RECLAIM THE PUBLIC REALM: THE COMPARATIVE ANALYSIS OF THE PHYSICAL FORM AND USE OF NEIGHBORHOOD OPEN SPACES IN SEATTLE, KUWAIT CITY AND XI'AN

Mohammed Alajmi, Assistant Professor, College of Architecture, Kuwait University, Kuwait.

Xiao Hu, Associate Professor, University of Idaho, USA.

ABSTRACT

Neighborhood open spaces are the most frequently used public spaces by people in an urban community, as one of the most fundamental factors that influence the quality of urban life and the shape of urban identity. The basic features of urban forms within a city are heavily relied upon the spatial composition and culture representation of its neighborhood open spaces. However, people's engagement with neighborhood open spaces is complicated and often affected by various factors. As a result, it is critical to understand whether the spatial composition of neighborhood open spaces are more defined by their physical and functional properties or are more shaped by different cultural practices and life styles.

This paper compares the spatial and physical forms of neighborhood opens spaces from three cities: Seattle (the US), Kuwait City (Kuwait), and Xi'an (China), each of which has around four million urban population and is socially, politically and economically significant in its region, representing three case studies from different cultures, and climatic and geographical contexts. Employing survey, interview and field observation, this paper explains the similarities and differences in terms of spatial forms of neighborhood open spaces and also identifies a number of variables that impact the performance and visual perception of neighborhood open spaces and in turn influence the composition of urban forms.

Keywords: urban morphology, neighborhood open spaces, Seattle, Xi'an, and Kuwait City

INTRODUCTION

In a city, neighborhood open spaces are normally built around and within residential neighborhoods, easily being accessed by local people and remaining close distances to their homes. Neighborhood open spaces are the most frequently used public spaces by people in an urban community, as one of the most fundamental factors that influence the quality of urban life and the shape of urban identity. As a kind of "third places," they offer a unique, convenient place where people can enjoy a moment between home (the first place) and work (the second place) and are critical for each community and neighborhood to survive and to thrive (Oldenburg, 1999). They meet many daily life needs of local residents, ranging from offering opportunities for recreation and personal interactions, buffers from busy streets, and storm water drainage and management, to host community events and shape the sense of belonging. Those places are the catalysts of community life, contributing to the development of social relationships and the forming of a community network. Neighborhood open spaces provide occasions and places for encounters and daily activities that generate opportunities to allow local people to socially engage with each other and to develop a sense of self and community.

Contrary to the rhetoric of public openness and community orientation, the actual development and performance of neighborhood open spaces also reflect different cultural traditions and social patterns. Across the diverse cultural practices, neighborhood open spaces have shown significantly

various meanings, functions, and forms. The use of neighborhood open spaces has been deeply embedded in the norms of different cultural practices and lifestyles. Current studies find that different social groups (gender, age, economic situation, life-cycle stages, etc.) indicate dramatic variations in spatial use and understanding (Rapoport, 1977). Many researchers suggest that different cultural backgrounds and life patterns result in different aesthetic interpretations and preferences of space that lead to different use patterns of the open spaces and different spatial elements valued (Van den Berg, Vlek, & Coeterier, 1998; Todorova, Asakawa, & Aikoh, 2003; Yu, 1995).

On the other hand, although the physical properties of public spaces may vary based on their cultural and social contexts, some studies also suggest that different cultural groups have some similar spatial preferences and shared some common uses – for example, most people strongly prefer natural environment to the built environment (Ulrich, 1993); open spaces are always used for public interactions, market exchange, and traffic (Lefebvre, 1992).

BACKGROUND

People activities associated with neighborhood open spaces are complicated and often affected by various factors. The physical quality of neighborhood open spaces play an essential role in influencing the actual use and interpretation of the spaces. In evaluating the quality of public spaces, many indicators, such as legibility, comfort, location, safety, aesthetics, and permeability, are used to measure the success of the space use. The Project for Public Spaces, a nonprofit organization, develops a measurement system, in which attributes are classified into four different categories: access & linkages, comfort & image, sociability, and uses & activities (Project for Public Spaces, 2011). Among the four categories, two of them, access & linkages and comfort & image, address the physical qualities of public space, while another two mainly focus on human behaviors. For a neighborhood open space, "access and linkage" makes both visual and physical connections to its surroundings, creating opportunities to allow residents to engage with each other and the public realm.

