

Sense of Community in Gated Communities in Doha: The Case of Al-Ein Compound in Ein Khaled Neighborhood

El-Shaimaa El-Ekhteyar, Raffaello Furlan*

College of Engineering, Department of Architecture and Urban Planning, Qatar University, State of Qatar

Abstract Neighborhoods are designed to contribute towards establishing and maintaining community bonds. Gated communities, a recognizable form of housing developments in the Gulf Region, have an impact on neighborhoods and cities' livability-namely on the quality of life of residents. In the city of Doha, gated communities are widely diffused and considered as one of the most common types of housing, which greatly influence residents' social interactions. This research study aims to investigate the sense of community in Al-Ein compound in Ein Khaled neighborhood. Oral and Visual data was collected through (A) in-depth interviews with residents and (B) site visits, observation and photographs of the compound's physical settings. The findings reveal that the sense of community measured in Al-Ein compound is high due to the robust community's ties and connections among residents. Also, the findings provide guidelines to policy makers, urban planners and designers for the implementation of residential compounds' settings in Doha.

Keywords Gated Communities, Sense of Community, Residential Compound, Social Interactions, Doha

1. Introduction

The concept of gated communities is not a contemporary invention in urban design. Walled cities existed throughout history, serving purposes of security, safety and prevention of easy access to the city. Modern walled communities remerged in the 1980s in several world-wide cities as forms of residential accommodation. Since 1990s, the process of segregating population within individual communities has drastically accelerated due to the immense increase in the social and economic differences. As a result, nowadays, gated compounds are a world widely common form of residential community, namely in large cities (Furlan and Petruccioli 2016; Remali, Salama et al. 2016).

Atkinson and Flint (2004) indicate that in recent years there has been a significant interest in privatized public spaces in the form of 'gated communities' or 'fortified enclaves'. As a common urban typology, gated communities have significant influence on the urban form and function of cities and neighborhoods, as well as people activities and way of life. Ajibola et al (2010) suggested that spatial fragmentation and separation in cities is an expected result of the security and financial implications of gated communities. Gated communities offer social exclusion, safety, security and sense of community by their surrounding walls, which lead to urban fragmentation and separation.

Gated communities in the Gulf region are one of the most common and recognizable forms of housing developments. Qatar is one of the safest counties in the world according to the new international index that assessed 70 nations based on factors such as unemployment, crime levels, and being at risk for global attacks (Salama and Wiedman 2013; Wiedmann, Salama et al. 2014). However, in Doha, this housing typology is quite dominating in the city (figure 1-2). Gated communities, commonly built by private developers, host governmental and private companies' employees. According to census 2012, the city of Doha encloses more than 120 gated communities. In addition, several residential compounds are under construction. This is due to the rapid development that Qatar has witnessed during the last 20 years, which has severely changed the demographics, economics and lifestyle and social life in Qatar (Fromherz 2012; Furlan and Faggion 2015; Furlan and Almohannadi 2016; Furlan and Zaina 2016). The increasing percentage of expats in Doha has led to a diverse and fragmented demography in the city (Rizzo 2014; Kovessy 2015). Therefore, gated communities have become popular dominant housing form in Qatar: residents in Qatar prefer gated communities because of the provided private, pleasant and safe environment.

The exclusive amenities and services, such as swimming pools, children playgrounds and various recreational facilities, provided within residential compounds are the attracting features of gated communities in Qatar. Moreover, roads of gated communities are safe for the children to play on, due to the controlled speed, which creates a safe environment against car speeding threats (Furlan and

* Corresponding author:

raffur@gmail.com (Raffaello Furlan)

Published online at <http://journal.sapub.org/sociology>

Copyright © 2016 Scientific & Academic Publishing. All Rights Reserved

Petrucchioli 2016). Therefore, this research study aims at exploring within this type of housing form in Qatar (A) the extent to which residents in Al-Ein compound, in Ein Khaled neighborhood (figure 3-4), experience a “Sense of Community” and (B) at providing guidelines for the implementation of the urban design of residential compounds in Qatar. In turn, the revealed findings might support planners and designers to design residential environments where social interactions are encouraged and consequently the sense of community and the well-being of the residents are implemented.

