

TPocket Parks for Enhancing Residents' Social Interaction in the City of Baghdad, Iraq

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Abstract

This paper addresses the issue of lack of public open spaces, which led to decrease social interaction among residents in the city of Baghdad nowadays. The objective of this paper is to determine the criteria and benefits of the nearby public green open spaces (pocket parks) to enhance social interaction of users in the city of Baghdad. This study employed text content analysis method of (Mayring, 2014). The required data collected from text documentation including articles, papers and research study regarding the importance of public nearby open spaces for the community interactions. The content analysis is also used to analyze the information gathered. The findings confirm providing an efficient numbers of pocket parks with proper criteria can contribute in increasing residents' social interaction in the neighborhoods of Baghdad city. These spaces can contribute in the social, health, environmental, recreational and relaxation or mental benefits for the residents of Baghdad.

Keywords: : social interaction, pocket parks, criteria, benefits, Baghdad, Iraq

1. Introduction

Public open spaces are important for the relationship between man and nature by providing a spaces for physical activity and health behavior^{13,20}. Open spaces are not only a places where people join the nature but also communicate each other socially and culturally^{7,13}. While, social interaction can be described as an interchangeable sequence of dynamic exchanges among individuals²⁰. On the other hand, Baghdad (the round city) was built by Abbasid Caliph Abu Ja'far Al-Mansur in 762 AD on the western shore of Tigris river in a circular shape of diameter 2638 meter, as a new phenomenon in Islamic architecture^{3,38}. It had become a cultural, social and historical center for Arabic and Islamic civilization^{3,38}. Where, it had characterized by a unique traditional value of building elements, gardens, orchards as well as a cultural and social diversity^{3,10,38}. Today, Baghdad has exposed to a many changes in term of political, religious diversity, ethnic diversity, administrative changes and technological growth. These changes in the city led to decrease the social interaction among residents as well as neglecting many recreational facilities and open spaces^{14,15,26}.

This paper addresses the issues of lacking of social interaction in the city of Baghdad as a result of lacking of nearby public open spaces. Where, according to the previous studies people in Baghdad prefer to interact and practice daily activities in the neighborhood environments and close safe spaces. Therefore, this paper aims to determine the characteristics and benefits of the small green nearby open spaces (pocket parks) for enhancing residents' social interaction in the city of Baghdad. Where, pocket parks is a small public open spaces, provides a safe nearby natural environment for the inhabitants of the neighborhoods for recreational, intellectual, cognitive, mental and even spiritual benefits^{1,8,22,31}. This paper utilizes summarizing content analysis of (Mayring, 2014) which focuses on collect and summarizing text documents of one research, one conference paper and thirteen articles. These text documents collected from various studies in different countries. Where, documents, papers, researches and studies held in Iraq regarding the issue of this paper are very little and shallow, so it been relied on studies from different regions.

2. Public Open Spaces and Social Interaction

Previous literatures confirm that physical space is a basic components to achieve social relationships including open spaces and close spaces. Place and place elements are a key factors to achieve social activities for all ages^{7,13}. While, open spaces are not only a places where people join the nature but also communicate each other socially and culturally¹³. Social activities can be vary due to the age, gender and place of interaction^{7,13}. Individuals in a recreational zones such as open spaces and parks can create a wide range of physical activities that being shared as a type of social interaction^{5,20,29}. While, green open spaces design has a great role to lead individuals to

outside to socialize and be together^{20,27}. Factors of successful park could include; good of access and linkage, sociability, user and activities, degree of comfort and design, maintenance and management^{13,27,32}. In addition, outdoor recreation preferably to be on close areas (short distance) rather than long distances⁴. Where, open green spaces lie in a hierarchy levels ranging from playground, pocket park, neighborhood park, sub district park, district park and regionally park^{27,33,38}. Pocket park can offers a small scale, safe, easy accessibility open spaces for socialization as well as health, environmental and well-being benefits^{8,11,21,22,29,31}.

