnaire served also as a viable means for explaining and describing the observed behaviour. Some aspects of behavioural patterns are clear, outstanding, and repeat themselves, such as, for example, the relation between sexes. On the other hand, some behavioural patterns are not so clear and cannot be understood by observation technique alone. In such cases the questionnaire analysis will help explain and clarify why people behave in a particular manner.

FIELD WORK STRATEGIES, EXPERIENCES, AND ANALYSIS

Observation Technique	112
Step 1: An Observable Measure (What to observe)	113
Physical Settings (Type of places)	114
Activities (What happens)	115
Users (Who is/are)	116
Step 2: Select the Environmental Setting	117
Criteria for selecting observed settings (gardens, paved roadsides, and vacant lands)	118
Step 3: Observation Sampling Strategies	121
Step 4: Observer Strategy	121
Step 5: General Strategies	122
Observational Analysis Scheme	123
Field Analysis	124
Site Analysis	126
Al-Ḥizām Garden	126
Date of the Observation and Other Relative Information	126
General Description of site	127
Description of Elements	127
Ring Road-East (site no. 3)	129
Date of the Observation and Other Relative Information	129
General Description of the Site	129
Description of the Design Elements	129
Thematic Analysis	131
Transportation Means and Accessibility of the Sites	131
Accessibility in Reaching the Site	133
Accessibility within the Site	135

Characteristics of Preferred Areas (Where do people sit)	138
Areas at the Edges of Open Spaces	138
Visually Protected Areas	141
Settling in the Selected Area	147
Users' Sitting Arrangement	147
Members' Position Arrangement	149
Arrangement of Belongings and the Marking of Territory	151
Children Play - Areas and the Needed Ranges	153
Activities Taking Place (What people do in the outdoors)	155
Passive Activities	156
Active Activities	158
Users (Who are)	160
Time of Intensive Use	161

FIELD WORK STRATEGIES, EXPERIENCES, AND ANALYSIS

There are some research questions that cannot be studied by any other research method other than observational techniques. Hall's classic description of how people use and behave in space¹⁵⁵ draws heavily on behaviour observation in natural settings. Sensitive behaviour observation led Hall to discover the important spatial dimension to human communication. In such issues, observational techniques often provide the only avenues of approach. In addition, observation often carries advantages of its own. Among the most important, some forms of observation avoid potential problems caused by respondents' awareness of being studied; that is, they can be unobtrusive measures.

Laboratory research and survey studies inevitably run the risk that respondents may behave in unnatural ways, give socially desirable or otherwise biased responses rather than valid ones, attempt to guess the research hypothesis, or otherwise respond to the very fact of being studied rather than acting as they would normally. Concern about these possibilities has led to an emphasis on naturalness in research. In contrast, experimental and questionnaire-based research may be more likely to elicit behaviours

¹⁵⁵Edward T. Hall, The Hidden Dimension (Garden City, N.Y.: Doubleday, 1966).

that are specific to the unnatural research context, such as opinion and attitude responses.¹⁵⁶

This emphasis on the advantages of non-reactive forms of research for the generalisation of results (external validity) led to a strategy of seeking naturalistic observation for this study. Unobtrusive observation and natural behaviours are two dimensions of the naturalness which have been emphasised in the observation techniques used in this study. Unobtrusive observation of a natural behaviour (e.g., eating) as it happened in its natural setting (e.g., public garden or other outdoor recreational sites). Natural behaviours are those that are naturally occurring with or without the researcher's presence in a natural setting. Natural settings are contexts that are not established for research purposes. In the case of this study, observation has been conducted in the natural settings of public gardens and other recreational sites, within the city of Ar-Riyadh.

OBSERVATION TECHNIQUE

To investigate the role of socio-cultural behaviour in regard to the use of public gardens and other outdoor facilities, a sequence of five steps, identified from the literature review and from the specific circumstances of this research, must be considered to ensure the validity and the reliability of the results. These steps are:

1. An Observable Measure,
2. Select the Environmental Setting,

¹⁵⁶C. M. Judd, E. R. Smith, and L. H. Kidder, Research Methods in Social Relations (London: Harcourt Brace Jovanovich College Publishers, 1991).

3. Observation Sampling Strategies,
4. Observer Strategies, and
5. General Strategies.

Step 1: An Observable Measure (What to observe)

This step may be the most difficult, as it can require considerable imagination and complete knowledge of the subject of study, on the part of the researcher to decide what to observe. The selection of the behaviours to observe is guided both by: (1) the focus of interest and (2) practical and ethical concerns that limit what is observable¹⁵⁷. It is also important that the target of observation should be unambiguously definable, so that reasonable reliability and validity in measurement can be attained.

The idea of the design is to make places for people to use and enjoy - either alone or together with other people. A structure for looking at environmental behaviour is useful in understanding the users' needs. The more detailed information we gather about how the people behave in particular physical settings and how those people relate to or exclude other people, the better we can make decisions about the physical environment and its suitability for that function.

In this study, observation as to what the particular features and events which need to be observed are selected. It is very difficult to observe everybody and everything they do, plus it is not the purpose of this research to do so. Therefore, a systematic¹⁵⁸ approach around clear and concise concepts of what to observe is very

¹⁵⁷Judd et al., Research Methods.

¹⁵⁸Systematic observation involves the selection, recording, and encoding of a set of

important - the aspects of environmental behaviour most relevant for this study. It was not meant to observe everything, neither was it a fully structured method which followed a checklist; rather it was a semi-structured observation. In simple terms, the observation was based on recording events as they occurred in relation to the existing physical setting(s), with emphasis on three specific factors that were of concern to the topic of this study: (1) physical setting, (2) activities, and (3) users.

Physical Settings (Type of places)

The meaning of behaviour depends on the potential of a particular setting for use - the options it provides.¹⁵⁹ Physical setting plays a major role in shaping and controlling the outcome behaviour that it hosts. Studying the physical setting provides cues and some justification to understanding some of the motives behind particular behaviour(s). Set characteristics, for example, can alter people's ability to be together or apart. These characteristics can alter and control people's behaviours by not considering many important factors (such as privacy) which may be violated because of the visual and physical openness or enclosure of the setting.

Because of the importance of physical setting in determining the outcome behaviours in a place, the following characteristics are considered:

- accessibility of the site: affects the number of users and frequency of visits;
- the shape of a space: affects primarily visual and perceptual relationships;

natural behaviours or other naturally occurring phenomena.

¹⁵⁹Herbert J. Gans, "The Potential Environment and the Effective Environment" in H. J. Gans (ed.) People and Plans (New York: Basic Books, 1968).

- the size of a space: affects primarily type and size of activities;
- the orientation of localities: affects the behavioural relationships between people, especially with regard to privacy;
- the spatial relations among different localities (small areas): affects primarily the type of activities and behaviour.

Activities (What happens)

Activities are the kind of interactions that take place within an environment as a response to human needs. In conducting, evaluating, and/or analysing a physical setting, two things are involved: (1) the environment and (2) how people act in it and value it. Built environments, at least in principle, are created to be supportive of the activities that occur within it. In fact, the notion of fit between the environment and users' actions is the key reason behind this study. Several questions ought to be raised in regard to this issue.

- what kind of activities take place?
- how are they being carried out and performed?
- how do activities associate with other activities ? and
- is there a fitness between setting and activities taking place?

In fact there is an activity system that moves from the kind of activity that takes place by way of carrying it out, and the context of which it is part. There are also variabilities involved in what we call an activity system. The order or sequence of occurrence, the nature of these sequences, the way they are linked or separated, who is

involved or participates or is excluded, where and when they occur, and so on.¹⁶⁰

Users (Who is/are)

Users or the subject of a behavioural observation may be studied in numerous ways, depending on the purpose of the study. The literature review for this research shows that the following four main questions need to be addressed:

- who are the users? (males, females, or families.)
- are users Saudi or non-Saudi citizen?
- what is the approximate number of users involved in the context? and
- what is the approximate age of users.

After a thorough investigation of these four main factors in regard to the environmental behavioural research, a semi-structured observation record was developed. The record was designed to detect the relative variables within the three main factors. It was divided into three sections. Each section had some unstructured formats, which depended on a complete description, and other semi-structured formats - checklists plus extra space for additional comments. The last part of the observation record was made for general observation and comments that might be made in relation to the subject of study, but would not fit within the specific points of the unstructured and semi-structured formats (see Appendix I).

In conducting the observation, it has been considered that activities or activity

¹⁶⁰Amos Rapoport, "System of activities and system of settings" in Susan Kent, Domestic Architecture and the Use of Space: An interdisciplinary cross-cultural study (Cambridge: Cambridge & New York: University Press, 1990).

systems are inevitably organised in space (setting) and time. Therefore, it was unreasonable to look at a single activity but rather consider activity systems. Moreover, since people move within a particular setting from one area to another, the observed area was hard to limit within a fixed boundary. Therefore, consideration was given to the wider context that each specific area exists within. The type of place or setting, activities, and users were all observed together as systems. In other words, observation was conducted as whatever order or sequence the activities occur, the nature of these sequences, how they are linked or separated, who is/are involved or participates (or is/are excluded), where and when they occur (setting), what is the relationship between different settings, is there a defined physical boundary or not, if not how could a setting be defined, and so on. All these considerations were taken into account in conducting the observation.

Step 2: Select the Environmental Setting

The external validity¹⁶¹ of observational findings can be significantly increased through setting sampling. Whenever possible, behaviour should be observed under many different circumstances, locations and conditions. By sampling different situations researchers reduce the chance that their results are peculiar to a certain set of circumstances or conditions.¹⁶² It is clear that behaviour often changes as a function of the context in which it is observed. Animals in zoos do not behave the same way as they do in the wild. Children do not always behave the same when a parent is present

¹⁶¹ External validity: The extent to which the results of a study extends beyond the limited sample used in the study.

¹⁶² John J. Shaughnessy and Eugene B. Zechmeister, Research Methods in Psychology (New York: Alfred A. Knopf, 1985).

as they do when no one is present.

By selecting different settings and situations, the diversity of the subject observed can be increased and hence greater generalisation is achieved. Since setting exerts a powerful influence on behaviour, settings in which behaviour can be expected to occur with sufficient frequency ought to be chosen to make observation worthwhile. With these strategies in mind, a common criteria has been employed for the selection of the observed settings among the many available gardens and other recreational sites in the city.

Criteria for selecting observed settings (gardens, paved roadsides, and vacant lands)

- The selected settings have to be popular and extensively used by people.
- The observed gardens and other sites have to be in different parts of the city in order to cover most of the urban areas.
- There has to be easy access to and from the selected setting.
- The selected settings have to be accessible for both sexes at the same time.
- If the observed garden or other site is too large, only a manageable part of that setting is to be observed.
- Different localities have to be observed within each site.

As a result of application of this criteria fifteen sites were chosen for the observation. Seven of the sites were public gardens and eight were pavement and vacant sites along major roads in the outskirts of the urban fabric within the city. Some of the selected sites were observed more than once and from different observation points. Site analysis of the different selected sites is provided in Appendix

II. The sites chosen for the observation were:

- Al-Hizam Garden.
- Al-Suwydi Garden.
- Al-Manşurah Garden.
- Al-Ghurfah Al-Tijariyh Garden.
- Al-Maktabah Garden.
- Hajar (stone) Garden.
- Al-Rawdah Garden.
- Ring Road-East (site no. 1).
- Ring Road-East (site no. 2).
- Ring Road-South (site no. 1).
- Ring Road-South (site no. 2).
- Ring Road-North.
- Al-Qaşıym Road.
- 'Uqbah Ibn Naf' Road (site no. 1).
- 'Uqbah Ibn Naf' Road (site no. 2).

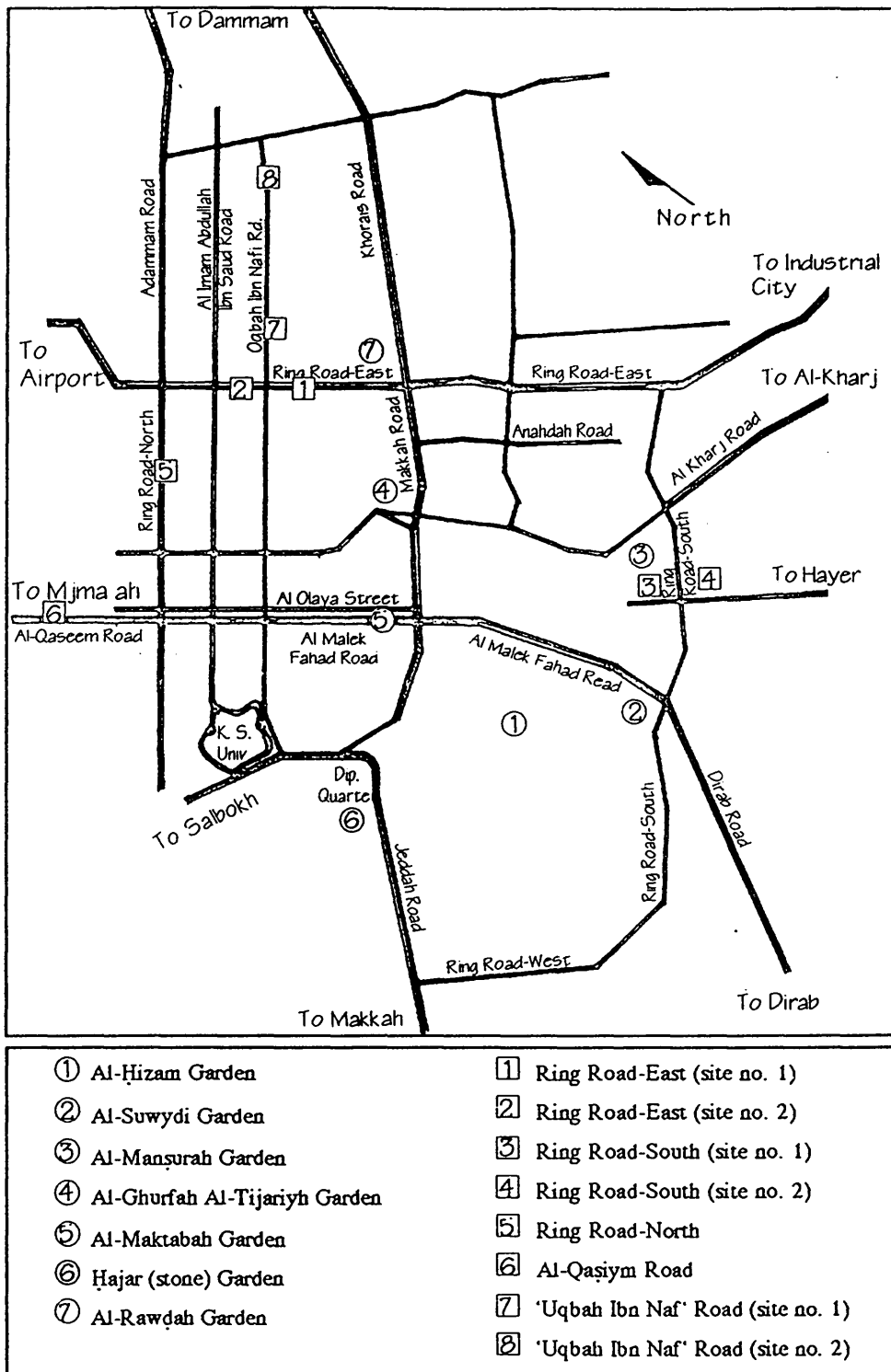


Figure 6-1: The locations of the selected sites for observation spreading over the layout of the city. Numbers in circles indicate the locations of observed public gardens while numbers in square indicate the locations of observed sites along major roads.

Step 3: Observation Sampling Strategies

Behaviour sampling is generally accomplished by either time sampling or event sampling.¹⁶³ Event sampling was used for this research because it is a more efficient method in sampling behaviours which occur infrequently, such as how people face each other whilst sitting, how they arrange themselves when eating, and so on. Because observing people's behaviours in outdoor environments usually involves events that occur unpredictably, an arrangement was made to have at least two hours of continuous observation for every observation record in order to be present at the times when events of interest occurred.

Step 4: Observer Strategy

An observer plays an important role in the observation. He can be a source of bias that effects the external validity of the observation. Two specific forms of bias can be caused by the observer that have been avoided in this study. The first form of bias is what is called the reactivity. Reactivity refers to the influence that an observer has on the behaviour under observation. Generally we can think of a reactive situation as a situation in which subjects "react" to the presence of an observer. Behaviour in these situations may not be representative of behaviour when an observer is not present.

Specifically in the circumstances of this research, this kind of observer bias is very important. Therefore, for the sake of this research, the observation was made unobtrusively. In the observation, I the researcher had to go to the selected site with

¹⁶³Shaughnessy et al., Research Methods in Psychology.

my family as a regular user of the setting. We took our place in a quiet spot and behaved like any ordinary group. From the chosen place, I observed and recorded behaviours and events in a completely natural setting without any reactivity from observed subjects to my presence.

The second form of observer bias is the interpretation of what he/she sees, rather than simply recording behaviour. This kind of bias can be controlled in several ways. Among the most important control, is the awareness that it might be present. An awareness of this problem has been taken seriously in this study, therefore, an emphasis has been made on recording behaviours only as they occur. When collected data preserves the behaviour rather than the interpretations of the behaviour, interpretation can always be made later, especially if new evidence suggests a new interpretation.

Step 5: General Strategies

Studying human behaviour in a natural setting imposes many outside roles that cannot be discarded. Because of the direct contact that the observation technique requires, these roles and limitations influence the observation process in one way or another. These facts have been considered in this research in order to avoid or at least to deal with it if possible.

Conducting observation in human behaviour is usually a long process. In order to come out with sensible generalised results about the way people behave in a certain setting, such as the goal of this study, considerable time is needed and an adequate budget is required. However the time and budget for this study was limited. In addition, religious aspects and cultural values of the observed subjects are very important and must be considered in order not to offend anyone. The privacy aspect,

for instance, is a very serious matter to be considered in the circumstances of this research.

Photography as a recording technique usually used in a physical setting and for human behaviour is employed in this study with some limitations. The selected physical settings for the observation were photographed in order to preserve the existing condition in case there is a need to refer to them later. The only thing is that physical settings were photographed without the presence of users as it is not permitted to photograph anyone without gaining their permission in Saudi Arabia. It is considered a serious offence if someone is caught photographing women and/or families in public areas. Therefore, photography was used only where it was possible.

Observational Analysis Scheme

Observing behaviour is a widely used technique which means watching how people use their environments: individuals, pairs of people, small groups, and large groups. What do people do? how do activities relate to one another spatially? how do spatial relations affect participants? and what is the integration between what is going on and the environmental setting? All these variables are involved in the observation and they play major roles in shaping the resulting observed behaviours. Therefore, the analysis of data took into consideration all these variables.

To simplify one of the observation records that has been conducted in this study, we found that it actually contains data about sequences of events that took place in a certain environment by certain groups of actors. So the best way to analyse the observation is by using content analysis. Content analysis is a technique used to

analyse observed records for the occurrence of specific categories of events or behaviour. Content analyses have been conducted on a wide range of research materials such as observational records, written material and spoken records.¹⁶⁴ In fact, the possible applications of content analysis are limited only by the imagination of the researcher.¹⁶⁵

Content analysis should be performed within the context of a clearly developed research idea. All the factors that must be considered for observational research apply to a content analysis. It is a useful analytic technique to help in understanding human behaviour in the outdoor environment especially when the observational technique conducted for this study was purely a descriptive one. Response categories must be clearly defined and developed according to the occurrence of specific behavioural events. The most important requirement for this kind of analysis is clear operational definition of terms. Derived categories must remain focused on the research questions.

FIELD ANALYSIS

This section will discuss the analysis of the observation records. The analysis will follow a thematic approach, which means the observational records will be analysed in the form of categories. These categories actually represent the occurring events and/or activities, the settings where the events took place, the actors or users who perform the activities, and the distribution of the outdoor recreational places in the

¹⁶⁴Kenneth S. Bordens and Bruce B. Abbott, Research Design and Methods: A Process Approach (Mountain View, California and London: Mayfield Publishing Company, 1991).

¹⁶⁵O. R. Holsti, Content Analysis for the Social Sciences and Humanities (Reading, MA: Addison-Wesley, 1969).

urban patterns in city. In other words, the selected themes or issues will be the interrelated factors that influence the resulting observed behaviours. The thematic categorisation is only for simplification purposes in order to concentrate on certain aspects of the observed behaviours which are related to the aims of this study.

Each theme will discuss all related issues and factors in the observed sites. Therefore, the thematic analysis of the observation records has been classified into five categories: Accessibility of the Site, The Characteristics of the Preferred areas (Where do people sit), Settling in the Selected area (How people organise themselves and their belongings in the setting), Activities Taking Place (What people do in the outdoors), Users (Who is/are), and Time of Intensive Use. Each one of these themes will carry discussion of several categories within it. Discussion of each theme will involve the other themes because they are all interrelated, but an emphasis will be given to each one separately in order to recognise its role in the resulting behaviour. I am all too aware that this strong interrelation between the different issues will result in some repetition. As a matter of fact, I have found it difficult to avoid this and hope the reader will bear with it.

The first step in the field analysis was analysing sites and settings. The analysis was conducted for the 15 sites that have been included in the study. The analysis of the study sites was analysed and presented in three main categories: Date of the Observation and Other Relative Information, General Description of the Site, and Description of Elements. Each of these categories were broken down into sub-relevant items. Before starting the field analysis discussion, analysis of two sites, one garden and one informal site, will be presented to give an idea of the logical sequence of the analysis process and to provide an idea of what the field analysis involved. Full analysis of the 15 studied sites is included in Appendix II.

Site Analysis

Al-Ḥizām Garden

Date of the Observation and Other Relative Information

Date: Thursday, 8th of April 1994.

Time: 6.00 PM - to - 10.00 PM

Climatic Conditions: Very clear sky and very pleasant night

Entrance Fee: 2 Saudi Rials per adult.

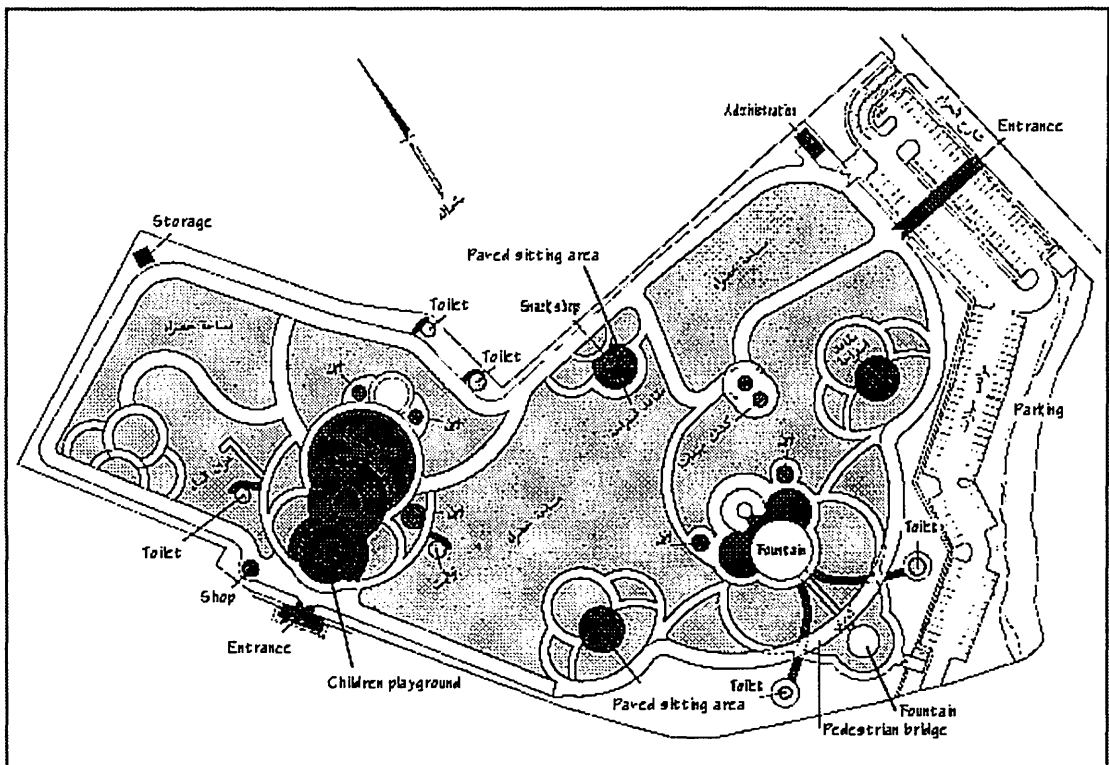


Figure 6-2: Plan of Al-Ḥizām garden.

General Description of site

Total square area:	42,000 square meters.
Location:	Al-Hizām Garden is located on Al-Hizām Road to the west of the city centre.
Brief description of the site:	The garden is one of the most densely planted gardens in the city. It was established on a mature palm tree farm. There are five fountains located in the centre of the garden. Two children's playgrounds next to each other in the west part of the garden. Four paved circular areas furnished with benches for users to sit on and watch people. Six snack shops distributed in the space. Each shop has two windows, one for males buyers and the other for female buyers. Four paved circular shaped areas with seats on the edge were established in different locations within the garden. The paved walking paths are a geometrical circular shapes. Toilets are distributed in the site. (See figure 6-1).
Accessibility of the site:	Easy access.
Users:	Families.
Description of vegetation:	The garden contains over 600 mature palm trees. There are over 520 trees of about 82 species of shade trees. Hedges and shrubs are also planted intensively in the garden. The open spaces are planted with grass.
Existence of fence:	The garden is surrounded by a metal bar fence covered almost completely with climbing plants.
Availability of parking area:	There is no parking problem

Description of Elements

Entrances:	The garden has 2 entrances. One of them is open for control purpose.
Open spaces:	The dominant elements on the plan are the grass open areas.
Water surfaces:	There are 4 fountains located in the centre of the garden.

Food & toy shops:	There are 6 snack shops distributed in the space. Each shop has two windows, one for male buyers and the other for female buyers.
Paved area:	4 paved circular shaped areas with seats were established in different locations within the garden. The paved walking paths are a geometrical circular shapes.
Shaded structures:	3 shaded structures.
Outdoor furniture:	A few benches distributed along the pathwalk, the paved circles and around the fountains.
Children play areas:	2 children's playgrounds next to each other in the west part of the garden.
Toilets:	The garden has 4 toilets. 2 for males and 2 for females.
Mosque:	None.
Actions prohibited inside the site:	Playing football, building a fire, smoking water-pipe, photography, riding bicycles and tricycles, littering, and collecting flowers.

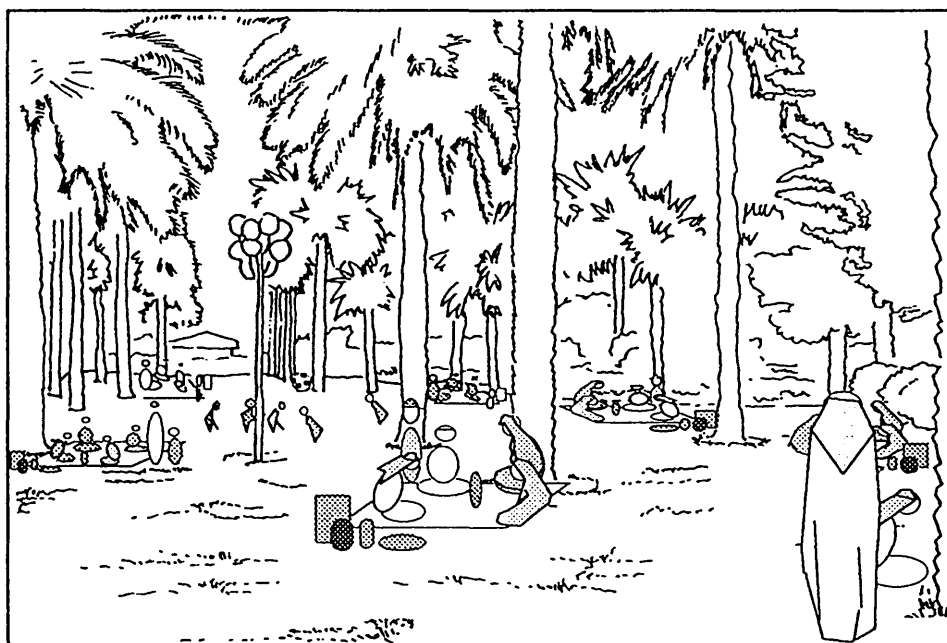


Figure 6-3: An open grass area in the centre of Al-Ḥizām Garden. Users usually sit against palm tree trunks or hedges. They also maintain fairly large distances between their spots. The view gives an idea of the activities that usually take place.

Ring Road-East (site no. 3)

Date of the Observation and Other Relative Information

Date: Friday 9th. of April 1994.

Time: 11:00 PM - to - 12:00 AM.

Climatic Conditions: Pleasant after noon.

Entrance Fee:

General Description of the Site

Location: Al-Qudus neighbourhood. The whole designated neighbourhood is undeveloped. Paved side of the Ring Road and areas of the neighbourhood adjacent to the road are used because of the high intensity lighting of the road.

Brief description of the site: The site is privately owned and undeveloped lots of lands. The land form of the site is gentle (flat). The site is very clean of human waste.

Accessibility of the site: Access to the site is from the service road of the Ring Road.

Users: No restrictions (very public).

Description of vegetation: No vegetation cover.

Existence of fence: None

Availability of parking area: No restrictions.

Description of the Design Elements

Open spaces: The whole site is a large open desert land.

Water surfaces: None.

Food & toy shops: There are ice cream and snack cars moving in the site.

Paved area:	None.
Shaded structures:	None.
Outdoor furniture:	None.
Play field and Children play areas:	None.
Toilets:	None.
Mosque:	None.
Actions prohibited inside the site:	None.

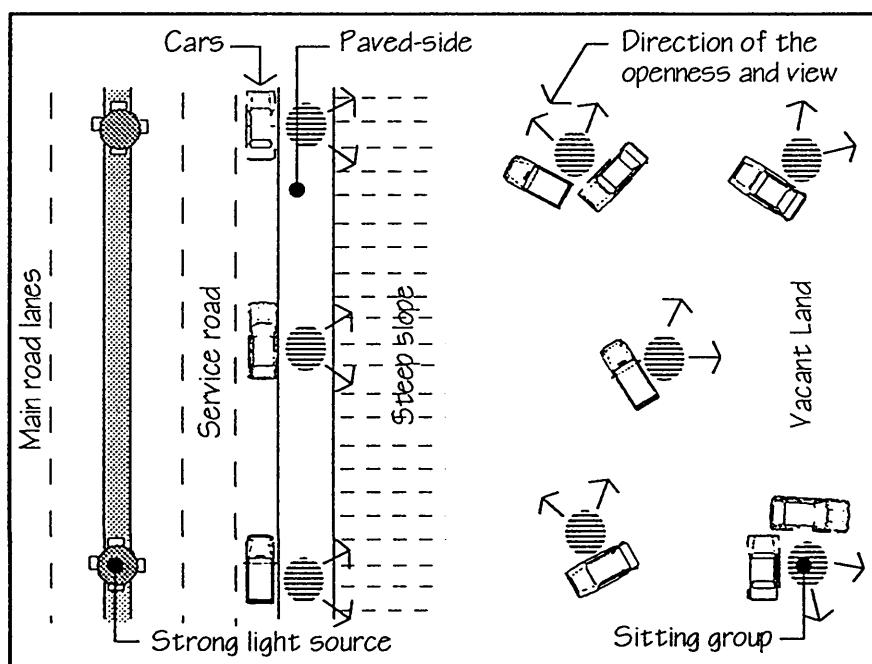


Figure 6-4: Group of users organising their setting to meet their socio-cultural needs. This observation was conducted in a weekend night on the east side of Ring Road-East.

Thematic Analysis

Transportation Means and Accessibility of the Sites

Most users of public gardens, paved roadsides and vacant lands along major roads at the outskirts of the urban fabric were observed using cars as the main means of transportation to get to these sites. This fact was obvious in the number of users' cars in the parking lots of the observed public gardens although many families (females and children) do not have their cars parked in the parking lots. They come to the garden with their husbands, fathers, brothers, or family chauffeur who drive them up to the garden, leave them there, and then return at a later time to collect them. When the male driver comes to collect his family, the garden guards call for his family by the family surname using loud speakers.

Cars are the main, if not the only, means of transportation for users of paved roadsides and vacant lands because the location of these sites are usually far away from residential areas and public transportation services are not very successfully organised to cover the major areas of the city let alone extend their services to the fringes of the city. If some one drives along major roads, such as the Ring Road, Al-Qaṣiym Road, or any major road especially in the north-east part of the city, the most obvious thing to see is the large number of cars parked, especially in the first half of the night on weekends, along the service roads of these major roads and on the vacant land adjacent to them (figures 6-9 and 6-18).

The use of cars as the only mean of transportation for recreation in the outdoor environment highlights one of the problems of the major cities in Saudi Arabia. People use cars as the major mean of transportation in all aspects of their life. The problem is

due mainly to the planning and the layout of the urban pattern of the city which follows a gridiron system. The layout of wide boulevards and major roads, the horizontal distribution of key public facilities and the spread of villa type houses make it difficult, if not impossible, to use any other means of transportation other than cars and similar vehicles. Apart from that, there are some economical, social, psychological and land-use planning reasons contributing to the use of cars for the outdoor recreation.

Most Saudi families can afford to buy at least one car. Another factor is the price of the gasoline which is extremely cheap. These two economic reasons contribute indirectly to the use of car. A Saudi family is a fairly large family (see next chapter for more detail). The family mostly comprises of parents and the children who stay within the family until they get married and then form a families of their own. Sometimes the sons continue living with their parents even after they are married. In many cases the grandparents also live with their sons. Therefore, the Saudi family is a very large family. In order to go out for recreation even for a couple of hours it is impossible to transport such a big family without using cars. In many cases, one or more cars, usually a GMC Suburban (an American nine seater car), are used.

The psychological reasons behind using a car for outdoor recreation is that females and children members of the family usually spend the whole weekday in the house except for those who go for short drives to schools, such as older children, and female teachers. Therefore, at the weekends they like to go away from the house and even from the neighbourhood for the sake of change and refreshment. There is no recreation other than visiting public gardens, road-sides and/or vacant lands, or just driving around the city's busy streets and roads especially at night. This reason is also considered to be an important factor in contributing to the use of the car for recreation.

Finally, in addition to the planning problem of the city which has been

mentioned earlier, the distribution of the recreational sites and facilities also contributes to the problem. Most of these recreational facilities and sites are located in the north and north-east sides of the city while most residents of the city are living in the south and south-west sides. Therefore, there is no choice other than using a car as a mean of transportation for reaching those places.

There are some aspects that result from relying on a car as the only mean of transportation which in turn influences the use of some forms of recreation. These aspects will be discussed thoroughly in the following section in relation to the existing situation of public gardens, paved roadsides and vacant lands.

Accessibility of the site involves many aspects that influence the use of recreational facilities and areas. People need recreational sites to go to. But if these sites are not easy to reach, the difficulty overwhelms the need. From the field work, two characteristics of outdoor recreational sites related to accessibility were spotted and recognised to influence the use. The accessibility *in reaching the site* and the accessibility *within the site* were the two main aspects of accessibility that relate to the intensity of use and the popularity of site.

Accessibility in Reaching the Site

The accessibility in reaching the site, will be discussed under two headings. The first one is the location of the site in the urban fabric of the city and how ease of reaching the site affects the use of it. The second point is the provision of parking spaces close to the entrances of the site and the used spaces increases the use of the site.

Public gardens are scattered throughout the city. They can be classified into two types. Firstly, gardens that are located inside residential neighbourhoods away

from main and busy roads and streets. Secondly, those that are located on the main roads and busy streets. The first kind, which are located within residential neighbourhoods, such as Al-Manşurah Garden which is located in Al-Manşurah neighbourhoods in the south of the city, are in many cases unknown to residents of other neighbourhoods. They are also difficult to reach by residents of other neighbourhoods especially if they are from the opposite side of the city. At the same time, this kind of garden provides easy access to users from nearby areas. But it is important to state that not every neighbourhood in the city has a designated public garden.

The second kind of gardens, which are located on main and busy zones and/or along popular streets, such as Al-Maktabah Garden which is located on Al-'Ulaya main street, are not preferred by many people because of their locations in a congested area. Therefore, many people avoid such gardens especially if they are out for relaxation and enjoyment. At the same time residents of these busy zones go to other sites that are different from theirs, seeking quietness as a way of change.

Paved roadsides and vacant lands, on the other hand, have a different situation than that of public gardens. Although most of these sites are located in the north and north-east sides of the city, there are still some popular sites on the south side of the city. They are also easy to reach from almost anywhere in the city because of their locations along the major roads which act as arteries through the city.