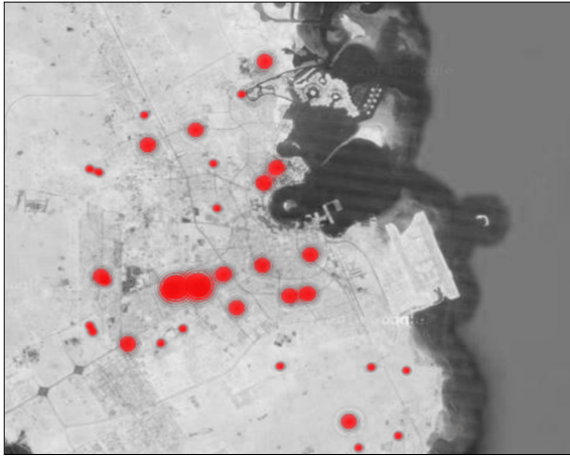


Figure 1. Distribution of gated communities in Qatar (Qatar map, 2012)



Figure 2. Map of Al-Ein compound in Ein Khaled neighborhood (Google Earth)



Figure 3. Ain Khalid's Main Gate



Figure 4. Ain Khalid's housing facing the main road



Figure 5. Ain Khalid's housing on the main road



Figure 6. Ain Khalid's open space

2. Literature Review

Sense of Community

Scholars refer to sense of community as one of the indicators of the quality of life in social classes. It can be identified as the first simplest gathering beyond the family, which is conscious of local unity and has social significance (Ashok Kumar 1973; Fried 1984; Blanchard 2008). A sense of community is related to the binder given by the members of the society to others in the community, which tolerates significance on sense of safety and belonging (Rogers and Sukolratnametee 2009).

The sense of community represents an essential factor in a neighborhood, which contribute to enhance the sense of security and reduce crime opportunities within the

community (Austin, Furr et al. 2002). The environmental factor is one of the fundamental factors that influences and motivate the community's relationships (Talen 1999). Uzzell, Pol and Badenas (2002) reveal that social and the physical environment's components can strengthen the relationships among the residents who use the community spaces in two Guildford neighbourhoods. Through their studies, Uzzell et al (2002) reveal that more than 70% of the respondents preferred the Onslow to the Stoughton neighborhood, namely in terms of physical image. Rogers and Sukolratanamete (2009) argue that the sense of community would be enhanced by an attractive physical environment since the spaces provided and created in the neighborhood would maintain and improve the social integration. McMillan and George (1986) define these spaces as well-defined boundaries that enable good community interaction and networking. Residential areas with ecological designs are found to have a higher sense of community, as found in previous researches developed at four suburban-metropolitan neighbourhoods in Houston (Rogers and Sukolratanamete 2009). Ecological design that is identified by pedestrian walkways and mini-parks is believed to encourage outdoor activities and interactions in the space provided. Those activities and interactions lead to higher sense of community and social networking compared to neighborhood with less or no outdoor activities (Rogers and Sukolratanamete 2009).

Talen (1999) identifies five main elements of the physical environment, which are argued to improve the community relationships and interactions: site design, architecture, scale and density, streets, mixed land uses and public spaces. Site design and architectural-spatial form promote social interactions: residents are motivated to leave their private environments and to be involved in activities within outdoor areas. The density and scale are referred as the sense of community that is produced by maintaining well-defined, small-scale, neighbourhoods with clear center and clear boundaries. Well-designed streets can encourage street life, because any increase in the pedestrian activities would enhance the community ties and promote a better sense of place. Public spaces also provide significant venues for community members' gathering, which, in turn, strengthen community bonds. The public gathering spaces in neighbourhoods are the main communication places and act as the heart of the community.

Lastly, as mentioned by Jan Jacobs (1961), mixed land uses is the mixture of residential and commercial land uses that would create multipurpose space in which lingering is encouraged. This would create a "*repetitive chance encounters*" settings that build and enhance community bonds. Therefore, the physical gated features contribute to influencing the relationships of the community members and their daily interactions (Sakip 2012).

Atkinson and Blandy (2005) argue that the gated elements of the gated communities leads to loss in social diversity in the neighbourhoods that causes a social segregation. This kind of social segregation is built based on social classes.