As a key dimension of the physical qualities of a place, access & linkage essentially determine the actual uses, activities, and social interactions occurring within the place, and therefore, they become the most fundamental category to the measurement of public space. Without "access & linkage," there won't be any uses and activities, no feeling of comfort, and no social interactions at all. Some crucial indicators have been identified to measuring access & linkage: the degree of dispersion (Talen, 2000), visual and physical connection to residential areas (Whyte, 2000), travel time and/or proximity (Erkip, 1997), and street type of sidewalks (Pasaogullari & Doratli, 2004). Hence, to be successful, a neighborhood open space should be centrally located with small distance to residential units, diverse uses of the sidewalks, and good visibility from other places (Pasaogullari & Doratli, 2004). In this study, three indicators – proximity, visual & physical connection, and street type of sidewalks –measure access & linkages.

This study seeks to examine and understand the correlation between the physical forms of neighborhood open spaces (in terms of access and linkages) and the users' behavior patterns shaped by cultural practices and lifestyles. For the purpose of this study, a comparative analysis is used as the means to understand how use of open spaces at the neighborhood scale in different contexts. Three neighborhood open spaces are chosen from three cities with similar sizes: Seattle in the US, Xi'an in China and Kuwait City in Kuwait, each of which has about 4 million population and is the social, political and economic center in its region, representing three different cultural

settings. Besides, each city is undergoing rapid urban growth. The spatial characteristics collected from the three cases reflect many similar qualities and conditions facing by many other cities in the world.

METHODOLOGY

In each city, a residential neighborhood within the urban core was selected. The selection of those neighborhoods is determined by two factors: urban neighborhood reflecting the typical features of the city, and the authors' familiarity.

Two methods are employed for this study: 1. field observations with the mapping of both the physical forms and users' behavior patterns; and 2. Interviews & surveys on random samples of users approached by convenience.

The observations were conducted three times a day (morning, noon, and evening) both during weekdays and weekends. Some spatial users were approached for quick interviews to find further information that could not be observed. 25 people responded to the interview inquiry in Seattle, 32 in Xi'an and 31 in Kuwait City. All observations and interviews were taken place between June and August 2019.

FINDINGS

Seattle Case

The city of Seattle is the largest in the State of Washington and the Pacific Northwest Region of the US. Historically, Seattle's neighborhood open spaces have been developed in diverse formats such as the street right of ways, plazas, traditional parks, pocket gardens, neighborhood greenways, and playgrounds. Unlike many other major cities in the US, Seattle primarily places its growth in the urban centers and urban villages where the city builds the newest housing units (City of Seattle, 2016A). This model of growth has resulted in an increasingly higher density in all major urban areas.

The Cherry Hill neighborhood, located east of the Downtown and south of the Capitol Hill, is selected as a case study. The neighborhood was mainly developed in the 1950s and was the home of Seattle's first urban renewal project. Primarily occupied for residential use, this neighborhood is the home for its 6,400 residents, and only 40% of the households own a home here (Nextdoor, 2010). The general built form is single-family homes. The whole neighborhood is laid out in a grid planning pattern with a major hospital located at the center and a few blocks of multi-family apartment buildings in the northwest area. The Seattle University campus is just to the west of the neighborhood, and the Garfield High School is adjacent to the southeast corner.

Within the neighborhood, there are three neighborhood scale parks, located in the north, center, and the southeast, and two pocket parks, both located at the north boundary. A few neighborhood parks and recreational facilities from nearby schools are outside of the neighborhood with close distances.

Xi'an Case

As one of the most important historical cities in China, Xi'an has undergone major urban development of revitalization but also remains some important features of traditional neighborhoods. A 14-kilometer long city wall built in the 14th century divides the city into two

parts: the inner city and the outer city. Most historical buildings and old neighborhoods are located in the inner city while the outer city becomes the home of most modern developments.

The Xia Maling Neighborhood located at the southeast corner of the inner city is selected for the case study. This neighborhood occupies 850 meters long by 500 meters wide, with 1,385 households and 3,535 residents (City of Xi'an, 2018). Unlike other old neighborhoods within the inner city, the Xia Maling has few historical buildings, making this neighborhood remain strong residential focus without outside tourists' interventions. The historic city wall is the southern boundary, blocking the connection to the outer city but allowing tourists to view the neighborhood from the above. The western and eastern borders are two arterial avenues going through two old gates of the city wall. A narrow street to the north defines the northern boundary of the neighborhood. Within the neighborhood, three narrow north-south streets with smaller alleyways and paths provide the primary connection for the residents.