3. Open Green Open Spaces and Social Interaction in the City of Baghdad

One of the most important periods for the city of Baghdad is the Abbasid rule in between 762-1258 AD. Social life in the city of Baghdad, at that time, built on two social layers: first, luxury life of caliphs and ministers. Second, local-people life who lived a simple life of a high social interactions. On the other hand, various social layers of Baghdad were meeting in the markets, mosques, riverbanks, parks, orchards and streets of the city³. Society of Baghdad was a diverse in terms of culture, religion and ethnicity. Yet it was open, conscious and accepting the others (socially and religiously). The various social layers of residents of Baghdad were also sharing many social events such as Eid, Friday, Ramadan, promenade after Eid, weddings, festivals and so on^{3,38}. Abbasid were also interested in designing and construction of recreation, open spaces, green areas and parks³. In addition, many of open spaces forms had emerged in Baghdad at that time such as parks, orchards, rivers banks, zoo and mosques courtyard^{3,30}. Where, Abbasid Calipha Harun al-Rashid constructed first zoo in the world in 797, was contain various types of birds, rabbits, fishes, monkeys, lions, etc¹⁶.

Then, Ottoman era and British invasion led to a vast gap between the authority and local people which create a various crises in Iraq. In 1920 first Iraqi state were founded, had also a great influences on the society^{34,35,37}. Where, it led to appear the political awareness, attention to follow the news and newspapers, constitutional claim, referendum and national movements. On the other hand, political awareness in Iraqi society has grown under the social cultural religious framework^{34,35,36}. Where, twentieth revolution has led to a lot of changes in the culture of Iraqi society, who became more coexistence community^{34,35}. However, Iraq society has grew up under conflicts as a result of the wars, various invasions, communal conflict, religious conflict and a tribal dispute^{14,16,35}.

After that, war of 2003 in Iraq led to lot of loses, where ethnic (sectarian, uncooperative and violent) relations have been strained²⁶. This crises among different ethnicities led to reduce the social interaction among them²⁶. War of 2003 has also led to destroy the Iraqi infrastructure, important buildings and open spaces^{15,16,26}. This in turn led to effect on the daily needs of the Iraqi people, lowers the quality of life as well as led to daily human losses^{15,16}. In addition, many of Baghdadi residents prefer to shop, work and socialize within their neighborhoods or districts. On the other hand, of local open spaces and parks have become dumping sites for garbage or a collection areas for sewerage and stagnant water¹⁵.



Fig. 1: Baghdad Tourist Island before and after the War of 2003

4. Paper Methodology

This study employed text content analysis method of Mayring to collect and analyze the data of this paper. Content analysis is a method of texts (data) collection and analysis systematically such as documents, oral meetings, and graphics^{9,17}. This study basically focused on collecting and analyzing documents of previous studies including articles, papers and researches regarding the public open spaces for the community and social interaction. Text document does not interpreted as a whole but divided into categories which are a context unit that determining the largest text component and covering the analysis codes¹⁷. Where, codes are the smallest elements of text material which can be assessed and can fall within one category¹⁷. It is also important to determine analysis technique of content analysis method and to construct a procedural model for the analysis¹⁷. While, summarizing content analysis relays basically on the support of previous studies and the goal of the analysis is to reduce the material (previous studies text) to keep the essential contents through abstraction¹⁷. Mayring has designed the summarizing protocol form in some steps including; first, describing the material and determining what is to be summarized including. Second, paraphrasing the text, then abstraction level selection and generalization, erasure of semantically paraphrases, followed by; binding, construction and integration of paraphrases. This in order to determine the category and coding systems. Therefore, this paper utilized summarizing content analysis protocol of Mayring. Where, first, it has selected 15 text document among more than

1000 text document using systematic review according to some criteria. These criteria are; a) selecting text documents related to the objective of this study, b) the text documents should be published in between (2000–2018). c) The selected studies should also be from various region or countries (US, Europe and Asia) in order to highlight as different conditions as possible of green open spaces for social interaction as possible. Thus the researcher end up with 15 texts from 12 area (country), regarding the nearby public open spaces for social interaction from one research, one conference index paper and 13 indexed scientific peer-reviewed journal articles. Then, it has reviewed the full text (of each document), and determining the categories (analysis unites) of the paper. Where this paper collect and analyzed the data of the content analysis using three categories included; 1) criteria of the nearby open spaces for social interaction. 2) Criteria of the pocket parks for social interaction. 3) Benefits of the nearby public open spaces and pockets. Third step, summarizing, abstracting the text material, delete the duplicate and unnecessary texts that not related to the mentioned categories. Last step, finding the new paragraphs (coding system) as well as generalization the mentioned protocol to the other text document.