The second point of accessibility in reaching the site is the provision of parking spaces close to the entrances and the used spaces within the recreational sites. This point proved to be a very important one to the users of such sites. It has been observed that facilities and sites with no car parking, limited parking spaces, and/or parking not properly located are not preferred. People were observed to park around

the entrances of public garden even if that involved violating the traffic regulations, such as parking in a no parking zone, as it was observed in the Al-Maktabah Garden parking lot, or parking over the curb of the sidewalk blocking the pedestrian way, as it was observed in Al-Ghurfa Al-Tijariyah Garden. This behaviour is despite the existence in many cases of enough parking, which only requires an extra walking distance from the car to the recreational site. But there are reasons for such behaviour which will be discussed in the next section entitled "the accessibility within the site."

Accessibility within the Site

Accessibility within the site is as important as accessibility to the site. A Saudi family goes out for recreation as a unit. Because they use a car for transportation, everybody can go out; mothers with their babies, young children, and even the very old members of the family. Due to the large family size and the types of activities involved in the outdoor environment, a considerable amount of belongings are usually taken to the recreational sites. Examples of these belongings are one or more mats to sit on, water container(s), food, disposable cups and plates, and toys (such as balls, bicycles, and tricycles). In order for the active members of the family to carry all these belongings from the car(s) to the selected area for sitting within the site for a few hours and for the very young and very old members to walk to the selected area, a site must to be very accessible and barrier free in order for such behaviour to take place conveniently.

Accessibility here means two things: first, a short walking distance between the users' car and the selected space, and second, a clear and barrier free site. These two aspects have resulted from observing different forms of public outdoor recreation sites. If we take, as an example, Al-Ḥizam Garden, we find that this problem of weak relationship between the parking and the rest of the garden is very clear. The site takes

an irregular shape extending from east to west (see figure 2-1-1 in Appendix II). The parking layout is located on the east and north-east side of the site. The problem is that there is only one entrance open for the public which is located on the north-east corner of the site. In such a case observation proves that most users park their cars in the parking spaces near the entrance or along the street in order to be close to the entrance. The rest of the parking in the east side of the site is mostly unused (figure 6-5).

Another problem arises when a family tries to select an area to sit in. They usually prefer areas close to entrance(s) for the advantage of the short walking distance, for the young and the elderly members and for the ease in unloading and loading their belongings from and back to their car(s) (figure 6-6). Therefore, these areas become uncomfortably crowded for most users. On the other hands, areas far from the entrance, such as the north west portion of Al-Ḥizam Garden (figure 2-1-1 in Appendix II), are rarely used except by small sized families with no or few belongings.

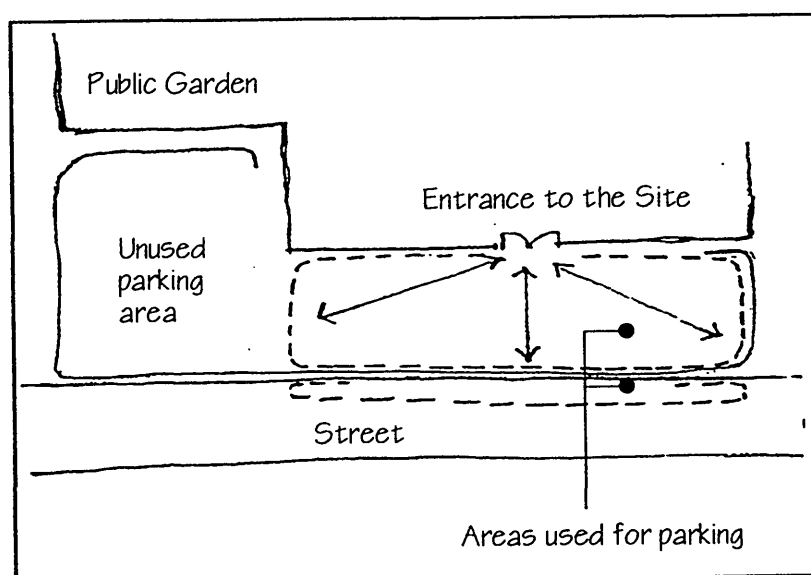


Figure 6-5: Users usually park near the entrance way leaving the rest of the parking lot unused.

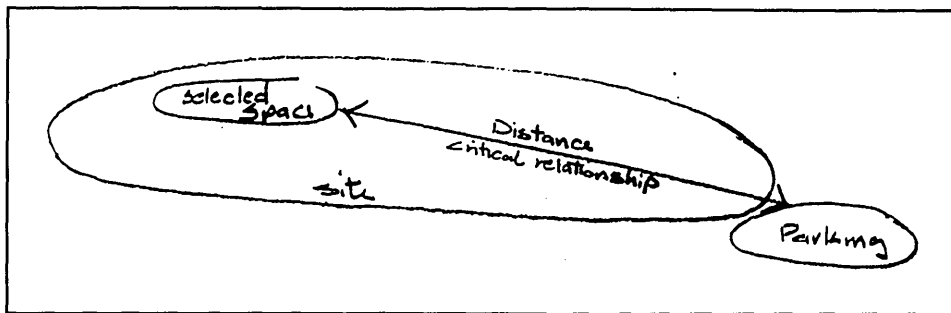


Figure 6-6: The relationship between parking space and the selected used space is a critical aspect in influencing the use of the site.

The second aspect of accessibility within the site is a clear and barrier free site. It is very important for the recreational facilities or sites to be clear and spatially understandable and free of visual and physical barriers because they complicate the setting and make the user lose a sense of direction. From the field work, it has been found that some sites are confusing and unclear which in some cases lead to tragic consequences. In Al-Suwydi Garden which is a fairly large garden divided to parts (Figure 2-2-1 in Appendix II), every part looks similar to the others; the winding pedestrian pathways and water channel, the similarity of the structural elements, and the density of hedges and shrubs, all these characteristics plus the big crowd of users especially in weekends make it difficult for an adult, let alone a child, to find his/her family or group(s) if he/she wanders away from them.

In the time I spent in Al-Suwydi Garden for observation, I saw four lost children. I managed to help two of them (they were brothers) to find their family by taking them to the guard at the main gate. On my way back to my chosen spot, I saw a distressed lady. I asked her if she was looking for her lost children and she immediately replied yes. Then I took her to the gate where she collected her children. An official in the Landscape Department in the Municipality told me about a reported incident of a child who died in the long, man-made water channel which meanders through the open spaces in Al-Suwydi Garden. These stories, beside their tragic

consequences, are very discouraging, limit the future use and give a bad image to such sites.

On the other hand, paved roadsides and vacant lands in the outskirts of the city, especially those lands that are secure from the danger of traffic, provide easy access for users. People mostly drive their cars up to the area they prefer to sit in and then unload their belongings next to their cars where they sit and participate in their activities next to and around their cars. The ease in finding suitable places without leaving the car and the ease in unloading and loading belongings to the car(s) without involving any walking gave these sites a big advantage over public gardens.

Characteristics of Preferred Areas (Where do people sit)

Selecting an area to sit, to eat, to drink, to talk together, to be still, and yet be outdoors is a very crucial task for any group of users. Certain outdoor areas with certain characteristics were observed to be preferred by users of public sites, especially public gardens. Areas at the edges of open spaces and visually protected areas were the areas of highest recorded use. These characteristics are strongly related to the physical needs of humans for protection as well as to the cultural needs of Saudi Society for privacy, discussed previously in Chapter III. Analysis of these preferred areas and discussion of their characteristics will be the aim of this section.

Areas at the Edges of Open Spaces

These kinds of preferred areas usually exist in public gardens because they have boundaries. Even within each garden, there are pathways and trees and shrubs which can be utilised to create and define boundaries of several open spaces. The preferred areas at the edges can either be the edges of the whole site or the edges of a particular large open area within the site. Most users of public gardens were observed

to sit at the edges, against garden fences or walls, thick shrubs, or tree trunks. The edge zone offers a number of obvious practical and psychological advantages as a place to sit and carry out activities.

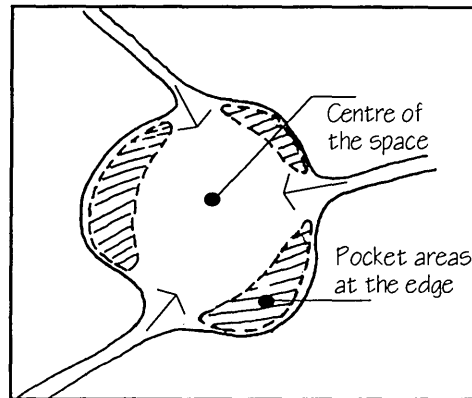


Figure 6-7: Pocket areas at the edges of the public space provide the best sitting areas. They are away from circulation and partially protected by the physical boundaries.

People do not sit facing brick walls, shrubs, nor even trees - they rather place themselves toward the view or toward whatever there is in the distance that comes close to a view. By placing themselves in such a situation they answer the instinctive need to have their back protected. It is the quietness and isolation of the edges that makes them preferable for the passive activities that users intend to do (figure 6-7). Also edges work as a base and a station for group users to spread from.

It has been suggested by Jan Gehl, in his book Life Between Buildings¹⁶⁶, that physically and psychologically it is easier to start from the edge and then move into the space. He also suggested that events grow from the edge toward the middle of public

¹⁶⁶Jan Gehl, Life Between Building: Using Public Space, translated by Jo Koch (New York: Van Nostrand Reinhold, 1980).

space. Also Christopher Alexander, in his book A Pattern Language¹⁶⁷, summarises the experiences regarding the edge effect and edge zone in public spaces: if the edge fails, then the space never becomes lively.

At the same time as people prefer to sit in niches seeking the opportunity of being partially hidden against the spatial boundaries of the space, they also like to be part of the public and share the view into the space as well as interact with the activities that take place in the centre of the space. This is especially by children, who usually take over the entire space by joining in group games. For the adult members of the family, it is essential to have a view into the space from their sitting area at the edge in order to watch over their children.

Public gardens in Ar-Riyadh can be classified into two types, in regard to considering the users' needs for edges. The first type is the gardens that have good sized spaces with very defined edges; however, because of the high number of users, not every group/family can find a suitable area. Therefore, groups sit almost everywhere; next to the edges and in the middle of the space. Consequently the space loses its advantages (figure 6-8). The second type is the gardens that have no specific defined boundaries for the open spaces such as Al-Rawḍah Garden (Figure 2-7-1 in Appendix II) where there are no physical boundaries, such as hedges and shrubs, defining the spaces which people can sit behind and against.

¹⁶⁷Christopher Alexander, Sara Ishikawa, Murray Silverstein, Max Jacobson, Ingrid Fiksdahl-King, and Shlomo Angel, A Pattern Language (New York: Oxford University Press, 1977).

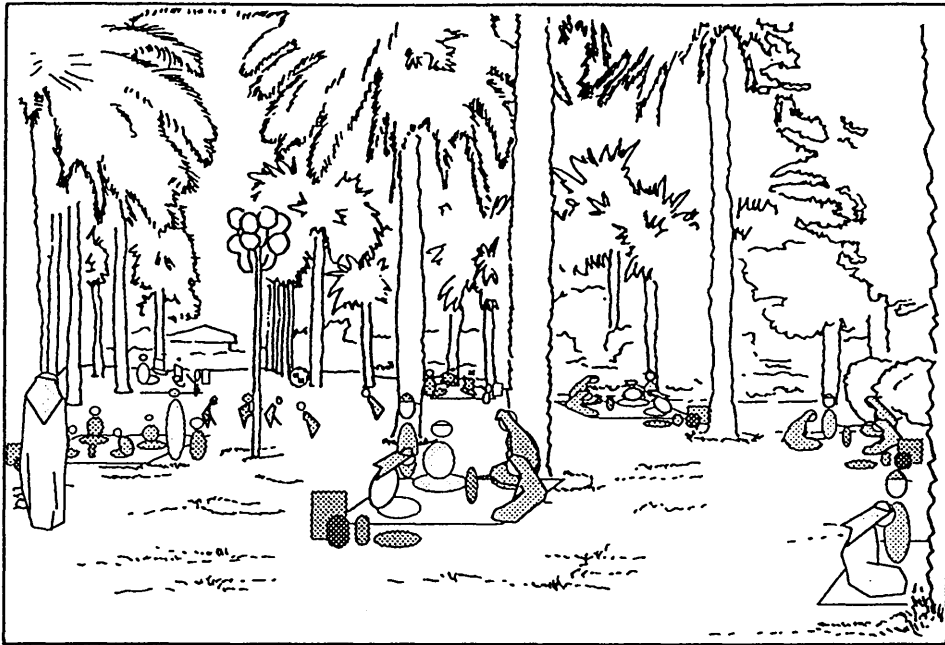


Figure 6-8: Because of the high number of users of public gardens, people were observed sitting at the edges as well as in the middle of the space. From Al-Ḥizam Garden.

On the paved roadsides and vacant lands the main character of the sites is the openness. People create their own space by defining the edge of the created space. They form the edge by parking their cars in a way that provides them with niches where they sit and carry on their passive activities (figure 6-9). By considering the orientation of the view they also control the direction of the extension of the space where the active events of the group users usually take place.

Visually Protected Areas

Observation has proved that people give a lot of consideration to the issue of privacy when using the outdoor environment. They leave the house, where there is a complete control of privacy, to the outdoor environment seeking some enjoyment and refreshment. They are actually changing the rigid form of the rooms of the house for the more soft and less controlled outdoor environment, whether it is a public garden, a

paved roadside, or vacant land. By making this change of the environment, from the private domain to the public one, users realise the difference between the two domains but they still want to enjoy some freedom that allows them to carry on some activities with less restrictions. They want to sit, eat, drink, and talk in a relaxed mood without feeling that their privacy has been violated.

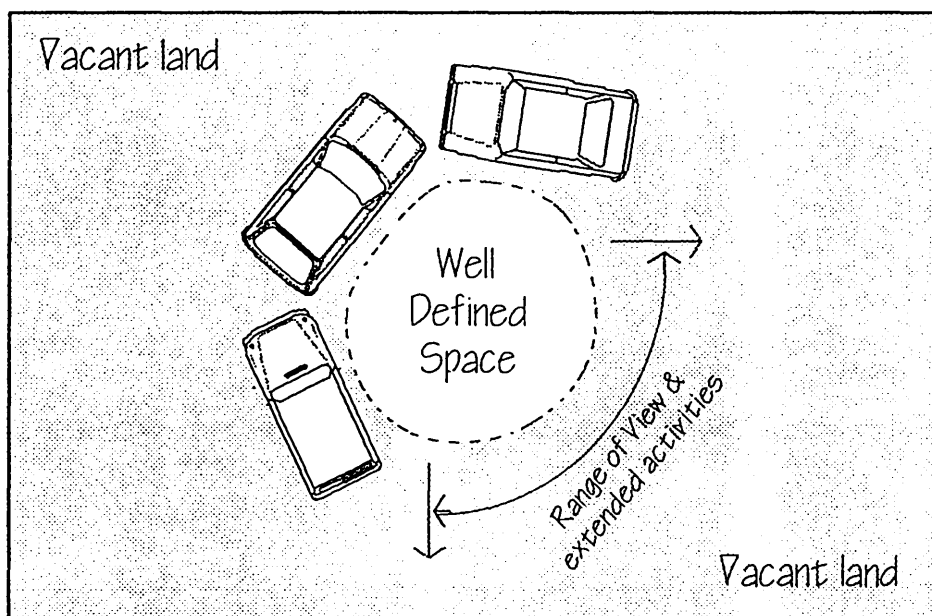


Figure 6-9: On the vacant lands along the major roads people create their own space by placing their cars in positions where they work as edges for the space. They also control the direction of the view. This observation was conducted in a weekend night in a very popular site on the east side of Ring Road-East.

Saudis are very sensitive to being watched or viewed, especially when they are with their families in the outdoors (figure 6-10). Women like to share the enjoyment of the outdoors and the advantage of changing the house atmosphere with their family members in some freedom, at least from the veil of the face. Even men, especially the older generation, do not like to be recognised, while practising some outdoor activities, for some social reasons (figure 6-11). From the observation of the different recreational sites, Saudis prefer the sheltered and low lit areas. These two

characteristics were on demand particularly in the crowded sites such as public gardens where distances between group users are usually small.



Figure 6-10: Newspaper caricature expressing the discomfort caused by losing female and family privacy. The group inside the tent checking the ladies of other camping groups using binoculars.¹⁶⁸

Saudi users look for areas that are hidden from the public either by hedges and shrubs or by structures or at a considerable distance from other user groups. The open and exposed areas are usually avoided. Areas in the middle of an open space and areas next to attractive elements, such as fountains and seats along pathways, are usually deserted and not used except by some non-Saudi users. If group users are forced to sit

¹⁶⁸Al Riyadh Newspaper

in any of those exposed areas due to the lack of suitable areas because of the crowding of the site, the uncomfortable feelings can be sensed from their behaviour. The group members sit closer to each other to provide some protection from any visual intrusion. Women keep their veils on when eating, drinking and even when talking to other members of the group.



Figure 6-11: Newspaper caricature shows a Saudi man jogging while his face is veiled so nobody can recognise him.¹⁶⁹

Hajar Garden and Al-Hizam Garden, for example, contain some semi-enclosed areas that can provide some visual protection. In Al-Hizam Garden, there are a few

¹⁶⁹Al Riyadh Newspaper, No. 8411.

spots that are adjacent to high and mature hedges and shrubs which provide users with some protection against intrusion (figure 6-12). In Hajar Garden, The formation and use of large stone slabs to create semi-enclosed areas were successful in some parts of the garden, especially when the size of the enclosure is not large. Also the distribution of vegetation helped in creating very comfortable areas that respond to the users' need of privacy (figure 6-13).

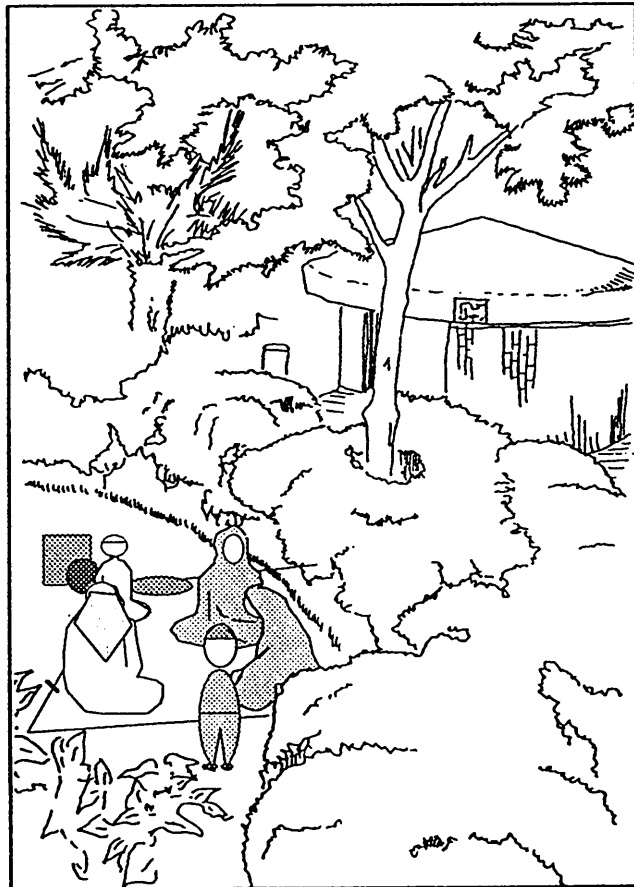


Figure 6-12: Users sit against hedges and high shrubs in pocket areas to enjoy some level of freedom and privacy. Sketch from Al-Hizam Garden.

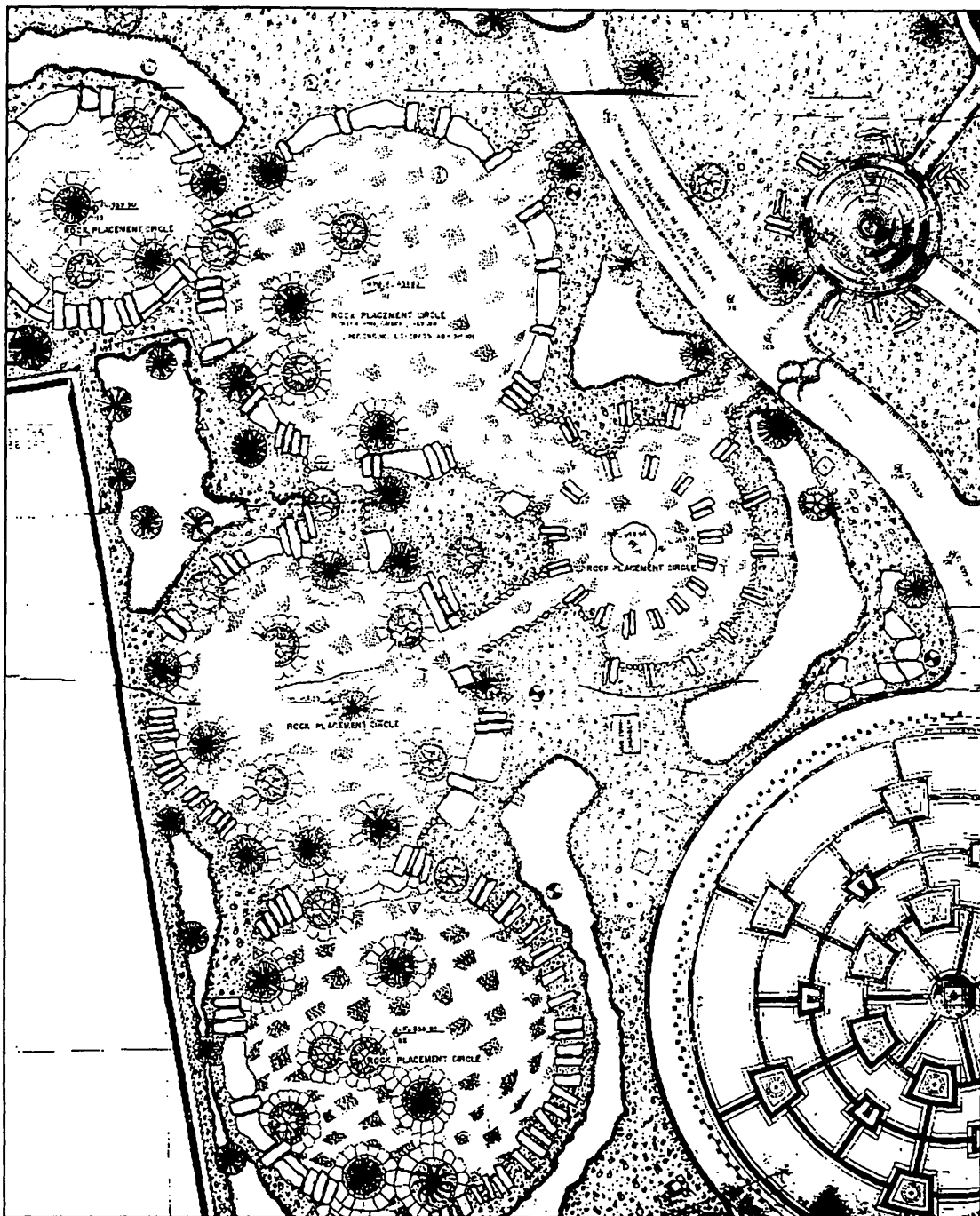


Figure 6-13: The use of stone slabs in Hajar Garden created semi-enclosure areas that provide visual protection for users. Shown here part of Hajar Garden.

The intensity of lighting is another important factor contributing to privacy. In the low lit areas users feel more comfortable and relaxed. They sit enjoying some freedom and privacy of being unexposed. They eat, drink, talk, relax and sometimes

even lie down freely without restriction. Women take off their veils and become active members within their group. On the contrary, the high lit areas are avoided and if used, users usually feel exposed and behave uncomfortably. In Al-Maktabah Garden, spaces are very well lit, therefore it is hard to find a spot that can provide some degree of privacy.

Settling in the Selected Area

As soon as a group of users choose a particular area to sit in, several matters are considered in what can be called settling the area. These matters involve how people sit, how they arrange their sitting positions and directions of males and females of the group, how they arrange their belongings in the setting, where children usually play, and whether there is a relationship between children play area and the adult sitting area. In fact, all these questions are related to each other in responding to two essential factors of human needs; privacy and territoriality. This section will thoroughly deal with these questions and discuss their meaning in the context of outdoor environment.

Users' Sitting Arrangement

The first thing users do after choosing their preferred area is to prepare for sitting. As part of the Saudi culture, most people sit on the ground. This form of sitting take place in the indoors as well as the outdoors. As a matter of fact, Saudis do not use outdoor furniture, such as tables, chairs and benches, even when they are available. In Al-Suwydi Garden, the site was equipped with concrete tables and benches, under suspending tent structures, as well as wood tables and benches, which were scattered through out the garden, but no Saudi users were observed using them (figure 6-14). On the other hand, Saudi users of the outdoor environment will never sit on the bare ground whatever the ground material is. Therefore, users of the

outdoors bring with them one mat or more, depending on the size of the group(s), to sit on.

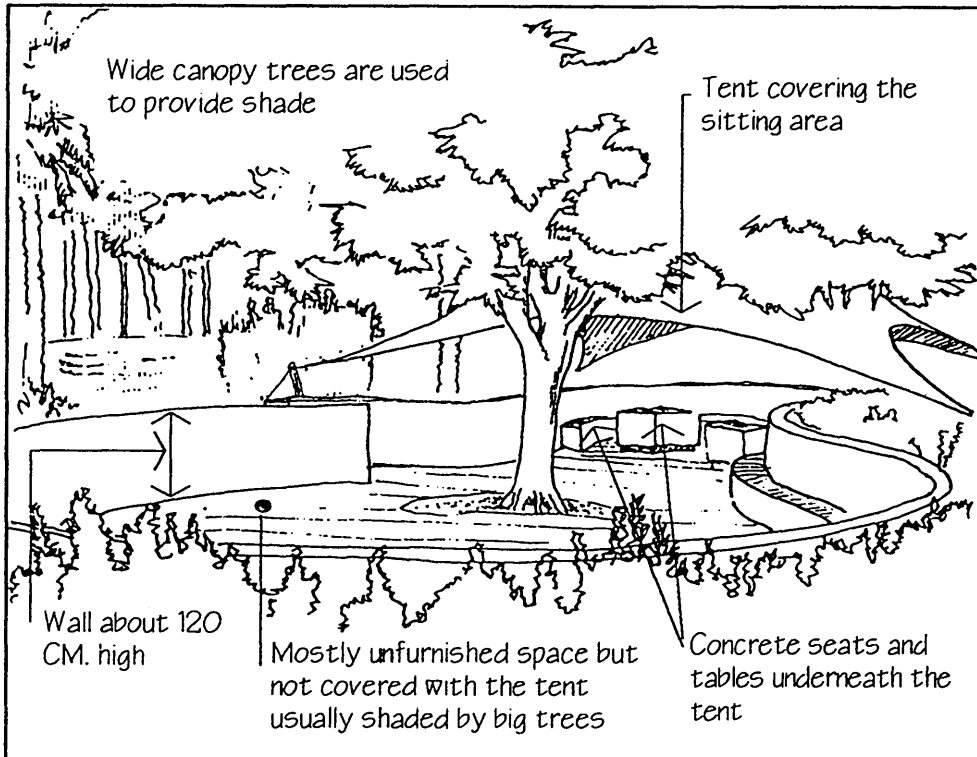


Figure 6-14: View into one of the kidney shape structures which are scattered in the family section of Al-Suwidi Garden.

The positioning of the sitting's mat(s) takes into consideration the previous characteristics of the preferred areas such as edges and protection. People position them on the mat(s) in circles. The size of the circle depends on the size of the family and the characteristics of the setting. In public gardens it is hard to find spacious areas to sit on because of the large crowds in them, therefore, users usually sit close to each other forming small circles. Also most users of public gardens are single family groups. On the contrary, on the paved roadsides and vacant lands, sitting circles are usually bigger because of the size and the openness of the sites therefore, large groups are usually formed from the gathering of one or more families. But, in general people sit close to each other in order to be able to communicate with each other easily and to

be able to share food and drink together (figure 6-15).

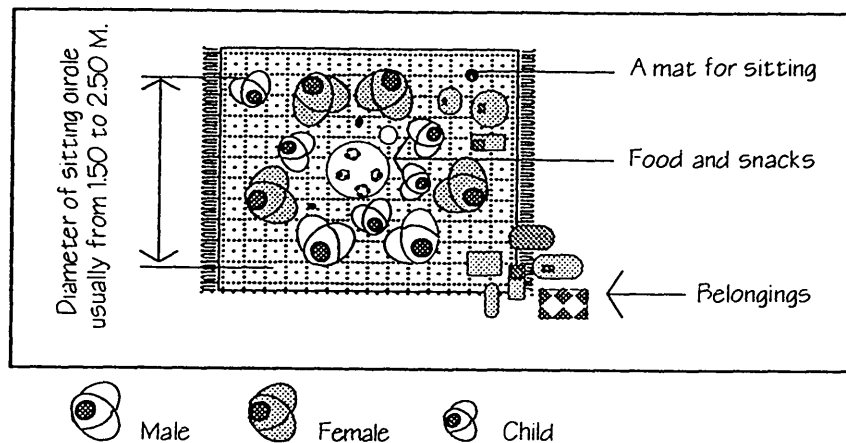


Figure 6-15: Layout and arrangement of sitting on the ground in the outdoor environment.

Members' Position Arrangement

The second thing users do after selecting a spot and preparing the sitting mats and the other belongings is to take positions in the setting. Two forms of sitting in the outdoor environment were observed. The first form is sitting together, males and females in the same circle. The second form is sitting separately males in one circle and females in another. Each of these forms have much detail regarding the sitting positions and arrangements of male and female members of the group and the motives behind such arrangements. These aspects will be dealt with in this section.

The males and females form of sitting together in one circle takes place when all members are of the same family. Females always sit in the most protected spots of the setting for the purpose of enjoying more privacy. When a group sits next to a hedge which separates the sitting area from a circulation path or from another space, usually females sit against the hedges seeking shelter while men sit in the exposed spots (figure 6-16).

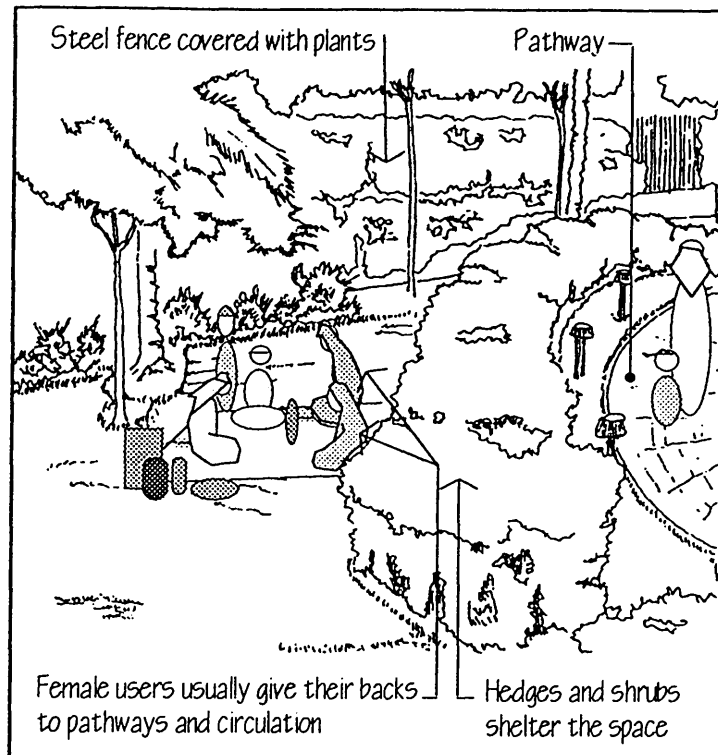


Figure 6-16: Female users sit in the most protected part of the chosen area while male users sit in the exposed part.

The same thing happens on the paved roadsides and the vacant lands where people use their cars as edges and shelters. In such situations, females can take off their face cover and enjoy the setting due to the protection from visual intrusion. If there was another group sitting nearby, females have been observed turning their backs to the other group. By doing so the sitting group creates its own privacy within the sitting circle while there is little, if no, contact with the outer public surrounding (figure 6-17).

Usually males and females sit in separate groups or circles when more than one family goes out for recreation together. In such cases, males and females must separate for privacy purposes (see privacy between sexes in Chapter III). This form mostly exists in large public sites such as the wide paved roadsides and the adjacent vacant lands at the outskirts of the city. It does also exist in fairly large public gardens

such as Al-Suwydi Garden but not as often. In public gardens, the two separate circles keep a distance of about 5 to 10 metres between them, usually less than the distance between two unrelated groups which is usually not less than 10 metres. In the vacant lands along major roads, the separation between the two groups can take many shapes and various distances. The most obvious way is to place the cars between the two circles as a visual barrier (figure 6-18).

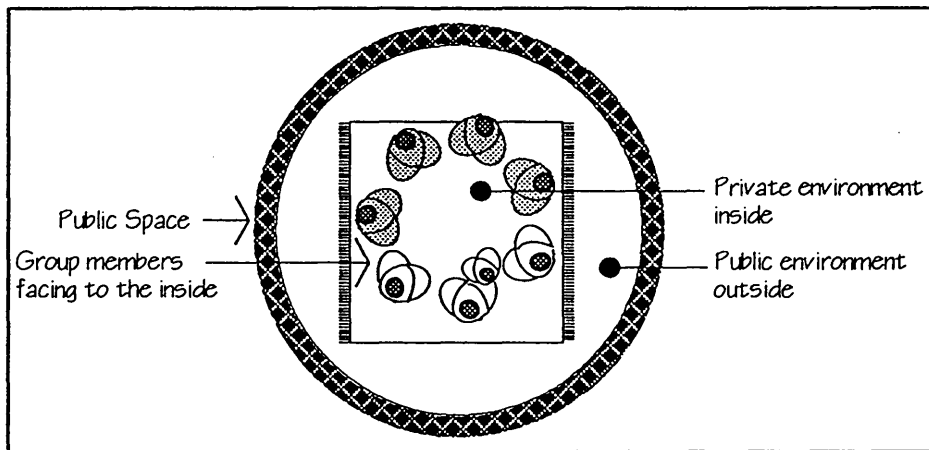


Figure 6-17: The arrangement of sitting defines the private domain of the group from the public domain.

Arrangement of Belongings and the Marking of Territory

It has been observed that users of the outdoor environment bring with them a sizeable quantity of belongings. The logical explanation of this phenomenon is that it depends mainly on the kinds of activities that take place in the outdoors. Analysis of these activities will be dealt with latter in this section. The most popular things users of the outdoors bring with them to the outdoors are mat(s), water coolers, bags and/or containers of food, tea and coffee pots, disposal plates, cups and tissues, and toys for children, such as balls, tricycles, and bicycles. The size of these belongings varies depending on the number of the group users. In general, a considerable quantity of these belongings are usually brought to the outdoors.

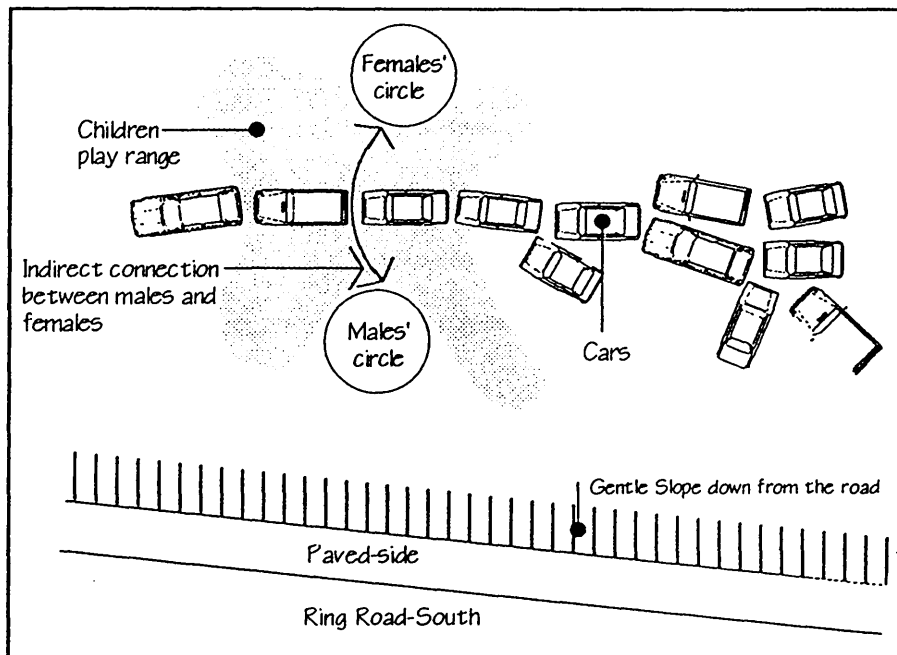


Figure 6-18: A large group of recreationists use cars as a physical barrier to enhance the separation between males' sitting circle and females' sitting circle. This case was observed along the Ring Road-South.