Most of the neighborhood is occupied by concrete multi-family residences, normally 3-7 floors built in the 1970s-1990s. Most of those residences were subsided housings by state employers during the socialistic era. Some traditional courthouses with illegal temporary settlements occupy the west area and a small portion in the east. While the residence is the primary building type of this neighborhood, there are two kindergartens and one secondary school located in the middle of the neighborhood. Several office buildings are standing alone the southern boundary, facing the city wall. Many small businesses and services are located at the ground floor of residential buildings along major streets.

In the Xia Maling Neighborhood, formal open spaces are hard to be found. This study identifies three main open spaces that local residents generally use: two are in the middle of the neighborhood integrate sidewalks while one, a portion of a city park around the exterior edge of the whole city wall, is outside of the neighborhood and on the other side of the city. Several private open spaces within the neighborhood are not open to the public.

Adailiya, Kuwait case:

Kuwait witnessed a steady growth of oil production and subsequent ravenous growth since the late 1940s that stimulated all other industries and economic activities (Al-Nakib, 2016). The modernization processes were too swift and unprecedented; it left many undeveloped places and spaces within the limits of Kuwait City. It focused on one major goal at the time: to empty Kuwait Old City from all traditional buildings and to move Kuwaitis outside to the newly established residential neighborhoods.

One of these residential areas was Adailiya, developed in 1964, and is about three kilometers away from the southern edge of the Old City. The dimensions of Adailiya are roughly 1.75 x 1.45 x 1.5 x 1.6 kilometers, or around 2.2 square kilometers in area, and it has about 730 houses of two plots sizes: 750 and 1,000 square meter lots.

The planning design of Adailiya adopted the concept of the neighborhood unit. The underlying concept of a neighborhood unit is that it should have the following five main components: a limited population, the essential supporting neighborhood facilities and amenities, traffic separation, adequate open spaces such as parks, recreation, and sports facilities, and around five or six neighborhood units constructing a smaller community with facilities and amenities (Shiber, 1964). Adailiya is divided broadly into four nearly square-shaped areas. Three areas are sub-neighborhoods, while the fourth consists of an area allocated for the neighborhood center and is

conveniently located in relation to all the residential areas. This central area includes shops, an auditorium, a Friday mosque, a municipal center, cafés, a library, a sports club, an existing park, and school facilities.

While the houses in each of the three sub-neighborhoods are arranged in an intimate manner around a nursery school and a small mosque complex, they form a residential enclave, or quarters, each with a small open space. To create an interesting visual composition, the housing lots are arranged in several compositions such as zigzagged, interrupted, staggered, and recessed. Most of the local streets are private and are designed to form dead-ends or cul-de-sacs, serving only a limited number of houses.

Discussion of Comparative Analysis

When comparing the cases from the three cities, Seattle has well-maintained neighborhood open spaces, most of which are supported by playgrounds, vegetation, and seats. The neighborhood of Cherry Hill also has more formal open spaces distributing in different areas. Among the five formal public open spaces identified, three are mini-community parks, one of which has a relatively large green space as a dog park connecting to the playground. Two smaller open spaces are corner pocket parks located along East Madison Street, the northern boundary of the neighborhood. The surrounding university and high school campuses offer additional open spaces that can potentially support the neighborhood needs. Most observed public activities occur within those formal public open spaces, while very few informal open spaces are identified.

Xia Maling, Xi'an only presents two small open spaces with limited greeneries within the neighborhood. The two open spaces are small and humble, shaped by wide street sidewalks and are equipped with simple and inexpensive recreational facilities for adult use. Both spaces are also gradually taken over by rapid increasing needs of additional parking spaces. There are multiple private open spaces that are not open to the public uses. Due to the lack of formal open spaces, local residents attempted to develop available spaces from informal settings such as street sidewalks and alleyway intersections. The nearby city park outside of the neighborhood is also a main destination for many residents.