Roitman (2005) stated that the residents of such gated communities share similar characteristics regarding their productive activities and thus, have similar economic resources due to similar established skills and also share similar behaviours regarding patterns of consumption. This is referred to as the concept of social class. Thus, Serife (2007) as well as Blandy and Lister (2005), state that in gated communities the sense of community is higher than in non-gated community. This research study aims at investigating the sense of community in gated communities based on the indicators identified through the literature review.

Sense of Community Indicators

The sense of community can be measured by the community's successful functioning and the community members' feelings as it leads to the satisfaction with the community. There are four dimensions adopted by McMillan and George (1986) to measure the sense of community. The first dimension is the membership which includes (A) emotional safety, (B) involving boundaries, (C) right to belong, (D) personal investment and (E) a common symbol system. The second dimension is the influence related to group conformity. Integration and fulfilment of needs is the third dimension that is mainly concerned with the importance of the relationships in the community, perceived to motivate the creation and the maintenance of co continuous feeling of esprit de corps. The last dimension is the shared emotional connections or the interaction which involves: shared events, and tied into the psychological aspects of sense of community, as opposed to other affective notions. The sense of community is measured using three indicators questionnaire. The dimensions of the sense of community is measured by 1 to 10 ranking scale whereby scale 1 is "Highly Disagree" and scale 10 "Highly Agree" as shown in figure 7 (Sakip 2012).

Gated Communities Definition

There is no agreement on the definition of the term "*gated communities*". Terms such as "*gated communities*", "*gated enclaves*", and "*enclosed neighbourhoods*" are usually used to refer to this phenomenon, while the real estate market refers to is as "*residential compounds*", and "*housing compound or complexes*" (Sakip 2012). Blakely and Snyder (1997), established a general definition of gated community as "*the privatized physical areas with controlled entrances where insiders and outsiders exist*". Grant and Mittelsteadt (2004), suggested another definition for gated communities as "*a residential development on private enclosed roads from general traffic by gates across primary accesses. Fences, walls, or other natural barriers may surround the development that further limits public access*".

Nowadays, modern forms of gated communities are residential communities or housing developments that contain strictly-controlled entrances for pedestrians, bicycles, and vehicles, and usually surrounded by a closed perimeter walls and fences. Gated communities often contain small low speed residential streets and include shared amenities

and facilities. In small communities this might be limited to a park only or other common areas while in large communities, residents may possibly stay within the communities for most of their day-to-day activities. The level of amenities, exclusivity and security differs depending on different types of communities.

Scholars have established their own typologies on the basis of significant insinuations of gated communities. Blakely and Snyder (1997) classified gated communities into three main typologies: (A) communities that focus on recreational facilities with leisure activities, (B) common amenities, and (C) shared services at their centre. Lifestyle communities might contain golf communities, retirement villages, or suburban new towns. Gated communities usually serve as prestige symbols of status and wealth image-conscious residents where gates and fences prevent the public from seeing the inside residents. Lastly, gated communities close off public streets to non-residents. This is a reflection of the fear from the outsiders who usually disrupt neighbourhoods. Grant and Mittelsteadt (2004) defined eight factors that distinguish gated communities from ordinary neighborhood communities to include security and barriers features, functions of enclosure, facilities and amenities included, residents type, location, size, tenure, and policy context.

Gated Communities in Doha and the Gulf Countries

In Middle Eastern countries, especially in the GCC countries and/or KSA, a new type of gated communities may be found (figure 8). This building type aims at providing expatriate residents with a similar lifestyle of their homeland so they can freely practice their daily activities within the compound. Commonly, outsiders are prohibited to enter these communities because of their incongruity to the residents' lifestyle, which might not comply with local traditions or laws.

Residents must respect the laws and traditions of the country beyond the gates of the community, which might be difficult for most of the expats coming from different backgrounds. The reasons behind propagation of gated communities in Qatar are not the security nor lifestyle and prestige. Merchants' families like Darwish and Al Manna were the first who introduced and built compound or gated residential developments in Qatar in early or mid-1940s. On the coast line of Doha, in 1947, Doha had established different compounds for the major merchants of Doha. These compounds were directly linked to the Gulf where their goods were landed. Then the idea of the gated communities flourished from the sea shore towards the south east where more gated communities developed with walls in the construction of Sheikh Abdullah bin Jassim compound in freej Al- Salata, freej Al- Salata and freej Al- Hitmi.

