Placing social networks: A case study of female gated community residents in Bahrain

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A B S T R A C T

In the past half-century, the oil-producing states of the Arab Gulf have undergone rapid and radical socioeconomic transformations, with particularly prominent transformations evident in the areas of urbanization and migration. While gated housing developments for foreign white-collar professionals have become prevalent in the cities of the Gulf, little attention has been paid to the social dimensions associated with these developments. This article examines the local social networks of female residents of gated communities in Bahrain. Drawing on data from surveys and in-depth interviews, the article identifies factors in the built and social environments that support or limit the formation of local social networks by the residents of gated communities. Based on these factors, the article offers a generalizable conceptual framework for understanding the mechanisms that shape the social networks of gated community residents. The article concludes that a focus on the perspectives of female gated community residents in Bahrain enhances understandings of urbanization and migration in the Gulf city.

1. Introduction

Intense and rapid urban development characterizes the oil cities of the Arab Gulf states, now one of the most urbanized regions in the world. Simultaneously, fast-paced modernization and economic development since the 1950s has transformed the Arab Gulf into a major global destination for large numbers of foreign workers. Gated housing developments are one of the forms of housing that accommodate these migrant flows in the oil cities of the Arab Gulf.

While gated housing developments for highly skilled labor migrants are prevalent in the Arab Gulf, little is known about these gated developments, and even less is known about their associated social geographies. This mirrors a gap in the gated community literature: research on the social networks of residents is underdeveloped in the scholarship on gated communities. Through a mixed methods case study, this research advances the literature on gated community residents by focusing on expatriate women living in gated developments to analyze the mechanisms supporting or limiting the development of local social networks.

To analyze the mechanisms influencing the formation of local social networks in gated communities (known locally as compounds or housing compounds), this article examines the perspectives of female compound residents. Given that these residents have migrated to Bahrain (many as "trailing spouses") and have thus been removed from their

customary social networks, this research foregrounds their narratives and residential experiences to learn how they create and recreate local social networks. In doing so, it addresses two research questions: What aspects of the built and social environments *support* the formation of local social networks within gated communities? What aspects of the built and social environments *limit* the formation of local social networks within gated communities?

This article briefly reviews the relevant scholarship on gated communities and social networks before presenting a mixed methods case study of gated communities in Bahrain informed by relational approaches in geography. The article concludes that an intersecting set of factors, with positive and negative impacts, work in tandem to shape the formation of local social ties among female gated community residents. The analysis, while specific to Bahrain, informs a conceptual framework that can be applied in different contexts.

1.1. Residential gating

Socioeconomic polarization and residential segregation are dual trends affecting cities around the world, from Latin America (Borsdorf et al., 2016; Fahlberg & Vicino, 2016; Glebbeek & Koonings, 2016; Michelini & Pintos, 2016) to Europe (Daskalova & Slaev, 2015; Mantey, 2017) to Asia (Ma et al., 2018; Zhao & Zhang, 2018). Gated communities reflect and influence these twin trends. Residential gating connects to

large-scale issues around enclave urbanism (Sidaway, 2007), including the implications of the proliferation of gates and walls, loss of public space, and reduced social inter-group contact (Bagaeen & Uduku, 2010, 2015).

The gated community literature has examined various social aspects of gating, including exclusion and fear of others (Caldeira, 2000; Low, 2001, 2003), perceptions of safety (Tanulku, 2018; Zhang et al., 2020), place attachment (Mantey, 2017), and the erosion of the social fabric and a lack of perception of community by residents (Wilson-Doenges, 2000). However, research on the social networks of the residents of gated communities is scarce. This absence is addressed by this examination of the mechanisms that support or limit the formation of local social networks by the residents of gated communities.