Adailiya, in Kuwait City, presents one main formal open space (the central neighborhood park) that is well designed and maintained. Other open spaces are smaller and dispersed throughout the sub-neighborhoods and can hardly support communal activities due to the lack of vegetation and playground features. Such open spaces are mainly located near the sub-neighborhood amenities or nursery schools without clearly defined boundaries or edges, which transform these small open spaces into informal parking spaces for cars.

Proximity

The comparison of proximity has demonstrated different focuses of life patterns in the three cases (see Table 1). In Seattle, children's playgrounds are always close to most homes, and there is the only dog park among all three cases. That reflects family activities in Seattle are strongly associated with children and pets. In Xi'an, recreational facilities for senior populations become the main feature of formal public open spaces, which reflects that old people in Xi'an spend more time doing physical exercises outdoor, and they are the primary users of the formal open spaces. In Kuwait City, a centralized formal public open space is located close to major neighborhood amenities, such as a grocery store, a café shop, and large parking lots, equipped with multiple facilities for various family activities. This indicates the use of formal public open spaces in Kuwait is

usually associated with other amenities. Hence, the trip to the open spaces tends to be a family journey.

Seattle – For most residents, except a small number in the southwest corner, they can easily find multiple neighborhood formal public open spaces within 500 meters distance from home. For all open spaces, a bus stop or station is always within 150 meters distance. Although all of those open spaces only provide limited amenities such as playground or seats, most surveyed residents (62%) still report that they mainly use the open space within the neighborhood. A little higher percentage of surveyed residents (68%) consider the formal public spaces are well distributed within the neighborhood, and they do not have a strong need to be out of the neighborhood for open spaces.

Xi'an – Around 88% of respondents disagree the neighborhood open spaces are well distributed for accessibility. Also, the lack of public transportation services within the neighborhood increases the difficulty of accessibility. Although the two identified formal open spaces are located in the center of the neighborhood and can be accessed within 500 meters from most homes, they are too humble to be popular to meet local residents' needs. Most respondents (75%) walk about 600 - 900 meters to the city park outside of the neighborhood, which offers larger spaces, more greeneries, better maintenance, and more diverse spatial features for different activities. A significant number (67%) of respondents consider the city park and the informal open spaces along neighborhood arterial streets are their most preferred open spaces.

Kuwait City – Within the neighborhood, there is a central neighborhood center, which includes a neighborhood park, a grocery store, and several other public amenities. The location of this neighborhood center is on the west side of the neighborhood, far away (more than 500 meters) from most homes. There are several open spaces within 500 meters, but they are all small and are not well developed. Car parking takes typically over those small open spaces. Therefore, 70% of the respondents decide to not use those small open spaces despite the close distance. The majority of respondents (65%) report the central park is their most preferred open spaces.

Table 1 the comparison of proximity among the three cases

Proximity	Seattle	Xi'an	Kuwait City
Travel Distance	≤ 500m	700-900m (more) ≤ 500 m (some)	≥ 500 m
Distribution of Public Open Spaces	Good	bad	bad
Use open spaces within the Neighborhood	62%	18%	55%
Use open spaces outside the Neighborhood	28%	75%	35%

Physical & visual connections

Table 2 summarizes the findings of the comparison of physical and visual connections among the three cases. Seattle – The street layout of the three neighborhoods influence the physical and visual connections to the neighborhood open spaces. In Cherry Hill, Seattle, the neighborhood streets are

organized in a well-developed grid plan. Most building blocks are in a size of 150 meters × 100 meters. All formal open spaces occupy a half or a large corner of one building block. This allows those open spaces to be easily accessed by walking from all directions and viewing the streets. 72% of the respondents consider their homes are well connected to open spaces. However, no major visual feature is placed within all the open spaces, making low visual connection to the surroundings. Most respondents (65%) report the lack of visual connection does not influence their uses of the open spaces.

Xi'an – Walking is used as the dominant travel means to the public open spaces no matter their locations within or outside of the neighborhood. The street layout of Xia Maling is relatively complicated as it combines traditional street systems with curvilinear loops so that the navigation to two identified open spaces is hard for someone who does not know the neighborhood well. The two public open spaces are developed from enlarged sidewalks, which limit their sizes and scales. Their locations are also problematic: one is at the west side of a neighborhood arterial street, and the other is located at a dead-end of a street. The lack of east-west street within the neighborhood makes it hard to travel to the two spaces from the east and west. Cars parking along the streets and temporary buildings have blocked the views towards the two spaces from the streets. 72% of respondents (72%) consider the two open spaces are not well connected to their homes. But they do not consider the connection is a major problem – 65% of respondents report their purposes of using open spaces are for physical exercises. They do not mind walking a longer distance to the city park as walking is a way of physical exercise.