Indicators	Description of instrument	Scale
Membership	I can identify most of the residents here.	1= Strongly disagree
	Most of the community knows me.	10= Strongly agree
	I always participate in community activities organised by the community association.	
Influence	I look after my neighbours' children/plants/pets when they go on vacations.	1= Strongly disagree
	I value my neighbour's/community's views or comments.	10= Strongly agree
	Whenever there are problems in this residential area, they are solved by the community.	
Integration and fulfillment of needs	I feel that I am one of the community members in this residential area.	1= Strongly disagree
	I can trust the community here.	10= Strongly agree
	I feel this residential area is good to live in.	
Shared emotional connection	I am happy living among the community in this residential area.	1= Strongly disagree
	The community here always share important events such as birthday parties, weddings, festivals (Deepavali, Hari Raya and so on).	10= Strongly agree
	The community here care about each other.	

Figure 7. Sense of Community Indicators

In the 1950s, the concept of fencing and surrounding the extended families' houses with walls spread over different districts in Qatar like Al-Rayyan and Alwakrah. During the same period of time, many international oil companies arrived and, as a result, Qatar witnessed migration of labour forces to Qatar. This represented a great opportunity for merchants: huge profits were gained by supplying labors-force, water, and goods to new oil companies (Lockerbie 2005; Jaidah and Bourennane 2009; Jodidio and Halbe 2015; Qatar 2016).



Figure 8. Gated communities on the sea front of Doha back in 1950 (Lockerbie, 2005)

Residential gated communities were provided to the labors employed in oil companies, allowing them to freely practice daily activities as per their lifestyle, and without any intrusion from outsiders. In other words, the flourishing of gated communities in Qatar or, in residential market terminology '*housing compounds*', was caused by the exploitation of the merchants to make profit from rental revenues from those communities. Gated communities spread all over different districts of Qatar because of the economic development in the country and the growth of businesses that involved the increase in migrate labour forces to Qatar (Lockerbie 2005; Jaidah and Bourennane 2010). Furthermore, construction companies and real estate markets had their own influence in constructing and increasing the number of these residential gated communities to make more profit. Even though there is always a call to build more gated communities in Qatar to meet the need of the growing demand for housing, a surprising statistics announced that there are more than forty eight thousand vacant housing units in gated communities, which represents about 18% of the total buildings in the country (Khodr, 2011).

There are many different views of people and professionals about (A) the reasons behind the increased number of vacant units, concurrently to (B) the continuous need for building new residential developments. Units are sometimes vacant cause of the compounds' inconvenient locations and/or within remote areas lacking public services. Moreover, owners refuse to devalue their properties and to reduce rentals (Khodr 2011). At the same time, many of the stakeholders and investors in Qatar do not care about the idea of integrating different groups of people in the community. Locals, on one hand, do not prefer to live in commercial

residential units, since they would live in their own private independent villas rather than townhouses located in compounds. On the other hand, expats tend to live in with people who share similar type of lifestyle in gated communities: such communities provide them (A) with a friendly environment as they feel they are free to socialize and carry on their daily activities, and (B) many facilities and amenities that reduce daily travel distances.

3. The Research Design

To facilitate the collection of detailed data, qualitative interviews were conducted in order to evaluate the experience of residents living in gated communities (Zeisel 1975; Zeisel 1984; Creswell 1994; Denzin and Lincoln 2005; Dunn 2005; Charmaz 2006; Marshall and Rossman 2010). The quantitative approach of surveys would not have contributed towards a deep understanding of the residents' living experience. Moreover, for this research study, the qualitative approaches are more sensitive to capture the insights from people experiences (Minichiello, Browne et al. 2000).

In-depth interviews, focused or semi-structured, enabled the researcher to explore, access and understand the events and activities that might not be directly observed by the researcher (Minichiello, Browne et al. 2000). In this research study, the method adopted by Satha Low, an American anthropologist, was followed. In her study, she documented the existence of the urban fear by studying gated communities in America and Mexico. As part of her research, she interviewed residents of gated communities in San Antonio, Texas (Low 2001).