The arrangement of belongings takes many shapes depending on the surrounding environment. From the field work, two levels of territoriality were found. The first level is marked by the layout of the sitting mat. The second level is marked by the scattered belongings around the sitting spot (figure 6-19). As soon as the group users lay down their sitting mats on the ground they send indirect messages to others telling them that this is their spot. The boundary of this level marked the most sacred ground for the sitting group. The scattered belongings and the range of play for young children around the mat are considered another mark of territory. The boundary of this level marks the area where no stranger is felt welcome.

The nature of the site influences the arrangement of the belongings. In public gardens where suitable areas are limited and more users are involved, the arrangement of belongings to mark the territory and avoid physical intrusion is emphasised. Users

come early to select their sitting area. They put their sitting mat on the ground. They place their belongings in a position between where they are sitting and the most vulnerable side where they might be disturbed from. The average size of marked territorial area in public gardens is approximately 4 to 6 metres radius from the sitting group. On the other hand, in vacant lands along major roads, the average size of a marked area is bigger because of the larger size of the site and the kinds of activities that usually take place.

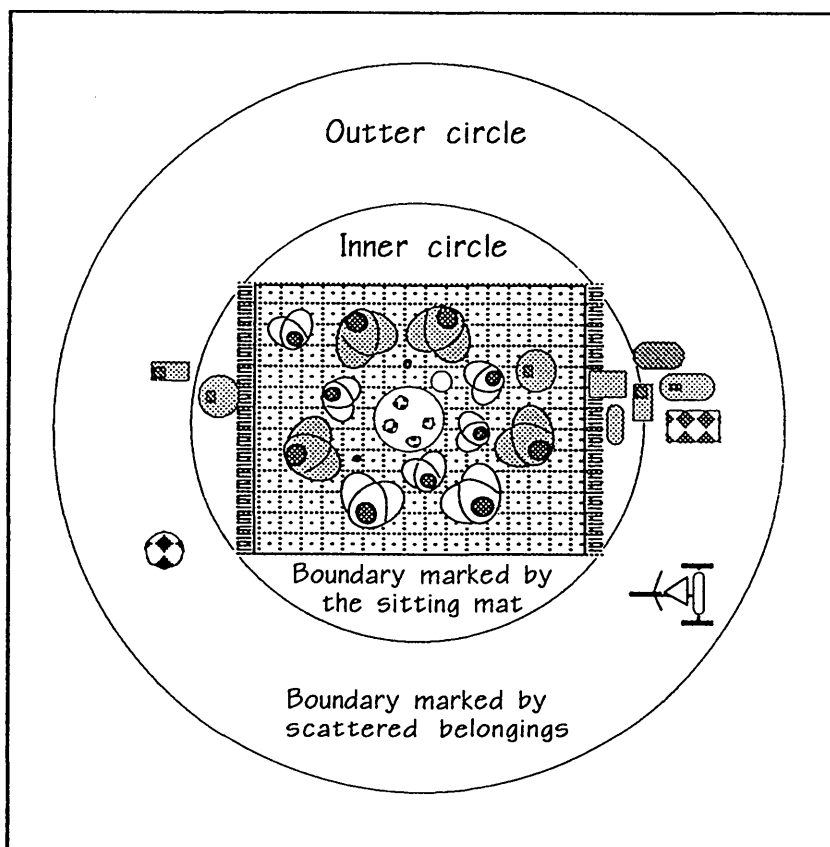


Figure 6-19: The two marked boundaries of territory. The inner circle marked the most sacred ground. The outer circle marked the area where no one is welcome.

Children Play - Areas and the Needed Ranges

One of the important motives behind going out for most families is to allow children to play and enjoy some freedom in the outdoors as a break from the

restrictions of home and school. Children enjoy many different forms of play, especially those that involve challenge such as playing ball, depending on their ages. The very young children, 1 to 6 years old, usually enjoy playground equipment and toys. Older children, 7 to 14 years old, usually prefer play that involves more action such as running, hiding, riding bicycles and/or tricycles, and playing ball games. Each play requires a certain environment. Therefore, depending on the kind of play, each of these two classes of children needs a different setting to suit its preferred play. Analysis of the role of children's play area in influencing the used space will be discussed in this section.

Young children usually enjoy playground equipment, especially as they need someone to watch them. Therefore limited time is usually given by guardians for such play. Most of the time young children are left to play on their own. Their behaviour in such cases involve rolling ball, playing with toys, riding tricycles, and running. These forms of playing usually take place around the sitting family or group (sitting circle). The maximum range of such play behaviour is approximately 4 to 6 metres from the sitting circle (figure 6-19). From such a short distance, parents and guardians can still watch over their children while they are involved in their own activities. Older children, on the other hand, get more freedom to move away from the sitting circle of the group. Also they involve themselves in challenging games such as playing ball which requires a large number of children and slightly larger ground. Such play usually produces disturbing noise and actions.

All public gardens are equipped with children's play grounds. They also suit some of the young children's play which take place around the sitting spots. But due to the limited sizes of gardens compared to the high number of users, the municipality has set certain regulations for limiting ball games and riding bicycles and tricycles.

Users are not allowed to bring into the gardens their children's tricycles and bicycles. On the other hand, it is very difficult to stop children from playing. In the Al Ghurfah Al-Tijariyh Garden in one side of the garden, a garden keeper stopped children five times from playing. Every time he stopped them, they started playing again after he departed. At the same time, playing ball games caused distress and lack of comfort for many users because of the noise generating from the play and because the balls kept going in every direction and hitting people due to the limited open areas in the public gardens.

On the contrary, the vacant lands on the fringes of the city provide enough land for all kinds of playing plus there is no restrictions whatsoever (figure 6-20). The only problem is the safety of children from traffic. Users prefer to sit close to the roads because of the light provided from road lighting (figure 4-10).



Figure 6-20: Group of children riding bicycles on the pavement and the vacant lands.

Activities Taking Place (What people do in the outdoors)

From the field work, activities can be classified in to two types: passive and active activities. Passive activities include sitting, eating, talking, watching people and so on. Active activities include walking, running, and playing. In general, adults

were observed participating more in passive activities while children were more active. Each class of activities has common characteristics that distinguishes it from the other classes. At the same time, every activity requires certain arrangements of the setting in order for it to be carried out. In this section, various activities of the outdoors will be analysed according to their natures and the characteristics of places needed to support them.

Passive Activities

Passive activities mostly take place in one place. They all occur in the sitting position. In fact, sitting is the most obvious event or activity among the whole range of outdoor activities. Users of the outdoors eat while sitting, talk while sitting, watch their children while sitting, and relax and enjoy the surroundings also while sitting. In some cultures, such as in Britain, people enjoy walking in the outdoors. In some other cultures, such as in the States, people go camping. In Saudi Arabia, people enjoy sitting in the outdoors enjoying the coolness of the desert at night, looking at the stars, and talking to family members, relatives, and friends.

In the previous section we analysed how people sit, what they sit on, and what shapes of sitting they form. The answers to these questions are strongly interrelated with the performance of most activities. As has been mentioned, people eat on the ground. In Saudi Arabia, eating habits differ from that of other cultures. A family or a gathering group eats together from one or more big dishes. Therefore, food is usually placed in the middle while people gather in circles around it. If the gathering for food is very large in number, more than one circle is usually formed. This simple form of eating, which does not require much organisation, does encourage people to consider eating out.

Because Saudis usually go out in big numbers, communication, in the form of talking between individuals of the group, is considered as part of the activities that take place in the outdoor environment. People view the surrounding while talking, they talk while eating, and they eat while sitting. They do every one of these activities simultaneously. The most important thing is that some of these activities involve certain behaviours that required various levels of privacy. People can go anywhere, look every where and watch people when in public. But when communicating and talking to someone who is a close relation (a family member, a relative, or a friend) especially when this is considered to be part of the relaxation, people cannot go anywhere. A quiet and semi private place is preferred especially in a culture like that of Saudi Arabia where adult females wear veils in public.

It would not be comfortable for a man and his wife, or any other member of the same family to leave their house seeking enjoyment and relaxation and then stay out for a couple of hours without communicating with each other face to face. The same thing can be said about behaviour while eating. It is even more difficult to eat while the veil is worn. For the sake of privacy in order for these activities to be performed in a very pleasant atmosphere, users of the outdoors prefer some outdoor places over the others.

In public gardens, because of the lack of suitable areas for sitting and the high number of users, the majority of Saudi female users were observed keeping their veils on their faces while in the gardens. They were observed doing most of the activities while they were veiled. Such a situation would not be very relaxing nor enjoyable. On the other hand, on paved roadsides and vacant land the situation was different. Due to the very large areas of lands which are suitable and available for use and the low number of users compared to the available areas, people enjoy more freedom. Most female users took their veils off their faces. They were seen participating in their

group's activities with a level of freedom that the characteristics of the site offered them. Such comparison between the situations in public gardens, on one side, and paved roadsides and vacant lands, on the other side, explains some of the reasons behind the preference of some sites and places over the others by the Saudi users.

Active Activities

There are some active types of activities that takes place in the outdoors but they are not as popular as the passive ones. For children, playing ball and running are the most obvious activities. Adults engage in some active events such as walking, helping children to play and cooking, especially barbecuing. People mostly go out at night seeking relaxation in the coolness of the desert nights, after a long day of hard work. Also the strict roles of privacy and social consideration prevents many from participating in physical activities (figure 6-11). But nevertheless, for adults, walking, helping children and cooking are still practised by some users of the outdoors.

In public gardens, the big crowd of users and the relatively small sizes of facilities prevent or hinder the practice of walking for adults. The municipality regulations which banned playing ball and riding bicycles and tricycles prevent children and some adults from practising such activities. Also the ban on building fires inside the gardens prevents users from barbecuing. On the contrary, as has been said earlier, the freedom from such restrictions that users enjoy on the paved roadsides and in the vacant lands on the fringes of the city made these sites support to a degree some of the active activities, such as riding bicycles and tricycles for children and walking and barbecuing for adults. Family members, especially females, were observed walking around their sitting places due to the degree of privacy provided by the dim light from road lights to the adjacent lands and due to the large distances provided between sitting groups (figure 6-21).



Figure 6-21: Group of male recreationists sitting on mat on the paved roadside. The presence of children suggest that there is another sitting circle of females. The scattered belongings around the mat is obvious. In the photograph, some activities are recorded, such as sitting and chatting, preparing food (barbecuing) and children riding bicycles.¹⁷⁰

Mostly at the weekends, people were observed going to paved roadsides and vacant lands from the early hours of the night until late at night which is a minimum of four hours. To spend such a long time in the outdoors, they take almost everything they need in their cars. Examples of the belongings that have been recorded in the field work are: mats, food, cookers and/or barbecue grills, televisions, toys and so on. In order for such belongings to be unloaded and loaded into the cars, people drive their cars up to the spot they choose where it becomes easy to unload and reload. Part of the success of these unofficial recreational places over public gardens is the accessibility of the site to support such behaviour, otherwise it would be a difficult task to do such things.

¹⁷⁰Al Riyadh Newspaper no. 9178.

Users (Who are)

Most public gardens are open for families only except Al-Suwydi Garden which has a section for single males. The word family, from the observation, means females, females with children, and females with male companion(s). If a man comes with his young children to the garden he would not be allowed in because there is no female accompanying them and in this situation he would be considered a single male. On the contrary, if a female comes to the garden with no children or male companion she would be allowed into the garden. From this simple discussion, we know why most of the users observed were females and children. Many families (females and children) come to gardens with their husbands, fathers, brothers, or family chauffeur who drives them up to the gate, leave them there, and then comes later to collect them. When the male relative or chauffeur comes to collect his family, the garden guards calls for his family by the family surname using loud speakers.

Most users, as it was mentioned earlier, are females and children. But among the families that contain males, females and children, non-Saudi users are the most common. Most Saudi users of public gardens are either small families (two adults (parents) and a maximum of two children) or females with children without male companion(s). The average number of children in public gardens are approximately three. The average number of group members are approximately five people. Big families with many children were rarely seen in public gardens because of the restrictions on some children playing games and because of the high number of users compared to the limiting sizes of gardens.

Paved roadsides and vacant lands are open to everybody: singles and families. There are some segments and sections of these sites where one class forms the majority over the other but there is no particular regulation designating one segment or

section for one certain class. Usually single users of roadsides seek sites that are far away from the urban fabric. They try to avoid the sections which are preferred by families as much as possible. On the other hand, families prefer sites that are closer to the urban fabric. Most users of roadsides are large Saudi families. Average group size is approximately 10 people. A group of over 70 persons were observed along Ring Road-South (figure 6-18). Such big numbers of users usually find enough space and freedom to practice and carry on their activities the way they desire.

Time of Intensive Use

Public gardens, paved roadsides, and vacant lands can be classified into two types according to their time of use. Firstly, public gardens have fully controlled time of use. They are mostly open from 4:00 PM in the afternoon until 11:00 PM at night. A few gardens, such as Al-Suwydi Garden, open from 1:30 PM on the weekends (Thursday and Friday). Despite the opening of public gardens from 4:00 PM in the afternoon, peak use starts from 6:00 PM upwards. Gardens are usually used sparingly throughout the weekdays. The intensive use occurs at the weekends from 6:00 PM until 11:00 PM.

Secondly, paved roadsides and vacant lands are usually out of any official timing control. They are free for social use any time but, due to many climatic, cultural, and daily routine reasons, people usually started using these sites, on average, from 8 PM. Users of such places usually do not stay until late at night during the weekdays. At the weekends the story differs. Large numbers of users of paved roadsides and vacant lands start from approximately 9:00 to 10:00 PM upwards, some stay until 3:00 to 4:00 AM in the morning of next day. Such behaviour takes place because of the nice weather the desert offers at night and early morning and because it is considered to be the only form of evening gathering out of the home.

QUANTITATIVE PERSPECTIVE, STRATEGIES, EXPERIENCE, AND ANALYSIS

Survey Strategies	162
The Importance of Using Survey Techniques in this Study	162
Questionnaire Design	163
Distribution and Collection Process and Experience	166
Obstacles Facing the Survey Process	168
Survey Analysis	169
Data Analysis	169
Characteristics of Respondents	171
Respondents' Preferences and Opinions	174
Preferences	174
Opinions	180
Social Aspects	183
Respondents' Comments	188

QUANTITATIVE PERSPECTIVE, STRATEGIES, EXPERIENCE, AND ANALYSIS

Studying human behaviour consists of two important parts. The behaviour that takes place in the environment and the feelings and attitudes towards the environment that led to the resulting behaviour. In chapter VI, the analysis of the observational records showed how users of the outdoor recreational environments behave in different situations. The analysis investigated the recorded behaviour in detail but, even with that considerable amount of information about the actual behaviour, it is still difficult, if not impossible, to draw a comprehensive picture of the whole issue of human behaviour in the outdoor environment. To put this into focus, the concern in this chapter is to examine issues that relate to people, their outdoor environments, and the interrelationships among them. A quantitative method of survey questionnaire technique was utilised to examine such issues.

SURVEY STRATEGIES

The Importance of Using Survey Techniques in this Study

In everyday life, as well as in social research, when someone wants to know something about another person's beliefs, attitudes, behaviours, feelings, and so on, his first resource is often simply to ask a question. The method of obtaining answers through asking questions can take several forms and techniques. The primary

technique is the survey questionnaire. In this research, survey technique is used in conjunction with the observational technique.

In the observational technique utilised for this research, naturalistic observation has taken place without administering any measures to the observed subjects. The observation consisted of observing behaviours in the natural environment and making copious notes about them. In the analysis of the observed records in the previous chapter, speculations about the motives, preferences and beliefs were drawn from the observed behaviours. In order to be more accurate about these underlying factors as well as to detect more information about the related issues to enrich the research, a questionnaire survey was utilised.

Questionnaire Design

The questionnaire survey was designed to elicit precisely the information needed to carry out the research. Since the aim of this research was to find out about the involvement of socio-cultural needs in determining the success of the outdoor environment, the questionnaire was divided into two sections. The first section is designed to assess the characteristics of the subjects of the survey. Such characteristics are called demographics. In this section, questions were asked to provide factual information about the population; information about age, nationality, marital status, number of children, number of household members, years living in Ar-Riyadh, and residence type. This factual data was used in two ways. First, they made it possible to describe the population under investigation in very precise terms. Second, the data also helped in explaining why there were variations among the observed behaviours.

The second section of the questionnaire is designed to deal with respondents'

thoughts and feelings, their behaviour, and their understanding and awareness of situations and environments. This section is divided into three parts each to cover a particular range of questions. The first part consisted of questions aimed to find out about people's social life and habits in relation to the issue of recreation. Questions, such as how many times do you go for recreation in a month, with whom do you go, and the places you go to, were designed to reveal information about the importance and involvement of recreation in the society's life cycle. They also revealed information about who are the users of the outdoors and their relations to each other - whether they are family members, relatives, friends, and so on. Such information helped in understanding some of the observed behaviours.

The second part consisted of questions that deal with the approval, disapproval, preferences, likes, and dislikes in regard to the public gardens and other recreational facilities and sites in the city. The questions also aimed to find out about certain critical aspects in regard to recreation, such as privacy, to get people's opinions and attitude towards them. Questions such as how many time do you visit public gardens, reasons behind visiting gardens, evaluation of privacy and privacy level in recreational sites, and what do you think the reasons behind the prefer of some people for certain forms of recreation over others, were designed to reveal a considerable amount of information in regard to people's thoughts concerning recreation and its environment as well as providing accurate answers to the many queries resulting from the observational field work.

The third part consisted of questions that deal with the activities that take place in the existing recreational outdoor environments. Answers to the questions of what kinds of activities are performed in the outdoors, who are usually involve in what activities, and why such activities are performed in certain places by certain performers

were sought through this part. Such answers begin to justify and clarify behaviours such as the reasons behind selecting particular spaces or sites by particular groups in order to perform particular types of activities. See Appendix I for a complete set of the questionnaire in both Arabic and English languages.

The final form of the questionnaire was aimed at males and females alike. The first 24 questions were meant to be answered by males. This part of the questionnaire consisted of questions that either revealed information about males and their relation to the recreation and recreational environments (all the different types of questions were included) or general questions that were aimed at revealing information about the whole family or household. This part was to be answered by the head (male) of the house. The second part of the questionnaire, from question no. 25 to question no. 35 was aimed at the Lady (female) of the house. This set concerned the female's opinion, preferences, and thoughts in regard to recreation and recreational environments. The female's part is shorter than that of the male's because the general questions that were included in the male's part of the questionnaire have not been repeated in the female's part. Examples of general questions were the number of children, and residence type.

The final form of the questionnaire was produced, in the Arabic language, on a B4 sized document. On the front cover, the logo of King Saud University was printed and the name of the research. The first page contained the official authorisation letter, from the Dean's Office, College of Architecture and Planning, King Saud University, addressed to the citizens of Ar-Riyadh. The second page contained a letter from me "the researcher" to the respondents explaining the purpose and the aim of the research, ensuring the confidentiality of the answers, and at the end thanking the respondent for his and her co-operation. The 35 questions started from page no. 3 onwards. They were divided into five sections to guide the respondent and give him/her a clear idea

about the contents of the questions (see the English and Arabic versions of the questionnaires in Appendix I).

Distribution and Collection Process and Experience

The following steps, after setting the sampling technique for this study and deciding on the general strategies for the questionnaire distribution (see Chapter V for detail), were considered important before the beginning of the distribution process. In order for the distribution process to be completed successfully, there were several issues that ought to be considered, in particular that the Saudi society is not familiar with research and its techniques for information collection.

In order for the distribution process to begin, an authorisation has to be obtained from officials (see next section Obstacles and Limitation). Part of the authorisation was to obtain a letter from the Dean of the College of Architecture and an Identification Card from the college. This letter was carried by the researcher while a copy was printed on the first page of the questionnaire document. Also, as part of the authorisation scheme, a King Saud University car with the university's official logo printed on its sides was obtained for the distribution. People in Saudi Arabia have a strong respect for official departments in the government. This respect also extends to government personnel, and because King Saud University is part of the governmental system of higher education, its property is considered part of the government. In the distribution, the car was always parked in front of the door of the randomly selected residence in order for respondent(s) to see the logo before receiving the questionnaire. This way proved to be very successful as it eased the distribution process without facing any harassment, which usually takes place in such situations, and contributed positively to the high number of responses. One final step that appears to have

enhanced the official authorisation of the distribution process was to have a very respectable looking gentleman accompanying the researcher. This step gave some kind of authorisation to the process and contributed to the smoothness of the distribution.

The other very important step considered for the success of the distribution was deciding on a suitable time for distributing and collecting the questionnaires. The time chosen was in the early evening between 4:00 PM and 6:00 PM. The distribution of the questionnaire took place between 4:00 PM to 5:00 PM and the collection process usually took place between 5:00 PM to 6:00 PM. The main purpose for choosing this period of the day, for the distribution and collection process, was that in Saudi Arabia the working hours for the government are between 7:00 AM to 3:00 PM. The majority of people take the afternoon period for rest and having their lunch. This social behaviour is embedded in the culture since ancient times because of the hot weather which reaches its peak in the mid day period. People usually start leaving their houses again after 4:30 PM, to attend to their private and personal bussiness.

The distribution of the questionnaires started at 4:00 PM to ensure that most male subjects were still at home. In the cases where there were no males in the house, the questionnaires were given to a female of the households, in which case, I (the researcher) explained what I needed them to do through the intercom phone and then I slipped the questionnaire underneath the outside door. The distribution strategies for selecting houses is discussed in Chapter V. For the collection process the story is different. Respondents were asked to put their answered questionnaires in their Electric Meter Box which is located on the outside wall next to the main door of every residence in the city. Therefore, the collection process involved collecting the questionnaire from the electric meter boxes of every household involved. In cases where the questionnaire was not returned, the residents of the house were contacted.

Residents of the concerned houses were contacted on a maximum of three times in three consequence days for their completed questionnaires.

Obstacles Facing the Survey Process

When conducting a study that requires direct contacts/and interactions with the general public, obstacles and limitations that hinder and/or delay the progress of the work can usually be expected. In the survey for this study, many obstacles occurred in different stages of the survey, but the major obstacles related to three issues. The first issue was the approval and authorisation process, the second was the distribution due to the large size of the city, and the third was the responses to the questionnaires.

Conducting a survey technique requires considerable effort and long periods of preparation. The questionnaires were developed, translated and pilot tested in the summer of 1992. In August 1992, the questionnaire format was sent for approval to the Saudi Arabian Educational Bureau in order for the administrative process to take its course. This process usually takes about 2 to 3 months according to the advice of my "the researcher's" academic adviser in the Saudi Bureau. Therefore, the field work and the survey was planned to begin around the end of October or the beginning of November 1992. However, a delay of about 7 months, for some administrative reasons, occurred which resulted in receiving approval for the field work and the survey in June 1993. The field work and the survey was conducted between June and October which luckily was within the appropriate time for conducting the study.

The second major obstacle which faced the process of distributing and collecting of the questionnaires was the size of the city of Ar-Riyadh. The spread of the city measured on the map from north to south, in a straight line, is slightly over 40 kilometres. This distance is usually multiplied when driving through the city's streets

and roads. The twenty five residential areas, which were randomly selected (see Sampling Technique in Chapter V), were scattered all over the city. It was impossible to be able to complete the process of distributing the questionnaires in one area and collecting them from another one, especially if they were far away from each other, because the field work observation was also conducted at the same time and the whole time of the field trip was limited.

In order to overcome this obstacle, the randomly selected areas were grouped together into several groups according to the distances between them. The areas closest to each other were grouped together so that it was manageable to distribute the questionnaire in one area and collect them from the other. This grouping did not overcome the obstacle completely but it eased the process. The problem lay in the third issue relating to survey obstacles. When many respondents in almost every selected area did not respond to the set time and day of collection, many trips had to be made to those respondents regardless of their location in order to get their responses. Such obstacles resulted in considerable time and effort.

SURVEY ANALYSIS

Data Analysis

After the data have been collected and coded, the next step was the analysis and interpretation. The analysis process is used to summarise the completed observation "Data" in such a way that they yield answers to the research questions.¹⁷¹ The

¹⁷¹Judd, C. M., E. R. Smith, and L. H. Kidder, Research Methods in Social Relations (New York, London: Harcourt Brace Jovanovich College Publishers, 1991).

interpretation process, on the other hand, is used to search for the broader meaning of these answers by linking them to other available information. Both of these processes in this chapter were carried out in order to justify, clarify, and reinforce some of the issues in the preceding chapter. The descriptive statistical analysis was employed to provide the basis for understanding the quantitative aspects of the research in a simple and easy to understand manner.

The analysis in this chapter is divided into three sections: characteristics of the respondents, respondents preferences and opinions towards recreation and recreational environment, and the social aspects in regard to recreation and its environment. The first part examines the respondents' general characteristics. This includes information about users of the outdoor recreational places and their social status, ages, number of family members, number of children and years living in the city. The second part examines the respondents preferences and opinions towards recreation and its environment. This part deals with how often and where people prefer to go for recreation, and the reasons behind this preference. The third part examines the social aspects that influence recreation and recreational environments. This part includes answers to questions that deal with the importance of recreation for the people, with whom they usually go for recreation, why they choose particular places, and what they usually do in their outdoor recreation.

Before starting the analysis there are a few points which ought to be discussed. First, the classification of the analysis into three parts is for simplification purposes otherwise the three parts are interrelated and may merge together during the analysis. Second, the analysis does not attempt to present the answers to every question in the questionnaire. The questionnaire includes questions that can contribute in one way or another in the analysis process. On the other hand, other questions were designed to

help respondents to understand certain meanings or issues. Some others broaden the study for the understanding of the general topic. Third, any numerical result used in the analysis will be given a reference number that refers to the statistical process in the appendices.

Characteristics of Respondents

The characteristics of respondents or the demographic data will be analysed for two purposes. The first is to provide us with information about the studied population. Second, to provide us with information aimed to justify, clarify, and reinforce some of the issues of recreation processed in chapter VI. Information about the studied population tells whether the sampled population did represent the larger scale population of the city or not. The four most important variables in the case of this study to examine the population are age, marital status, number of children, family size, number of years living in Ar-Riyadh, and residence type. These variables were chosen because of their direct or indirect relation and/or influence on recreation and recreational places.

The age variable was classified into five age groups. First group was up to 25 years old, second group was from 26-35 years old, third group was from 36-45 years old, fourth group was from 46- 55 years old, and the fifth group was 56+ years old. The age question was directed to the guardian of the household. This classification was based on many assumptions, in regard to the researcher's knowledge of the Saudi society, considering the marital status and number of children. The 25 years old group and under represented, in general, the unmarried males. The 26 to 35 years old represented young married males with a couple of children. The 36 to 45 years old represented mature males with approximately 4 children. The 46 to 55 years old

represented middle aged males with full size family. The 56 years and over represented males who, in general, would have less young children and more sons and daughters who are 14 and over 20s (semi independent) living with him.

The result of the age question revealed the following percentages: 13.7% under 26 years, 50.3% between 25 and 35 years, 24% between 36 and 45 years, 9.7% between 46 and 55 years, and 2.3% over 56 years (3.1.1). These results show that 84% of the respondents fall within the target population (males who would have families and a number of children) between 26 and 55 years. The high percentage (50.3% of the total respondents) of the group 26 to 35 years could be justified in two ways. First, males of this age may form a high percentage of the population of the city especially as the city is the capital of the Kingdom, where most of the governmental agencies were located, which attracts young males from other areas to migrate for job opportunities. Second, in large families, males of this age usually share some of the responsibilities in regard to their families' affairs as a contributed help to their elderly fathers. Therefore, they would be in a position to answer the questionnaires. These two justifications may be behind the high percentage of respondents of this age group.

The marital status question is very important in this study. Married males, presumably, carry different thoughts, preferences and concerns about recreation than single ones. In order to obtain a full insight about, for example, males responses to family's and female's privacy, the marital status of male respondents can be a good indicator in judging the responses. Although single males can provide valuable information, married ones would have more accuracy as they are the head of their families and familiar with their wives' and daughters' concerns. The marital status question revealed that about 90% (3.1.2) of the respondents are married.

The number of children is considered an important variable in regard to

recreation and its environment. It plays a vital role in stressing the importance of recreation as well as in choosing the outdoor environment. A question about the number of children under 13 in the family revealed that 29.3% of the respondents had "no children" while 70.8% did (3.1.3). The 29.3% of "no children" answers can mean two things. Either the respondent has no children at all or no children in the family under 13 years old. The shape of the bar chart distribution of the frequencies of the number of children, from 1 child to 6 children, looks close in shape to the normal distribution around the mean which is 3.06 (3.1.3). The survey also revealed that Saudi families living in one house is a fairly large family. The average size of the household, in the city of Ar-Riyadh, according to the survey is 6.57 (approximately 7 members) ranging from 2 to 20 members per household.

From the question about how many years the respondents have lived in Ar-Riyadh 65.8% answered more than 15 years, 18.6% from 8 to 15 years, 11.7% from 2 to 7 years and 3.2% less than 2 years (3.1.5). This question deals with the assumption that the longer the person lives in the place the longer he/she gets familiar with it and the more he/she absorbs the culture and the tradition of it. The results of the survey showed that about 70% of the respondents have lived in the city for more than 15 years. Such a high percentage ensures that the targeted population does represent the real population of the city.

In the question about the residence type, 67.6% of respondents live in villa type housing, 22.7% live in flat type housing which in most cases are upper or lower floor flats in villa type houses, the rest of the respondents, 9.7%, live in other forms of housing (3.1.6). This result supports the accuracy of the survey as a representative of the actual population because the majority of housing of the city is of villa-type. The other important aspect of this question will be discussed in the next chapter when a

general discussion about the results of the observation and the questionnaire takes place.

Respondents' Preferences and Opinions

Preferences

The analysis in this section will examine some issues that cannot be examined by any way other than asking questions. The examination will include preferences in regard to the recreational environments, opinions and thoughts related to the reasons behind using certain recreational places, and ideas and suggestions about certain aspects. All these issues are mainly psychological processes that take place first in the mind and then reflect on the behaviour. In the field work analysis, thorough examination of the observed behaviours provide clues to speculate on some issues of preferences and opinions but with no certainty. Therefore, the bulk of the questionnaire was devoted to reveal information about these issues.

The preference questions were directed to male and female respondents. The six most popular outdoor places plus the choice of others were provided in the questions (Questions no. 3 and 27 in Appendix no. 1). The respondents were asked to choose the three most preferable places that they liked to go to with their families for their outdoor recreation. The male respondents were requested to rank their three preferable places according to their preference from 1 to 3. This step, though it is confusing and a little bit complicated, was meant to provide precise information of the level of preference of each selected place.

The preference response for public gardens was the following: 57.5% of the female respondents did not include public gardens in their preference, 42.5% included

them. On the other hand, 54% of the male respondents did not include public gardens in their preference while 46% did (3.2.1). Among the 46% of the male respondents who preferred public gardens, 19% preferred them as a first choice, 10.3% preferred them as a second choice, 16.7% preferred them as a third choice. In general, these statistical results show that over half of the respondents did not consider public gardens among their preferred recreational outdoor places. These results are supported by the results of another question (question no. 5).

In question no. 5, respondents were asked about the number of times they visit public gardens in a month. The answers were 52% not at all, 25.7% once, 14% twice, 4.5% three times, 1.7% four times, and 2.2% over four times (3.3.2). From the results, slightly over half of the respondents do not go to public gardens at all. On the other hand, 48.1% of respondents go to public gardens at least once. This percentage is very close to the 46% of respondents who prefer public gardens for their outdoor recreation. In the following chapter we will examine some of the reasons behind this low level of preference for public gardens.

People may prefer something because they like certain aspects about it. Question number 6 tried to investigate what people liked in public gardens. Seven suggested reasons, which were thought to be the reasons behind going to public gardens, plus an open choice were listed for respondents to select the relative ones. Table 7-1 shows the percentages of the respondents' agreement and disagreement to the suggested listed reasons.

From the table, there are three reasons that have the majority of the respondents selection as reasons behind going to public gardens. These reasons are: the availability of green open spaces with 57.7%, the availability of children's play facilities with 60.4%, and for the sake of changing the house atmosphere 59.5%. Because of the

lack of greenery for people to enjoy in the city of Ar-Riyadh, public gardens provide a unique opportunity of intensive greenery of dense trees and open grass areas for the general public. About 58% of the survey population agreed on this greenery as an inviting reason to visit public gardens. Also from the table we see that the availability of children's play facilities is the strongest reasons given because most public gardens are equipped with decent play areas.

Reasons	No	Yes	Reasons	No	Yes
Availability of green open spaces	42.3%	57.7%	The possibility of seeing and talking to friends	86.5%	13.5%
Availability of beautiful views	63.1%	36.9%	Availability of children's play facilities	39.6%	60.4%
Availability of shaded places from the sun	79.3%	20.4%	For the sake of changing the house atmosphere	40.5%	59.5%
Availability of suitable places for sitting	76.6%	23.4%	Other reasons.	95.5%	4.5%

Table no. 7-1: Statistical results of the reasons behind going to public gardens (see Appendix III, results: 3.2.8 to 3.2.15).

Although most public gardens are very well planted, with beautiful features, when respondents were asked whether they consider the availability of beautiful views in public gardens among the inviting reasons to visit them, 63.1% disagree and only 36.9% agree. This result, with the majority disagreeing, may be because users of public gardens usually view the gardens while they are in use. And because of the small size of public gardens compared to the high number of users (much over their intended capacities) aesthetic features and open vistas are usually blocked and overwhelmed by the crowds.

The majority of the respondents, about 80%, do not think that the availability

of shaded places are among the reasons that would make them go to public gardens. From the observation we found that public gardens and other recreational sites are mostly used after 6:00 PM, which is about Sunset time, due to many reasons. On the other hand, 20.7% of the respondents considered the availability of shaded places among the reasons behind going to public gardens because most public gardens open from 4:00 PM while a few, such as Al-Suwydi Garden, open from 1:30 pm. In such cases, whoever is going out in such times must consider shade as a necessary aspect.

Among the very important findings in the observation is that public gardens are undesirable to many users because most public gardens are crowded and lack comfort, to many users especially in finding suitable places to sit and enjoy the surroundings. In the question about whether the availability of suitable places for sitting was among the inviting reasons for users to go to public gardens, about 77% disagree (table 7-1). The opinion of this high percentage of respondents is very supportive to the field work findings.

The last suggested choices for making people go to public gardens are the possibility of seeing friends; and others for respondents to list their own reasons. In response to the possibility of seeing friends, 86.5% of the respondents disagree while only 13.5% agree. This shows that public gardens are not suitable settings neither to see friends by chance nor to plan to meet friends. They are overcrowded and it is impossible to plan to meet friends because it would be hard to find suitable places to accommodate big groups. For the choice of other reasons behind going to public gardens, only 4.5% made that selecting. When reviewed these reasons were found not to be relevant.

The second outdoor site in determining the respondents' preferences in questions no. 3 and 27 was the zoo. The male responses in question no. 3 revealed

that 77% do not prefer the zoo as a place of outdoor recreation while 23% prefer it. The female responses in question no. 27 revealed that 67.6% do not prefer the zoo while 32.4% do. Questions no. 4 and 28 (see questionnaire, Appendix I) asked the respondents to list the reasons that make them prefer the selected ones. Most of the respondents who selected the zoo among their preference listed that they go to the zoo just for the sake of their children. The Ar-Riyadh Zoo is the only public recreational facility in the city that has assigned days for men and others for women. Therefore, the percentage of females who prefer the zoo is slightly higher than that of males because females feel somehow comfortable in it because of the semi-privacy that they enjoy, although there are male workers in the maintenance and in the food and snack shops. There are many demands for replacing the male workers with female ones on the women's day for the females users to enjoy full privacy, as is the case in the privately owned amusement parks in the city.

The males' responses to the Diplomatic Quarter preference question was 46.6% no and 53.4% yes (3.2.3). Slightly over half of the male respondents do prefer the Diplomatic Quarters for their outdoor recreation although it is located on the west side of the city which is on the opposite side of the city from most residential areas (see layout map of the city in chapter IV). Among the respondents who preferred the diplomatic quarter, 21.8% considered it as their first choice, 16.1% considered it as their second choice, and 15.5% considered it as their third choice. From the over all results of the different sites, the Diplomatic Quarter was in the second place for the highest males' responses after the desert (3.2.1 to 3.2.7). Female responses to the Diplomatic Quarter preference is closer to the males' one. The responses of no preference were 46.1% and the preference ones were 53.9% (3.2.29). This high preference of choice for the Diplomatic Quarter is due to the nature of the site. Big portions of the undeveloped residential areas within the quarter have already been

equipped with paved roads and neighbourhood sub-centres which include toilets, children's playgrounds, and trees all in a beautifully designed settings. Most of these areas are vacant and open land except from the developed centre, so people enjoy sitting in the open land and at the same time they have the opportunity to use the toilets and the play ground in the centres.