4.1 The Selected Text Documents

The selected 15 study are as following; the first research paper of (Holland et al., 2007) who studied the using of various urban public spaces for social interactions using literatures analysis survey and case study in Aylesbury town in South East England. Second journal article of (Bekker et al., 2010) who studied how to design a playful interactions for social interaction in a physical space using experiential prototypes. Then journal article of (Uslu and Gokce, 2010) who studies social interaction in urban transformation areas and the characteristics of these spaces using survey study in in Ankara, Turkey. Fourth journal article of (Nordh et al., 2011) who assessed the restorative components of small urban parks using survey in Oslo, Norway. Then a journal article of (Peschardt et al., 2012) who studied the using of small public green open spaces (pocket parks) for socializing, rest and restitution using survey in Copenhagen, Denmark. A journal article of (Rikabi and Ali, 2013) who studies the criteria of green open spaces and their impact on the environment of residential area using survey study in Baghdad, Iraq. Eighth confrence paper of (Sinou and Kenton, 2013) who determined the parameters contributing to the design of a successful urban pocket park using survey study in Athens, Greece and London, UK. Then a journal article of (Poodeh and Vali, 2014) who studied the characteristics of open spaces for enhancing uses' social interactions in neighborhood environments using case study. Tenth journal article of (Skip et al., 2014) who studied factors of successful parks for users' social activities using survey study in six public park in Malaysia. Then journal article of (Abd El-Aziz, 2015) who studied the characteristics of a pocket parks for nearby residents using Literature Analysis and survey study in Cairo, Egypt. A journal article of (Buchecker and Degenhardt, 2015) who studied the effects of urban inhabitants' nearby outdoor recreation using survey study in three urbanized regions in Switzerland. A journal article of (Mamaghani et al., 2015) who studied public spaces for improving social relationship using survey in Iranian urban places. Journal article of (Gibson and Canfield, 2016) who studied characteristics of pocket parks for social interaction using survey and case study in a pocket parks of Stapleton, US. Journal article of (Currie, 2017) who designed a framework for pocket parks in ultra-urban, metropolitan, suburban and small town settings using mixed methods (document analysis, interviews and observation) in the Southeastern, Mid-Atlantic, and Northeastern United States. Last journal article of (Tabassum, 2018) who studied small parks contribution in social impact of dense cities using case study in Dhaka city, Bangladesh

Table 1: Text Documents of the Summarizing Content Analysis

<i>Researcher</i>	<i>Study area</i>	<i>Methodology</i>	<i>Category</i>	<i>Source</i>
<i>(Holland et al., 2007)</i>	Aylesbury, England	Literature Analysis, Survey and Case Study	A* & C***	Research Study
<i>(Bekker et al., 2010)</i>	Europe	Literature Review and Experiment	A*	Indexed Peer-review, Q2 Scopus Journal
<i>(Uslu and Gokce, 2010)</i>	Ankara, Turkey.	Survey Study	A* & C***	Indexed Peer-review, Scopus Journal
<i>(Nordh et al., 2011)</i>	Oslo, Norway	Survey Study	B** & C***	Indexed Peer-review, Q1 Scopus Journal
<i>(Peschardt et al., 2012)</i>	Copenhagen, Denmark	Literature Analysis and Survey Study	B** & C***	Indexed Peer-review, Q1 Scopus Journal
<i>(Rikabi and Ali, 2013)</i>	Baghdad, Iraq	Survey Study	A*	Peer-review Journal
<i>(Sinou and Kenton, 2013)</i>	Greece and UK	Survey Study	B**	Indexed Conference Paper
<i>(Poodeh and Vali, 2014)</i>	-	Case Study	A* & C***	Indexed Peer-review Journal
<i>(Skip et al., 2014)</i>	Malaysia	Survey Study	A* & C***	Indexed Peer-review, Scopus Journal
<i>(Abd El-Aziz, 2015)</i>	Cairo, Egypt	Literature Analysis and Survey Study	B** & C***	Indexed Peer-review, Q2 Journal
<i>(Buchecker and Degenhardt, 2015)</i>	Switzerland	Survey Study	A* & C***	Indexed Peer-review, Q2 Scopus Journal
<i>(Mamaghani et al., 2015)</i>	Iran	Survey Study	A*	Indexed Peer-review Journal
<i>(Gibson and Canfield, 2016)</i>	Stapleton, US	Survey Study and case study	B** & C***	Indexed Peer-review, Q3 Scopus Journal
<i>(Currie, 2017)</i>	United States	document analysis, interviews and observation	B** & C***	Indexed Peer-review, Q1 Scopus Journal
<i>(Tabassum, 2018)</i>	Dhaka, Bangladesh	Case Study	B** & C***	Indexed Peer-review, Q3 Scopus Journal