The Selected Case Study: Al-Ein Compound

This research study aims to investigate the sense of community in Gated Communities in Doha, Qatar. It explores the perception of gated communities by the residents and whether these communities have satisfied residents' social needs. For this research study, Al-Ein compound in Ein Khaled neighborhood is selected as the case study, being Ein Khaled a neighborhood containing a high number of residential compounds in Doha.

The compound was constructed in 2012 for employees of Hamad Medical Care. However, it is now open to the public - only 20% of the buildings are leased to Hamad Medical Care staff. The demographic of the residents of Al-Ein compound varies in terms of nationalities, religions and family size. The compound has one main controlled entrance with security guards and cameras. It is surrounded by walls from all sides. The access to the development is controlled and limited to residents and visitors only. Al-Ein gated community contains 110 attached villas on thirty seven thousand square meters. It includes numbers of amenities that serves its residents and provide them with the basic needs, reducing users' everyday travels outside the gated community. The available amenities in Al-Ein compound enclose a mosque, kindergarten, laundry, supermarket and a clubhouse that contains a

multi-purpose hall, male and female gym and a cafe. The outdoor amenities include children playground and two swimming pools, one for kids and one for adults (figure 3-4-5-6).

Interviews with Gated Community Residents

A total of twenty interviews were held with residents of Al-Ein compound. To ensure the privacy of the residents, all interviewees' names have been coded. The interviews were structured with open ended questions investigating four main topics, central to the research question: (A) the motivation behind moving to gated community, (B) the living experience in the gated community, (C) the relationship with other residents and (D) the measuring of the sense of community.

The interviews, scheduled to elicit the maximum range of response, were structured into three parts: (A) opening or beginning, (B) topical section or middle, (C) closing or open-ending. The interviewees residing in the compound were interviewed along November 2016's four weekends, in the park of the gated community, in order to avoid distress and discomfort for the residents. In total, twenty respondents participated: 75% of which were females, 15% males and 10% children. In terms of ethnicity, the dominant respondents were Muslims non-Qatari Arabs. 90% of adult respondents were married. In addition, visual material such as maps and photographs, collected through site visits and observation, were reviewed to obtain secondary data.

4. Findings

The Motivation behind Moving to Gated Community

The findings reveal that interviewees residing within the compound are not basically attracted to gated communities just for security reasons. Rather, they are motivated to move to gated communities because of the so-called "package", consisting of number of facilities, location and the bundle of benefits, which includes security. Interviewees stated that living in gated development had diverse benefits, such as sense of community and belonging, better designed urban amenities, enhanced feelings of safety and security.

Although, the majority of the respondents consider Doha as a safe city with low rates of crime, they appreciate the security provided within gated communities. Also, the security feeling is related to the increased road safety because of the reduced traffic, and thus the suitability of such communities for children not needing constant adults' supervision.

The Living Experience in the Gated Community

The living experience in gated communities is described by residents as a resort-style living. Residents have access to many facilities, to which they could not afford otherwise, such as a swimming pool and/or a tennis court. Such facilities are shared and free-access within the compound. The availability of different facilities in gated communities contributes to enhance quality of life and well-being of

residents.

Residents highlighted that daily activities performed with their neighbors, such as gathering in front of their houses, breaks the routine of their day and help them to relax. Moreover, the provision of constant maintenance to the buildings facilitates an easier lifestyle as residents do not have to think about it.

In addition, the availability of children activity areas adds to the livability level of the gated community. Most interviewed residents stated that they moved to gated community because of the safe and relaxing entertainment areas dedicated to children within the compound.



Figure 9/10. The Social Gathering Area-Children playground and the Swimming Pool Source: author

The Relationship with Other Residents

The relationships among the residents of the community is one of the determiners of housing satisfaction as strong social relations can reduce the desire to move and enhances the sense of belonging. 80% of the respondents stress the relatively strong relationships with their neighbors and some of them consider their neighbors as close friends. A few respondents state that it would be difficult for them to move from the gated community cause of the acquired friendships, which contribute to enhance a sense of security within the compound. The good relations among the residents also enhance the corporation: residents try to help and support

each other whenever needed. Moreover, the relationships that are established in gated communities improve the residents' health, especially for female residents. 66.6% of the female respondents stated that they started exercising regularly since they have moved to gated community. Similar results were found among children participants who elaborated that they have strong friendship with their neighbors as they play, exercise and study together (figure 9-10).