The next two site definitions were paved road-sides and vacant desert land. I will discuss and represent the statistical analysis results of these two sites together because in the actual situation they were all together (one site). People sit on the paved road-sides when there is large vacant land adjacent to the road. This vacant land usually takes most of the action and the use. At the same time people consider it as a desert although in most situations, it is located along the major roads, and motorways on the fringes of the city. A mistake was made in the questionnaire by presenting them as two questions, one for the road-sides and another for the desert land. A combination of the results will rectify this mistake.

For the road-sides, males' responses were 63.2% no preference while 36.2% preference (3.2.4). Females' responses were 72.5% no preference while 27.5% preference (3.2.30). These results, alone, are conflicting with the field work results. But if we take the desert choice we find, for males 30.5% no preference while 69.5% preference (3.2.5), and for females 37.1% no preference and 62.9% preference (3.2.31). From these percentages it is obvious that desert preference is the highest among all sites. It also coincided with the field work observation. Knowing that road-side and vacant land are two names of one large site and most users of such sites sit in the vacant land because of its size, the results of the desert preference explains the low percentage of preference for the road-sides.

In asking about the preference of private pieces of landscaped lands outside the

city which is used for recreation in the free time as retreats, for males, 85.1% answered no preference and 14.9% preferred (3.2.6), while for females, 83.8% answered no preference and 16.2% preferred (3.2.22). These forms of recreational sites are not available to everybody, therefore the majority of respondents do not prefer them as a way of dealing with the actual reality. The last choice was other places which are supposed to be different from the listed ones. For this last choice, among the male respondents, about 86% did not prefer other places and 13.8% did while, for female respondents, 86.8% did not prefer other places and about 13% did. From reviewing respondents' notes in the answers of question 4 and 27, they vary in their preferences. To give but a few examples of the kinds of places they prefer for their outdoor recreation, they listed the private amusement parks in the city such as Al-Khymāh and Ar-Rwḍaah Parks, markets and shopping centres, and/or just driving the car around the city.

Opinions

Issues regarding the users' beliefs and opinions cannot be examined through observation only. From the field work study, the importance of privacy was detected either directly, in some cases, or indirectly, in other ones. In order to verify the results of the observation with accurate information regarding the role of privacy and other related issues, part of the questionnaire was designated to reveal information about opinions and beliefs. Questions 7 to 11, in the male's section of the questionnaire, and questions 29 to 30, in the female's section, were designed to get respondents' opinions and thoughts about the importance of privacy, evaluation of the existing situation, thoughts about some phenomenon in the use of outdoor environment and opinions about different alternatives for improving the privacy level in recreation.

The first questions in this section, in regard to opinions and beliefs, (see

questions no 7, for males, and no. 28, for females, in Appendix III) were prepared to measure the importance of privacy in the outdoor environment, in general terms. About 91% of the male respondents think that privacy is very important in outdoor recreation (3.2.16). On the other hand, among the female respondents, 92.4% think privacy is important (3.2.34). The two results are close in number though females have a slightly higher percentage. This may be because females are more concerned about the issue of privacy especially female privacy.

This importance of privacy is more urgently needed in some situations than in others. In the vacant land with few users in the outskirts of the city and even in the lightly used public gardens, such as Hajar Garden, in the Diplomatic Quarter, privacy is not threatened because users usually have enough areas to arrange the direction of their sitting and to maintain a fairly large distance between their groups. But when the matter comes to crowded areas, such as most public gardens, privacy becomes a vital issue and people evaluate the site accordingly. In question 8, respondents were asked to evaluate the existing level of privacy in the public gardens which they have visited.

The question was divided into six categories as shown in table 7-2. The respondents were asked to evaluate the privacy level in the gardens into one of the categories. The evaluation results are in table 7-2. From the table, the highest value, 24.3%, is for those who think privacy does not exist at all while the lowest value, 6.4%, is for those who think the privacy level is very good. The results can be classified into three categories. The first category includes the respondents who cannot judge the level of privacy and they are 15.6%. The second category includes the respondents who think privacy does not exist or at least it is at a poor level and they are 46.3%. The third category includes the respondents who think the privacy level is acceptable, adequate, or very good and they are 38.2%.

Value	%	Aggr. %
I do not know	15.6%	15.6%
Non-existent	24.9%	46.3%
Poor	21.4%	
Acceptable	15.6%	38.2%
Adequate	16.2%	
Very good	6.4%	

Table 7-2: Evaluation of the privacy level in public gardens (3.2.17).

The highest percentage among the aggregated percentages is the one that includes non-existent or poor level. It is the researcher's belief that because of the nature of the study and the unfamiliarity of the respondents to such techniques and such questions, the result came out with a small difference between the category of the non-existent and poor, on one side, and the category of acceptable, adequate, and very good, on the other. Rather, the margin between the two categories should be large. This rigorous speculation is supported by the results of question no. 9. The respondents were asked if they think most people prefer to go, with their families, to the more open and less crowded places than to public gardens, because of the issue of privacy. The majority of the respondents, 87.5%, agreed that they think privacy is the reason behind preferring other places over public gardens. This direct and simple question is more likely to be understood and answered than the previous one, therefore, the result here coincided with the general findings of the field work as well as with the results of other parts of the statistical analysis.

In the city, there are voices calling for complete separation between males and females in the outdoor recreational facilities especially the official outdoor spaces, such as public gardens, as a solution to the privacy problem. To examine what the general

public and the users of public gardens think about the different alternatives that can be considered for solving the privacy problem, six alternatives were provided in question no. 10. Respondents were asked to select one choice among the six alternatives. Among the different alternatives (see table 7-3), the majority of respondents, 71.1%, think outdoor recreation should be accessible for men and women at the same time with an improved privacy level (3.2.19).

Alternative Solutions	%
Separate places for men and others for women	13.9%
Assign days (or certain times) for men and others for women	4.4%
Public gardens should be designed only for women	1.7%
Men and women in the same place with improving privacy level	71.1%
The existing situation is good and no need for any change	3.9%
Other alternatives	5.0%

Table 7-3: Responses to the different alternatives in regard to the privacy issue (3.2.19).

Social Aspects

To examine the importance and involvement of recreation in people's lives, a question was asked regarding how many times the respondent went out for recreation during last month. The answers were 26.1% not at all, 23.3% once, 20% twice, 11.1% three times, 3.3% four times, and 16.1% more than four times (3.3.1). The purpose of breaking the answers into six parts was to gain insight about the situation and how deep its involvement. But in general, we found that 26.1% of the respondents did not go for recreation while 73.9% of them have gone out for

recreation at least once (3.3.1). This result reveals that the majority of the population do take recreation seriously and it is deeply involved in their lifestyle.

The logical question to be asked after knowing the importance of going out for recreation is to know who are the users of the outdoor environment. This question can be broken into several parts; does a user of the outdoors go alone or does he/she go in a group and if that is the case, who would be the members of the group, would they be family members with children or would they be friends, relatives or others? All these questions were investigated in the questionnaire in order to know who really are the users of the outdoor environment because it was impossible to be accurate about this information from the field work observation alone.

The respondents were asked with whom do they often go outside for recreation? The male respondents were asked to choose the relevant answers from six alternatives (see table 7-4). The results revealed that the majority of the respondents, about 75%, go out with their family members. The rest of the alternatives have very low percentages of selection. Some of the males respondents, 21.3%, indicated that they also go out with their children to the outdoors.

The noticeable thing is that slightly over one quarter of the male respondents indicated that they also go out with their friends and their friends' families. This may be explained in two ways. The first explanation is by going out with their own families and their friends at the same time. From the observation, it has been found that some groups were very large to be all one family. These groups were observed forming two separated sitting circles, one for males and the other for females, which means that the members of the gathering are not of the same family otherwise females and males would not be separated in two sitting circles. (figure 6-13). The second explanation is by going out with their male friends only. This form was also observed

especially in the outskirts of the city where single males, not necessary young, usually sit far away from places used by family groups on the paved road-sides in the outskirts of the city.

With whom	Yes	No
With family members	74.7%	25.3%
With my children	21.3%	78.3%
With relatives	16.9%	83.1%
With Friends	27%	73%
Alone	1.1%	98.9%
With others	.6%	99.4%

Table 7-4: Results of the male respondents to the question with whom do they often go out for recreation (3.3.3 to 3.3.8).

The female respondents, on the other hand, were asked to choose one choice from five choices representing the different alternatives of whom they often go out with. The responses were 72.5% go out with their husband and children, 4.8% go out with their children, 12% go out with female members of the their family, 1.8% go out with relatives, and 9% go out with friends (3.3.17). The highest percentage indicated that most females go out with their family members. This percentage in a way is closer to that one of males who go out with their family members. The percentages of going out with their own children, with female members of the family, with relatives, and/or with female friends are all low because females do not drive and the only opportunity they have is to go out either with their male relative or with the family chauffeur.

The fact behind recreation in the outdoor environment is to perform certain activities through a sequence of behaviour. Questions no. 12 and no. 32 asked

respondents about the activities that they usually perform in their outdoor recreation. A list of activities were presented from which to choose the relevant answers (see the questionnaire in Appendix I). From the results in table 7-5, the most popular activity is sitting and chatting with family members and/or friends. The responses of males who perform sitting and chatting in the outdoors were about 78% and for females 69%. These results coincided with the observation findings that the most obvious activity in the outdoor is sitting.

Activities performed in the outdoors	Males %	Females %
Sitting and chatting with family members and /or friends	77.6%	69%
Eating dinner or snack	49.4%	44.6%
Helping my children while playing and enjoying themselves	74.1%	53.6%
Play card games	8.8%	
Relaxing, enjoying the surrounding and watching people	43.5%	38.7%
Reading and/or studying	5.3%	
No special activities, just to change the house atmosphere		70.8%
others	2.9%	.6%

Table 7-5: Percentages showing the popularity of different recreational outdoor activities (from 3.3.9 to 3.3.15 and from 3.3.19 to 3.3.24.

The second most popular activity was helping children playing and enjoying themselves. Children play a major role in going to the outdoors, in the first place, and also in choosing the outdoor environment. In the open ended question no. 4, most users justified why they preferred certain outdoor environments by relating that to the

desire of their children because of either the existence of play ground facilities for young children, or the availability of enough land for older children to play ball games on. The positive responses for helping children were 74.1% for males and 54% for females. Males responses were much higher than that of females because of privacy aspects. Males can run, play balls, and assist in the play grounds. On the other hand, females cannot participate in many of these active events because of the nature of their clothes and the veil. But they participate in helping the very young children who are not very active yet and in watching over children's safety.

The third major activity is eating, although the percentages of responses were not good, below half of the respondents for both males and females. The reason for the low responses might be the way the activity was defined, eating dinners and snacks. The word dinner may have confused the respondents. Also the word "drink" should have been added to the activity's definition. From the field work most of the outdoor users have been observed at least sipping tea or coffee with light snacks such as biscuits and/or traditional cracking seeds. It is part of the common tradition that whenever a group of people sit together, whether they are family members, relatives, friends or whoever, they at least drink tea or coffee. So, the word "dinner" may have limited the activity from eating in general to the dinner meal. Eating dinner in many cases requires some cooking and/or preparation, which in turn, may not be very popular especially as cooking is officially not allowed in the municipal public places, although, in the field work, many people were seen barbecuing, especially on the paved road-sides and vacant land and in the Diplomatic Quarter.

The choice of no particular activity, just to change the house atmosphere has the highest responses among the female responses. About 71% of the female respondents selected this choice. This is not a surprising result because females in

Saudi Arabia usually do not often get involved in activities the home. This is because females do not drive and their outdoor trips are usually for major things such as to schools, jobs, shopping, visiting friends and relatives, and/or recreation. Therefore, many of the females who do not have schools nor jobs, especially the housewives, spend most of their time in the house which makes them look forward to the evenings when they go out for recreation as a way to change the house atmosphere.

Respondents' Comments

The questionnaire was designed to provide a qualitative insight besides its quantitative perspective. The respondents were given the chance to express their feelings, opinions, and/or suggestions about various issues relating to recreation and recreational places. There were three ways to achieve this. First, some of the questions were designed completely as open ended questions, such as questions no. 4 and 13. Second, most of the questions were provided with open ended parts at the end of the questions to get the respondents' comments of what, how, and why in regard to the specific issues of the questions. Third, at the end of the questionnaire, an empty page and a half were provided entitled "general comments" for respondents to write their thoughts, opinions, and suggestions in an open manner.

Although most of the responses to the open ended parts of most of the questions have already been used to explain and justify the statistical analysis in the previous section, a thorough review of the different responses was done in order to present them in a brief discussion. About 108 questionnaires were sorted for their valid information about people's thoughts, opinions, and suggestions in regard to recreation, its meaning, its activities, and its environment. The comments will be discussed in a way to express people's insight about the different issues. It is the

strong belief of the researcher to express those opinions, thoughts and suggestions in order for them to be heard by every one if the aim is really to improve the existing situation to the level that society desires.

Some of the respondents elaborated on the numbers and the sizes of the existing gardens. They suggested that in order to have successful public gardens, the number must increase to the level of the demand and the size of the gardens must be large enough to take a variety of activities and to provide enough spaces for the users to enjoy the surrounding outdoors without regular intrusion and violation to their privacy. The issue of privacy has been stressed in almost all the questionnaires. Most comments about privacy supported the idea of improving the level of privacy of any existing or newly developed recreational facilities for the families' use as groups. Few other comments were suggested to designate some of the recreational facilities for the use of females and children so they can enjoy the freedom of complete privacy without the trouble of improving or finding another development. These suggestions were presented as quick and easy answers to the problem.

The provision and improvement of the public health facilities were the demand in most comments. About 70% of the comments call for improving the maintenance as well as the availability of these public health facilities such as toilets. From the comments, a large number of users complained about the unacceptable and dirty appearance of the toilets in public gardens. Others called for increasing the numbers of toilets for both sexes, especially for ladies, in public gardens and providing toilets in the other recreational sites, such as the paved road-sides and the vacant land in the outskirts of the city, even if these places are not officially recognised as recreational places. One of the basic demands that comments indicate is the provision and maintenance of cold water fountains for drinking. Also the provision of places for

praying, especially for females, were suggested in the comments.

In the comments concerning the outdoor activities, about 90% were concerned with children's play facilities. Most comments called for provision of different play facilities for children. They bitterly complained of the existing facilities in public gardens as some children could not get their turn because of the large crowd waiting to play. Many concerns about the safety of the existing play equipment were also raised. The majority of respondents suggested considering the provision of more children's play facilities and sport fields, especially for playing football, in different places in the city and ensuring the safety of the children. Some respondents expressed their desire for wanting the municipality to consider thinking about providing some forms of sports in the development of recreational places. Examples of these sports are large areas within the recreational environment for running and playing football.

Finally, the comments also discussed some of the non-active events. About one third of the comments expressed their desire for good restaurants and cafeterias to serve good food in the open outdoors. This idea is very popular in the city of Jeddah, the second major city in the country on the Red Sea coast, where large restaurants serve their menu in an open outdoor garden setting. The idea has not found strong support in Ar-Riyadh city because of the strong concern for female privacy among the residents of the city.



HYPOTHESIS DISCUSSED AND REVIEWED: CONCLUSION

Introduction	191
Methodology	194
Thematic Approach	195
Findings and Conceptual Solutions	196
Summary of the General Findings	197
Specifying the Findings with Providing Conceptual Ideas and Guidelines	202
First: Guidelines for Rehabilitating the Existing Public Gardens and Establishing New Developments	204
Second: Guidelines for Improving the Informal Recreational Sites (pavements and vacant land)	209
Further Research	210



HYPOTHESIS DISCUSSED AND REVIEWED: CONCLUSION

INTRODUCTION

In any given society with a defined culture, there are rules that govern the choices about which elements are important. Such elements will then tend to vary in their importance and involvement. This fact, as Michelson and Reed¹⁷² stated, may apply to the environment in its physical form as well as to the life-style of the people who make choices among available alternatives and may allocate their limited resources and material differently. The order of the importance of choices among possible alternatives is partly based on socio-cultural interpretations. The specific nature of the choices made, tend to reflect the socio-cultural values of the people concerned. In fact, one way of looking at culture is in terms of the most common choices made.¹⁷³ It is this aspect of the choice which makes places and behaviour recognisably different from one culture to another.

¹⁷²W. Michelson and P. Reed, The Theoretical Status and Operational Usage of Lifestyle in Environmental Research (Toronto: University of Toronto, Centre for Urban and Community Studies, Research Paper No. 36, September, 1970).

¹⁷³Amos Rapoport, Human Aspects of Urban Form: Toward a Man Environment Approach (New York, Oxford: Pergamon Press, 1977).

Based on this concept, the argument and the main hypothesis of the thesis has been established; the main concern of the study is the involvement of the socio-cultural aspects in the landscape design of the outdoor urban environment in Ar-Riyadh, Saudi Arabia. It focuses on how people interact with and behave in their recreation in the outdoor environment according to society's rules. The importance of the research topic emerged from the need for such study to explain the existing relation between recreation and its environment within the urban pattern of the city.

Until recently, the majority of the population, due to many strong reasons at the time, had neither the time nor the effort for any planned and organised outdoor recreational activities. The common people had to be content with occasional celebrations and religious holidays. In the evening, when the air temperature drops down, family members and sometimes neighbourhood residents (males together and females together) gathered for coffee and story-telling in the openness of their courtyards. During the daytime, children played in the narrow shaded streets. Only the wealthy and the more fortunate people enjoyed recreating in the blooming traditional palm tree orchards.

Since the discovery of oil in Saudi Arabia, there has been a great change in living and working conditions, as a result of the improved economy, in both the urban and rural environment. More and more citizens work for the governments and as a result of that they enjoy the privileges of short working hours, weekly and yearly holidays, and the other official holidays. Increased leisure time, better communication, and the increased awareness of the world at large, through travelling and having access to different means of media, have contributed to the overall view of recreation. People feel the importance of recreation; therefore they carry out their outdoor activities in the possible ways, usually in traditional farms, shrubby wadis, and desert land adjacent to

cities.

In the periods between the mid 70's and the beginning of the 80's, the city of Ar-Riyadh expanded dramatically. In 1982, the municipality of Ar-Riyadh realised that the city lacked greenery and open space facilities. The Department of Landscape was established to take responsibility for assessing, designing and constructing all the public open spaces of the city including establishing gardens. By the year 1986, the number of public gardens had reached 34.¹⁷⁴ They vary in size between 3000 square metres, for the smallest, and 102,075 square metres, for the largest. The rapid development of these facilities, in such a short period, did not allow for extensive assessment of the residents' needs.

In the last 10 years, other unofficial sites were chosen by the people of the city for their recreational uses. Paved road-sides and adjacent vacant lands along main roads in the outskirts of the city emerged as new recreational sites for the Saudi families, especially at the weekends. These sites are becoming more popular among the Saudi residents of the city although that they were not designed, in the first place, for recreational use nor have they the necessary recreational facilities, such as children's play grounds, snack shops, and toilets, which public gardens are equipped with. Also they are considered dangerous and unsafe because of their location along main roads. Despite all of these negatives, paved road-sides and adjacent vacant lands are considered the most popular sites for evening recreation. Therefore, there must be strong reasons behind the choice of the people.

¹⁷⁴Ar-Riyadh Development Authority, Recreation Study, Final Report (Ar-Riyadh, Kingdom of Saudi Arabia: Ar-Riyadh Development Authority, 1986).

METHODOLOGY

The design of the built environment should always carefully consider the socio-cultural needs of the users, as these define the functions of the design. In the case of public gardens in Ar-Riyadh, contemporary design has not only been largely without precedent, it developed without studying and analysing other traditional forms within the built environment. This study therefore attempted to define human behaviour in the outdoors according to the existing socio-cultural aspects that are related to the functioning of a project, and to encourage future designers of recreational facilities to consider these uniquely Saudi aspects as key design issues.

This study has attempted to record, document and interpret the users' behavioural patterns in contemporary public gardens and other popular recreational sites. The study of these patterns helped to form a solid judgement about the success or failure of these sites on the one hand, and led to an understanding of the conditions behind either the success and/or the failure of them, on the other hand. It also helped in identifying the user's needs in general and the socio-cultural ones in particular and finally pinpointed aspects that have to be taken into consideration by landscape architects and municipal officials in future design and modifications in order to provide more satisfactory and functional public gardens.

In order to reach these findings, indicators ought to be recognised to guide and measure the behavioural assessment. The users' actions were used as an indicator of the level of satisfaction, especially concerning the users' socio-cultural needs. Three appropriate research techniques were defined by which the various dimensions and details concerning these socio-cultural needs can be identified, described and clarified. The techniques used are archive search, observing the behaviour-environment and a questionnaire survey.

THEMATIC APPROACH

By carefully reviewing the observation records which have been conducted in the field work, we found that each one of them, in simple terms, actually contains data about sequences of events that took place in a certain environment by certain groups of actors. In order to bring all these variables together in the analysis, a content analysis technique was used. This is a technique used to analyse observed records for the occurrence of specific categories of events and/or behaviour. It was a useful tool to help with understanding human behaviour in the outdoor environment especially when the observational technique conducted for this study was purely a descriptive one. The important task for using such kinds of analysis was the requirement for clear operational definition of thematic terms. Derived categories or themes must remain focused on the research questions.

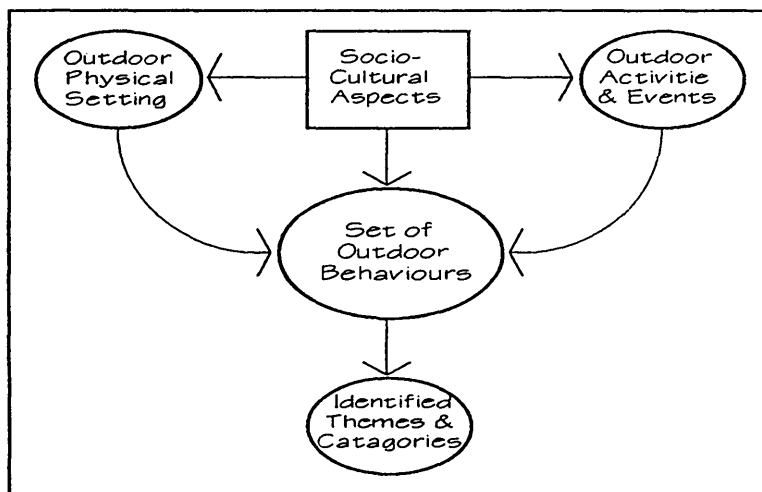


Figure 8-1: The derived themes and categories were the result of the set of behaviour that were the result of the interaction between the socio-cultural aspects, the outdoor setting, and the human activities.

The first step in the thematic analytical approach was to identify themes or categories from the analysed observational records. Every single record has a set of

information representing the occurring events or activities, characteristics of the settings where the events took place, the actors or users who perform the activities, description of the interaction between users, and the fitness between activities and behaviour, on the one side, and the physical setting on the other. Therefore, the selected themes were meant to be the interrelated factors that influence the resulting observed behaviours in the observed physical settings (figure 8-1). To cover all the different aspects of the observed behaviour which were related to the aims of this study, five major themes were identified: Accessibility of the Site, Characteristics of the Preferred Areas within the Site, Settling in the Selected Area, Activities Taking Place, Users, and Time of Intensive Use

FINDINGS AND CONCEPTUAL SOLUTIONS

The findings of the analytical process of the observation and the survey techniques answered all the questions which were raised as a response to the hypothesis of the study. They clarified the existing concept of recreation and investigated the intangible socio-cultural aspects influencing recreation and its environment. From the rigorous analytic process we can confidently conclude that public gardens, as officially constructed facilities for recreational purposes, in their existing conditions and/or forms, are not compatible with the concept of recreation demanded by Saudi society. For that reason, users of the outdoor recreational environment gradually sought other sites and places other than public gardens, for carrying out their recreational outdoor activities. This concluding remark was found through the qualitative analysis of the observed behaviour and was supported by the quantitative investigation of the conducted survey. This part will briefly highlight the findings of the thematic analysis and the survey responses which are related to the socio-cultural aspects that play the major role in affecting recreation and the recreational

environment.

A concluding summary will be provided at the end to link those findings to the different physical recreational environments and explain why those settings are not functioning properly. Finally conceptual ideas will be provided to briefly pinpoint guidelines for providing better recreational outdoor environments. The discussion of the guidelines will deal with the subjects in three ways. First, ideas and guidelines for rehabilitating the existing recreational environments. Second, guidelines for future developments of recreational environments. Third, ideas for providing better and more enjoyable environments for the users of the paved road-sides and vacant land on the outskirts of the city. These ideas and guidelines will simplify the general findings and provide the first step in finding more genuine solutions to solve the existing problems as well as to ensure the success of future development in the field.

Summary of the General Findings

Public recreational sites are intended to be used by everyone and in order for such intention to be true, these sites must be accessible. Accessibility is a term that should not be only limited to those whom we categorise as physically handicapped. It should be broadened to include everyone in society. Two forms of accessibility were found; accessibility in reaching the site and accessibility within the site. In the first instance, recreational sites and facilities should be evenly distributed in the urban fabric of the city. In other words, they should be easily accessed from every residential neighbourhood. Secondly, recreational sites should be accessible in two ways. First, there should be a short walking distance between users' cars and the various areas within the site; and second, sites should be spatially designed in a clear and simple way.

From the observation and the survey analysis, we found that users do not prefer most public gardens for their outdoor recreation because they are over-crowded and do not provide sufficient places for sitting. Saudi users, therefore go to other sites where they can manipulate their setting in the way that suits them. It has been found that because of the necessity for privacy and protection, people, in order to carry on their activities properly, prefer areas with two characteristics. First, areas which are against a physical body such as a wall of solid vegetation (areas at the edges). Second, areas that are visually protected (unexposed areas with low lighting). People, in general, never place themselves in the middle of the space. Rather they start their activities at the edge of the space and then spread their activities towards the inner space. For Saudi people, this concept has stronger demands with the existence of the precise forms of female and family privacy.

The so-called "edge concept" is a simple idea if we really understand it fully. Any piece of land is just a two-dimensional area. It becomes a space when it is defined by three dimensional objects. The placement of these objects are crucial in shaping the characteristics of the space. A space can be a negative one if these objects are scattered within it. At the same time, it can be a positive one when it is surrounded by an edge. Users of vacant lands create their own positive space by using their cars as an edge (figure 8-2). This simple concept can be applied everywhere when designing the recreational outdoor environment. In designing public gardens, for example, trees, hedges, and shrubs can be used as excellent tools for defining the space by creating pockets at the edge. Such pockets can provide suitable areas for users' activities. They act as part of the whole space while at the same time providing users with the needed protection and the desired privacy.

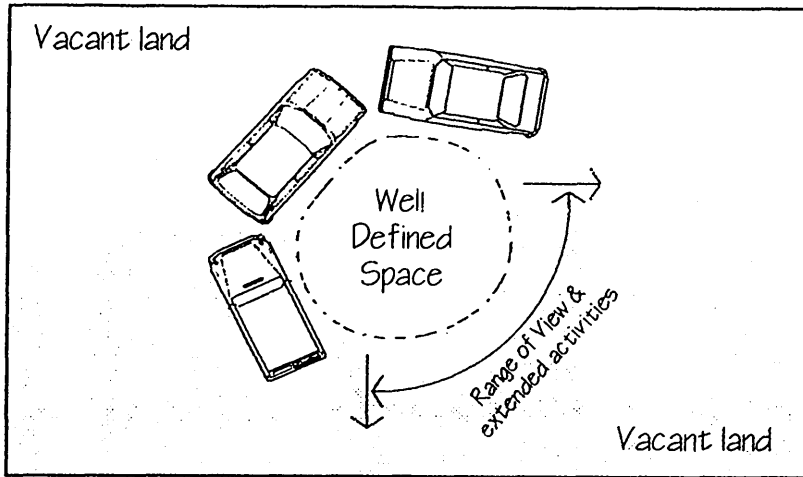


Figure 8-2: The use of a car in creating a positive space in the vacant lands. The created space is very well protected and provides the needed privacy. At the same time, it controls the direction and the orientation of extended views and activities. It also spatially makes the space part of the surrounding whole.

The study has found that, although families strongly demand privacy and protection, at the same time they also like to be part of the outdoors. There have been some requests for creating a concealed private area within public gardens for families to sit in. This is an unrealistic solution because people leave the concealment of their houses for the outdoors to be part of it, to interact with the surroundings, and to watch other people. It is part of the change and the enjoyment. Therefore the more realistic solution is to create spaces with suitable sitting areas at the edge which are considered to be part of the whole, but, at the same time, provide an adequate level of privacy and protection to suit the users' needs.

A major part of outdoor recreation is the activities that take place. Outdoor recreational environment should be designed to contain the intended activities. Contemporary public gardens were not designed for the actual activities that Saudi users desired. The study has found that there are two types of activities; active and passive activities. Popular passive activities are sitting, eating, talking, and watching people. These types of activities occur mostly in the sitting position. The active

activities, on the other hand, include walking, running, playing, and sometimes cooking. Children engage mostly in running and playing. Adults participate in helping children play and rarely participate in walking and/or cooking. Knowing exactly the types of activities and the range needed for each one should be the basis for the design and provides a good opportunity for a good fit between such activities.

The last two themes are determining the time of use and knowing who are the users of the outdoor environment. From the qualitative as well as the quantitative techniques, the times of use were found to be an important aspect in determining the use of the outdoor environment. Although there may be some political reasons behind limiting the time of use of public gardens, such as for security reasons and/or other reasons, in general the time of use should correspond with the daily lifestyle and the social norms of the users. On the other hand, knowing who are the users of the outdoors; families or singles, average number of group members, and number of children and their ages; all this information affects the decision making in regard to most of the previous themes and categories which influence the success of the outdoor environment.

One very important part of the recreational process that the study has found is the way users occupy and use the selected areas. The occupation of the selected area has many socio-cultural embedded meanings to the users of the outdoors. Some of these meanings can be translated into tangible actions while others remain intangible. The way the users sit in the outdoors (as an activity), the arrangement and the positions of the members of the sitting group, and the arrangement of the belongings in the sitting area are all actions which result from the socio-cultural aspects of society.

These three actions should be considered by the designers of the outdoor environment. Sitting as an activity is usually carried out in a certain way according to

roles and values. For example, sitting directly on the ground needs some consideration for the ground surface. Also, the size of the sitting circle which depends mainly on the size of the family and the average number of users of the outdoors play an important role in determining the size of the designated sitting area.

Determining the sitting form, shape and positions of males and females within the sitting circle depends on the spatial relationship between the used area or spot and the surrounding areas and activities. The arrangement of the positions of the sitting members of the group is a tangible translation of the importance of privacy. Also the arrangement of belongings around the sitting area is an important factor that determines and marks the occupied territory. It is a way of telling other users of the limit of their territory (figure 8-3).

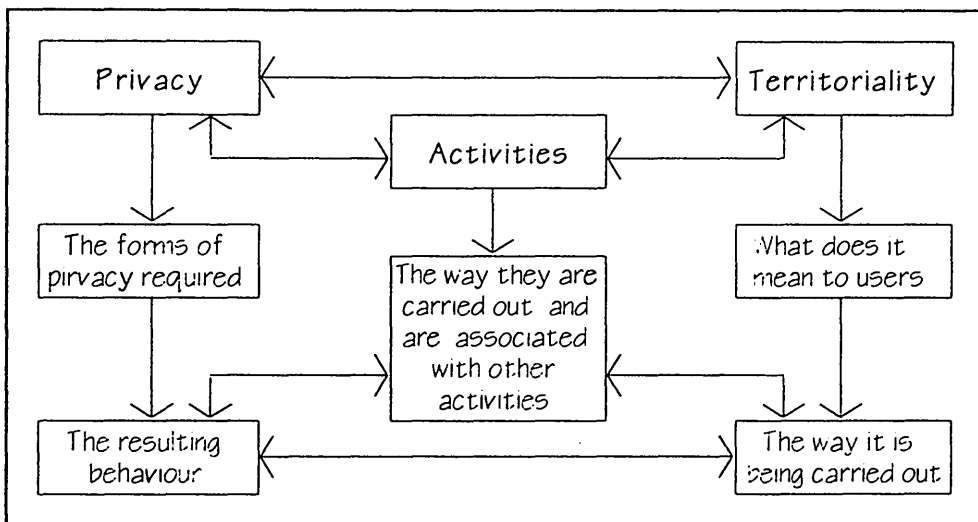


Figure 8-3: The three most important socio-cultural aspects: privacy, activities and territoriality.

The study has found that the key to a successful design depends on providing balanced linkage of three aspects that are the most important aspects among the socio-cultural ones. These three aspects are privacy, nature of activities, and territoriality. When designing a setting for a certain activity we need to know several things which are associated with it. We need to know the way the activity is being carried out, the

relationship between the activity and the surroundings, the way the people behave when participating in the activity as a result of the privacy roles and values and the area needed for performing the activity as a result of the territory requirements (figure 8-3).

Specifying the Findings with Providing Conceptual Ideas and Guidelines

The lifestyle of any society is the composite of many factors, among the most important are the socio-cultural ones. This lifestyle generates and governs patterns of activities which in turn influence the spatial designs and patterns of the built environment. So, in order to create a coherent built environment that responds positively to the intended functions for certain people, we must acquire some understanding of the lifestyle of those people through cumulative evidence of their daily acts in relation to the physical circumstances in which they occur. This is what has been done in this study to find out about the socio-cultural aspects that influence the use of the outdoor built environment.

By studying the urban recreation in different outdoor environments in the city of Ar-Riyadh to gain full understanding of its shapes, its meanings, who are the users, what activities take place, and how are those activities being carried out, we discovered that public gardens in their existing condition are not popular among Saudi citizens in the city. They do not respect the society's socio-cultural needs and values. In other words, the existing design ideas do not respond to the desired activities, the way those activities are carried out, and the behaviour resulting from performing those activities. There is no consideration for the users, their numbers and their values. Privacy, for example, is one of the major socio-cultural aspects that uniquely characterises Saudi society, but is not respected in the existing design of public gardens.

Although these public gardens are considered the major official recreational

facilities in the city, it seems that they were not designed for recreation in the first place. The way these gardens are laid out, the organisation of space inside them, the existence of fountains and monumental sculptures, and the distribution of plant materials support the speculation that these public gardens were designed for other purposes. It seems that they were established to beautify the city and increase the green areas in it.

The failure of public gardens to respond to society's values and needs gave people two choices: either accept the existing situation and start changing to adapt themselves to fit it or reject it and look for alternatives. Because of the strong beliefs and the deep-rooted socio-cultural values imbedded in society, the second choice was adopted by the majority. Other sites emerged for their potential for recreational uses. Among the most popular were the paved road-sides and vacant land along major roads at the edges of the city. Although these sites are not officially recognised as recreational areas because of their characteristics they are gaining in popularity. The openness of the sites, the availability of enough space and the freedom from any restriction, as well as the lack of built or physical forms that might control human behaviour are among the characteristics that attract users.

The failure of public gardens to respond to society's demands has been noticeable in the last few years especially with the increased popularity of vacant land at the edge of the city. It is very important to mention that, lately, there have been countless attempts to improve the situation through many solutions by the municipality of Ar-Riyadh, but with very limited success. This may be because these attempts do not emerge through investigation of society's socio-cultural demands and their implications on real daily life, but rather they were quick and unscientifically based attempts to cure the problem, such as the attempt to provide completely enclosed areas

within the gardens for families to sit in and enjoy privacy. This attempt was applied in Al-Maktabah Garden which proved to be completely unsuccessful because it does not consider the people's intentions and aims behind going out for recreation.

In order to improve the situation of recreation and its outdoor environment and put the study findings to use, the concerned recreational environments can be classified into three situations that can be dealt with in the application of the findings. The first situation is the existing public gardens and the question that can be raised here is how to rehabilitate them to improve their condition to meet society's cultural demands. The second situation is when establishing new public recreational developments; what should we do to avoid repeating the same mistakes? The third situation is to create enjoyable settings out of the informal sites which are becoming part of the socio-recreational tradition in the society. Suggestions and guidelines will be pinpointed for the three situations as follows:

First: Guidelines for Rehabilitating Existing Public Gardens and Establishing New Developments (First and Second Situations)

A. The gardens should be accessible:

- A-1. Public gardens should be distributed evenly on the urban pattern of the city. They should be within easy reach from every neighbourhood in the city. This concern must be considered when establishing new recreational development(s) or site(s).
- A-2. The parking spaces should be designed in a way to provide only a short walking distance between users' cars and the various areas within the site. Figure 8-4. suggests two conceptual alternatives to solving the problem of a long walking distance from the parking to the selected spot in the garden.
- A-3. The gardens should be a clear and barrier free site. It is very

important for the design to be clear and spatially understandable and free of visual and physical barriers (simple design is the key to success).