Table 2 The comparison of physical & visual connections among the three cases

Physical & Visual Connection	Seattle	Xi'an	Kuwait City
Neighborhood Street Layout	Grid Street Plan	Traditional Street + curvilinear loops	Modified Grid Street Plan
Spatial layout of formal public spaces	A portion of a building block	Enlarged sidewalks	Centralized park
Presence of other amenities within the formal public open spaces	no	no	yes
Presence of informal open spaces	no	yes	no
Visual feature	weak	weak	strong
Nearby public transportation	yes	no	no
Easiness of accessibility	Yes by walking or driving	No	Yes for driving No for walking

Kuwait City – The neighborhood's streets are developed in the modified grid street plan that facilitates more car traffics than walking. The central park is close to a major neighborhood grocery store and a café shop with a large parking space, which also makes it easy for car traffics. The location of the central park makes it far away from homes in the east, south, and southwest corners of the neighborhood. Therefore, most respondents (70%) go to the park by driving. However, as a part of the centralized neighborhood center, the park has several visual features that establish a certain level of visual connection when residents approach the neighborhood center.

Street /Sidewalk Type

Seattle – Streets and sidewalks in Cherry Hill, Seattle reflect the usual characteristics of streets in a residential neighborhood: consistent scale and size with 1.5 meters to 2 meters width and well vegetation. The main use of the sidewalks is walking and biking. Few businesses and vendors are observed along the streets. There is no observed active street life.

Xi'an – Streets and sidewalks demonstrate a very different pattern in Xia Maling, where their sizes and scales vary significantly, and there are a lot of food vendors, businesses, and public interactions. Along major arteria streets, food vendors and companies generally occupy a part of sidewalks to offer additional service spaces. Local residents also often take advantage of larger sidewalks to set a small place to play cards or mahjong, a traditional game. In the meantime, car and bike parking take over some sidewalks. All of those have transformed the streets and sidewalks into informal open spaces for active public activities. All respondents report that they have engaged in certain kinds of public interactions in the streets and sidewalks.

Kuwait City – Although most residents drive their cars to access the centralized park, the neighborhood streets and sidewalks are not well developed and maintained. There is no clearly defined sidewalk, and the scale and size of streets vary significantly. It is dangerous to walk within the neighborhood, as many streets have no barrier between car traffic and pedestrians. No business or vendor can be found along the streets. All of those contribute to the unfriendly and uncomfortable walking environment. Consequently, car driving is the primary means of traveling over walking.

Table 3 The comparison of street /sidewalk types among the three cases

Street & Sidewalk	Seattle	Xi'an	Kuwait City
Street Variations	low	high	high
Major Street activities	Walking	Walking + food + business + entertainment	Driving
Presence of Business along street /sidewalks	no	yes	no
Presence of informal open spaces	no	yes	no
Public life in street/sidewalk	weak	strong	weak
Street/sidewalk Condition	good	vary	bad
Usage of street	Moderate	High	Low

CONCLUSIONS

The comparison of the three cases demonstrates physical qualities of neighborhood open spaces have played a significant role in the uses of the open spaces disregarding cultural differences. In Seattle, for example, the neighborhood open spaces' sufficient size and scale as well as close distance to home, encourage residents' use of open spaces within the neighborhood. In Xi'an, the limited size and humble conditions of the open spaces drive residents to seek alternative places for replacements, either take some available places within the neighborhood such as street sidewalks, or some places outside of the neighborhood. In Kuwait, the location of the open spaces with sufficient parking lots promotes car-based accessibility.

In the meantime, the results of this study also indicate that the use of neighborhood open spaces is not fully determined by their physical qualities and is highly adaptable according to the priority given by the residents. For example, the case of Xi'an has the poorest physical conditions of open spaces among the three cases, but it has the highest level of public activities by transforming the streets into informal open spaces.

The active use of neighborhood open spaces also relies upon the participation of certain amenities. The Xi'an and Kuwait City cases integrate different amenities, such as food vendors & small businesses at Xi'an and a grocery store, and a café shop at Kuwait City has more active uses of their open spaces than the case of Seattle where the open spaces have better physical qualities.

