Open Public Spaces: What Makes Them Successful?

Saud K. Abu Mutawe[1], *Architecture Department, King Fahd University of Petroleum & Minerals, Saudi Arabia*

Omar S. Asfour[2], *Interdisciplinary Research Centre for Construction and Building Materials, King Fahd University of Petroleum & Minerals, Saudi Arabia*

omar.asfour@kfupm.edu.sa, o.asfour@hotmail.com

SPACE Studies Publications

Open Public Spaces: What Makes Them Successful?

Saud K. Abu Mutawe[1], *Architecture Department, King Fahd University of Petroleum & Minerals, Saudi Arabia*

Omar S. Asfour[2], *Interdisciplinary Research Centre for Construction and Building Materials, King Fahd University of Petroleum & Minerals, Saudi Arabia*

Abstract

Open public spaces have become integral to the modern city. People practice activities that express their cultures and interests in these spaces. However, this depends on the quality of open public spaces, including the factors that attract people to use them. Thus, this study aims to identify the main attributes that improve the quality of open public spaces in the context of Saudi Arabia. To do so, a questionnaire was distributed to identify the positive and negative attributes of open public spaces from users' perspectives. The study concluded that cultural background and social experience play major roles in the functional potential of open public spaces. One main challenge is that people are not accustomed to socialising in open public spaces. The study also resulted in a set of design recommendations for open public spaces. These include the need to offer users new experiences and secure their social needs by creating spaces where people can enjoy sharing new experiences with their friends and family members.

Keywords: design attributes, open public space, urban design, user experience

1. Introduction

Open public spaces allow local communities to express their cultures and interests and socialise in a safe environment (Chiesura, 2004). However, several issues should be considered to improve the quality of these spaces. These issues range from security and safety concerns to interpersonal issues that prevent users from using open public spaces effectively (Iqbal & Wilhelmsson, 2018). This raises the question of how to make these spaces more successful by maximising their positive potential and attributes and limiting their negative ones (Low & Smith, 2006; Carmona et al., 2008; Hou, 2010; Silva & Frith, 2012). Open public space attributes are related to their physical and psychological effects on users (Hollander & Veronica, 2016). These attributes can be positive or negative, depending on whether they inspire proper usage and promote the benefits of the open space or not. While discussing these attributes, it is worth noting that they are strictly related to the users, their interactions with one another, and the public space itself.

Positive public space attributes provide perceived benefits to the users and satisfy their needs. Positive attributes can be categorised into two main categories: Public social interaction and internal personal interaction. Public social interaction describes social interactions between the

Corresponding Author: Omar S. Asfour, Interdisciplinary Research Centre for Construction and Building Materials, King Fahd University of Petroleum & Minerals, omar.asfour@kfupm.edu.sa, o.asfour@hotmail.com

various users of an open public space. These may be direct interactions, like talking or partaking in activities together, or indirect interactions, like observing each other's activities. As public spaces' main objective is to provide leisure services at no cost to the users, they generally build an internal feeling of connection among regular users. As the locals are the main beneficiaries of these spaces and their presence is crucial for the success of the space, they are expected to interact with each other, creating opportunities for socialisation and building relationships. This supports the spirit of a collective community whose members share general aspects of their lives and helps minimise the isolation that is a prevailing problem in modern cities.

Conversely, internal personal interactions are the internal feelings that affect how a user perceives the open public space, such as their thoughts before actually visiting and interacting with the open public space. This creates motivation directly related to people's willingness to partake in activities, be active members of the local community, and experience improved mental states. Multiple design elements contribute to motivation. One crucial element is the use of greenery, which directly affects users' mental state. Greenery and landscape provide a connection with nature that calms users and allows for a much more natural experience within the public space. Parks are among the most successful types of public spaces, and they heavily rely on the integration of nature. The mere presence of inaccessible or unused greenery is enough to create a positive effect, as it provides a visual break for users.

The negative attributes of public spaces describe the fears and concerns that future users may have while using them and highlight any possible negative impacts of open public spaces. Negative public attributes can be divided into two main categories: Direct harm and annoyance. Direct harm includes serious risks that directly depend on the design of the public space or the users' behaviour. This also includes crime. As open public spaces attract many people, they sadly offer opportunities for crime-related activities, including theft, harassment, and otherwise, making the space unsafe for others.

Additionally, any zone of the public space that offers any form of privacy will attract shady activities, again reducing the viability of the public space as a safe location for the public. This becomes more critical at night and is the reason many extremely famous and successful open public spaces close at night. Automobiles are another source of direct harm. Special consideration must be given during site selection and design to offer a safe environment for open-space users.