Measuring Sense of Community

The sense of community was measured by asking the residents to rank, on a scale from 1 to 10, the sense of community indicators, which contains four main dimensions: (A) Membership, (B) Influence, (C) Integration and fulfillment of needs and (D) Shared emotional connection.

The Membership dimension was measured by asking three statements: *'I can identify most of the residents here'*; *'Most of the residents know me'*; and *'I always join in community activities organized by the community members'*. The average score of the membership dimension is 6.5.

The influence dimension was measured by ranking three statements: *'I care for my neighbors' children/pets/plants when they go on holidays'*; *'I appreciate my neighbors' views or comments'*; and *'the community solves the problems in this residential area'*. The influence dimension scored an average of 5.32.

The integration and fulfillment of needs dimension was measured by ranking statements: *'I feel that I am a member of the community in this residential area'*; *'I can trust the community I live in'*; and *'I feel this gated community is good to live in'*. This dimension recorded the highest score among all dimension of 7.3.

The last dimension is the shared emotional connection, which was measured by ranking three statements: *'I am happy because I living among the community in this gated community'*, *'the community members always share important events such as birthday parties, weddings, festivals'* and *'the residents of the community care about each other'*. This dimension scored an average of 6.32. Finally, the sense of community in this gated community scored an overall average of 6.36.

Lastly, residents were asked to describe the social activities performed outside the gated community. 93% of the respondents state that do not have any social activities outside the walls of the gated community and they prevent their children to get out of it. Although, the sense of community measured in the gated community is considered to be quite high, when compared to other studies. Gated communities provide various degrees of expanded social life. The lack of well-designed neighborhoods in Doha with proper public urban space encouraging residents to interact and to socialize has led to popularity of gated community as housing typology. Therefore, gated communities are considered to be the consequence and sometimes the cause of urban fragmentation.

5. Conclusions

Qatar has witnessed during the last 20 years a rapid development (Furlan, Eissa et al. 2015; Furlan and Faggion 2015; Furlan and Faggion 2015; Furlan 2016; Furlan 2016). The increasing percentage of expats in Doha has led to a diverse and fragmented demography in the city (Salama and Wiedman 2013). Therefore, gated communities have become popular dominant housing form in Qatar (Furlan and Petruccioli 2016). There are more than 120 gated communities according to census 2012 (Qatar Map, 2012) and this number is continuously growing.

Thus, it is important to study this type of housing form in Qatar (A) to explore the extent to which gated communities' residents experience *"Sense of Community"* and (B) to define strategies for the implementation of the physical settings in order to match the needs of residents.

Also, the findings reveal that neighborhoods should be designed to provide and offer the benefits of the gated communities in terms of security and well-designed amenities and public realm, which can encourage the social interactions among resident and, therefore, improve the sense of community in the whole neighborhood.

6. Implications for Practice and Advancement of Research

This section discusses the findings revealed from this research study and explores their broader implications for planning of residential compounds. Gated communities satisfy, in part, residents' needs for leisure facilities and for well-designed living environments. However, addressing the concerns of contemporary society's challenges, designers and urban planners can play an effective role in designing urban districts and/or communities, spaces and places which could encourage social interactions and cohesion among residents.

This research study indicates that there is a crucial need for planners and designers to provide proper alternatives to the current gated community residential settings. These alternatives should provide the residents' need of desirable local amenities, security, adequate traffic management and opportunities for social interaction (Grant, Greene et al. 2004). Through well-designed neighborhoods that contains all mentioned aspects, planners and designers would contribute to improving the sense of community and encouraging social interactions. Therefore, this could improve well-being of the wide community.

Urban Planners and policy makers should emphasize and focus their attention on the provision of public facilities, infrastructure and services, which could contribute to improving the public realm of neighbourhoods. Further research is auspicated to investigate the distribution of gated communities in Qatar and to explore the extent to which such communities should be linked to the neighborhood, namely

focusing on aspects such as cultural values and/or differences, ethnicity and religious belief.