5. Data Analysis

5.1. First Category: Criteria of the nearby Open Spaces for Social Interaction

Holand's study confirmed that public open spaces is a key of achieving the social interaction¹³. He confirmed that users' social relationships in open spaces could effect by some factors including; spaces' connection, design, maintenance, and management¹³. While, study of Uslu and Gokce confirmed that design of outdoor spaces has a great role to lead individuals to outside spaces for social interaction³³. This study highlighted that good design of the surroundings of a houses can contribute in changing life and creating a new social order in the cities³³. On the other hand, Bekker's study mentioned that users of recreational zones such as recreational open spaces can create a various shared physical games and this could encourage social interaction among them⁵. This study also aimed to invited people especially children, to replace television, computers, and video games by a physical games shared with other people in open spaces⁵. Poodeh and Vali study focused on the determination the factors of the neighborhood environments (close open green spaces) to promote residents social interaction²³. These factors including; safety and security, traffic restrictions, presence of various activities for all ages, and urban design of the space²³. While, Skip's study mentioned the criteria of a successful public park including; access and linkage, sociability (opportunity to socialize), space design, activities, elements, maintenance and safety²⁷. Buchecker and Degenhardt study confirmed that providing opportunities for outdoor recreation in nearby landscapes have become an urgent need nowadays⁶. This study highlighted that good quality and easy access of the nearby recreation area is an important creation⁶. Where users' satisfaction to these areas will increase them activities, time spend and interactions⁶. According to Mamaghani's study stated that the development of social relationships in any urban area should begin with careful attention to specific spaces such as open green spaces¹⁹. They confirmed that providing spaces using of interaction design approaches should be a basic factor of these spaces¹⁹. They also confirmed that it is important to create more spaces for people to overcome the loss of human communication and interaction¹⁹. On the other hand Rikabi and Ali study mentioned that lack of parks and open green spaces led to reduce residents' social interaction in the city of Baghdad²⁴. Where, this study confirmed that existing parks in Baghdad is inefficient in terms of number, components (elements), administration and maintenance²⁴. They also stated that there is a need to provide a variety of facilities especially children's facilities in the nearby green open spaces, and this can enhance interaction of community. In addition, this study highlighted that there is a need for more efforts of responsible authorities toward the mentioned issue²⁴. Therefore, the selected studies confirmed that the key criteria (codes) of the open spaces for social interaction include; design, activities, elements, maintenance, management, easy Access, sociability. As well as, safety, security, distance, quality, traffic restriction, number of spaces and efforts of responsible authorities' respectively.

Table 2: Criteria of Public Open Spaces for Users' Social Interaction

Authors	Criteria	Coding
(Holland et al., 2007)	1. Spaces connection 2. Space design	3. Maintenance 4. Management 1. Space Design
(Bekker et al., 2010)	Space Design	2. Activities
(Uslu and Gokce, 2010)	1. Physical Elements (items)	2. Physical Activities 3. Elements
(Rikabi and Ali, 2013)	1. Effective Number of Spaces 2. Elements 3. Activities	4. Administration (Management) 5. Maintenance 6. Efforts of Responsible Authorities' 4. Maintenance 5. Management 2
(Poodeh and Vali, 2014)	1. Safety 2. Security. 3. Traffic Restrictions	4. Activities 5. Place Design 6. Easy Access 2 7. Sociability 2
(Skip et al., 2014)	1. Easy Access 2. Sociability 3. Design 4. Activities	5. Elements 6. Maintenance 7. Safety 8. Safety 2 9. Security 1
(Buecheker and Degenhardt, 2015)	1. Easy Access 2. Quality of the Spaces	3. Short Distances 10. Distance 11. Quality
(Mamaghani et al., 2015)	Sociability	12. Traffic Restriction 13. Number of Spaces 14. Efforts of Responsible Authorities'