Besides, different cultural practices and lifestyles produce different users and focus on neighborhood open spaces. The central amenity of open spaces in Seattle is playgrounds, which shows children are the primary users of neighborhood open spaces. Also, a dog park, the only kind facility observed among the three cases, highlights that pets are an integrated part of the family. In Xi'an, the presence of adult's recreational equipment as the only amenity within the open spaces shows the senior population's need is the priority, and they are the main users of the open spaces. In Kuwait City, the multiple features of the open space and its location close to a grocery store demonstrate its family-oriented use. All of those are generated by different cultural practices: in Seattle, family life is typically associated with children and pets; In Xi'an, food is an important part of residents' daily lives; and In Kuwait City, everyday life is always about the whole family.

REFERENCES

Al-Nakib. (2016).

City of Seattle. (2016A). *Growth Strategy – Mayor's Recommended Plan.* Retrieved from Seattle 2035 Growth Strategy:
https://www.seattle.gov/documents/Departments/OPCD/OngoingInitiatives/SeattlesComprehensivePlan/Seattle2035_GrowthStrategy.pdf

City of Seattle. (2016B). *Private Owned Public Spaces.* Seattle: City of Seattle.

City of Xi'an. (2018). *Basic Faces about the Xia Maling Neighborhood.* Retrieved from City of Xi'an : http://xasqw.com/web/CommunityCommitteeMenu.aspx?id01=4477

Erkip, F. (1997). The Distribution of Urban Public services: the Case of Parks & Recreational Services in Ankara. *Cities, Vol.14, Issue 6,* 353-361.

Gehl, J. (2011). *Life between Buildings: Using Public Space, .* Washington D.C.: Island Press.

Lefebvre, H. (1992). *The Production of Space.* Oxford, UK: Blackwell Publishers Ltd. .

Nextdoor. (2010). *Cherry Hill, Seattle Demographics.* Retrieved from https://nextdoor.com/neighborhood/cherryhillseattle–seattle–wa/

Oldenburg, R. (1999). *The Great Good Place: Cafes, Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community.* New York: Marlowe & Company.

Pasaogullari, N., & Doratli, N. (2004). Measuring Accessibility & Utilization of Public Spaces in Famagusta. *Cities, Vol.21, No.3,* 225-232.

Project for Public Spaces. (2011). *What Makes a Successful Place?* Retrieved from Project for Public Spaces – What is Placemaking: https://www.pps.org/article/grplacefeat

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

Shiber, S. G. (1964). *The Kuwait urbanization; documentation, analysis, critique.* Kuwait: Kuwait Government.

Talen, E. (2000). Measuring the Public Realm: A Preliminary Assessment of the Link between Public Space & Sense of Community. *Journal of Architectural & Planning Research Vol.17, No. 4. ,* 344-360.

Todorova, A., Asakawa, S., & Aikoh, T. (2003). Preferences for and attitudes towards street flowers and trees in Sapporo, Japan. *Landscape and urban planning,* 403-416.

Ulrich, R. (1993). Biophilia, biophobia, and natural landscapes. In S. Kellert, & E. Wilson, *The Biophilia Hypothesis* (pp. 73-137). Washington DC: Island Press.

US Census Bureau. (2019). *Fastest-Growing Cities Primarily in the South and West.* Retrieved from US Census Bureau Newsroom: https://www.census.gov/newsroom/press-releases/2019/subcounty-population-estimates.html

Van den Berg, A., Vlek, C., & Coeterier, J. (1998). Group Differences in the Aesthetic Evaluation of Nature Development Plans: A Multilevel Approach. *Journal of Environmental Psychology ,* 141-157.

Whyte, W. (2000). *How to Turn a Place Around: A Handbook for Creating Successful Public Space.* New York: Project for Public Spaces.

Yu, K. (1995). Cultural Variations in Landscape Preference: Comparisons among Chinese Sub-groups and Western Design Experts. *Landscape and Urban Planning Volume 32, Issue 2,* 107-126.

CORRESPONDING AUTHOR

Mohammed Alajmi, Head of the Department of Architecture, College of Architecture, Kuwait University, Kuwait.
mohammed.alaajmi@ku.edu.kw