ACKNOWLEDGEMENTS

The authors would like to acknowledge the support of Qatar University for creating an environment that encourages scientific research. This research study was developed as an assignment at the core-course '*Urban Design in Practice*' (MUPD-711, Fall-2016) for the Master in Urban Planning and Design Program (MUPD) and 'Adv. Spec. Top. I in Urban Planning' (PHUP751, Fall-2016) for the PhD program at Qatar University, College of Engineering, Department of Architecture and Urban Planning (DAUP), taught by Raffaello Furlan. The authors would like to express their gratitude to the leading planners and architects from the Ministry of Municipality and Urban Planning (MMUP), Ashghal-Public Works Authority for their collaboration, for participating in the meetings, handling relevant visual data and cardinal documents to the research aims and finally to discuss the conclusive results of this investigation. Finally, the authors thank the anonymous reviewers for their comments, which contributed to an improvement of this paper. The authors are solely responsible for the statements made herein.

REFERENCES

- [1] Ajibola, M. O. (2010). "Valuation inaccuracy: An examination of causes in Lagos Metropolis." *Journal of Sustainable Development* 3(4): 187.
- [2] Ashok Kumar, J. (1973). "Community and social interaction." *Built Environment* 2: 348-349.
- [3] Atkinson, R. and S. Blandy (2005). "Introduction: International perspectives on the new enclavism and the rise of gated communities." *Housing studies* 20(2): 177-186.
- [4] Atkinson, R. and J. Flint (2004). "Fortress UK? Gated communities, the spatial revolt of the elites and time-space trajectories of segregation." *Housing studies* 19(6): 875-892.
- [5] Austin, D. M., L. A. Furr, et al. (2002). "The effects of neighborhood conditions on perceptions of safety." *Journal of criminal justice* 30(5): 417-427.
- [6] Blakely, E. J. and M. G. Snyder (1997). *Fortress America: gated communities in the United States*, Brookings Institution Press.
- [7] Blanchard, A. L. (2008). "Testing a model of sense of virtual community." *Computers in Human Behavior* 24(5): 2107-2123.
- [8] Charmaz, K. (2006). *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis*. Thousand Oaks, CA, Sage Publications.
- [9] Creswell, J. (1994). *Research Design, Qualitative and Quantitative Approaches*. Thousand Oaks, California, Sage Publications.
- [10] De, B. C. A., J. Jan, et al. (1961). *Method of chemical sterilization of aqueous liquids containing bacteria or spores of bacteria*, Google Patents.
- [11] Denzin, N. K. and Y. S. Lincoln (2005). *Handbook of Qualitative Research*. London, Sage Publications.
- [12] Dunn, K. (2005). *Interviewing. Qualitative Research Methods in Human Geography*. I. Hay. Oxford, Oxford University Press: 79-105.
- [13] Fried, M. (1984). "The structure and significance of community satisfaction." *Population and Environment* 7(2): 61-86.
- [14] Fromherz, A. (2012). *Qatar: A Modern History*. Washington, DC, Georgetown University Press.
- [15] Furlan, R. (2016). "Modern and Vernacular Settlements in Doha: An Urban Planning Strategy to Pursue Modernity and Consolidate Cultural identity." *Arts and Social Sciences Journal* 7(2): 171-176.
- [16] Furlan, R. (2016). "Urban Design and Livability: The Regeneration of the Corniche in Doha." *American Journal of Environmental Engineering* 6(3): 73-87.
- [17] Furlan, R. and M. Almohannadi (2016). "Light Rail Transit and Land Use: An Integrated Planning Strategy for Al-Qassar's TOD in Qatar." *International Journal of Architectural Research-ArchNet-IJAR* 10(3): 170-192.
- [18] Furlan, R., B. Eissa, et al. (2015). "Neighborhoods and Social Interactions: The Case of Al-Najada Area in Doha." *American Journal of Sociological Research* 5(4): 119-133.
- [19] Furlan, R. and L. Faggion (2015). "The Development of Vital Precincts in Doha: Urban Regeneration and Socio-Cultural Factors." *American Journal of Environmental Engineering* 5(4): 120-129.
- [20] Furlan, R. and L. Faggion (2015). "The Souq Waqif Heritage Site in Doha: Spatial Form and Livability." *American Journal of Environmental Engineering* 5(5): 146-160.
- [21] Furlan, R. and A. Petruccioli (2016). "Affordable Housing for Middle Income Expats in Qatar: Strategies for Implementing Livability and Urban Form." *International Journal of Architectural Research-ArchNet-IJAR* 10(3): 138-151.
- [22] Furlan, R. and S. Zaina (2016). "Urban Planning in Qatar: Strategies and Vision for the Development of Transit Villages in Doha." *Australian Planner* Dec 2016: 1-16.
- [23] Geniş, Ş. (2007). "Producing elite localities: The rise of gated communities in Istanbul." *Urban studies* 44(4): 771-798.
- [24] Grant, J., K. Greene, et al. (2004). "The planning and policy implications of gated communities." *Canadian Journal of Urban Research* 13(2): S70-S70.
- [25] Grant, J. and L. Mittelsteadt (2004). "Types of gated communities." *Environment and Planning B: Planning and Design* 31(6): 913-930.
- [26] Jaidah, I. and M. Bourennane (2010). *The History of Qatari Architecture 1800-1950*. Italy, Skira.
- [27] Jodidio, P. and R. Halbe (2015). *The New Architecture of Qatar*. New York, Skira Rizzoli.