5.2. Second Category: Criteria of the pocket parks for social interaction

Study of Nordh focused on studding the softscapes of the pocket parks in order to stimulate users' social activities and well-being²¹. This study stated that amounts of grass, trees, presence of other people, water, flower and bushes had an influence on small parks use²¹. While, Peschardt's study stated that short distances to nearby pocket parks is a basic criteria of such spaces²². Where, distance to pocket parks were usually related to higher frequencies of use²². Sinou and Kenton study mentioned that criteria of a successful pocket parks can include; design, maintenance, safety, environmental factors, softscape and hardscape elements²⁹. However, they confirmed that key factors of any pocket park vary according to the locations and the climate of the area²⁹. On the other hand, Abd El-Aziz's study determined the factors of a pocket parks including; design, accessibility, cooperation in pockets' design, construct and maintenance¹. As well as factors of; safety, activities, elements and sun lighting¹. This study stated that pocket parks are an important solution to provide public spaces in the crowded environments, where amount of available land is limited¹. Currie's study identified design principles of pocket parks including; design, accessibility, specificity (possesses qualities make it special), authenticity, functionality, and adaptability⁸. While, Tabassum's study focused on the softscapes of pocket parks including trees' types and trees' arrangement³¹. This study confirmed that selecting a right tree in a right place (of small green spaces) can contribute in shading and reduce noise from street and give a sense of privacy³¹. This study also confirmed that proper planning and design of pocket park is essential to increase the quality of life and livability³¹. Gibson and Canfield study mentioned that pocket park characteristics for social interaction can include social activities and

various elements¹¹. Where, the social activities of the pocket parks can include playing in small fields, social events, painting and pet relief¹¹. This study also confirmed that the elements of the social pocket parks include; shade trees, water fountains, waste stations, lighting and pergolas, barbecues, and play equipment¹¹. Therefore, the selected studies confirmed that the key criteria (codes) of the pocket parks for social interaction include; Elements, design, activities, safety, easy access, environmental factors, maintenance. As well as, cooperation in pockets' design, construct and maintenance, and presence of other people, specificity, authenticity, functionality and adaptability respectively.

Table 3: Criteria of Pocket Parks for Users' Social Interaction

Authors	Key factors	Coding
(Nordh et al., 2011)	1. Softscape Elements: a. Amounts of Grass b. Amount of Trees c. Presence of Water d. Presence of Flower e. Presence of bushes	2. Presence of Other People (sociability)
(Peschardt et al., 2012)	Short Distance	
(Sinou and Kenton, 2013)	1. Design 2. Maintenance 3. Safety	4. Environmental Factors 5. Elements Design
(Abd El-Aziz, 2015)	1. Design 2. Easy Access 3. Cooperation 4. Safety	5. Activities 6. Elements 7. Sun lighting (Environmental Factor)
(Gibson and Canfield, 2016)	1. Social Activities	2. Various Elements
(Currie, 2017)	1. Design 2. Easy Access 3. Specificity	4. Authenticity 5. Functionality 6. Adaptability
(Tabassum, 2018)	1. Softscape Elements: a. Types of Trees b. Arrangement of Trees	2. Design

5.3. Third Category: Benefits of the nearby Public Open Spaces and Pockets

Study of Holland mention that public open spaces allow people to meet and interact within the context of the whole community¹³. Uslu and Gokce study confirmed that nearby public spaces can contribute in social interaction and cure from complex social diseases³³. While, Nordh's study confirmed that natural environments contribute positively to psychological restoration²¹. Peschardt's study mentioned that pocket parks can contribute in an attractive atmosphere in the city for social interaction, rest and mental restoration²². Poodeh and Vali study stated that increasing social interactions is a basic measures in the neighborhood environments play an important role in the sustainability of megacities²³. While, Skip's study mentioned that park was an important space for physical social activity and health behavior increase the value of the property²⁷. Where, such spaces can help to reduce some diseases such as diabetes and certain cancer²⁷. Abd El-Aziz's study stated that pocket parks are an important solution to provide public spaces for social benefits in the crowded environments, where amount of available land is limited¹. Furthermore, Buchecker and Degenhardt study mentioned that visits to near natural everyday landscapes promote psychological, well-being, and physical health⁶. Gibson and Canfield study confirmed that pocket parks contribute in community interaction by providing recreation and relaxation and mingle with their neighbors¹¹. While, Currie's study confirmed that small parks contribute to neighborhood quality of life, serve as important focal points for users' social interaction⁸. Pocket parks also contribute in the sustainable development, provide an experience for pedestrian⁸. Tabassum's study highlighted that pocket parks have strong environmental impact³¹. Therefore, the selected studies confirmed that the key benefits (codes) of the pocket parks and public open spaces include; social interaction, health, sustainability, relaxation, recreation, property value, quality of life and experience for pedestrian respectively.