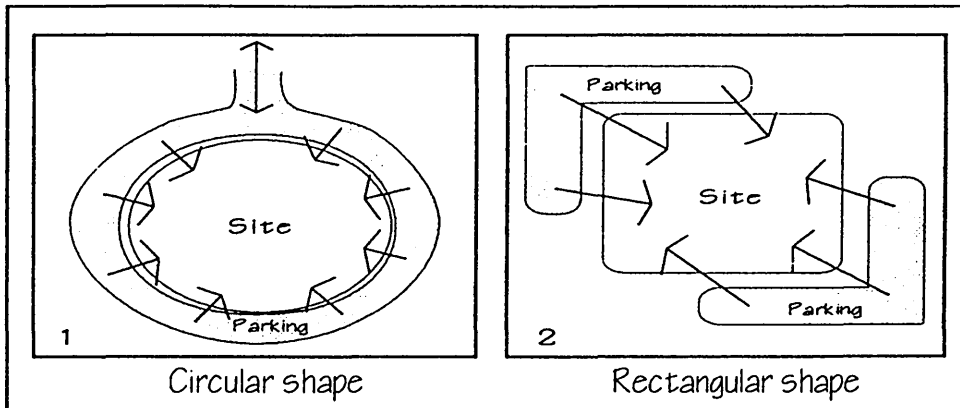


Figure 8-4: There should be a short walking distance between parking areas and the various areas and spaces of the recreational sites. Two conceptual alternatives showing that parking should surround the site instead of only being at one side of it.

B. Characteristics of preferred areas for privacy aspects:

- B-1. The design of the garden should enhance the use of shrubs and hedges to create more boundaries and edges. The way of creating more edges is by avoiding large open spaces and more relatively smaller open spaces should be encouraged. It has been suggested that physically and psychologically people avoid sitting in the middle of a space but rather they start from the edge and then move into the space. Figure 8-5 provides a conceptual idea to increase the use of the edge concept.
- B-2. Created edges and boundaries should be at least 120 cm high to visually protect a sitting person.
- B-3. Sitting areas within the gardens should be provided with low light to provide the visitors, especially females, with a certain degree of freedom to carry on their activities without forfeiting their privacy.

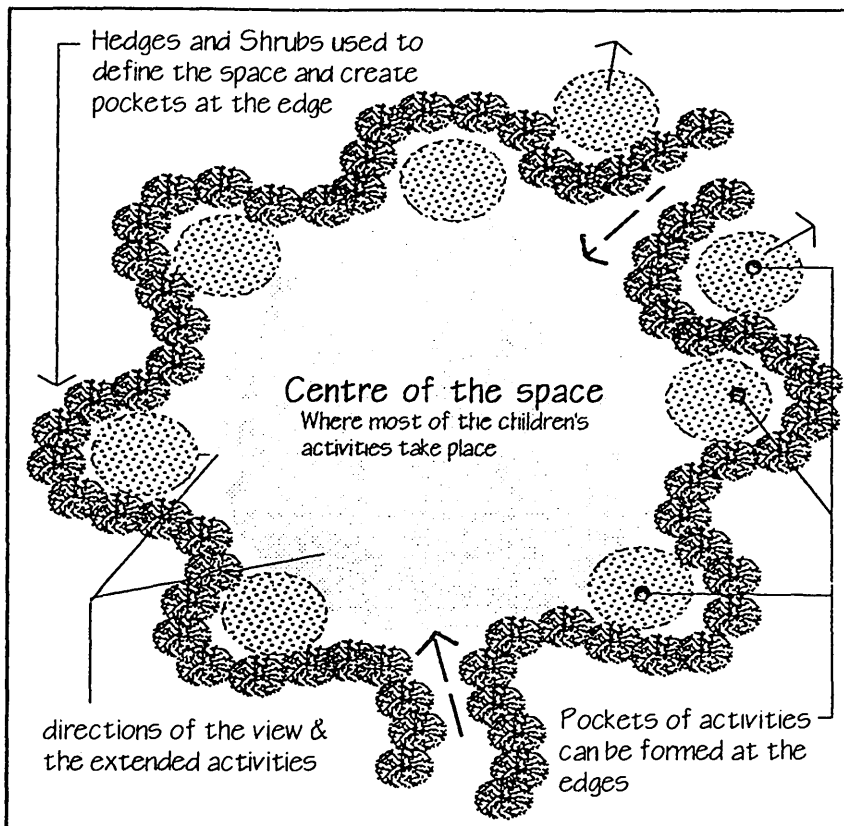


Figure 8-5: The outdoor space can be simply manipulated to increase the use of the edge and create pockets where people can sit and carry on their activities in semi-private and protected areas, while at the same time they are still part of the whole. The advantages of such manipulation is that it creates an open space in the middle for public use and interaction, especially for children, as well as allowing activities of all ages to spread towards the interior of the space.

C. Activities taking place and the required considerations:

C-1. The sitting places should not be equipped with outdoor furniture because nobody uses them. People would rather sit on the ground especially when they go out for recreation. Therefore, sitting areas should be flat and preferably either grass or sand.

C-2. The design of the sitting places should consider the following aspects:

- a. The size of the sitting space should consider two things: the number of users and the area needed for the belongings. The study found out that the average size of the Saudi

family is about 7 members, therefore consideration should be given when designing a sitting area to support them. The way the people sit and distribute their belongings is another matter that must be considered. People sit on mats in a circle. From the observation, the size of the mat is roughly 3 x 4 metres. The belongings are usually scattered unevenly around the mat. A space ranging from 3 to 5 meters in diameter should be considered for each sitting group (figure 8-7).

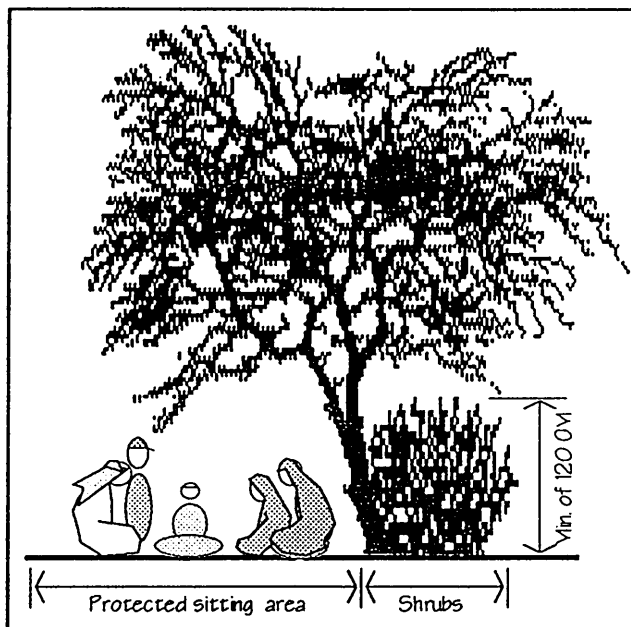


Figure 8-6: The location and the height of shrubs should be considered very carefully.

- b. The sitting areas should not be facing each other, nor be very close to each other. Some kind of separation is recommended (see figure 8-5). If there is no visual separation, the sitting areas should be placed far away from each other. From the observation, an average of 10 metres of minimum distance is usual mentioned between each two sitting groups.

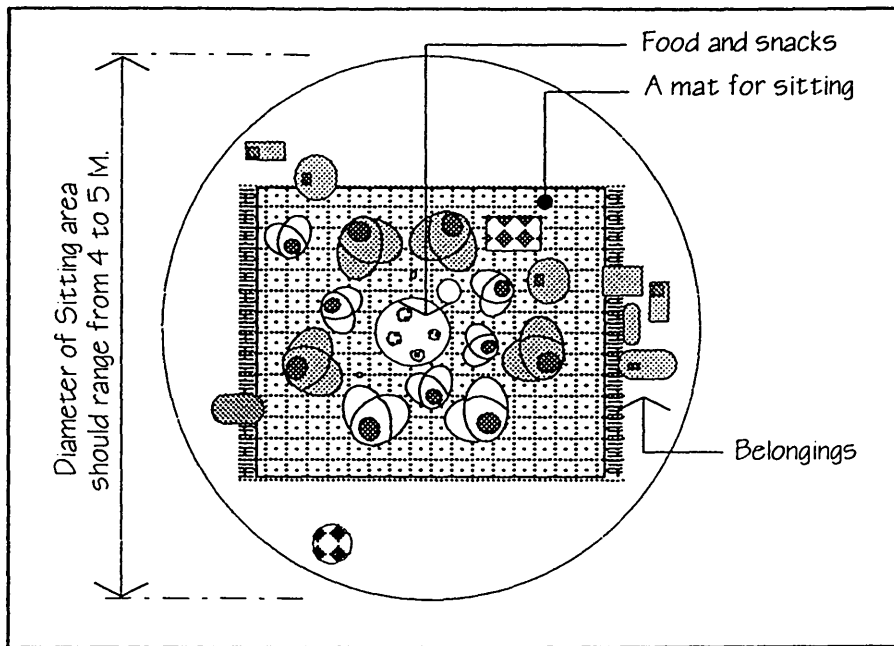


Figure 8-7: 3 to 5 metres diameter circle is required for sitting and arranging belongings.

- c. Sitting areas should be completely separated from the circulation paths, attractive nodes, and children's playgrounds.
- d. Young children usually play around their sitting families or groups. It is recommended to provide an area next to the sitting group for the children to run and play in while their family can still watch over them. The concept in figure 8-5 provides an excellent solution where children can play in the middle of the space while their families sit on the edge, a short distance away, to be able to watch them.
- e. A small football pitch should be provided in the gardens for older children.
- f. Playgrounds with children's equipment and toys/games should be designed to serve the intended number of visitors. Care must be taken to ensure that the design meets the highest safety regulations.

- g. Circulation paths are recommended to be limited as much as possible because waking is not a popular activity in public gardens.
- h. Barbecuing in the outdoor is a popular activity especially at the weekends. Therefore it should be allowed in sections of the large public gardens, such as Al-Suwydi and Al-Manakh Gardens.

D. Time of use:

- D-1. Public gardens are currently open until 11:00 PM every night. The study has proved that many people desired to stay very late especially at the weekends. Therefore, the time of use should be extended at the weekends up to 2:30 AM.

Second: Guidelines for Improving the Informal Recreational Sites (pavements and vacant land) (Third Situation)

A. Concern and suggestions about ownership:

- A-1. Pavements of road-sides are part of the roads which are owned by the municipality. But adjacent lands are private undeveloped properties. Paved road-sides without the adjacent land are worth nothing from the recreational point of view. Therefore any improvement has to include the private adjacent lands to major roads because of their importance. The municipality should select and choose areas on the extreme edges of the city along major roads which have the least probability of development in the next ten years or so and then negotiate with owners to use the lands for recreation for a certain number of years. Examples of such areas are those along the Ad-Dammam Road in the north east of the city, along the Al-Qaseem Road in the north of the city, the road to the industrial city in the south east of the city, and along the Dirab Road in the south of the city (see figure 6-1).

B. Facilities needed:

- B-1. The existing informal sites along major roads are, despite their popularity, in urgent need of some necessary facilities such as toilets, water for drinking, and garbage containers.
- B-2. Small shapes and simple forms of nodes that contain these basic facilities are recommended to be provided in these areas. The distribution should cover the whole area with the fewest nodes possible in order to reduce maintenance and security especially at the time when they are not used.
- B-3. People usually choose to sit on the pavement along the road-sides or on the adjacent land because of the availability of light from the road. This action places them and their children in danger of the traffic on the road. So, simple lighting is recommended to be provided a little bit further from the road in order to attract users away from the road.
- B-4. Provide one or two football pitches in each site for older children to play in. These pitches should be either far from the road or fenced in to provide safety for children.

Further Research

This thesis focuses attention on the importance of socio-cultural aspects and the resulting behaviours in determining the outcome of the built environment. It is a very broad issue to be covered in such a study. Also it is a complicated one because of the many sub-issues involved. It is also considered to be a sensitive issue that needs careful examination and investigation especially as it deals with human needs which can easily be misunderstood and misinterpreted which, in turn, can lead to tragic consequences and loss of effort and resources. It is the understanding of this study that the built environment, in general, is the result of human behaviour that occurs

there, therefore when we need to launch a new development or improve an existing one, the first thing is to determine the users' needs and the way the facility is intended to be used before the design proceeds.

Based on this approach in considering human socio-cultural values and the reflected human behaviours of those values, there is a need to study in depth the existing used built environments which are rooted in history, such as the Chinese gardens, or even the most primitive forms of habitat such as the Somba village in West Africa and the Matmata Village in Tunisia (figures 3-1). Such detailed studies will clarify many of the uncertainties about the role of this issue. It will also pave the way to a broader perspective in the concept of human behaviour in determining the outcome of built forms. Such a perspective will enhance the issue and broaden its implications in the actual life.

Further investigation of the field study will gradually produce practical methodology by which certain guidelines and criteria can be developed to ease the process of evaluating the existing built environment as well as applying the issue in any new development. Such guidelines and criteria can even be easily applicable tools in the field of teaching to raise the awareness of students and practitioners of architecture and landscape architecture and related fields of the importance of this issue of human behaviour in determining the outcome of the built environment.

In regard to the situation of recreation in Saudi Arabia, there is a need for post-occupancy evaluation of the existing recreational facilities in accordance to the issue of human behaviour and its aspects. Such evaluation of existing facilities on both a city of Ar-Riyadh's size or on the national level will improve the situation and make them more accepted by society which in turn will create harmony between people's belief and values, on one side, and the physical environment, on the other side. It will also

ensure a good investment of the existing resources.

Finally, combined efforts are needed between the academic and research oriented departments and authorities such as the municipalities and other ministries to co-operate to generate regulations and guidelines for governing the development of new facilities as well as improving the existing ones which should be based on the socio-cultural needs and human behaviour, especially in regard to the public built environments. Such regulations and guidelines will soon be in demand especially with the tendency to move the business of establishing and managing public facilities from the government sector to the private sector.

APPENDICES

5. Any modification to the site to fit the recreational use:

6. The spatial relationships of the observed space(s) with the surroundings:

- Open to the surroundings
- Semi-open to the surroundings
- Semi-close to the surroundings
- Close to the surroundings

B. Activities

1. The activities observed and the way they are being carried out:
Put number five in front the most observed activity, and number 1 in front the least observed one(s).

- sitting chatting on the ground on outdoor furniture
- playing cards on the ground on outdoor furniture
- eating on the ground on outdoor furniture
- walking
- helping children
- playing kind of play: _____
- Other activities: _____
-
-

2. The relationships among the different activities for each observed group(s):

- very strong relations
- strong relations
- medium
- no relations

further explanations: _____

3. Approximate distances between the observed group and the next by group(s) (with sketch(s)).

4. The openness and interaction of different activities of observed group(s):

- open and interacted with the surroundings
- semi-open to the surroundings
- semi-isolated and limited interaction with the surroundings
- completely isolated and very protected against the surroundings

further explanations: _____

5. The fitness between the activity(s) and the space

- very strong fitness
- strong fitness
- medium fitness
- weak fitness
- no fitness existed

further explanations: _____

Further observations regarding the activities' observed:

C. Users

1. Most adult users are:

- males females

Explanations:

2. Number of families per number of children:

<u>Number of children</u>	<u>Number of families</u>
---------------------------	---------------------------

- | | |
|--|-------|
| <input type="checkbox"/> one child | |
| <input type="checkbox"/> two children | |
| <input type="checkbox"/> three children | |
| <input type="checkbox"/> four children | |
| <input type="checkbox"/> five children | |
| <input type="checkbox"/> more than five children | |

3. Further observations regarding the user's group(s):

4. Further observations regarding the users' behaviours:

5. General Observations with sketches:

1.2. Questionnaire Survey Format (English)

Section 1: Information about recreation

1. How many times did you go out for recreation during the last month?

- More than four times
- Four times
- Three times
- Twice
- Once
- Not at all

If the answer was "not at all" (please state the reasons):

2. With whom do you often go outside for recreation? (You can choose more than one answer.)

- With my family members
- With my Children
- With relatives
- With friends
- alone
- With others (please specify):

3. Choose the three most preferable places that you like to go to, with your family, for your outdoor recreation, then arrange them according to your preference where you place number 1 in front of the most preferable place, number 2 in front of the second preferable place, and number 3 in front of the third place.

- _____ Public gardens
- _____ Ar-Riyadh Zoo
- _____ The Diplomatic Quarter
- _____ The paved sides of the Ar-Riyadh airport highway
(or road sides in general)
- _____ The desert land around the city
- _____ Private gardens and orchards
- Other places (please specify):

Place no. 1: _____

Place no. 2: _____

Place no. 3: _____

4. What are the reasons that make you prefer these places?

Section 2: Opinions about the recreational facilities

Please complete this section by marking (\checkmark) in front of the relevant answer.

5. How many times did you go to public gardens in the last month?

- More than four times
- Four times
- Three times
- Twice
- Once
- Not at all

If the answer was "not at all" (please state the reasons):

6. If you were of those who visit public gardens, what are the reasons that make you visit them? Choose the answers that concern you.

- Availability of green open spaces
- Availability of beautiful views
- Availability of shaded places from the sun
- Availability of suitable places for sitting
- The possibility of seeing and talking to friends
- Availability of children's play facilities
- For the sake of changing the house atmosphere
- Other reasons (please specify):

7. Do you think privacy is an important aspect ought to be considered in recreational place?

- Yes
- No

8. How would you evaluate the existing privacy level of the public gardens' that you have visited? (Please choose one answer only.)

- Very good
- Adequate
- Acceptable
- Poor
- Non existent
- I do not know

9. Do you think that most people prefer to go, with their families, to the more open and the less crowded places than public gardens, because of the issue of privacy?

- Yes
- No

10. In regard to the issue of privacy in public gardens, which of the following alternative do you think should be considered? (Please choose one answer only.)

- Because public gardens are far away from my residence
- Assign days (or certain times) for men and others for women
- Because of the shortage of the needed facilities
- Public gardens should be designated only for women
- Men and women in the same place with improving the privacy level
- The existing situation is good and no need for any changes
- Other reason(s) (please specify):

11. If you go to other places more often than you go to public gardens, what are the reasons that make you choose those places? (Please, choose the relevant answers):

- Because public gardens are far away from my residence
- Because of the absence of the adequate level of female and family privacy
- Because of the shortage of the needed facilities
- Because I have no transportation
- Because I have no time to visit public gardens
- Because spaces provided for setting in public gardens are small and do not fit the need
- Other reason(s) (please specify):

Section 3: Activities

Please complete this section by marking (√) in front of the relevant answer.

12. What kind of activities do you usually perform when you go for recreation to public gardens or to any other places inside the city? (please, choose the relevant answers):

- Sitting and chatting with family members and/or friends
- Eating dinner or snack
- Helping my children while playing and enjoying themselves
- playing card games
- Relaxing, enjoying the surrounding and watching people
- Reading and/or studying
- Other reason(s) (please specify):

13. What activities do you think public gardens must have or be equipped for?

Section 4: Personal Information

Please complete this section by marking (√) in front of the relevant answer.

14. Age:years.

15. Citizen:

- Saudi
- Non Saudi

16. Marital status:

- Single
- Married

17. Number of your children under 14 years old:

18. Number of your household members (including everybody lives with you in your house):

19. How long have you been living in Ar-Riyadh:

- Less than 2 years
- From two years to 7 years
- From 8 years to 7 years
- More than 15 years

20. Occupation:

- Government Employee
- Self employee
- Employee of private sector
- Retired
- Unemployed
- student

21. Education:

- Cannot read nor write
- Can read and cannot write
- Can read and write
- Middle school graduate
- High school graduate
- University of College graduate
- High Education

22. Residence type:

- Villa (detached house)
- Apartment
- Traditional attached house of brick blocks
- Traditional attached house of brick blocks
- Traditional mud house
- Other (please specify)

23. Residence status:

- Rented
- Owned
- Government employee housing
- Other (please specify)

24. Residence type:

- Up to 1500 SR. per month
- From 1501 to 2500 SR. per month
- From 2501 to 5000 SR. per month
- From 5001 to 15000 SR. per month
- More than 15000 SR. per month

Section 5: Ladies Section

This section is to be answered by the house waif or any other lady in the house.

Please complete this section by marking (√) in front of the relevant answer.

25. How many times did you go out for recreation during the last month?

- More than four times
- Four times
- Three times
- Twice

- Once
- Not at all

If the answer was "not at all" (please state the reasons):

26. With whom do you often go outside for recreation? (You can choose more than one answer.)

- With my husband and my children
- With my Children
- With relatives
- With friends
- alone
- With others (please specify):

27. Choose the three most preferable places that you like to go to, with your family, for your outdoor recreation.

- Public gardens
- Ar-Riyadh Zoo
- The Diplomatic Quarter
- The paved sides of the Ar-Riyadh airport highway (or road sides in general)
- The desert land around the city
- Private gardens and orchards
- Other places (please specify):

Place no. 1: _____

Place no. 2: _____

Place no. 3: _____

28. What are the reasons that make you prefer these places?

29. Do you think privacy is an important aspect ought to be considered in recreational place?

- Yes
- No

30. If you do not go to public gardens for recreation, what do you think the reasons?

- Because of the absence of the adequate level of female and family privacy
- Because spaces provided for sitting in public gardens are small and do not fit the need
- Because I have no time to visit public gardens
- Because public gardens are far away form my residence and I have no mean of transportation
- Other reason(s) (please specify):

31. What kind of activities do you usually perform when you go for recreation to public gardens or to any other places inside the city? (please, choose the relevant answers):

- Sitting and chatting with family members and/or friends
- Eating dinner or snack
- Helping my children while playing and enjoying themselves
- Relaxing, enjoying the surrounding and watching people
- No special activities, just to change the house atmosphere
- Others (please specify):

32. How do you often go to public gardens or to any other place for recreation?:

- Walking
- By the family car
- By taxis and/or buses

21. Education:

- Cannot read nor write
- Can read and cannot write
- Can read and write
- Middle school graduate
- High school graduate
- University of College graduate

20. Occupation:

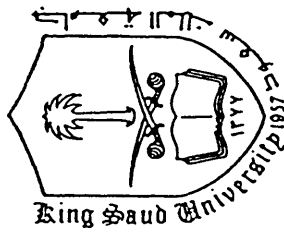
- House wife
- Government Employee
- Student
- Employee of private sector
- Other

Section 6: Ideas and Suggestions

1.3. 1.2. Questionnaire Survey Format (Arabic)

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



إِسْتِخْرَاجُ

عن مدى استخدام الحدائق العامة واماكن الترفيه الأخرى
في مدينة الرياض

بسم الله الرحمن الرحيم

الأخ الكريم:

السلام عليكم ورحمة الله وبركاته

يسمعي ان انظم إليكم بهذا الاستبيان الذي هو وكبيره براسه علميه من مدى استخدام المدايق العامة والمتنزهات داخل مدينة الرياض، ارجو منكم التكرم بإقتطاع جزء بسيط من وقتكم بكماله.

و تجدر الإشارة هنا إلى ان جميع المعلومات و الآراء التي مرفقها هنا هي هذا الاستبيان لن تستخدم إلا لغرض هذا البحث العلمي الذي لن يطلع عليه احد غير الباحث و الذي بدوره لا يعلم إجابته من إجابة غيره، و للمطوريه لأن هذا البحث هو جزء من متطلبات حصول الباحث على درجة الدكتوراه في الهندسه المعماريه.

إذا كان لديكم آراء أو مقترحات، بإمكانكم إضافتها في نهاية هذا الاستبيان، و في الغتام نلفعلنا بقبول خالص الشكر و التقدير.

السلام بالبعثه

المهندس المعماري: عمر بن سالم باعصام

كليه السراء و التخطيط، جامه الملك سعود، الرياض

ص.ب. ٥٧٢١٨ الرياض ١١٥٢١

الملكة العربية السعوديه

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
السلام عليكم ورحمة الله وبركاته
كلية
الهندسة والتخطيط
عكس السيرة
جامعة الملك سعود
King Saud University
College of
Architecture and Planning
Dean's Office

الرقم: ٢١/٣٨٤ التاريخ: ٥٤٢٢/١٤/١٧

المفوض

موسى الواسطن

السلام عليكم ورحمة الله وبركاته .. وبعثه ..

عبدكم بن الصبيسي / هو سالم باعصام - أحد مبعثي كلية السراء والتخطيط بجامعة الملك سعود إلى الصلعة الصلعة - يلم حالي بصل دراسة مباحية حول مدى بولاصح مراضه الصلوع على درجة الدكتوراه في الهندسة المعماريه من جامعه آلصعوده بالصلعة الصلعة .

وحيث ان هذه الدراسة فهم بصد استخدام المدايق والمتنزهات العامة داخل مدينة الرياض للصلوع على إجابات الواسطن ، فله أنه لادله آلصبيان الصلوع واللي بصد صمدراً مبعثاً من مصادر المعلومات التي كسب عليها نتائج الدراسة .

قابل ساعدكم بصل إصتراء آلصبيان الصلعة . . علماً بان جميع المعلومات التي مرفقها هنا لا تستخدم إلا لغرض هذا البحث العلمي فقط .

شكرين لكم بصل سلفاً حسن صاكركم وصاكرهم .

وهلعلوا والسر صاكرهم والصلعهم ..

مستصم
كلية السراء والتخطيط
د. عامر بن صالح الصلوع



الجزء الأول: ملحوظات من التوليفة في مدينة الرياض

تغليظ مغلقة امام الإجاب المناسب لي كل من الأسئلة التالية:

١. كم عدد المرات التي خرجت فيها من المنزل للتنزه خلال الشهر الماضي؟
(تغليظ إختار إجاباً واحدة فقط)

- أربع مرات أكثر من أربع مرات
 ثلاث مرات لم أخرج
 مرة واحدة

إنما كانت الإجابة لم أخرج (تغليظ أكثر الأمياب):

.....
.....
.....
.....

٢. برتقة من فخرج غالباً للتنزه (بركافة إختار أكثر من إجابة)

- لسهدي برتقة اراء العاقه
 برتقة الملاللي برتقة بمض الحاربي
 برتقة الامدناه برتقة اخرون (تغليظ احد):

.....
.....

٣. إختار أكثر ثلاث أماكن تفضل الذهاب إليها مع مائتلك للتنزه. ثم رتبهم حسب الأفضلية، بحيث تكتب الرقم ١ امام الإختيار الأول و الرقم ٢ امام الإختيار الثاني، و الرقم ٣ امام الإختيار الثالث.

٤. العائق العام (في نهاية هذا السؤال يوجد تعريف للعائق العام)

- حديقة الحيران
 حديقة الديلماسي
 الصبي الديلماسي
 الأزسك و جانبي الخط الثاني

- النهر القريب من الرياض
 البساتين والإستراحات في ناي حديقة

أماكن أخرى (تغليظ احد):

المكان رقم ١ :
المكان رقم ٢ :
المكان رقم ٣ :

(تعريف العائق العام: العائق العام: هي العائق الكبيرة المساهم نسبياً بالمشاكل و الصعوبات الخشراء و التي تعترض بها عدد من الخدمات الترفيهية مثل أماكن الجلوس، ملاعب الأطفال، دورات المياه، و من أسئلة ذلك سئله السهني و مندره العليا و حديقة القرب و حديقة البر.

٥. ما هي الأسباب التي جعلتلك تفضل مثل هذه الأماكن

.....
.....
.....
.....

الجزء الثاني: آراء و ملحوظات من الخدمات الترفيهية

تغليظ مغلقة امام الإجاب المناسب لي كل من الأسئلة التالية:

٥. كم مرة ذهبت للتنزه في العائق العام خلال الشهر الماضي

- أكثر من أربع مرات أربع مرات
 ثلاث مرات مرتين
 مرة واحدة لا أذهب

إنما كنت لا تتردد العائق العام على الإطلاق (تغليظ أكثر الأمياب):

٦. إختار أكثر ثلاث أسباب لعدم الذهاب إليها مع مائتلك للتنزه. ثم رتبهم حسب الأفضلية، بحيث تكتب الرقم ١ امام الإختيار الأول و الرقم ٢ امام الإختيار الثاني، و الرقم ٣ امام الإختيار الثالث.

٧. العائق العام (في نهاية هذا السؤال يوجد تعريف للعائق العام)

٨. العائق العام (في نهاية هذا السؤال يوجد تعريف للعائق العام)

- لعدم تدهور الوقت اللازم للذهاب إلى الحدائق
- الأماكن المخصصة للجلوس في الحدائق صغيرة و لا تلي بالعرض
- اسباب اخرى (فضلاً حدد):
-
-
-

الجزء الثالث: الأنشطة التي تزاوُل في الحدائق:

لغرض فتح ملحق امام الاجاب المناسب لي كل من الاسئلة التالية:

١٢. ما هي الاصد التي تمارسها منذ ذهابك إلى الحدائق العامة أو للفترة التي استمررت فيها داخل مدينة الرياض؟ (باستثناء اختيار أكثر من إجابة):
- الجلوس و التحدث إلى الأسرة أو الأصدقاء
- تناول الطعام أو المشروبات
- ممارسة الألعاب على اللبب و الترويح منهم
- لعب السردق
- الإسترخاء و التمتع بالطبيعة و مشاهدة الناس
- الضراء أو المذاكرة
- اسباب اخرى (فضلاً حدد):
-
-
-

١٣. ما هي الأنشطة التي تشرى فسيحة جداً في الحدائق العامة أو التي يجب أن تجهز الحدائق العامة بها؟
- توفر الجلوس... توفير مظلات... توفير مياه... توفير ألعاب... توفير مقاعد... توفير مظلات... توفير مياه... توفير ألعاب... توفير مقاعد... توفير مياه... توفير ألعاب... توفير مقاعد...
- مثل الملعقات الخاصصة.

الجزء الرابع: معلومات لخصصة:

لغرض اكمال هذا الجزء بوضع ملحق امام الاختيار المناسب، ما لم يحدد السؤال

غير ذلك.

١٤. العمر: ٢٥.....

١٥. الجنسية:

سعودي

غير سعودي

١٦. الحالة الاجتماعية:

متزوج

متفرد

١٧. كم عدد الملاك الذين لا تجاز اجارهم ١٤ سنة: مع.....

١٨. كم عدد افراد اسرتك بما في ذلك كل من يسكن معك في المنزل: ٨.....

١٩. منذ متى و انت تسكن مدينة الرياض:

- اقل من سنتين
- من سنتين إلى ٧ سنوات
- من ٧ سنوات إلى ١٥ سنة
- اكثر من ١٥ سنة

٢٠. المنهية:

- موظف حكومي
 موظف قطاع خاص
 بدون مهنة

- أممالي حمرة
 منقاسم
 طالب

٢١. المستوى التعليمي:

- لا اقرأ و لا اكتب
 اقرأ و اكتب
 حاصل على شهادة متوسطة
 حاصل على شهادة ثانوية
 تعليم مالي

- اقرأ و لكن لا اكتب
 حاصل على شهادة متوسطة
 جامعي أو خريج أحد الكليات

٢٢. نوع السكن:

- فسيلا
 بيت ضمني من البلاك (الطبقة الفرعانية)
 نوع آخر (نفساً محد):

- فسيلا
 بيت طين

٢٣. ملكية السكن:

- إيجار
 ملك
 سكن حكومي
 نوع آخر (نفساً محد):

٢٤. مستوى الدخل (مجموع الدخل الشهري لإفراد الأسرة):

- إلسى ١٥٠٠ ريال
 من ٢٥٠١ إلسى ٥٠٠٠ ريال
 من ١٥٠١ إلسى ٢٥٠٠ ريال
 من ٥٠٠١ إلسى ١٥٠٠٠ ريال
 أكثر من ١٥٠٠٠ ريال في الشهر

الجزء الخامس: خاص بالصعيداه:

٢٥. كم مرة خرجت ليهما من المنزل للتزوة خلال الشهر الماضي؟
 أربع مرات
 أكثر من أربع مرات
 ثلاث مرات
 مرة واحدة
 لم اخرج

إذا كانت لا تستطيع القراءة أو الكتابة:

٢٦. اختاري أكثر ثلاثة أماكن تفضلين الذهاب إليها للتزوة.

- العدايق العامة
 حبيبة العيران
 الحي البلهاسي
 الأزمله و جانبي الخط الدائري

٢٧. برزقة من تخرجين غالباً للتزوة (نفساً إختيارى إجابة واحدة فقط):

- برزقة ندي و الحلاي
 برزقة النماء من أفراد حاتش
 برزقة بعض الآريبي

٢٨. إذا كانت الإجابة كم اخرج (نفساً اكثر من الإجابة):

- أربع مرات
 أكثر من أربع مرات
 ثلاث مرات
 مرة واحدة
 لم اخرج

- الجبر القوي من الوثائق
- البساتين والإستراحات في راي خيلسة
- اماكن أخرى (نملاً حد):
- المكان رقم ١:
- المكان رقم ٢:
- المكان رقم ٣:

٢٨. ما هي الاسباب التي جعلتك تفضلين مثل هذه الاماكن؟

.....

.....

.....

٢٩. هل تعتقدين أن تهاجر الضومرية في أماكن التزهة شربتها؟

(انظري تعريف الضومرية في السالار رقم ٧)

نعم

لا

٣٠. إذا كنتي لا تذهبين إلى الحدائق العامة للتزهة، ماهي الاسباب (بايكانك إختيار أكثر من إجابة)
- لعدم تهاجر الضومرية حيث إختلاف النساء بالرجال
- لأن الأماكن المغممة للجلبس في الحدائق صئيرة و لا تكفي
- لعدم تهاجر الوقت اللازم للذهاب إلى الحدائق
- لعدم الحدائق العامة و عدم تهاجر المواصلات
- اسباب أخرى:
-
-
-

٣١. أي الملتزمات التاليه تترين أنها مستهارة المستهارة المطلوب من الضومرية في الحدائق العامة (نملاً إختيار إجابة واحدة فقط)
- اماكن مملسه خاصه بالرجال و اخرى للنساء
- تعبير أوقات للرجال و اوقات للنساء
- الحدائق تكون مغممة للنساء فقط
- الوضع الراهن جيد و لا يحتاج إلى تغيير
- ملتزمات أخرى
-
-
-

٣٢. ماهي الاطباء التي تمارسيتها عند لعبك للتزهة (بايكانك إختيار أكثر من إجابة)
- الجلوس و التحدث إلى الأشره أو الأصغاه
- تناول الطعام أو المشروبات في الهواء الطلق
- مصاحبة الأهل على اللعب و الترفيه منهم
- الإستمتاع بالطيبه و مشاعرة الناس
- تعبير جو المنزل
- اسباب أخرى:
-
-
-

٣٣. ماهي الطريقة التي تستخدميتها غالباً للذهاب إلى الحدائق العامة أو إلى أماكن التزهة الأخرى (نملاً إختيار إجابة واحدة فقط)
- المشي
- بالسيارة
- بالفاكسي و باصات النقل الجماعي

٢٤. المستنقش التعليلي:

- لا الصرا ولا اكتف
- الصرا و اكتف
- حامله على شهادة شاهدة
- حامله على شهادة شاهدة
- اقترا و لكن لا اكتف
- حامله على شهادة شاهدة
- جامبه او خريجه احد الكيان

٢٥. المهنة:

- ربة منزل
- طالبة
- خبير مالكو:
- موظف حكومي
- مهلكة لتلاخ خاص

الجزء السادس: مشروعات و آراء اسباب الازواء الوفاضية صلاوات
بورا عطره الاوسر

١٥. جو الترفيه حيث ان الانسان يتخلل بها ولكنه تنقسم الى رغبات
عده فالترفيه الانساني يكونه للترجيب و البناء لها بل يكون الاسبوع
ولكنه نظريه الاسبوع هو الذي يتبعها اناسي ببعضهم .

١٦. عطله نظريه الاسبوع : حيث ان الاسبوع الموزع مع عائلته وواضع
الانوار في الشعبة بشاره الاطعمه الجسه

١٧. ولما يخرج ربة اسره بمفرده وعاثه نيمه حيث ان الاسبوع الموزع
او اماره او جبرانه حين ان ينفقون في ثلاثه شبات رجا
اربعه شبات

١٨. نكح الهال (١٩) نكح النساء (٢٠) نكح لاطفال (٢١) رجا نكح
هامه بالنكاح صفرا لسن .

٢٢. الرهان بزعيمون منه فكل من هو اهل ريشه منه صباح الاطفال او الون
الى الازواج او نكح هو التلغز بونه حقه حيث ان الرهان عاره (النيا)
بجزوات الطبخ و العمل في هذا الجو

٢٣. نكح النساء يبين التحدث برونه عمل سى غير افران خدران المنزله
كأنه بالنسبه لافضلها يبين النساء العمل في ذلك الجو.

٢٤. الابدان حينه الرجال والمراهق لته اذا وجدت هذه المراهق نسقون
مشاكل كثيرة ولا يفر من ظلمه فما لوطان الكبار يفرضونه انفسهم على هذه
فأ مبنه علم وجودها نظريا .