- [28] Khodr, H. (2011). "The dynamics of international education in Qatar: Exploring the policy drivers behind the development of Education City." *Journal of Emerging Trends in Educational Research and Policy Studies* 2(6): 514-525.
- [29] Kovessy, P. (2015). "Report: Demand for Affordable Housing in Qatar to Remain High in 2015." from <http://dohanews.co/report-demand-affordable-housing-qatar-remain-high-2015/>.
- [30] Lockerbie, J. (2005). 2012. The old buildings of Qatar. Old Qatar 01.
- [31] Low, M. (2001). "The Edge and the Center: Gated Communities and the Discourse of Urban Fear." *American Anthropologist* 103(1): 45-58.
- [32] Marshall, C. and G. B. Rossman (2010). *Designing Qualitative Research*. California, Sage Publication.
- [33] McMillan, D. W. and D. M. Chavis (1986). "Sense of community: A definition and theory." *Journal of community psychology* 14(1): 6-23.
- [34] Minichiello, V., J. Browne, et al. (2000). "Perceptions and consequences of ageism: views of older people." *Ageing and Society* 20(03): 253-278.
- [35] Qatar, T. P. (2016). *The Peninsula Qatar*.
- [36] Remali, A. M., A. M. Salama, et al. (2016). "A chronological exploration of the evolution of housing typologies in Gulf cities." *City Territory and Architecture* 3(14): 1-15.
- [37] Rizzo, A. (2014). "Rapid Urban Development and National Master Planning in Arab Gulf Countries. Qatar as a Case Study." *Cities* 39: 50-57.
- [38] Rogers, G. O. and S. Sukolratanamete (2009). "Neighborhood design and sense of community: Comparing suburban neighborhoods in Houston Texas." *Landscape and urban Planning* 92(3): 325-334.
- [39] Roitman, S. (2005). "Who segregates whom? The analysis of a gated community in Mendoza, Argentina." *Housing studies* 20(2): 303-321.
- [40] Sakip, S. (2012). "Sense of Community in Gated and Non-Gated Residential Neighborhoods." *Procedia - Social and Behavioral Sciences* 50: 818-826.
- [41] Salama, A. and F. Wiedman (2013). *Demystifying Doha*. Uk, Ashgate Publishing Limited.
- [42] Talen, E. (1999). "Sense of community and neighbourhood form: An assessment of the social doctrine of new urbanism." *Urban studies* 36(8): 1361-1379.
- [43] Uzzell, D., E. Pol, et al. (2002). "Place identification, social cohesion, and environmental sustainability." *Environment and Behavior* 34(1): 26-53.
- [44] Wiedmann, F., A. Salama, et al. (2014). "Sustainable urban qualities in the emerging city of Doha." *Journal of Urbanism*: 1-23.
- [45] Zeisel, J. (1975). *Social Science Frontiers. Sociology and Architectural Design*. New York, Russell Sage Foundation.
- [46] Zeisel, J. (1984). *Inquiry by Design: Tools for Environment-Behaviour Research*. Cambridge, Cambridge University Press.