Table 4: Benefits of the Public Open Spaces and Pocket Parks

Authors	Benefits	Coding
(Holland et al., 2007)	Social Interaction	1. Social Interaction
(Uslu and Gokce, 2010)	1. Social Interaction	2. Cure from Complex Social Diseases
(Nordh et al., 2011)	Psychological Restoration	3. Sustainability and Environmental Benefits
(Peschardt et al., 2012)	1. Social Interaction 2. Rest (Relaxation)	4. Relaxation
(Poodeh and Vali, 2014)	1. Social Interaction	5. Recreational Benefits
(Skip et al., 2014)	1. Social Interaction 2. Physical Activities	6. Increase Value of the Property
(Abd El-Aziz, 2015)	Social Benefits	7. Increase the Quality of the Life
(Buchecker and Degenhardt, 2015)	1. Psychological and Physical Health	8. Provide an Experience for Pedestrian
(Gibson and Canfield, 2016)	1. Social Interaction 2. Recreation	
(Currie, 2017)	1. Social Interaction 2. Life Quality 3. Sustainable developments	
(Tabassum, 2018)	Environmental Impact (Sustainability)	

6. Findings and Discussion

Findings of the second category of the content analysis provides information about the characteristics of the small green open spaces (pocket parks). While, the findings of the first category of the content analysis find the characteristics of the nearby public green open spaces and also uses to validate and confirm the data of the first category. Where, elements criteria were the most common characteristic for most of the second category studies 1,11,21,29,31. Followed by pocket park design criteria that mentioned in four of second category studies 1,8,29,31. Then, activities, safety, easy access and environmental factors criteria where each of these criteria mentioned in two of second category studies 1,8,11,29. While, each of maintenance, cooperation in pockets' (design, construct and maintenance), sociability, specificity, authenticity, functionality and adaptability have mentioned only once 1,8,11,21,22,29. On the other hand, design and activities of nearby green open spaces were the most common characteristics for most of the first category studies (each of them in four studies) 13,5,23,24,27,33. Followed by elements and maintenance that mentioned in three of first category studies 13,24,27,33. Then, management, easy access, sociability and safety where each of them mentioned in two of first category studies 6,13,19,23,24,27. While, criteria of security, short distance, quality, traffic restriction, number of spaces and efforts of responsible authorities' have mentioned only once in the first category studies 6,23,24. Therefore, it can be inferred that the criteria of design, elements, activities, safety, easy access, maintenance, sociability, management and environmental factors are the key characteristics of the nearby pocket parks to achieve people social interaction in Baghdad. Where, these key characteristics have mentioned at least in two of the first or second category studies. Elements criteria refers to the providing proper hardscapes and softscapes in term of (type, amount, quality and arrangements) in the pocket parks in order to stimulate users' social activities. While, activities criteria refer to provide good-quality of various activities in these spaces.

On the other hand, findings of the third category confirmed that the essential benefit of the nearby pocket parks is the social interaction (social benefits) according to most of the mentioned studies 1,8,11,13,22,23,33. Followed by, health, sustainability, environmental, relaxation and recreational benefits (respectively) that mentioned more than once 6,8,11,21,22,23,27,31,33. However, benefits of increase value of the property, increase the quality of the life and provide an experience for pedestrian have mentioned once only 8,27.

In sum, providing an efficient numbers of pocket parks (nearby public green open spaces) with proper criteria can contribute in increasing residents' social interaction in the neighborhoods of Baghdad city. Where, responsible authorities of Baghdad city should pay more attention and efforts to construct and establish an adequate number and effective characteristics of nearby green public open spaces. Such spaces do not only contribute to the social benefits of the residents of Baghdad, but also have health, environmental, recreational and relaxation or mental benefits.

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