٢٥. فلما استعمل البراري القريبه منه مدينه الرياض ظهور المطار يعمل اناسه
يتفوقون في امانه خماضه لكل ما نكح يمتد يتبع كل حديقته الى الف مرقوم
كل موقع به مكانه خاصه للرجال مكانه خاصه للنساء وهو له رمله متوزعه
تكونه للبدن الابدان تلكه العائله حيث تكونه ماصه واسعه لاشباع
شخصه بمرائهم واولادهم يتفوقون في الكبرياء ورويق لربيه الثقات
وهما ما نشه وينتج غير ضلعت اى اقصه منه الفراء الى باب الحمام حين لا يكونه
مرصعا بونككاته حيث ان تقربيع امره موجود بالموقع اشياء بسطه
للبدن اطفال ذكركه الموقوع وحيث نحصم على الدرك البعيد يمتد تنوزون
الفتحه الكافيه للفتحه كده الطوك وكر موقع يبعد عنه الموقع الاضطرال
منه الجرات الاصليه الاربوع ويطرب حول جميع المراتع بسياج من الخيزال
لهذه المنطقه الصحرية . هذا بالنسبه ليوم الاربعاء والخميس والجمعه
الى نكح عطله الاسبوع .

APPENDIX II. SITE ANALYSIS

Appendix II contains analysis of the gardens and sites which were used for field work study. There have been 15 sites that have been chosen for the observation. Seven of the sites were public gardens and eight were pavement and vacant land along manor roads in the outskirts of the urban fabric within the city. This site analysis was part of the observational records that contained recorded data about events as they occur in relation to the existing physical setting(s). Because of the importance of the physical setting in determining the outcome environment, the studied sites were analysed here to give the reader an clear idea about what the analysis in the previous chapter is talking about.

Analysis of each site was divided into three parts. First part discusses information about the date and time of the observation, the climatic condition when the observation was conducted and the entrance fee of the site if existed. Second part discusses the general characteristics of the site in terms of area, location, brief description of the setting, accessibility of the site, who are the users, vegetation cover, existence of fences, and availability of parking area. Third part of the analysis discusses the physical features of the site like information about number of entrances, the layout of open spaces, existence of water surfaces, food and toy shops, paved area shaded structures, outdoor furniture, children play areas, toilets, mosque or places for praying, and the types of actions prohibited inside the sites. These information were provided with the available maps, pictures and illustrations of the sites.

2.1. Al-Ḥizām Garden

2.1.1. Date of the Observation and Other Relative Information

Date: Thursday, 8th of April 1994.

Time: 6.00 PM - to - 10.00 PM

Climatic Conditions: Very clear sky and very pleasant night

Entrance Fee: 2 Saudi Rials per adult.

2.1.2 General Description of site

Total square area: 42,000 square meters.

Location: Al-Ḥizām Garden is located on Al-Ḥizām Road to the west of the city centre.

Brief description of the site: The garden is one of the most densely planted gardens in the city. It was established on a mature palm tree farm. There are five fountains located in the centre of the garden. Two children's playgrounds next to each other in the west part of the garden. Four paved circular areas furnished with benches for users to sit on and watch people. Six snack shops distributed in the space. Each shop has two windows, one for males buyers and the other for female buyers. Four paved circular shaped areas with seats on the edge were established in different locations within the garden. The paved walking paths are a geometrical circular shapes. Toilets are distributed in the site. (See figure 6-1).

Accessibility of the site: Easy access.

Users: Families.

Description of vegetation: The garden contains over 600 mature palm trees. There are over 520 trees of about 82 species of shade trees. Hedges and shrubs are also planted intensively in the garden. The open spaces are planted with grass.

Existence of fence: The garden is surrounded by a metal bar fence covered almost completely with climbing plants.

Availability of parking area: There is no parking problem

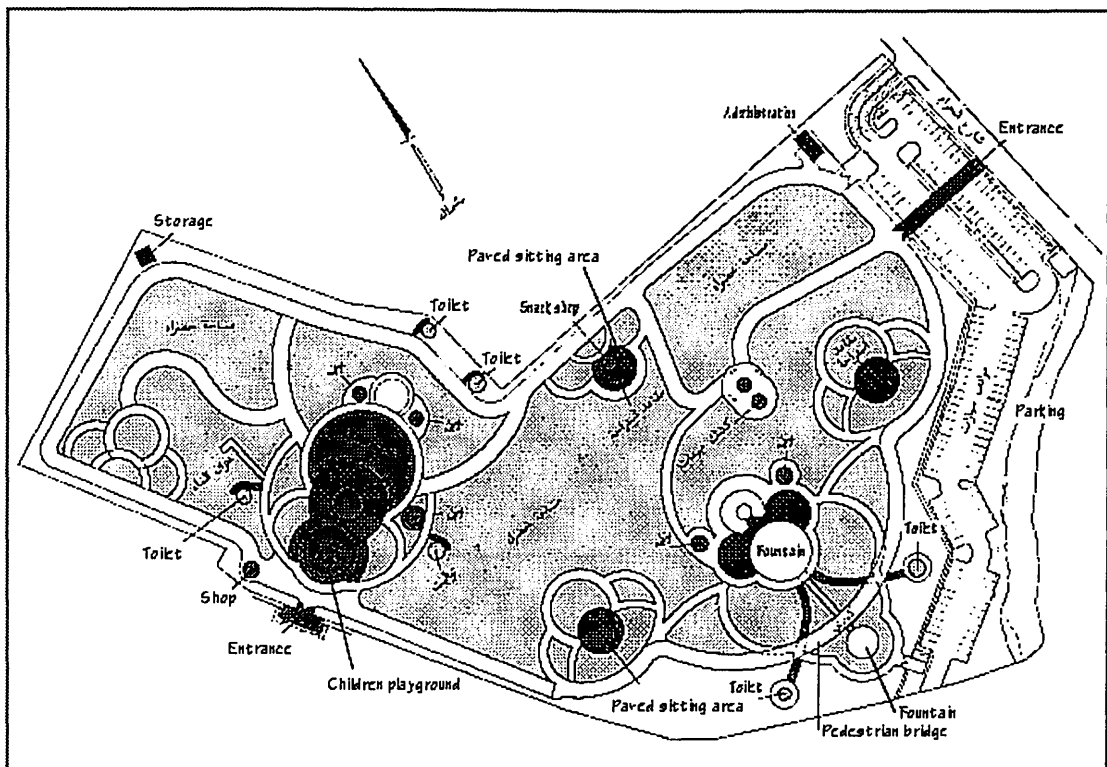


Figure 2.1.1: Plan of Al-Ḥizām garden.

2.1.3. Description of Elements

Entrances: The garden has 2 entrances. One of them is open for control purpose.

Open spaces: The dominant elements on the plan are the grass open areas.

Water surfaces: There are 4 fountains located in the centre of the garden.

Food & toy shops: There are 6 snack shops distributed in the space. Each shop has two windows, one for male buyers and the other for female buyers.

Paved area:	4 paved circular shaped areas with seats were established in different locations within the garden. The paved walking paths are a geometrical circular shapes.
Shaded structures:	3 shaded structures.
Outdoor furniture:	A few benches distributed along the pathwalk, the paved circles and around the fountains.
Children play areas:	2 children's playgrounds next to each other in the west part of the garden.
Toilets:	The garden has 4 toilets. 2 for males and 2 for females.
Mosque:	None.
Actions prohibited inside the site:	Playing football, building a fire, smoking water-pipe, photography, riding bicycles and tricycles, littering, and collecting flowers.

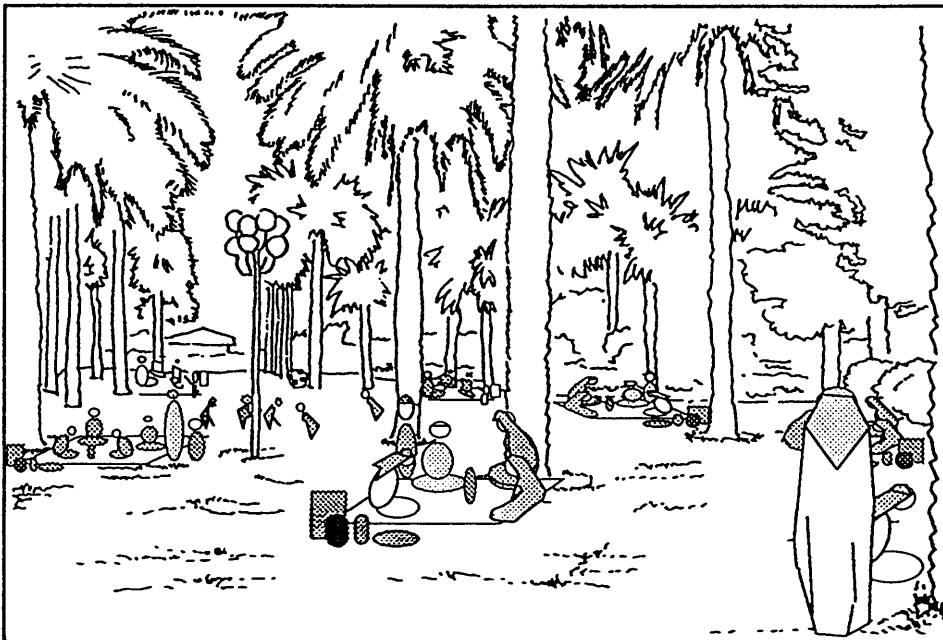


Figure 2.1.2: An open grass area in the centre of Al-Ḥizām Garden. Users usually sit against palm tree trunks or hedges. They also maintain fairly large distances between their spots. The view gives an idea of the activities that usually take place.

2.2. Al-Suwydi Garden

2.2.1. Date of the Observation and Other Relative Information

Date: Friday, 9th of April 1994.

Time: 4.00 PM - to - 8.00 PM

Climatic Conditions: Very cloudy and pleasant temperature

Entrance Fee: 3 Saudi Riyals per adult and 3 SR. for car parking

2.2.2. General Description of site

Total square area: 102,075 square metres.

Location: Al-Hizām Garden is located on Al-Hizām Road to the west of the city centre.

Brief description of the site: The garden is located in the south of Ar-Riyadh city. It is considered to be one of the biggest gardens in the city. The site is located on the corner of a merging land of two wadis, Wadi Liban and Wadi Namarr, which makes it very fertile. The garden was established on a mature palm tree farm. The design idea is to maintain the density of the plants in the garden. The difference in ground levels in the site was used to create a narrow water channel which flows through the garden forming small water falls in some locations and fountains in others. There are two main separate sections; one for families, which occupies 60% of the total area, and another one for singles, which occupies 30% of the total area of the garden.

Accessibility of the site: Easy access.

Users: Families and singles.

Description of vegetation:	The garden contains over than 300 mature palm trees. There are over than 825 trees of different species. There are 24,000 shrubs which were planted intensively in the garden. The open spaces are planted with grass.
Existence of fence:	The garden is surrounded by a metal bar fence covered almost completely with climbing plants.
Availability of parking area:	There are enough parking inside and outside the garden.

2.2.3. Description of Elements

Entrances:	The garden has 2 entrances. One for the family's section and another for the single's section.
Open spaces:	There are medium sized open spaces located between the different elements and attractions of the garden.
Water surfaces:	Water channel and few fountains.
Food & toy shops:	There are few snack shops distributed in the garden.
Paved area:	Small areas underneath the public gathering spots such as around the fountain.
Shaded structures:	Among the main characteristics of the garden are the tensile structures which are scattered in the garden.
Outdoor furniture:	All the designated sitting areas under the tensile tents are furnished with concrete tables and benches.
Children play areas:	There are couple of children play areas. There is also a football field in the garden.
Toilets:	Enough toilets are scattered in the site.
Mosque:	1 mosque.
Actions prohibited inside the site:	Nothing is specified on the ticket nor anywhere in the garden.

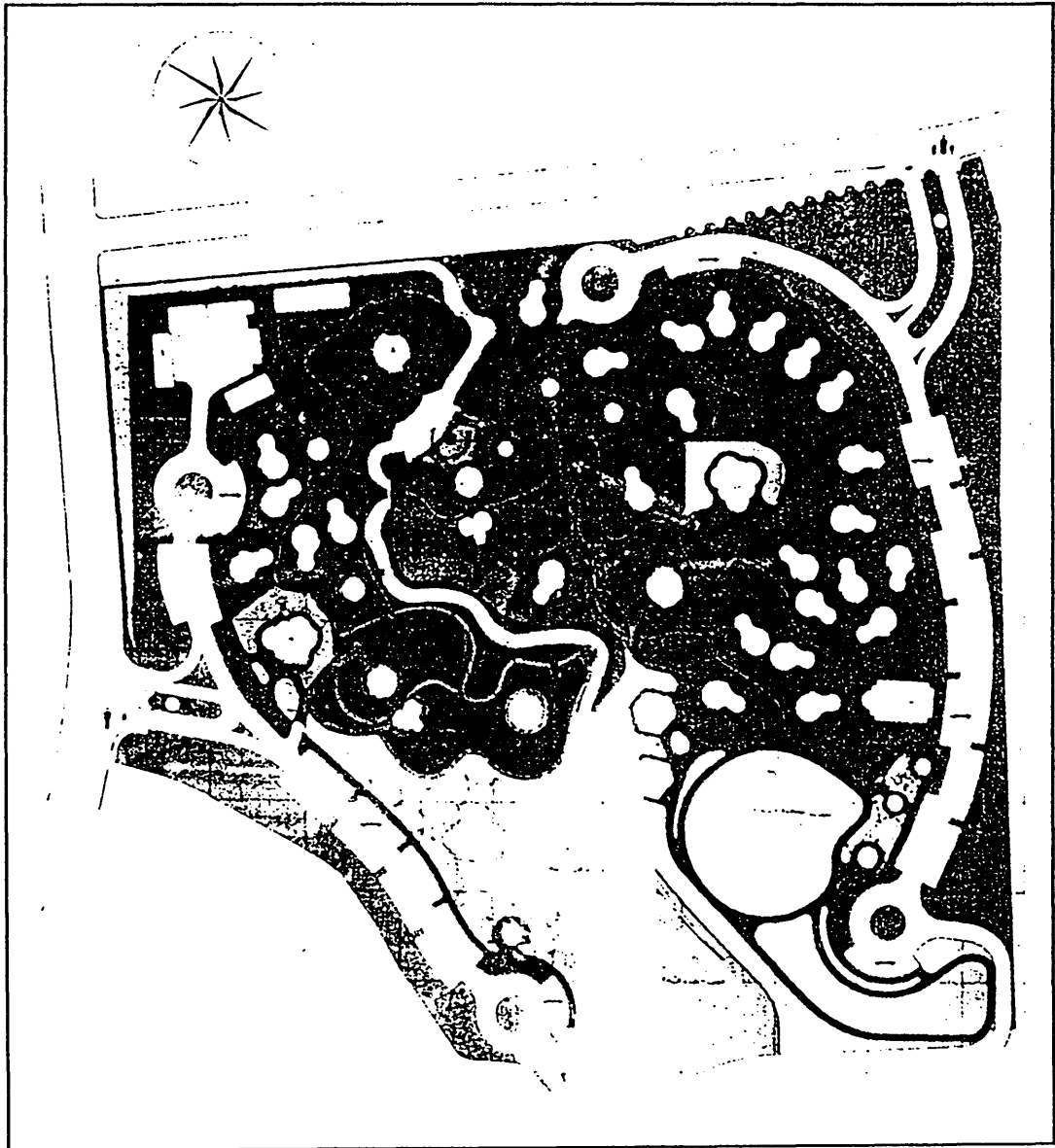


Figure 2.2.1: Plan of Al-Suwydi Garden.

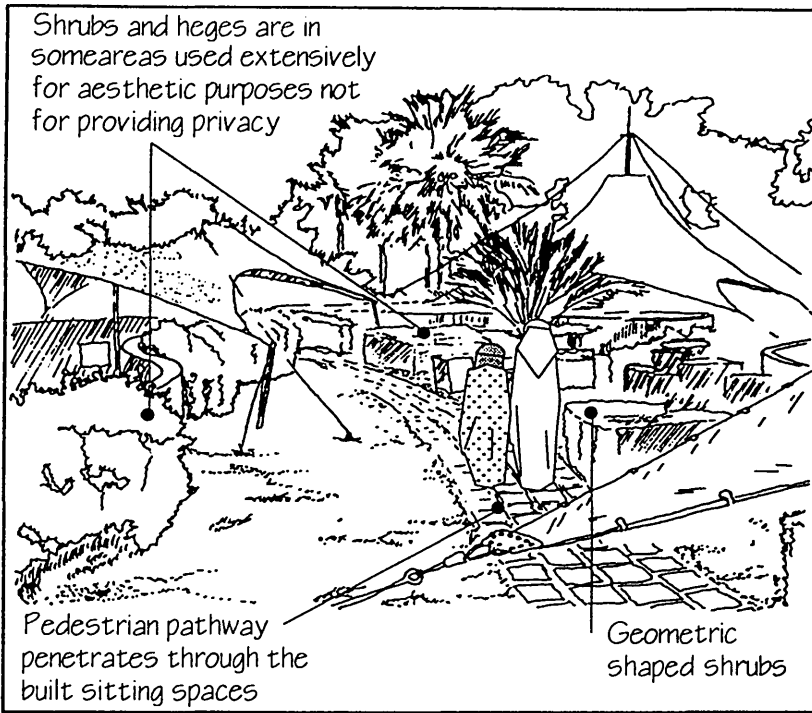


Figure 2.2.2: View in the garden showing the dense vegetation and the distribution of tents in the site.

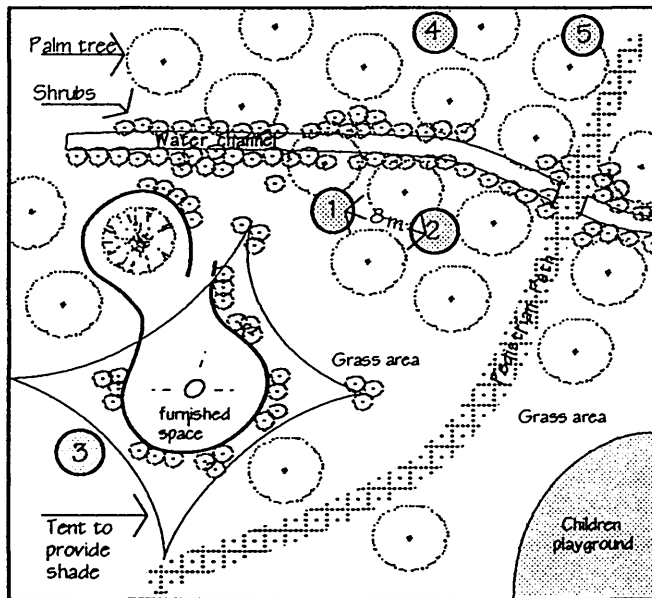


Figure 2.2.3: Part of the garden demonstrating the various elements of the sites: the water channel, the tent structure, the footpath, and the various plant materials

2.3. Al-Manşurah Garden

2.3.1. Date of the Observation and Other Relative Information

Date: Monday, 12th of April 1994.

Time: 5:00 PM - to - 8:00 PM.

Climatic Conditions: Very pleasant afternoon

Entrance Fee: 2 Saudi Riyals per an adult.

2.3.2. General Description of site

Total square area: 69,000 square meters.

Location: Al-Manşurah Neighbourhood in the south of the city.

Brief description of the site: The site is a complete neighbourhood block surrounded by four streets. The whole neighbourhood consists mainly of one family residential villa-type housing. The garden was opened to the public in 1988. The newly planted vegetation are in general still young and not mature yet (figure 6-14). The garden look likes a long strip. On the narrow two ends, the main entrances are located.

Accessibility of the site: Easy access.

Users: Families.

Description of vegetation: The site is newly planted with different kind of plant materials. Most of the garden was planted with shade trees. In the centre, palm trees were planted around the fountain. Hedge trees were planted on the sides of the pathways. Flower shrubs were planted in different areas of the garden. Open areas were covered with grass.

Existence of fence: The garden is surrounded by a metal bar fence covered almost completely with climbing plants.

Availability of parking area: Two parking lots exist at the two ends of the garden in front of each entrance (figure 6-15).

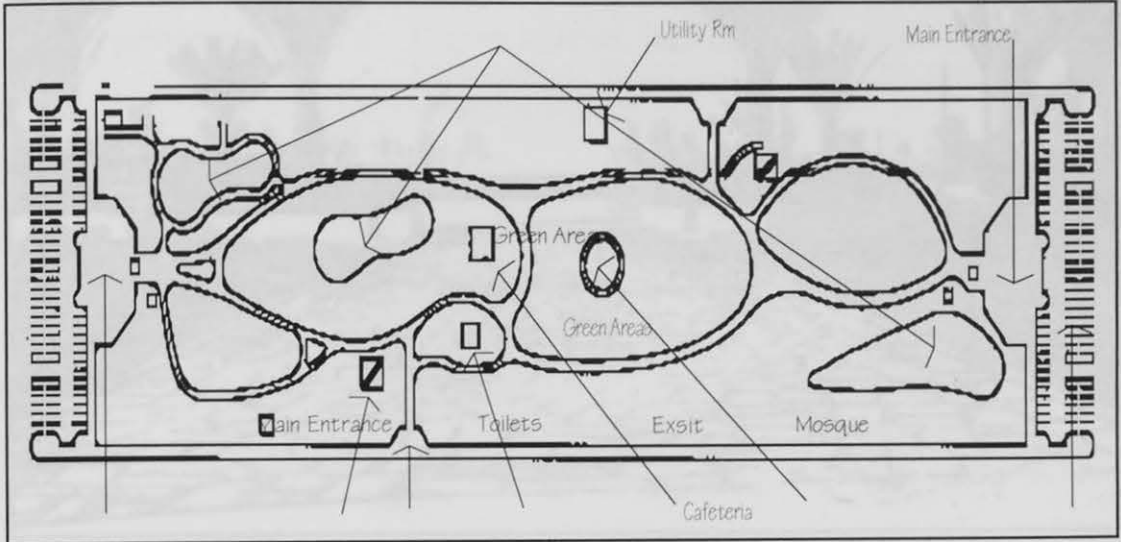


Figure 2.3.1: Plan of Al-Manşurah Garden

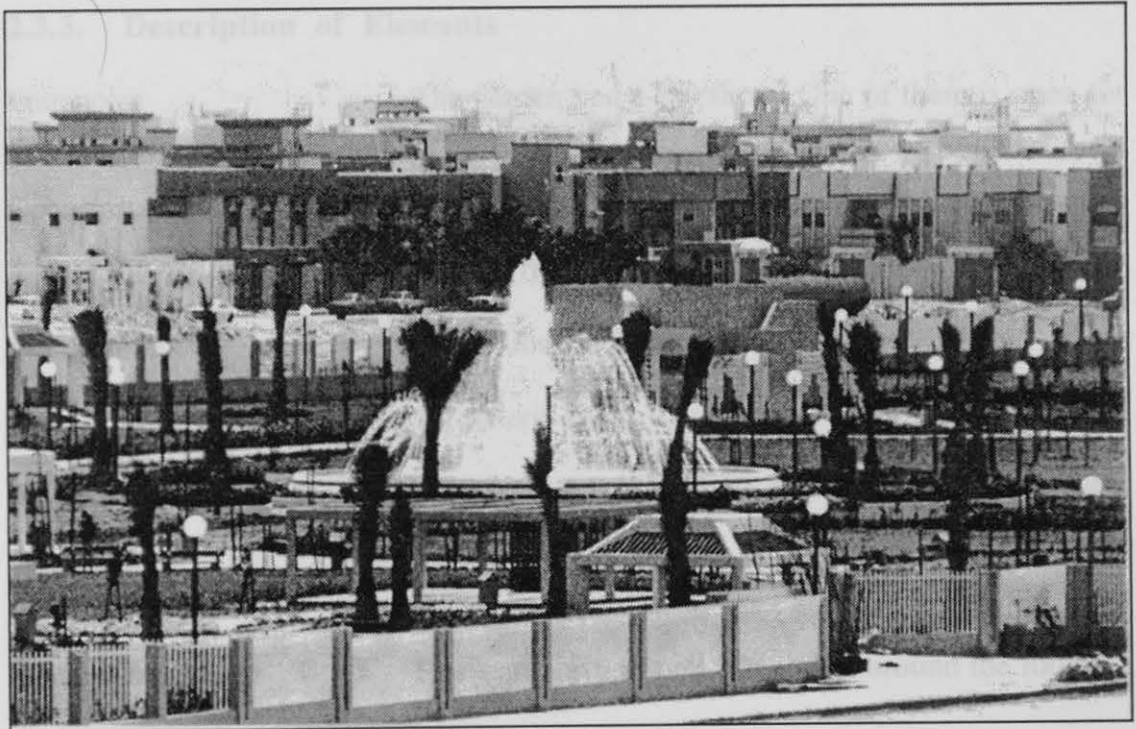


Figure 2.3.2: A bird's eye view of the main elements . The immature plant materials are obvious.



Figure 2.3.3: View of the fountain and part of the pedestrian pathways in Al-Manşurah Garden.

2.3.3. Description of Elements

Entrances:	The garden has 2 entrances. One of them is open for control purpose.
Open spaces:	The dominant elements on the plan are the grassy open areas which covers about 66% of the total area of the garden (figure 6-15).
Water surfaces:	Large fountain in the centre.
Food & toy shops:	1 Cafeteria shop.
Paved area:	Pavement is used for the narrow and winding pathways.
Shaded structures:	None.
Outdoor furniture:	Few outdoor furniture distributed around the fountain in the centre.
Children play areas:	There are 3 fully equipped children play areas covered with white sand.

Toilets:	The garden has 4 toilets. 2 for males and 2 for females.
Mosque:	1 mosque.
Actions prohibited inside the site:	Playing football, building a fire, smoking water-pipe, photography, riding bicycles and tricycles, littering collecting flowers.

2.4. Al-Maktabah Garden

2.4.1. Date of the Observation and Other Relative Information

Date: Thursday, 15th of April 1994.

Time: 7:45 PM - to - 9:30 PM.

Climatic Conditions: Cool pleasant night

Entrance Fee: 2 Saudi Riyals per an adult.



Figure 2.4.1: View into the Al-Maktabah Garden Showing the main features. The water body in the foreground and the open grass space under the palm tree canopy in the background.

2.4.2. General Description of the Site

Total square area:	30,000 square meters.
Location:	Al-Ūlaayā neighbourhood.
Brief description of the site:	The garden is part of King Fahad Public Library on an area of 58,000 square meters. The site was planted with palm trees which were utilised in the contemporary design. The project was opened officially in 1983. The site has a body of water in the form of a small lake in the middle. The design idea depended on distributing the different elements between the palm tree batches with winding pathways connecting the design elements. A body of water of irregular shape is located in the middle of the site.
Accessibility of the site:	Easy access with difficulty finding a parking space.
Users:	Families.
Description of vegetation:	The garden is constructed on old palm tree land. The green areas exceeds 17,000 square meters. Most of the garden plant materials consist of palm trees. Other kinds of trees also existed. Around the water edges, flower shrubs were distributed. Hedges were planted along the pedestrian pathways. In one part of the site, a small area of rocky garden was established which is planted with desert plants.
Existence of fence:	The garden is surrounded by a metal bar fence covered almost completely with climbing plants.
Availability of parking area:	There are about 120 parking spaces in front and in the surrounding streets. The parking spaces are also used by other business in the area therefore there is always a parking problem.

2.4.3. Description of Elements

Entrances:	The garden has 1 entrance.
Open spaces:	The dominant elements on the plan are the grass open areas.

Water surfaces:	Fairly large body of water in the centre of the site with a fountain in the middle and man-made waterfalls at one end.
Food & toy shops:	1 Cafeteria is equipped with chairs and tables.
Paved area:	Pavement is used for the narrow and winding pathways and for some sitting areas.
Shaded structures:	None.
Outdoor furniture:	Very few outdoor furniture except those of the cafeteria.
Children play areas:	There are 4 fully equipped children play areas covered with white sand.
Toilets:	The garden has toilets for males and for females.
Mosque:	None.
Actions prohibited inside the site:	Playing football, building a fire, smoking water-pipe, photography, and cycling.

2.5. Al-Ghurfaḥ Al-Tijāriah Garden

2.5.1. Date of the Observation and Other Relative Information

Date: Thursday, 14th of April 1994.

Time: 5:30 PM - to - 9:30 PM.

Climatic Conditions: Very pleasant after noon

Entrance Fee: 2 Saudi Riyal per an adult.

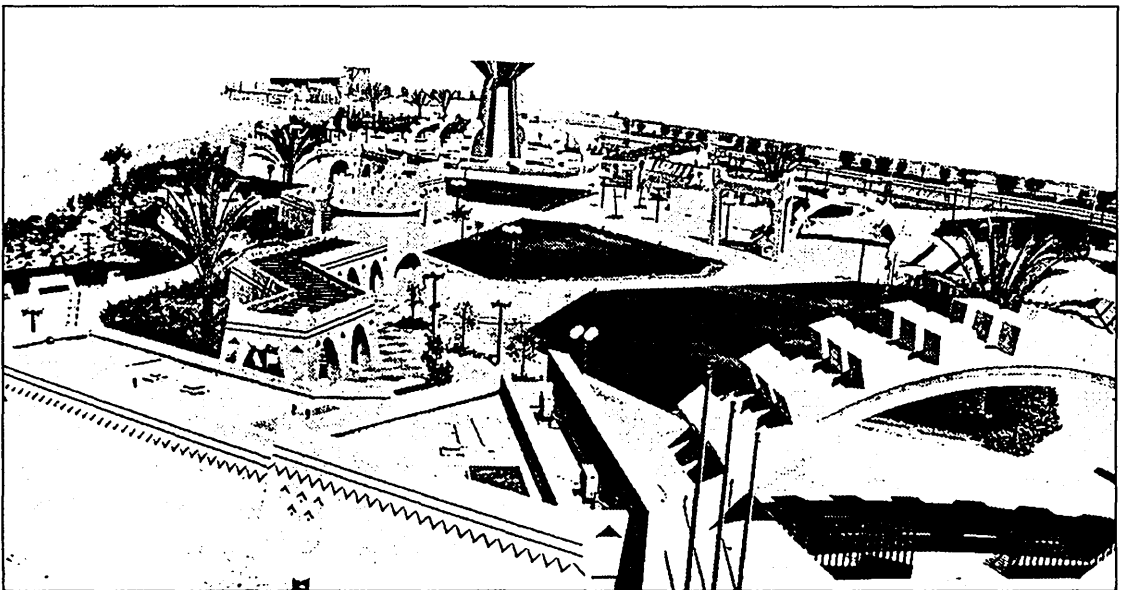


Figure 2.5.1: The design of Al-Ghurfaḥ Al-Tijāriah Garden depends mainly on hard landscape with spatially open large open spaces with few trees and shrubs.

2.5.2. General Description of the Site

Total square area: 20,000 square meters.

Location: Al-Malaz neighbourhood (at the end of Al-Ā'zsa Street).

Brief description of the site:	The garden is constructed by the Commercial Trade Office in Arriyadh. The project was presented to the municipality of Arriyadh as a gift on the 50th anniversary of its establishment.
Accessibility of the site:	Easy access.
Users:	Families.
Description of vegetation:	The garden depends mainly on hard landscape and on changes of land forms and levels. Trees are few and scattered. There are quite large grass areas along with the paved surfaces. Buildings with traditional styles for the administration, cafeteria, and public facilities exist along with the monumental structures and the fountains.
Existence of fence:	The garden is surrounded in parts by a high wall and in other parts by changing land forms which isolate the garden from the surroundings.
Availability of parking area:	There is a small parking space next to the entrance. Most people park along the sides of the roads surrounding the garden.

2.5.3. Description of the Design Elements

Entrances:	The garden has 1 entrance.
Open spaces:	Most of the garden is open with few arcades and very few trees. Open spaces are either paved or planted with grass.
Water surfaces:	There is a medium size fountain in on side of the garden.
Food & toy shops:	1 Cafeteria equipped with chairs and tables.
Paved area:	Pavement is used extensively in section of the garden.
Shaded structures:	None.
Outdoor furniture:	None
Children play areas:	There are 4 fully equipped children play areas covered with white sand.

Toilets:	The garden has toilets for males and females.
Mosque:	None.
Actions prohibited inside the site:	Playing football, building a fire, smoking water-pipe, photography, and cycling.

2.6. Hajrr Garden

2.6.1. Date of the Observation and Other Relative Information

Date: Thursday, 14th of April 1994.

Time: 5:30 PM - to - 7:30 PM.

Climatic Conditions: Very pleasant after noon.

Entrance Fee: Free.

2.6.2. General Description of the Site

Total square area: 20,000 square meters.

Location: Arriyadh diplomatic Quarter.

Brief description of the site: The garden is located on a hilly site in the Diplomatic Quarter over looking parts of Wadi Hniyfah. The design was intended to echo the local landscape therefore the outcome was a desert garden. Stones that have been brought from near by valleys were used intensively in shaping the spaces. Dried plants were used in landscaping the garden. There are a number of fountains in the garden. In the middle, one of the Diplomatic Quarter's main water towers is standing. The ground covers of the sitting areas were either sand, gravel or alignment of large stones. The walkways were paved with concrete tiles.

Accessibility of the site: Easy access.

Users: Open to everybody (singles and families).

Description of vegetation: The garden was planted with dried climate plants. Shade trees were planted on a sand and gravel covered areas. Shrubs were distributed in few places among the large stone formations. In some parts of the garden, hedge plants are used.

- Existence of fence: The garden is surrounded by a metal bar fence.
- Availability of parking area: There are two parking areas on two sides of the garden. Also, users can park their cars along the surrounding streets.

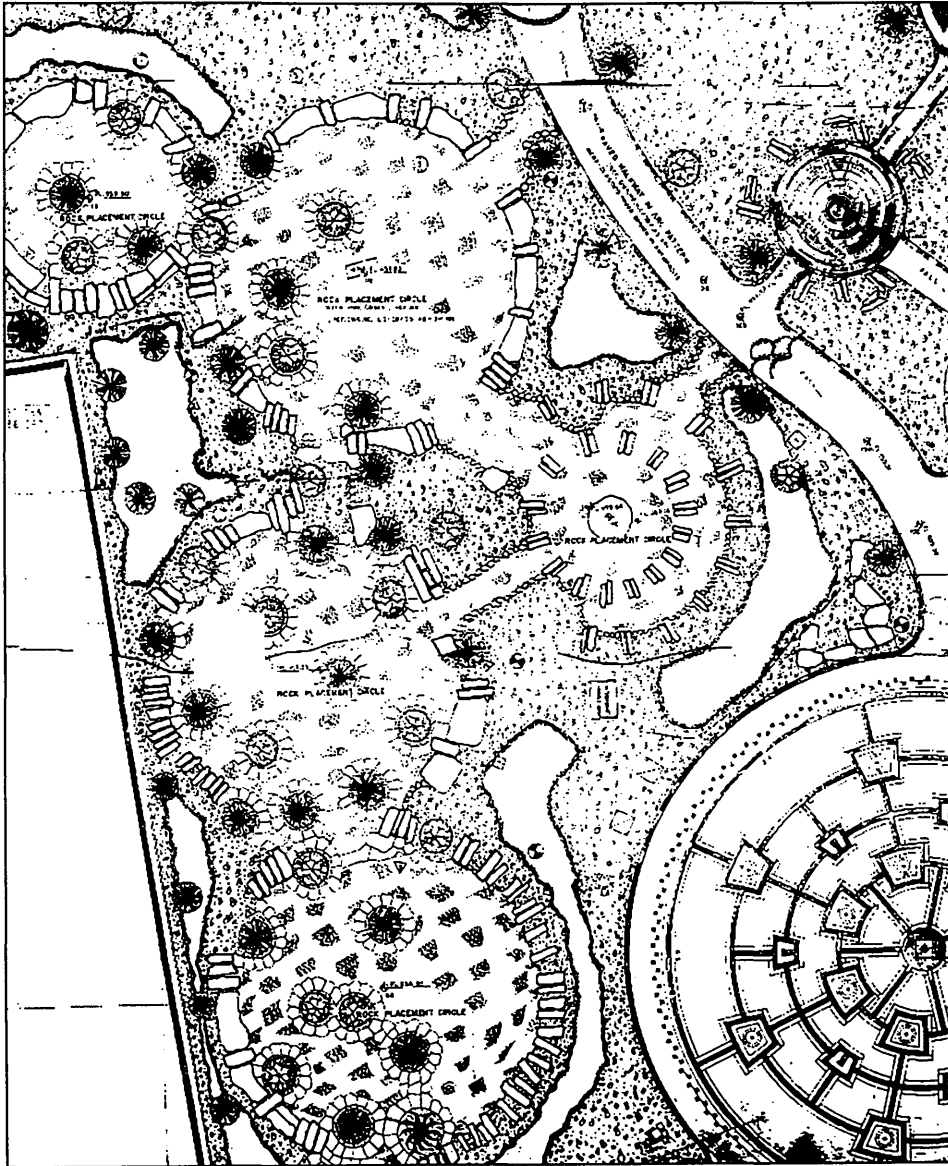


Figure 2.6.1: The use of stone slabs in Hajar Garden created semi-enclosure areas that provide visual protection for users. Shown here part of Hajar Garden.