On the other hand, annoyances are negative internal thoughts that users have about what they think they may interact with in the space (Rezvani & Sadra, 2017). Annoyances may also arise after visiting the open public space: they are subjective assessments. Each design attempts to meet the needs of all users who will use the space by being equally attractive to all of them. However, meeting all possible needs is challenging due to design and space constraints. This results in the open public space being more beneficial for some groups than others. A conscious effort must be made in the design phase to make the space as neutral as possible. Another issue that is a type of annoyance is noise and visual pollution. This affects the general aesthetic qualities of the open public space and includes unwanted users who are the enablers and, in some cases, the direct causes of negative attributes. Thus, this research aims to provide general design guidelines that summarise the design of successful open public spaces based on users' feedback. This includes several positive and negative attributes of open public spaces, as presented in the following sections.

2. Materials and Methods

The main goal of this paper is to identify the primary attributes that improve the quality of public spaces to help designers meet the needs of public space users. Thus, it is important to solicit input directly from the potential users of public spaces. People have a variety of experiences using open public spaces. Thus, some sampling criteria must be specified to help streamline the data collection process. The participants should have similar backgrounds to contextualise the study. This was done by limiting the participants to people who spent the majority of their childhoods in Saudi Arabia. The most efficient data collection method was an online questionnaire. The questionnaire was comprised of a total of 25 statements to determine the importance of several open public space attributes that were identified from the literature review (Table

1). A five-point Likert scale was used to gather users' feedback, where the higher the mean value of the responses, the higher the acceptance level of the proposed statement. This data collection method can be considered a translative link between identifying generic attributes and transforming them into tangible and achievable design guidelines that can be applied to the design of open public spaces.

3. Results and Discussion

A total of 95 participants completed the questionnaire. The value for α was set to 0.05, as that is a generally accepted margin of error in social studies. Table 1 summarises the obtained results of all the examined statements using the weighted mean, standard deviation (SD), relative importance index (RII), and rank. Participants presented different acceptance levels of the different measured statements. For example, the highest five acceptance levels were observed in the following statements:

- People enjoy new experiences (Mean = 4.16, RII = 0.83).
- Public spaces are a social need (Mean = 4.04, RII = 0.81).
- People enjoy sharing new experiences with their friends (Mean = 3.95, RII = 0.79).
- Public spaces are a good place to express and share interests (Mean = 3.87, RII = 0.77
- Public spaces are a good place to showcase local talents (Mean = 3.75, RII = 0.75).

On the other hand, the lowest five acceptance levels were observed in the following statements:

- Unwanted users mainly go to public spaces at night (Mean = 2.95, RII = 0.59)
- Familiar faces give a feeling of belonging (Mean = 2.95, RII = 0.59)
- Public spaces attract unwanted users (Mean = 2.72, RII = 0.54).
- People like to talk with strangers in public spaces (Mean = 2.62, RII = 0.52).
- All public spaces are equally attractive (Mean = 2.48, RII = 0.50).
- People make friends in public spaces (Mean = 2.47, RII = 0.49).

Some interesting findings developed from the questionnaire. For example, users of open public spaces are uninterested in talking to strangers or making new friends in public spaces (S2 and S4). It was expected that seeing familiar faces would give the users a sense of community or belonging. However, this was not the case (S5). Additionally, the participants indicated that they are more likely to visit a public space if it regularly holds public events, although they may not participate in those events (S6 and S7). These findings indicate that people are not used to socialising in open public spaces. Based on the findings presented in Table 1 and the literature review, the following open public space design guidelines can be proposed:

- Design uniqueness: This is very important as a lot of public spaces become boring, abandoned places due to a lack of contrast with other open spaces. Colour and material textures could be effectively used to create a unique feel.

- Community-oriented activities: People are very interested in the idea of participating in events, showcasing their talents and interests, or other people having opportunities to practice their interests in public. The design of multifunctional open spaces can be helpful for these goals because they can easily be turned into different functions when needed. Additionally, the space needs to be publicly accessible to everyone if it is intended to offer a creative outlet for the community.

- Users' experiences: A public space may have its own theme or target users; however, it must have a sufficient variety of recreation opportunities to be considered attractive to other users.

- Crime prevention: Open public spaces should be made naturally deterrent to criminals by minimising the factors that create a good crime environment and using crime prevention methods (Carmona, 2010; Saraiva & Pinho, 2011). For example, providing sufficient lighting is essential to elevate the aesthetic quality of the space and to improve its safety and usability

at night.

- • Vehicular circulation: People are especially worried about the safety of open public spaces, especially the dangers of vehicles. Hence, it is important to consider the existing vehicular motion when the location and layout of a public space, including pedestrian movement, are selected. Integrating public transportation into the site could effectively reduce users' reliance on cars.