2.6.3. Description of Elements

- Entrances: The garden has about 4 entrances.

Open spaces:	The spaces were designed in a form of enclosure surrounded by large stone formations.
Water surfaces:	Fountains.
Food & toy shops:	None.
Paved area:	Pavement is used for the narrow and winding pathways and around the water tower in the centre of the garden.
Shaded structures:	None.
Outdoor furniture:	Very few outdoor benches. Stones were arranged to take the shapes of seats in many enclosed spaces in the garden.
Play field and Children play areas:	There is one football play field and several children play areas.
Toilets:	There are public facilities in one part of the garden which are not enough.
Mosque:	None.
Actions prohibited inside the site:	Nothing was specified on the entrance of the garden.

Brief description of the site: The site is a complete neighbourhood block surrounded by four streets. The whole neighbourhood consists mainly of one family residential villa-type housing. The garden's shape is rectangular. The garden has two entrances on both sides of the block. One of these entrances is a main entrance, three circles are located in a row. These three circles contain a water fall fountain, a water tower, and a snack shop. A road runs through these three paved circles.

2.7. Al-Rwḍah Garden

2.7.1. Date of the Observation and Other Relative Information

Date: Thursday, 24th of June 1994.

Time: 4:15 PM - to - 6:15 PM.

Climatic Conditions: Nice after noon.

Entrance Fee: Free.

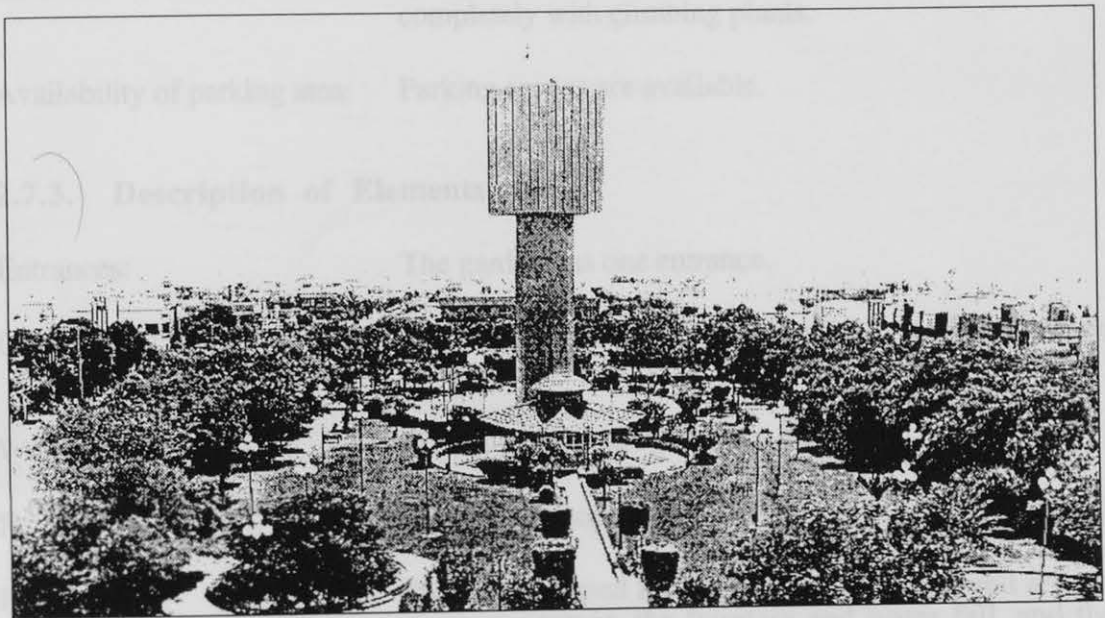


Figure 2.7.1: A Bird eye view of the Al-Rwḍah Garden.

2.7.2. General Description of the Site

Total square area: 10,200 square meters.

Location: Al-Rwḍah neighbourhood, north east the intersection of Arriyadh Ring Road with Makkah Road.

Brief description of the site:	The site is a complete neighbourhood block surrounded by four streets. The whole neighbourhood consists mainly of one family residential villa-type housing. The garden's shape is rectangular. The garden has two entrances at both ends of the block. One of these entrances is used. Between these two doors, three circles are located in a row. These three circle contain a water-fall fountain, a water tower, and a snack shop. A walkway connects between these three paved circles.
Accessibility of the site:	Easy access.
Users:	Families only.
Description of vegetation:	The site has 160 large trees and 500 palm trees. Trees were planted on the edge of the garden. Hedge trees were planted along the walkways and the paved circles. The open spaces were covered with grass.
Existence of fence:	The garden is surrounded by a metal bar fence covered completely with climbing plants.
Availability of parking area:	Parking spaces are available.

2.7.3. Description of Elements

Entrances:	The garden has one entrance.
Open spaces:	The garden is divided into four rectangular grassy open spaces.
Water surfaces:	A man-made water fall and a fountain.
Food & toy shops:	One snack shop.
Paved area:	Pavement is used for the narrow walkways and around the water tower, the fountain and water fall, and the snack bar.
Shaded structures:	None.
Outdoor furniture:	There are some picnics-type tables scattered in the garden.
Play field and Children play areas:	Two children play grounds.

Toilets:	Available.
Mosque:	None.
Actions prohibited inside the site:	Nothing was specified on the entrance of the garden, but probably, the municipality rules apply.

Part Two

This part of the analysis will deal with observations conducted in areas and places which were not designed for recreation use though they were become very popular among locals because of their characteristics. Places analysed here are paved sides and vacant lands along the major roads and motor ways in the city.

2.8. Ring Road-South (site no. 1)

2.8.1. Date of the Observation and Other Relative Information

Date: Friday 9th. of April 1994.

Time: 4:15 PM - to - 6:15 PM.

Climatic Conditions: Very pleasant after noon.

Entrance Fee:

2.8.2. General Description of the Site

Location: Al-Zaziyyah Neighbourhood South of the city. The site is adjacent to the Ring Road.

Brief description of the site: The site is privately owned and undeveloped lots of lands. The site topography is formed of small sized hills. The site is fairly clean of waste and covered with light desert grass as a result of a recent and frequent rain-fall in the months of March and April.

Accessibility of the site: Very easy access from local streets in the neighbourhood.

Users: No restrictions (very public).

Description of vegetation: Light desert grass and some wild shrubs.

Existence of fence: None

Availability of parking area: No restrictions.

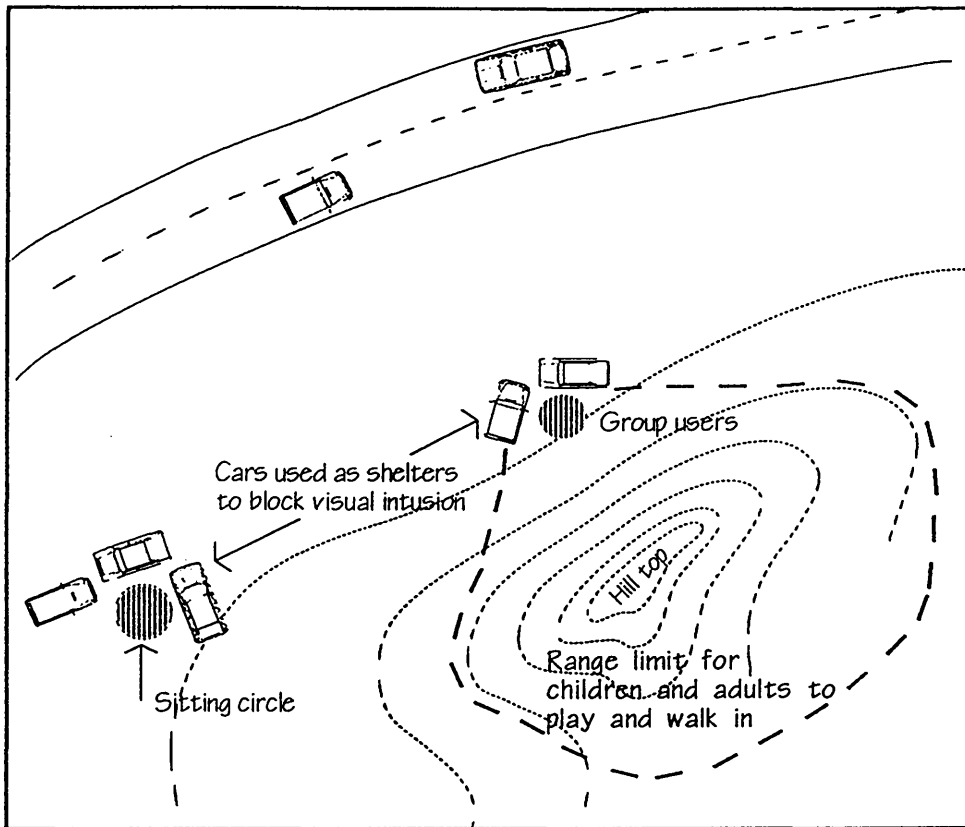


Figure 2.8.1: Groups of users on the vacant land along the Ring Road-South (site no. 1).

2.8.3. Description of the Design Elements

Open spaces: The whole site is a large open desert land.

Water surfaces: None.

Food & toy shops: None.

Paved area: None.

Shaded structures: None.

Outdoor furniture: None.

Play field and Children play areas: None.

Toilets: None.

Mosque: None but, there are nearby mosques in the neighbourhood.

Actions prohibited inside the site: None.

2.9. Ring Road-South (site no. 2)

2.9.1. Date of the Observation and Other Relative Information

Date: Friday 23rd. of April 1994.

Time: 9:30 PM - to - 10:30 PM.

Climatic Conditions: Very pleasant evening.

Entrance Fee:

2.9.2. General Description of the Site

Location: Al-Mansurah Neighbourhood South of the city. The site is adjacent to the Ring Road.

Brief description of the site: The site is privately owned and undeveloped lots of lands. The land is low, flat, and barren.

Accessibility of the site: Very easy access from local streets in the neighbourhood.

Users: No restrictions (very public).

Description of vegetation: No vegetation cover.

Existence of fence: None

Availability of parking area: No restrictions.

2.9.3. Description of the Design Elements

Open spaces: The whole site is a large open desert land.

Water surfaces: None.

Food & toy shops: None.

Paved area:	None.
Shaded structures:	None.
Outdoor furniture:	None.
Play field and Children play areas:	None.
Toilets:	None.
Mosque:	None but, there are nearby mosques in the neighbourhood.
Actions prohibited inside the site:	None.

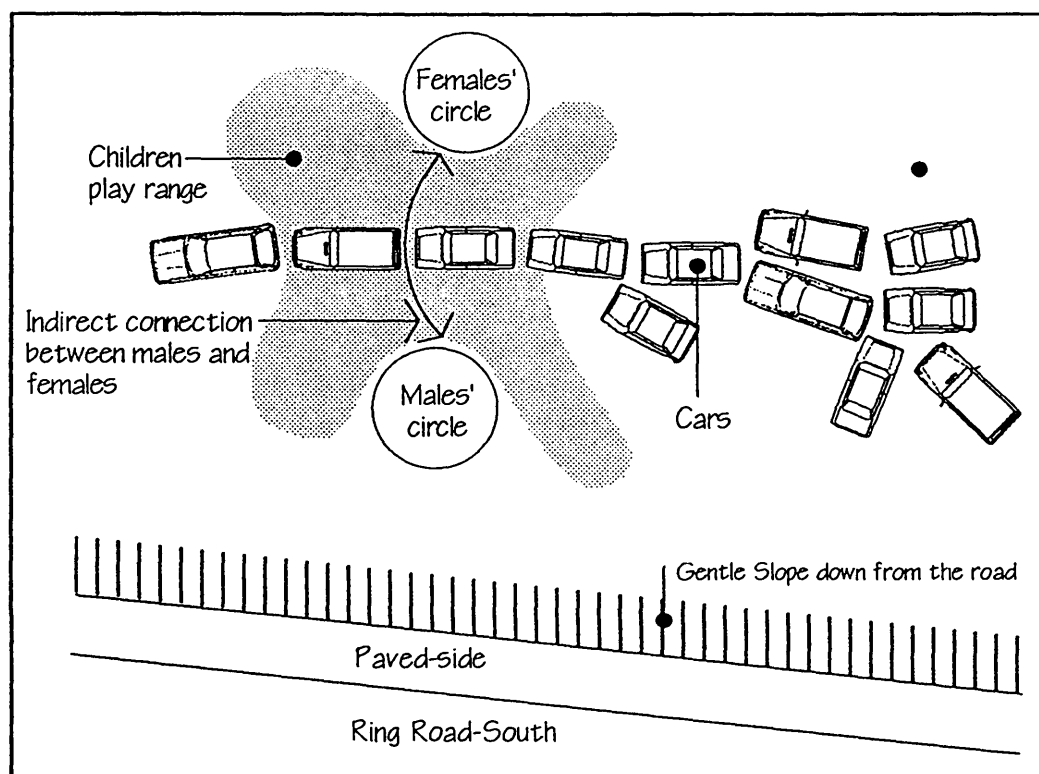


Figure 2.9.1: Users of the vacant land along the road arrange their setting to fit their needs. An observed group of users along the Ring Road-South (site no. 2).

2.10. Ring Road-East (site no. 3):

2.10.1. Date of the Observation and Other Relative Information

Date: Friday 9th. of April 1994.

Time: 11:00 PM - to - 12:00 AM.

Climatic Conditions: Pleasant after noon.

Entrance Fee:

2.10.2. General Description of the Site

Location: Al-Qudus neighbourhood. The whole designated neighbourhood is undeveloped. Paved side of the Ring Road and areas of the neighbourhood adjacent to the road are used because of the high intensity lighting of the road.

Brief description of the site: The site is privately owned and undeveloped lots of lands. The land form of the site is gentle (flat). The site is very clean of human waste.

Accessibility of the site: Access to the site is from the service road of the Ring Road.

Users: No restrictions (very public).

Description of vegetation: No vegetation cover.

Existence of fence: None

Availability of parking area: No restrictions.

2.10.3. Description of the Design Elements

Open spaces: The whole site is a large open desert land.

Water surfaces:	None.
Food & toy shops:	There are ice cream and snack cars moving in the site.
Paved area:	None.
Shaded structures:	None.
Outdoor furniture:	None.
Play field and Children play areas:	None.
Toilets:	None.
Mosque:	None.
Actions prohibited inside the site:	None.

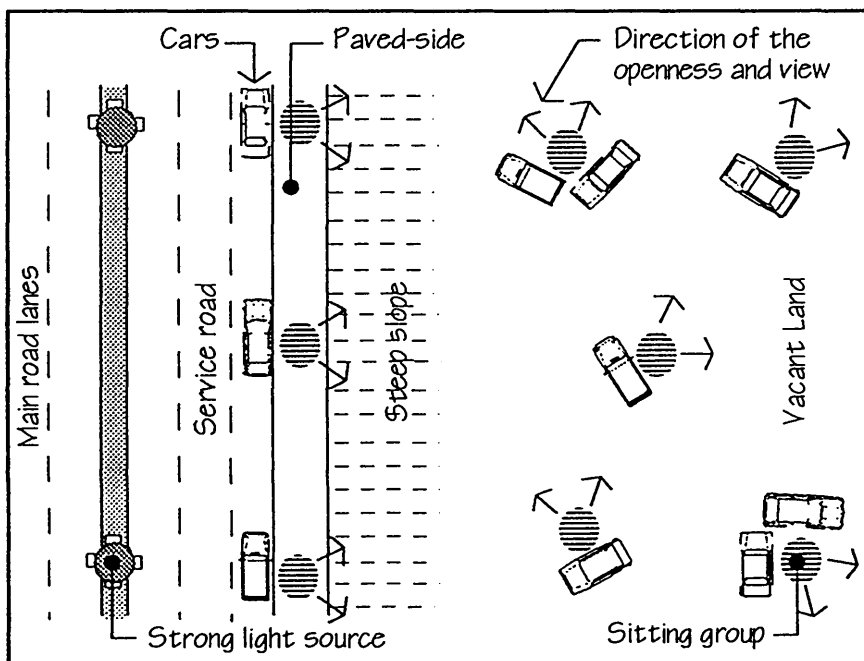


Figure 2.10.1: Group of users organising their setting to meet their socio-cultural needs. This observation was conducted in a weekend night on the east side of Ring Road-East.

2.11. Ring Road-East (site no. 4)

2.11.1. Date of the Observation and Other Relative Information

Date: Wednesday 27th. of July 1994.

Time: 10:30 PM - to - 12:30 PM.

Climatic Conditions: Pleasant evening.

Entrance Fee:

2.11.2. General Description of the Site

Location: Al-Ḥamraā' neighbourhood. The whole designated neighbourhood is undeveloped land. Paved side of the Ring Road and areas of the land adjacent to the road are used because of the high intensity lighting of the road.

Brief description of the site: The site is privately owned and undeveloped lots of lands. The site is clean and very flat. It is about 6 metres lower than the road. Scattered in the sites spots of ash which were the remains of fire built by users for barbecuing.

Accessibility of the site: Not so easy because of the steep road shoulder.

Users: No restrictions (very public).

Description of vegetation: No vegetation cover.

Existence of fence: None

Availability of parking area: No restrictions.

2.11.3. Description of the Design Elements

Open spaces: The whole site is a large open desert land.

Water surfaces:	None.
Food & toy shops:	There are ice cream and snack cars moving in the site.
Paved area:	None.
Shaded structures:	None.
Outdoor furniture:	None.
Play field and Children play areas:	None.
Toilets:	None.
Mosque:	None.
Actions prohibited inside the site:	None.

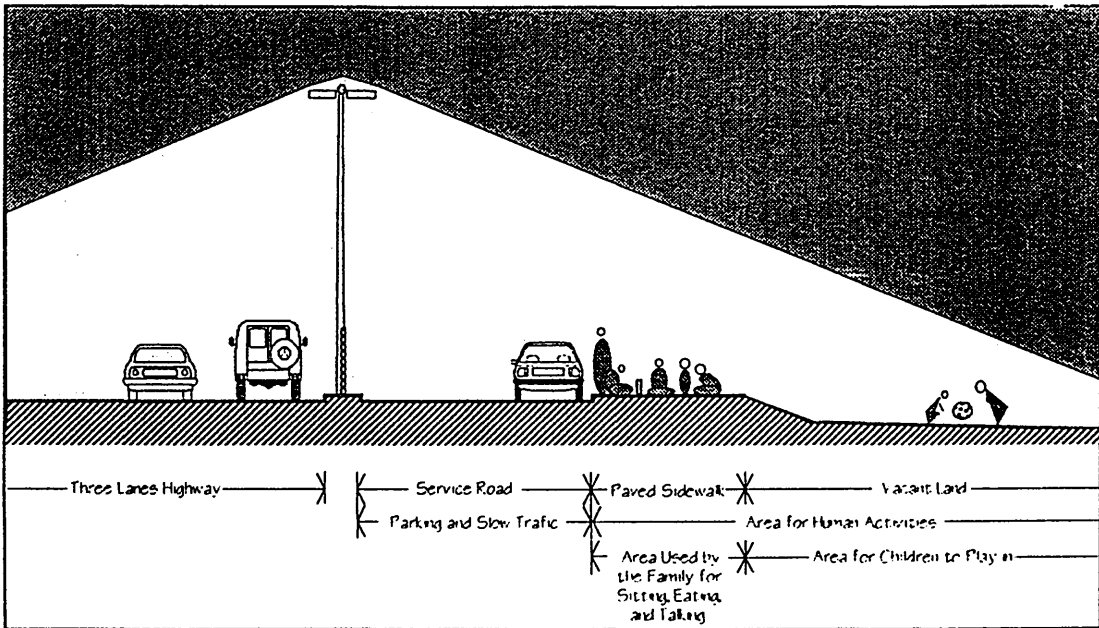


Figure 2.11.1: Section in Ring Road-East (site no. 2). People sit on the paved side and/or on the vacant land where children usually play on the vacant land.

2.12. Al-Qaṣiyyam Road:

2.12.1. Date of the Observation and Other Relative Information

Date: Thursday 29th. of July 1994.

Time: 10:00 PM - to - 12:00 AM.

Climatic Conditions: Pleasant evening.

Entrance Fee: No restrictions.

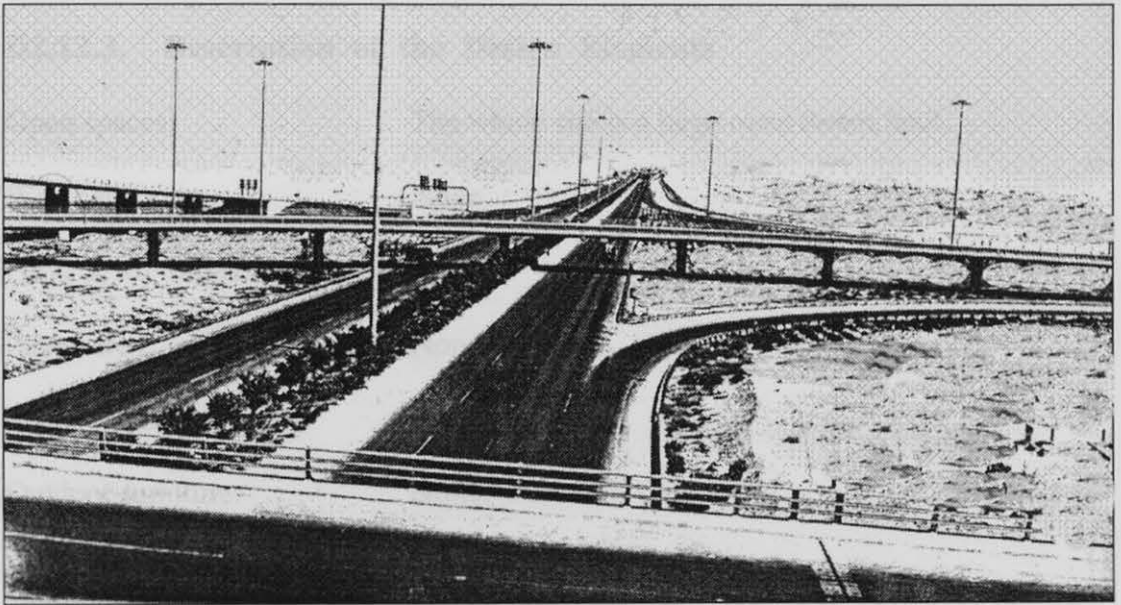


Figure 2.12.1: Aerial view of the Al-Qaṣiyyam Road showing part of the vacant lands on both sides where people usually sit enjoying the spilled over light from the road.

2.12.2. General Description of the Site

Location: Al-Qaṣiyyam Road is the extension of Al-Malik Fahd Road in the north of the city.

Brief description of the site:	Al-Qaṣiyyim Road is very wide and intensively lit with very high light columns which provide enough light for the surrounding areas of the road. Most of the lands on both sides of the road are very clean, flat, and undeveloped.
Accessibility of the site:	Access to the site is from the service road of Al-Qaṣiyyim Road and from other roads which are intersected with Al-Qaṣiyyim Road.
Users:	No restrictions (very public).
Description of vegetation:	No vegetation cover.
Existence of fence:	None
Availability of parking area:	No restrictions.

D2.12.3. Description of the Design Elements

Open spaces:	The whole site is a large open desert land.
Water surfaces:	None.
Food & toy shops:	None.
Paved area:	None.
Shaded structures:	None.
Outdoor furniture:	None.
Play field and Children play areas:	None.
Toilets:	None.
Mosque:	None.
Actions prohibited inside the site:	None.

2.13. 'Uqbah Ibn Naf' Road (site no. 1 & 2)

2.13.2. Date of the Observation and Other Relative Information

Date: Thursday 24th. of June 1994.

Time: 10:00 PM - to - 12:00 AM.

Climatic Conditions: Pleasant evening.

Entrance Fee:

2.13.2. General Description of the Site

Location: 'Uqbah Ibn Naf' Road is located in the north-east section of the city.

Brief description of the site: 'Uqbah Ibn Naf' Road extends from west to east. Large portion of the road passes through vacant lands of undeveloped neighbourhoods. People use the paved sides of the road and the two very well lit strips of land along the sides of the road.

Accessibility of the site: Access to the site is from the service roads.

Users: No restrictions (very public).

Description of vegetation: No vegetation cover.

Existence of fence: None

Availability of parking area: No restrictions.

2.13.3. Description of the Design Elements

Open spaces: The whole site is a large open desert land.

Water surfaces: None.

Food & toy shops:	There are ice cream and snack cars moving in the site.
Paved area:	None.
Shaded structures:	None.
Outdoor furniture:	None.
Play field and Children play areas:	None.
Toilets:	None.
Mosque:	None.
Actions prohibited inside the site:	None.

2.14. Ring Road-North

2.14.1. Date of the Observation and Other Relative Information

Date:

Time: 10:30 PM - to - 11:30 PM.

Climatic Conditions: Pleasant evening.

Entrance Fee:

2.14.2. General Description of the Site

- Location: Al-Wadi neighbourhood. The whole designated neighbourhood is undeveloped. Paved side of the Ring Road and areas of the neighbourhood adjacent to the road are used because of the high intensity lighting of the road.
- Brief description of the site: The site is privately owned and undeveloped lots of lands. The land form of the site is very hilly especially the land adjacent to the road.
- Accessibility of the site: Access to the site is from the road of the Ring Road.
- Users: No restrictions (very public).
- Description of vegetation: No vegetation cover.
- Existence of fence: None
- Availability of parking area: No restrictions.

2.14.3. Description of the Design Elements

- Open spaces: The whole site is undeveloped open desert land.
- Water surfaces: None.

Food & toy shops:	There are ice cream and snack cars moving in the site.
Paved area:	None.
Shaded structures:	None.
Outdoor furniture:	None.
Play field and Children play areas:	None.
Toilets:	None.
Mosque:	None.
Actions prohibited inside the site:	None.

APPENDIX III. STATISTICAL RESULTS

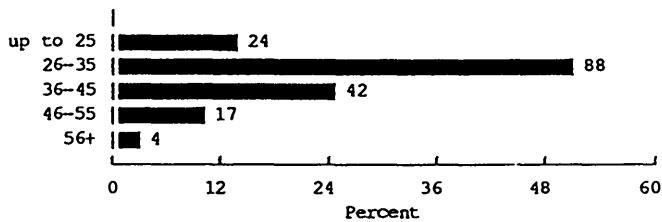
Appendix III (Statistical Results) involved using a statistical program called an SPSS package. The generated information from the questionnaire went through several stages of coding and preparation for the statistical analysis. The resulted statistical analysis presented in this appendix was organised into three categories. First one is Characteristics of the Respondents. Second one is Respondents' Preferences and Opinions. Third one is Social Aspects. Every was divided into two set of results, male responses and female responses. Every response has a set of numbers to use in the text of this thesis to refer to it in the appendix. This number, such as (3.2.1), identify the response where the first number (3) refers to the appendix number, the second number (2) refers to the second category (Respondents' Preferences and Opinions), and the third number (1) refers to the first response in the second category (Gardench).

3.1. Characteristics of the Respondents

Male Responses

(3.1.1) AGE respondents ages

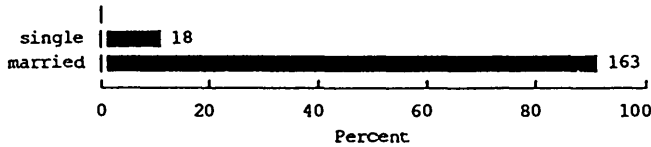
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
up to 25	1	24	12.8	13.7	13.7
26-35	2	88	46.8	50.3	64.0
36-45	3	42	22.3	24.0	88.0
46-55	4	17	9.0	9.7	97.7
56+	5	4	2.1	2.3	100.0
no answer	0	13	6.9	Missing	
Total		188	100.0	100.0	



Valid cases 175 Missing cases 13

(3.1.2) MARITAL marital status

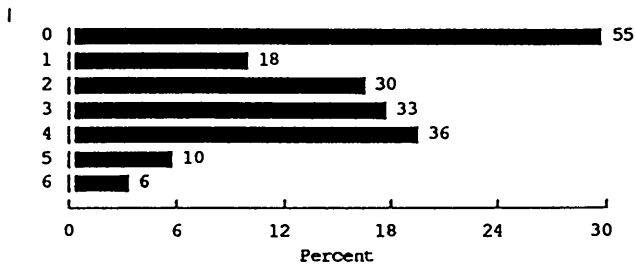
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
single	1	18	9.6	9.9	9.9
married	2	163	86.7	90.1	100.0
no answer	0	7	3.7	Missing	
Total		188	100.0	100.0	



Valid cases 181 Missing cases 7

(3.1.3) NOCHILDREN no of children under 13

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	55	29.3	29.3	29.3
	1	18	9.6	9.6	38.8
	2	30	16.0	16.0	54.8
	3	33	17.6	17.6	72.3
	4	36	19.1	19.1	91.5
	5	10	5.3	5.3	96.8
	6	6	3.2	3.2	100.0
	Total	188	100.0	100.0	



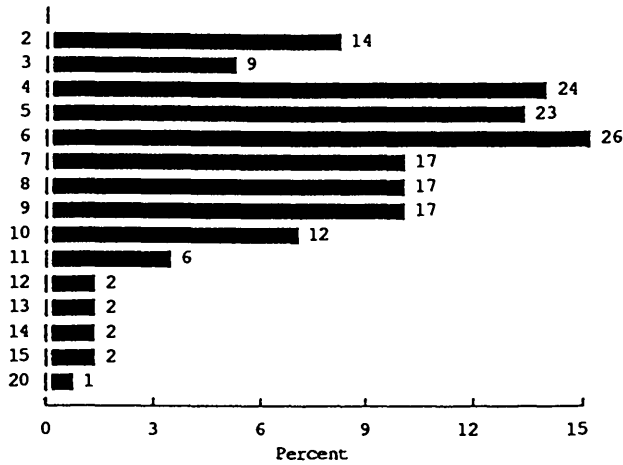
Valid cases 188 Missing cases 0
 Mean of number of children from 0 to 6 2.16
 Mean of number of children from 1 to 6 3.06

(3.1.4) FAMILYNO no of family members

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	2	14	7.4	8.0	8.0
	3	9	4.8	5.2	13.2
	4	24	12.8	13.8	27.0
	5	23	12.2	13.2	40.2
	6	26	13.8	14.9	55.2
	7	17	9.0	9.8	64.9
	8	17	9.0	9.8	74.7
	9	17	9.0	9.8	84.5
	10	12	6.4	6.9	91.4
	11	6	3.2	3.4	94.8
	12	2	1.1	1.1	96.0
	13	2	1.1	1.1	97.1
	14	2	1.1	1.1	98.3
	15	2	1.1	1.1	99.4
	20	1	.5	.6	100.0
no answer	0	14	7.4	Missing	
	Total	188	100.0	100.0	

FAMILYNO

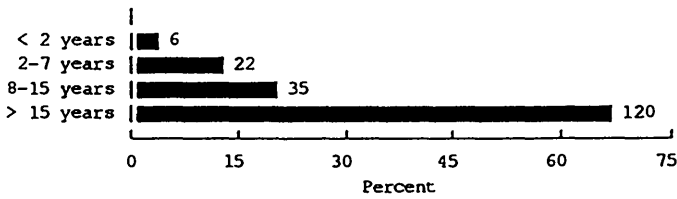
no of family members



Valid cases 174 Missing cases 14
 Mean of family size 6.57

(3.1.5) YRRIYADH years living in Ar Riyadh

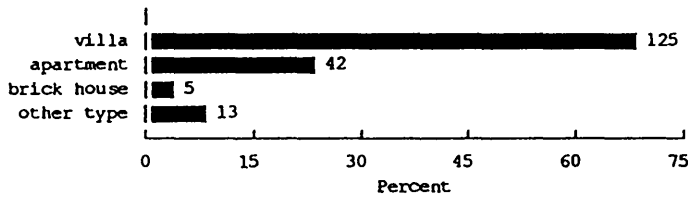
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
< 2 years	1	6	3.2	3.3	3.3
2-7 years	2	22	11.7	12.0	15.3
8-15 years	3	35	18.6	19.1	34.4
> 15 years	4	120	63.8	65.6	100.0
no answer	0	5	2.7	Missing	
Total		188	100.0	100.0	



Valid cases 183 Missing cases 5

(3.1.6) RESIDTYP residence type

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
villa	1	125	66.5	67.6	67.6
apartment	2	42	22.3	22.7	90.3
brick house	3	5	2.7	2.7	93.0
other type	5	13	6.9	7.0	100.0
no answer	0	3	1.6	Missing	
Total		188	100.0	100.0	



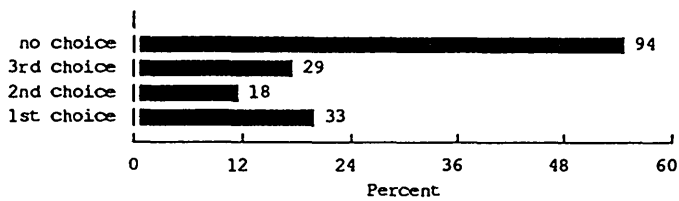
Valid cases 185 Missing cases 3

3.2. Respondents' Preferences and Opinions

Male Responses

(3.2.1) GARDENCH the preference of public gardens

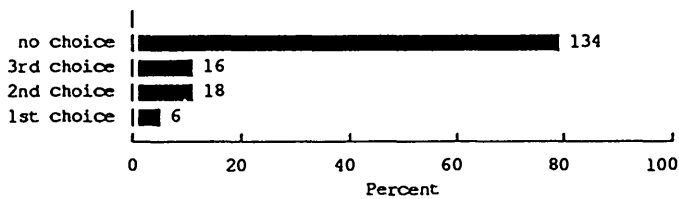
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no choice	1	94	50.0	54.0	54.0
3rd choice	2	29	15.4	16.7	70.7
2nd choice	3	18	9.6	10.3	81.0
1st choice	4	33	17.6	19.0	100.0
no answer	0	14	7.4	Missing	
Total		188	100.0	100.0	



Valid cases 174 Missing cases 14

(3.2.2) ZOOCH the preference of Riyadh zoo

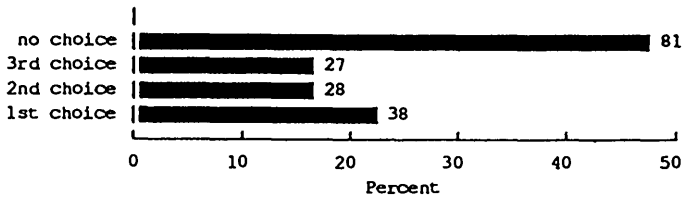
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no choice	1	134	71.3	77.0	77.0
3rd choice	2	16	8.5	9.2	86.2
2nd choice	3	18	9.6	10.3	96.6
1st choice	4	6	3.2	3.4	100.0
no answer	0	14	7.4	Missing	
Total		188	100.0	100.0	



Valid cases 174 Missing cases 14

(3.2.3) DIPLOMCH the preference of the diplomatic quarter

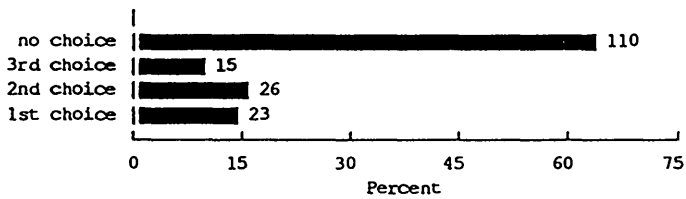
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no choice	1	81	43.1	46.6	46.6
3rd choice	2	27	14.4	15.5	62.1
2nd choice	3	28	14.9	16.1	78.2
1st choice	4	38	20.2	21.8	100.0
no answer	0	14	7.4	Missing	
Total		188	100.0	100.0	



Valid cases 174 Missing cases 14

(3.2.4) ROADCH the preference of the paved sides

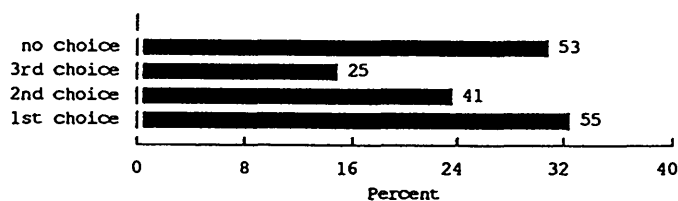
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no choice	1	110	58.5	63.2	63.2
3rd choice	2	15	8.0	8.6	71.8
2nd choice	3	26	13.8	14.9	86.8
1st choice	4	23	12.2	13.2	100.0
no answer	0	14	7.4	Missing	
Total		188	100.0	100.0	



Valid cases 174 Missing cases 14

(3.2.5) DESERTCH the preference of desert lands

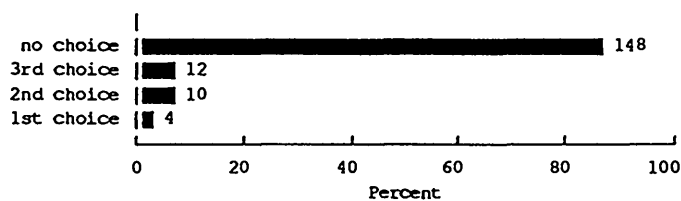
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no choice	1	53	28.2	30.5	30.5
3rd choice	2	25	13.3	14.4	44.8
2nd choice	3	41	21.8	23.6	68.4
1st choice	4	55	29.3	31.6	100.0
no answer	0	14	7.4	Missing	
Total		188	100.0	100.0	



Valid cases 174 Missing cases 14

(3.2.6) WADICH the preference of private prepared peice of lands outside the city as a retreat in the free times and traditional orchards

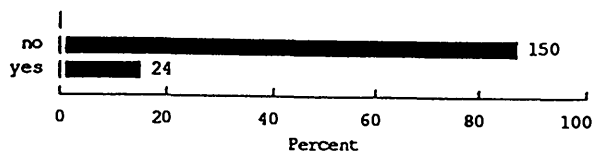
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no choice	1	148	78.7	85.1	85.1
3rd choice	2	12	6.4	6.9	92.0
2nd choice	3	10	5.3	5.7	97.7
1st choice	4	4	2.1	2.3	100.0
no answer	0	14	7.4	Missing	
Total		188	100.0	100.0	



Valid cases 174 Missing cases 14

(3.2.7) OTHERPLS the preference of other places

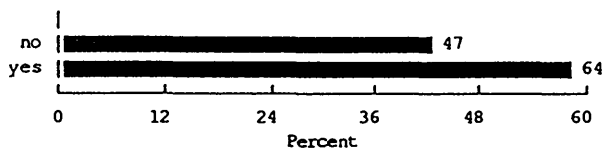
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	150	79.8	86.2	86.2
yes	2	24	12.8	13.8	100.0
no answer	0	14	7.4	Missing	
Total		188	100.0	100.0	



Valid cases 174 Missing cases 14

(3.2.8) OPENSPEC availability of green open spaces

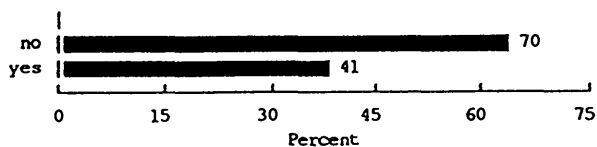
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	47	25.0	42.3	42.3
yes	2	64	34.0	57.7	100.0
no answer	0	77	41.0	Missing	
Total		188	100.0	100.0	



Valid cases 111 Missing cases 77

(3.2.9) BEATVIEW availability of beautiful views

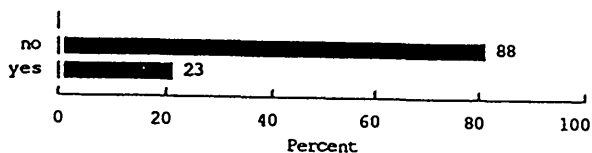
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	70	37.2	63.1	63.1
yes	2	41	21.8	36.9	100.0
no answer	0	77	41.0	Missing	
Total		188	100.0	100.0	



Valid cases 111 Missing cases 77

(3.2.10) SHADPLAC availability of shaded places from the sun

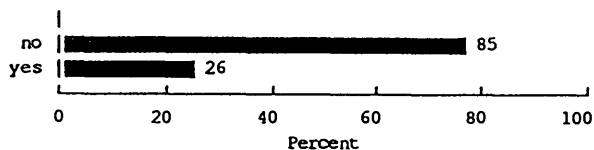
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	88	46.8	79.3	79.3
yes	2	23	12.2	20.7	100.0
no answer	0	77	41.0	Missing	
Total		188	100.0	100.0	



Valid cases 111 Missing cases 77

(3.2.11) SITAREA availability of suitable places for sitting

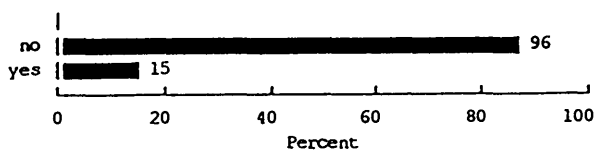
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	85	45.2	76.6	76.6
yes	2	26	13.8	23.4	100.0
no answer	0	77	41.0	Missing	
Total		188	100.0	100.0	



Valid cases 111 Missing cases 77

(3.2.12) SEEFRIND possibility of seeing friends

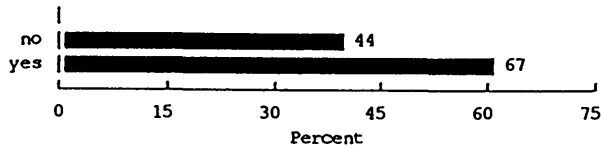
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	96	51.1	86.5	86.5
yes	2	15	8.0	13.5	100.0
no answer	0	77	41.0	Missing	
Total		188	100.0	100.0	



Valid cases 111 Missing cases 77

(3.2.13) PLAYAREA availability of childrens play facilities

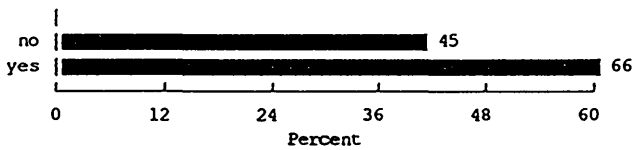
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	44	23.4	39.6	39.6
yes	2	67	35.6	60.4	100.0
no answer	0	77	41.0	Missing	
Total		188	100.0	100.0	



Valid cases 111 Missing cases 77

(3.2.14) CHANGAIR for changing the house atmosphere

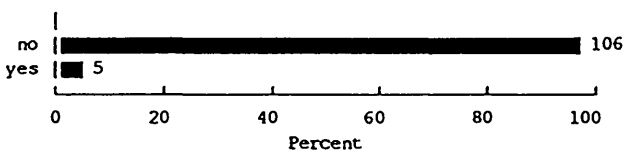
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	45	23.9	40.5	40.5
yes	2	66	35.1	59.5	100.0
no answer	0	77	41.0	Missing	
Total		188	100.0	100.0	



Valid cases 111 Missing cases 77

(3.2.15) OTHRESON other reasons that make you visit public gardens

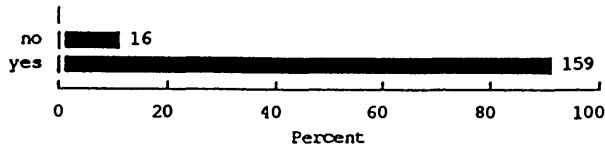
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	106	56.4	95.5	95.5
yes	2	5	2.7	4.5	100.0
no answer	0	77	41.0	Missing	
Total		188	100.0	100.0	



Valid cases 111 Missing cases 77

(3.2.16) PRIVACYM importance of privacy

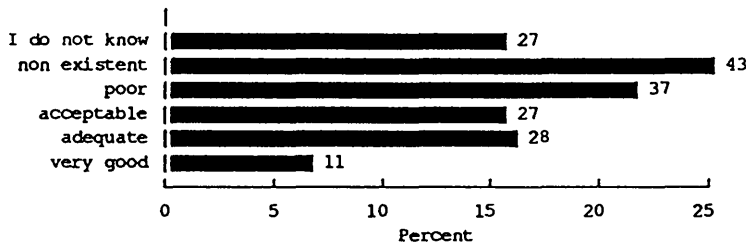
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	16	8.5	9.1	9.1
yes	2	159	84.6	90.9	100.0
no answer	0	13	6.9	Missing	
Total		188	100.0	100.0	



Valid cases 175 Missing cases 13

(3.2.17) PRIVEVAL evaluation of the privacy level

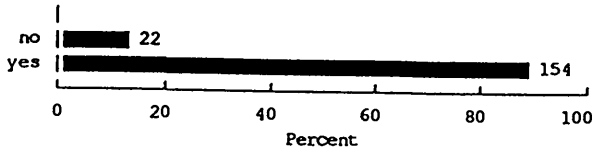
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
I do not know	1	27	14.4	15.6	15.6
non existent	2	43	22.9	24.9	40.5
poor	3	37	19.7	21.4	61.8
acceptable	4	27	14.4	15.6	77.5
adequate	5	28	14.9	16.2	93.6
very good	6	11	5.9	6.4	100.0
no answer	0	15	8.0	Missing	
Total		188	100.0	100.0	



Valid cases 173 Missing cases 15

(3.2.18) PRIVOUT people prefer less crowded places for privacy

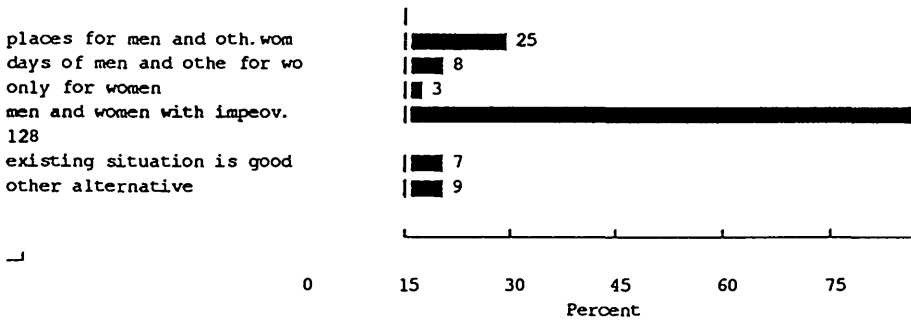
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	22	11.7	12.5	12.5
yes	2	154	81.9	87.5	100.0
no answer	0	12	6.4	Missing	
Total		188	100.0	100.0	



Valid cases 176 Missing cases 12

(3.2.19) PRIVSUGG suggestions to improve privacy

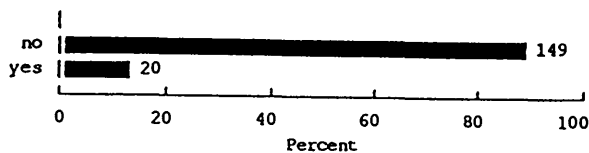
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
places for men and other for wo	1	25	13.3	13.9	13.9
days of men and others for wom	2	8	4.3	4.4	18.3
only for women	3	3	1.6	1.7	20.0
men and women with priv.improv.	4	128	68.1	71.1	91.1
existing situation is good	5	7	3.7	3.9	95.0
other alternative	6	9	4.8	5.0	100.0
no answer	0	8	4.3	Missing	
Total		188	100.0	100.0	



Valid cases 180 Missing cases 8

(3.2.20) DISTRES long distance from my residence

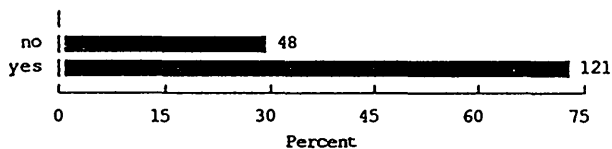
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	149	79.3	88.2	88.2
yes	2	20	10.6	11.8	100.0
no answer	0	19	10.1	Missing	
Total		188	100.0	100.0	



Valid cases 169 Missing cases 19

(3.2.21) PRIVRES no adequate level of female and family privacy

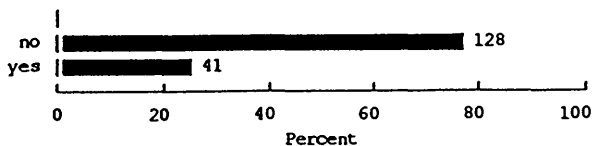
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	48	25.5	28.4	28.4
yes	2	121	64.4	71.6	100.0
no answer	0	19	10.1	Missing	
Total		188	100.0	100.0	



Valid cases 169 Missing cases 19

(3.2.22) FACILRES shortage in the needed facilities

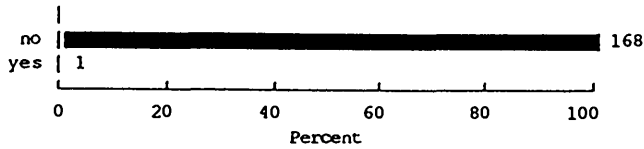
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	128	68.1	75.7	75.7
yes	2	41	21.8	24.3	100.0
no answer	0	19	10.1	Missing	
Total		188	100.0	100.0	



Valid cases 169 Missing cases 19

(3.2.23) TRANSRES I have no transportation

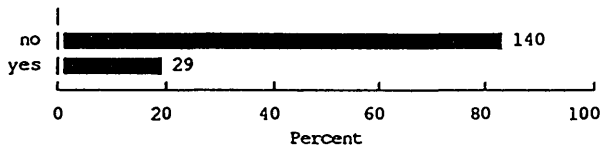
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	168	89.4	99.4	99.4
yes	2	1	.5	.6	100.0
no answer	0	19	10.1	Missing	
Total		188	100.0	100.0	



Valid cases 169 Missing Cases 19

(3.2.24) TIMERES no time to visit public gardens

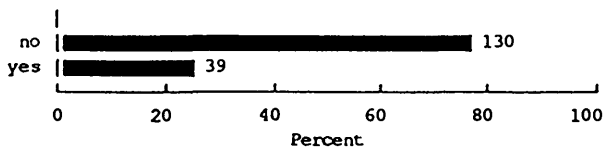
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	140	74.5	82.8	82.8
yes	2	29	15.4	17.2	100.0
no answer	0	19	10.1	Missing	
Total		188	100.0	100.0	



Valid cases 169 Missing cases 19

(3.2.25) SPACRES spaces are small and do not fit the need

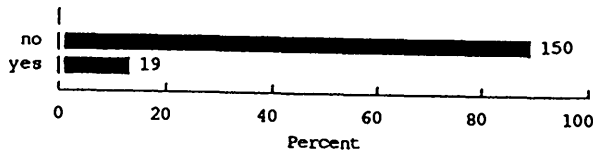
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	130	69.1	76.9	76.9
yes	2	39	20.7	23.1	100.0
no answer	0	19	10.1	Missing	
Total		188	100.0	100.0	



Valid cases 169 Missing cases 19

(3.2.26) OTHRES other reasons for not going to gardens

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	150	79.8	88.8	88.8
yes	2	19	10.1	11.2	100.0
no answer	0	19	10.1	Missing	
Total		188	100.0	100.0	

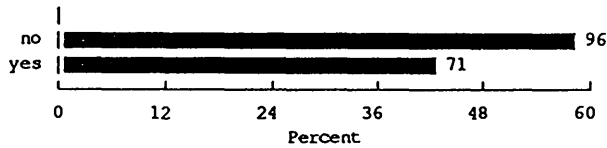


Valid cases 169 Missing cases 19

Female Responces

(3.2.27) GARDEN the preference of gardens females

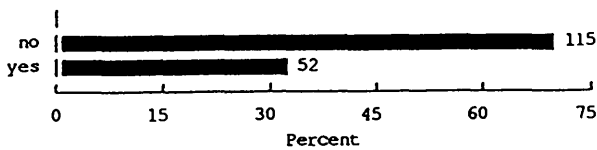
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	96	51.1	57.5	57.5
yes	2	71	37.8	42.5	100.0
no answer	0	21	11.2	Missing	
Total		188	100.0	100.0	



Valid cases 167 Missing cases 21

(3.2.28) ZOO the preference of Riyadh zoo females

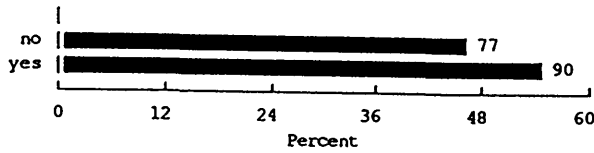
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	115	61.2	68.9	68.9
yes	2	52	27.7	31.1	100.0
no answer	0	21	11.2	Missing	
Total		188	100.0	100.0	



Valid cases 167 Missing cases 21

(3.2.29) DIPLOMAT the preference of the diplomatic quarter

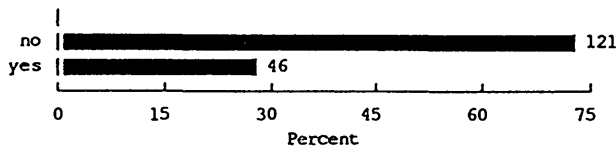
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	77	41.0	46.1	46.1
yes	2	90	47.9	53.9	100.0
no answer	0	21	11.2	Missing	
Total		188	100.0	100.0	



Valid cases 167 Missing cases 21

(3.2.30) PAVESIDE the preference of pave sides females

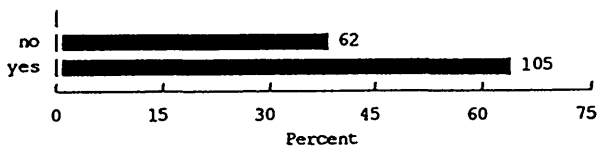
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	121	64.4	72.5	72.5
yes	2	46	24.5	27.5	100.0
no answer	0	21	11.2	Missing	
Total		188	100.0	100.0	



Valid cases 167 Missing cases 21

(3.2.31) DESERT the preference of desert females

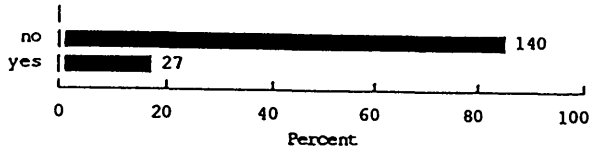
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	62	33.0	37.1	37.1
yes	2	105	55.9	62.9	100.0
no answer	0	21	11.2	Missing	
Total		188	100.0	100.0	



Valid cases 167 Missing cases 21

(3.2.32) WADIF the preference of private prepared peice of lands outside the city as a retreat in the free times and traditional orchards

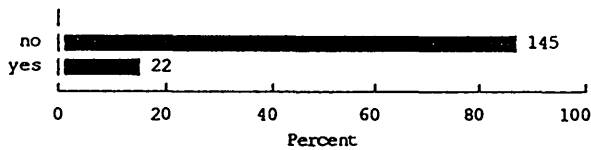
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	140	74.5	83.8	83.8
yes	2	27	14.4	16.2	100.0
no answer	0	21	11.2	Missing	
Total		188	100.0	100.0	



Valid cases 167 Missing cases 21

(3.2.33) OTHPLAS the preference of other places females

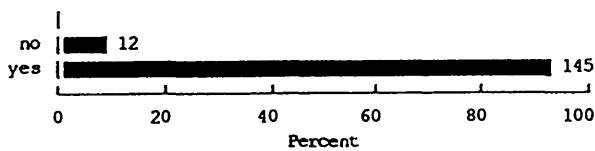
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	145	77.1	86.8	86.8
yes	2	22	11.7	13.2	100.0
no answer	0	21	11.2	Missing	
Total		188	100.0	100.0	



Valid cases 167 Missing cases 21

(3.2.34) PRIVACYF importance of privacy females

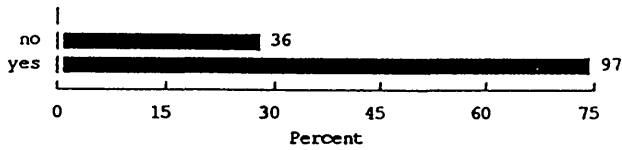
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	12	6.4	7.6	7.6
yes	2	145	77.1	92.4	100.0
no answer	0	31	16.5	Missing	
Total		188	100.0	100.0	



Valid cases 157 Missing cases 31

(3.2.35) NOPRIV no adequate level of privacy females

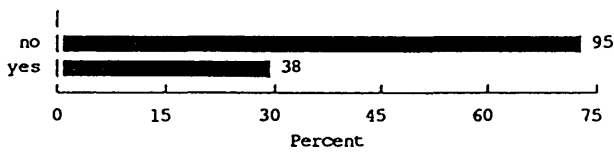
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	36	19.1	27.1	27.1
yes	2	97	51.6	72.9	100.0
no answer	0	55	29.3	Missing	
Total		188	100.0	100.0	



Valid cases 133 Missing cases 55

(3.2.36) SMALAREA spaces are small to fit the need females

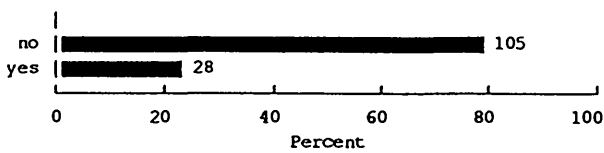
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	95	50.5	71.4	71.4
yes	2	38	20.2	28.6	100.0
no answer	0	55	29.3	Missing	
Total		188	100.0	100.0	



Valid cases 133 Missing Cases 55

(3.2.37) NOTIME no time to visit gardens females

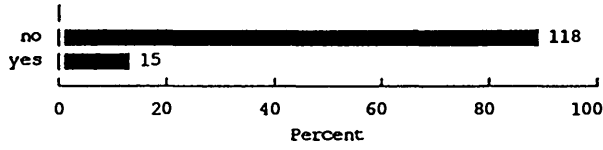
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	105	55.9	78.9	78.9
yes	2	28	14.9	21.1	100.0
no answer	0	55	29.3	Missing	
Total		188	100.0	100.0	



Valid cases 133 Missing cases 55

(3.2.38) LONGDIST long distance to garden females

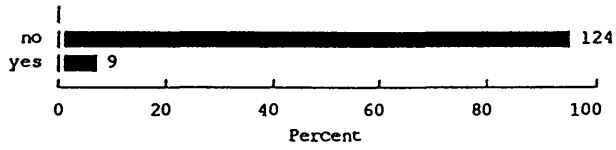
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	118	62.8	88.7	88.7
yes	2	15	8.0	11.3	100.0
no answer	0	55	29.3	Missing	
Total		188	100.0	100.0	



Valid cases 133 Missing cases 55

(3.2.39) OTHRESF other reasons for not going to gardens

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	124	66.0	93.2	93.2
yes	2	9	4.8	6.8	100.0
no answer	0	55	29.3	Missing	
Total		188	100.0	100.0	



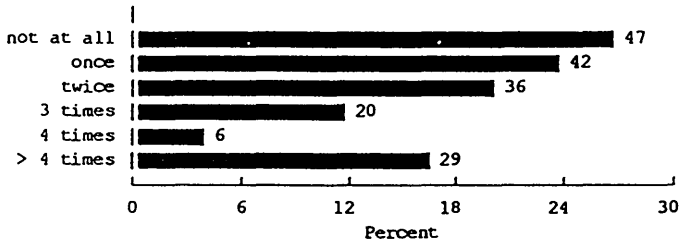
Valid cases 133 Missing cases 55

3.3. Social Aspects

Male Responses

(3.3.1) TIMEOUT no of times out for recreation

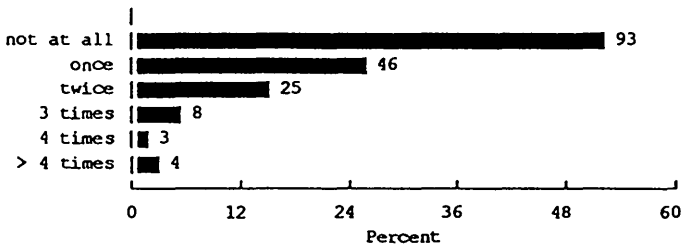
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
not at all	1	47	25.0	26.1	26.1
once	2	42	22.3	23.3	49.4
twice	3	36	19.1	20.0	69.4
3 times	4	20	10.6	11.1	80.6
4 times	5	6	3.2	3.3	83.9
> 4 times	6	29	15.4	16.1	100.0
no answer	0	8	4.3	Missing	
Total		188	100.0	100.0	



Valid cases 180 Missing cases 8

(3.3.2) TIMEGARD no of times go to gardens

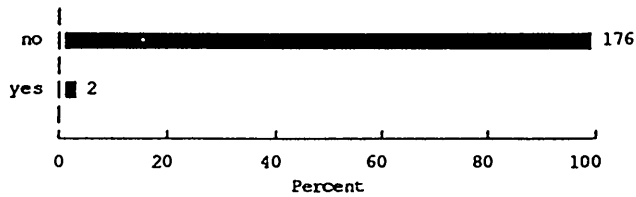
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
not at all	1	93	49.5	52.0	52.0
once	2	46	24.5	25.7	77.7
twice	3	25	13.3	14.0	91.6
3 times	4	8	4.3	4.5	96.1
4 times	5	3	1.6	1.7	97.8
> 4 times	6	4	2.1	2.2	100.0
no answer	0	9	4.8	Missing	
Total		188	100.0	100.0	



Valid cases 179 Missing cases 9

(3.3.3) ALONE go out alone

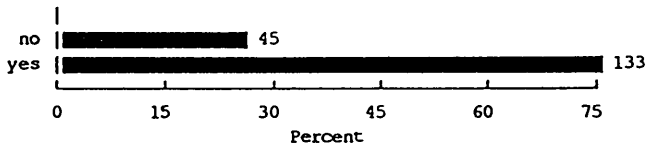
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	176	93.6	98.9	98.9
yes	2	2	1.1	1.1	100.0
no answer	0	10	5.3	Missing	
Total		188	100.0	100.0	



Valid cases 178 Missing cases 10

(3.3.4) WTHFAMILY go out with my family

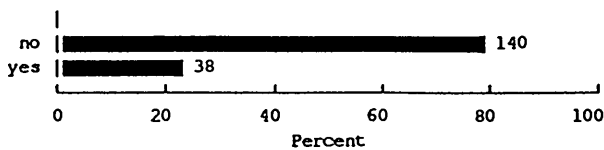
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	45	23.9	25.3	25.3
yes	2	133	70.7	74.7	100.0
no answer	0	10	5.3	Missing	
Total		188	100.0	100.0	



Valid cases 178 Missing cases 10

(3.3.5) WTHCHD go out with my children

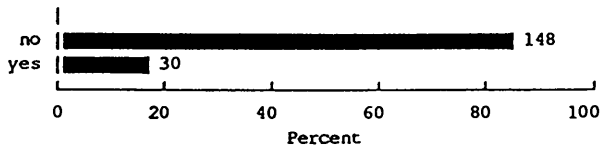
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	140	74.5	78.7	78.7
yes	2	38	20.2	21.3	100.0
no answer	0	10	5.3	Missing	
Total		188	100.0	100.0	



Valid cases 178 Missing cases 10

(3.3.6) WTHRELAT go out with my relatives

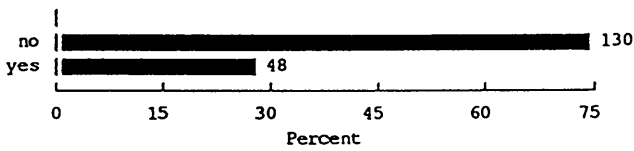
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	148	78.7	83.1	83.1
yes	2	30	16.0	16.9	100.0
no answer	0	10	5.3	Missing	
Total		188	100.0	100.0	



Valid cases 178 Missing cases 10

(3.3.7) WTHFRIND go out with my friends

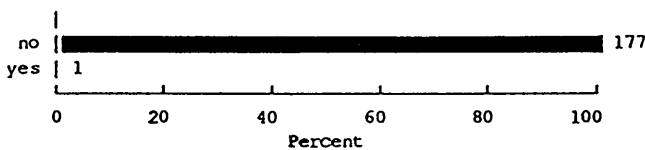
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	130	69.1	73.0	73.0
yes	2	48	25.5	27.0	100.0
no answer	0	10	5.3	Missing	
Total		188	100.0	100.0	



Valid cases 178 Missing cases 10

(3.3.8) WITHOTHR go out with others

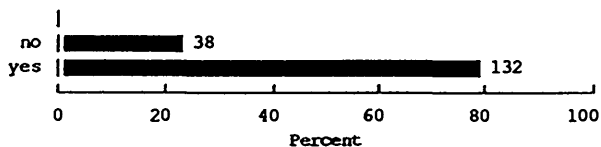
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	177	94.1	99.4	99.4
yes	2	1	.5	.6	100.0
no answer	0	10	5.3	Missing	
Total		188	100.0	100.0	



Valid cases 178 Missing cases 10

(3.3.9) SITNCHAT sitting and chatting activities

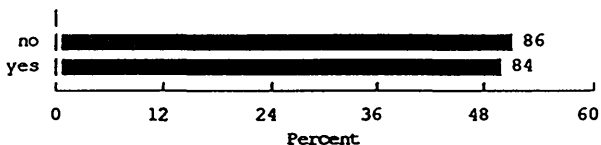
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	38	20.2	22.4	22.4
yes	2	132	70.2	77.6	100.0
no answer	0	18	9.6	Missing	
Total		188	100.0	100.0	



Valid cases 170 Missing cases 18

(3.3.10) EAT eating activities

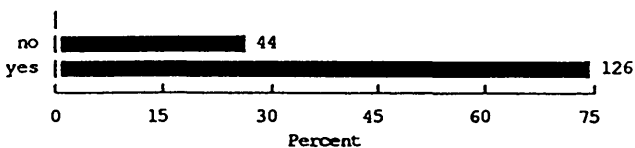
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	86	45.7	50.6	50.6
yes	2	84	44.7	49.4	100.0
no answer	0	18	9.6	Missing	
Total		188	100.0	100.0	



Valid cases 170 Missing cases 18

(3.3.11) HELPKIDS helping kids play activities

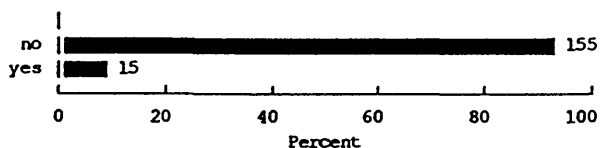
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	44	23.4	25.9	25.9
yes	2	126	67.0	74.1	100.0
no answer	0	18	9.6	Missing	
Total		188	100.0	100.0	



Valid cases 170 Missing cases 18

(3.3.12) PLAYCARD playing card activities

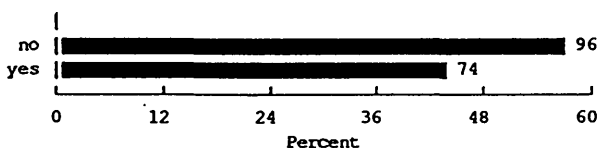
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	155	82.4	91.2	91.2
yes	2	15	8.0	8.8	100.0
no answer	0	18	9.6	Missing	
Total		188	100.0	100.0	



Valid cases 170 Missing cases 18

(3.3.13) RELAX relaxing and enjoying the surrounding

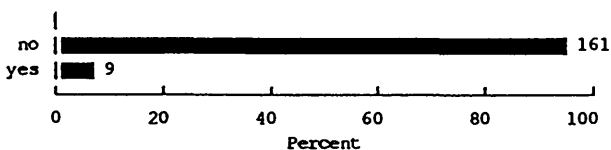
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	96	51.1	56.5	56.5
yes	2	74	39.4	43.5	100.0
no answer	0	18	9.6	Missing	
Total		188	100.0	100.0	



Valid cases 170 Missing cases 18

(3.3.14) STUDY studying activities

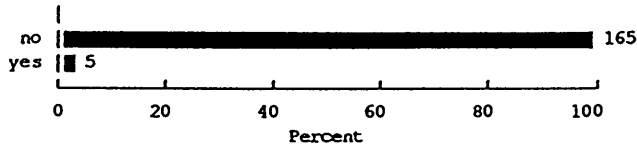
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	161	85.6	94.7	94.7
yes	2	9	4.8	5.3	100.0
no answer	0	18	9.6	Missing	
Total		188	100.0	100.0	



Valid cases 170 Missing cases 18

(3.3.15) OTHTHING other activities

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	165	87.8	97.1	97.1
yes	2	5	2.7	2.9	100.0
no answer	0	18	9.6	Missing	
Total		188	100.0	100.0	

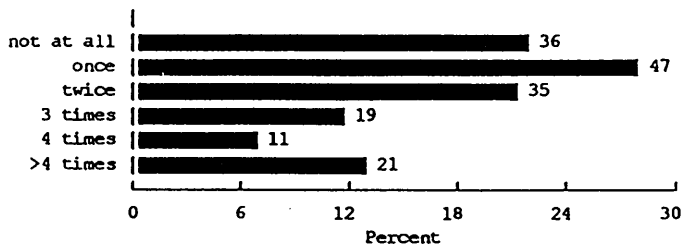


Valid cases 170 Missing cases 18

Female Respondents Results

(3.3.16) TIMEOUTF no of times out for recreation females

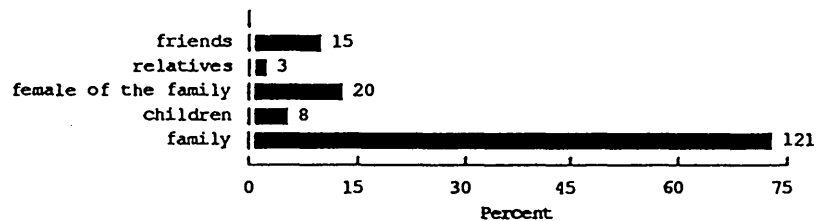
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
not at all	1	36	19.1	21.3	21.3
once	2	47	25.0	27.8	49.1
twice	3	35	18.6	20.7	69.8
3 times	4	19	10.1	11.2	81.1
4 times	5	11	5.9	6.5	87.6
>4 times	6	21	11.2	12.4	100.0
no answer	0	19	10.1	Missing	
Total		188	100.0	100.0	



Valid cases 169 Missing cases 19

(3.3.17) WITHHOMF with whom you go out females

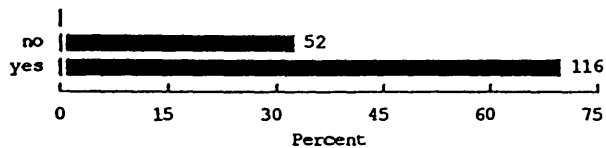
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
friends	1	15	8.0	9.0	9.0
relatives	2	3	1.6	1.8	10.8
female of the family	3	20	10.6	12.0	22.8
children	4	8	4.3	4.8	27.5
family	5	121	64.4	72.5	100.0
no answer	0	21	11.2	Missing	
Total		188	100.0	100.0	



Valid cases 167 Missing cases 21

(3.3.19) SITCHAT sitting and chatting females

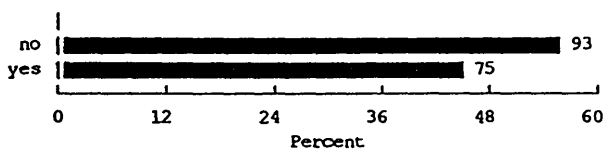
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	52	27.7	31.0	31.0
yes	2	116	61.7	69.0	100.0
no answer	0	20	10.6	Missing	
Total		188	100.0	100.0	



Valid cases 168 Missing cases 20

(3.3.20) EATF Eating females

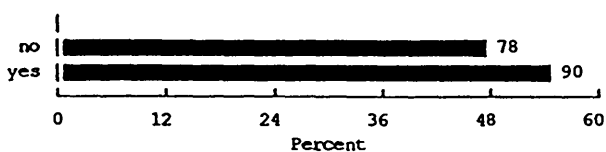
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	93	49.5	55.4	55.4
yes	2	75	39.9	44.6	100.0
no answer	0	20	10.6	Missing	
Total		188	100.0	100.0	



Valid cases 168 Missing cases 20

(3.3.21) HELPKID helping my children females

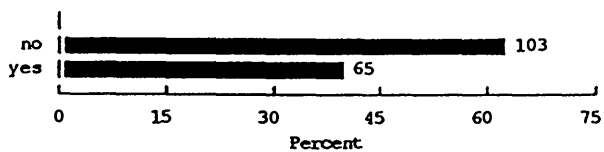
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	78	41.5	46.4	46.4
yes	2	90	47.9	53.6	100.0
no answer	0	20	10.6	Missing	
Total		188	100.0	100.0	



Valid cases 168 Missing cases 20

(3.3.22) RELAXING relaxing and enjoying the surrounding fe

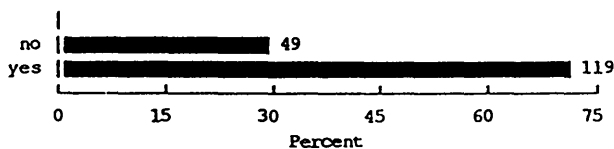
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	103	54.8	61.3	61.3
yes	2	65	34.6	38.7	100.0
no answer	0	20	10.6	Missing	
Total		188	100.0	100.0	



Valid cases 168 Missing cases 20

(3.3.23) CHNGHOUS just to change the house atmosphere

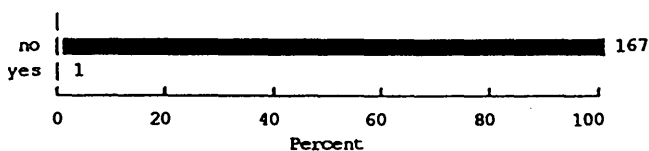
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	49	26.1	29.2	29.2
yes	2	119	63.3	70.8	100.0
no answer	0	20	10.6	Missing	
Total		188	100.0	100.0	



Valid cases 168 Missing cases 20

(3.3.24) OTHINGS other activities females

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
no	1	167	88.8	99.4	99.4
yes	2	1	.5	.6	100.0
no answer	0	20	10.6	Missing	
Total		188	100.0	100.0	



Valid cases 168 Missing cases 20

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