Table 1. Questionnaire results showing the weighted mean, standard deviation (SD), relative importance index (RII), and rank for the different examined statements

No	Statement	Mean	SD	RII	Rank
S1	Public spaces are a good place for meeting new people.	2.99	1.22	0.60	14
S2	People make friends in public spaces.	2.47	1.25	0.49	19
S3	People are more social in public spaces.	3.03	1.26	0.61	13
S4	People like to talk with strangers in public spaces.	2.62	1.11	0.52	17
S5	Familiar faces give a feeling of belonging.	2.95	1.30	0.59	15
S6	People enjoy partaking in public events.	3.05	1.21	0.61	13
S7	People visit public spaces for public events.	3.38	1.18	0.68	9
S8	People enjoy public events, even if not participating.	3.45	1.18	0.69	8
S9	Public spaces are a good place to showcase local talents.	3.75	1.22	0.75	5
S10	Public spaces are a good place to express and share interests.	3.87	1.04	0.77	4
S11	People enjoy new experiences at public spaces.	4.16	0.91	0.83	1
S12	People enjoy sharing new experiences with their friends.	3.95	1.05	0.79	3
S13	Frequent public events are favorable.	3.72	1.04	0.74	6
S14	Public spaces are a social need.	4.04	1.02	0.81	2
S15	Public spaces are accessible at night.	3.09	1.31	0.62	12
S16	Public spaces are safer at day rather than at night.	3.25	1.12	0.65	11
S17	Unwanted users mainly go to public spaces at night.	2.95	1.25	0.59	15
S18	People are more troublesome in public spaces at night.	3.24	1.17	0.65	11
S19	People drive more carefully around public spaces.	3.01	1.03	0.60	14
S20	There is more vehicular danger around public spaces.	3.24	1.03	0.65	11
S21	Public spaces cause annoyances.	3.08	1.20	0.62	12
S22	Public spaces attract unwanted users.	2.72	1.13	0.54	16
S23	All public spaces are equally attractive.	2.48	1.17	0.50	18
S24	The noise from public spaces is tolerable.	3.36	1.13	0.67	10
S25	People feel safe when their friends/families are alone in public spaces.	3.66	0.95	0.73	7

4. Conclusion

This study aimed to identify the main attributes that improve the quality of open public spaces in the context of Saudi Arabia. The study used an online questionnaire to seek users' feedback on this topic. The questionnaire included a total of 25 statements for participants to rate to determine the importance of several attributes of open public spaces that were identified from the literature review. The results show that people enjoy new experiences in open public spaces, consider them a social necessity, and enjoy sharing new experiences with their friends in these spaces. However, they are unlikely to make new friends in open public spaces or to talk with strangers. They also do not believe that all public spaces are equally attractive. The study concluded that cultural background and experience play major roles in the functional potential of open public spaces. One main challenge in this regard is that people are not accustomed to socialising in open public spaces. The study also developed a set of design recommendations for open public spaces, including the need to offer new experiences to users and secure their social needs by offering a space where people can enjoy sharing new experiences with their friends and family members.

Conflict of Interests

The author declares no potential conflict of interest was reported by the author.

Endnotes

This paper has been presented at the SPACE International Conference 2022 on Sustainable Architecture, Planning and Urban Design.

References

Carmona, M., de Magalhães, C., and Hammond, L. (2008), Public Space: The Management Dimension. London: Routledge.

Carmona, M. (2010). Public places, urban spaces: the dimensions of urban design. London: Routledge.

Chiesura, A. (2004), The role of urban parks for the sustainable city. Landscape and urban planning, 68(1), 129-138.

Hollander, J. and Veronica, F. (2016). Brain responses to architecture and planning: a preliminary neuro-assessment of the pedestrian experience in Boston, Massachusetts. Architectural Science Review, 59, 1-8.

Hou, J. (2010). Insurgent Public Space: Guerrilla Urbanism and the Remaking of Contemporary Cities. London: Routledge.

Iqbal, A. and Wilhelmsson, M. (2018), Park proximity, crime and apartment prices. International Journal of Housing Markets and Analysis, 11(4), 669-686.

Low, S., and Smith, N. (2006). The Politics of Public Space. London: Routledge.

Rezvani, M. and Y. Sadra (2017). Sociological Explanation of Fear of Crime in Public Spaces Case Study Mashhad. arXiv: Physics and Society.

Saraiva, Miguel & Pinho, Paulo. (2011). A comprehensive and accessible approach to crime prevention in the planning and design of public spaces. Urban Design International. 16 (3), 213–226.

Silva, A., & Frith, J. (2012). Mobile Interfaces in Public Spaces: Locational Privacy, Control and Urban Sociability. London: Routledge.