In the Middle East, studies of residential gating in the Middle East have been conducted in Lebanon (Alaily-Mattar, 2008), Turkey (Geniş, 2007; Tanulku, 2018), Egypt (Kuppinger, 2004), and Israel (Rosen & Grant, 2011; Rosen & Razin, 2008); the Gulf is relatively understudied, despite the prevalence of these types of exclusionary housing. Furthermore, the little qualitative research on residential gating in the Middle East has not fully captured the diversity within the resident population. For instance, Glasze and Alkhayyal (2002) and Glasze (2006) studied expatriate compound residents through interviews with a few German and Lebanese nationals living in a limited number of compounds in Riyadh, Saudi Arabia. This article fills these gaps through an analysis of a case study in the Gulf that focuses on the experiences of a larger number of women across many nationalities. In doing so, it sheds light on the diversity subsumed within the seemingly homogenous "compound resident" category, a diversity previously unaddressed in studies of residential gating in the Gulf. Further, it presents white-collar perspectives rather than focusing on blue-collar laborers, aligning with broader calls in the migration literature (e.g. Beaverstock, 2002) for research on the geographies of elite enclaves.

1.2. Social networks

Networks have been examined in various contexts and at different scales, from industrial, economic, and organizational networks (Glückler, 2007; Grabher, 2006; Maggioni et al., 2007), to world cities (Beaverstock et al., 2000), to the global movement of people (Hardwick, 2003). With its integration of fixedness and fluidity (Thrift & Olds, 1996), the network is an excellent analytical device for a study of the grounded residential experiences of highly mobile individuals.

Residential space has inherent social dimensions. The creation of social networks is directly connected to the experience of living in compounds, especially among mobile transnationals removed from their customary social connections. One aspect of social networks is that of homophily, "the principle that a contact between similar people occurs at a higher rate than among dissimilar people" (McPherson et al., 2001, p. 416). Homophily can structure interpersonal relations along multiple axes, including race, ethnicity, gender, and age. Among the several potential causes of homophily are geography (Caldeira & Patterson, 1987; Hampton & Wellman, 2000; Zipf, 1949) and organizational foci (Louch, 2000; McPherson & Smith-Lovin, 1986, 1987).

Within migration studies, much research has examined the effects of migrant social networks within the context of outcomes in the receiving country, on domains such as destination and housing choices (Sue et al., 2019; Tong et al., 2020) and incorporation (Plöger & Becker, 2015; Rosales, 2014). However, little empirical evidence reflects on the mechanisms involved in the formation of social networks – Ryan's research on Polish migrants in London (2011) is a notable exception – particularly when destination choice and local incorporation are both restricted.

Drawing on Deleuze and Guattari (1987), this article conceptualizes social networks as assemblages: dynamic processes that are constituted in relation to multiple (changing) factors, as opposed to rigidly bounded, stable, and pre-existing entities. The relational approach employed here offers a theoretical foundation that supports the development of a generalizable typology of factors that shape social networks, with the caveat that the configuration, intensity, interrelations, and directions of the various factors that shape each individual's social networks will vary.

1.3. Materials and methods

A case study approach allows for a close examination of this understudied context. The research is based on semi-structured in-depth interviews conducted with 48 female compound residents between September 2011 and August 2012, and in March 2013. To provide a comparative basis, additional interviews were conducted with 11 female expatriates not living in compounds, bringing the total number of interviews conducted with female participants to 59. This data provides a rich source of personal perspectives on residential gating. Although the research was conducted in the 2010s, these findings are not time-dependent, as they provide a framework that can be generalized to other contexts, regardless of the age of the primary data.

Qualitative methods have been used to make valuable contributions to understanding the emotional connections between people and place (Gao et al., 2020). Studies of social networks often rely on quantitative methods to assess network structure and function (Drouhot, 2017; Liu et al., 2012; Vacca et al., 2018), but qualitative approaches are equally valuable in terms of understanding social network dynamics (Hollstein, 2011; Sommer & Gamper, 2018). This research combines qualitative and quantitative methods to provide a richer understanding of the functions of social networks. The interviews were conducted in person in Bahrain; interviews were conducted in English and averaged 1 h in length.

In addition to the qualitative data collection, participants completed surveys assessing their residential experiences and social relationships. Survey research is especially helpful when collecting information about people's attitudes and opinions, and for gathering information not readily available from published sources (McLafferty, 2003). The use of quantitative survey data to supplement interviews in a mixed-methods research design has been found to be highly effective in studies of social networks (Hollstein, 2014). A total of 38 surveys were completed by female participants living in compounds and 11 surveys were completed by female "non-compound" residents (individuals not living in compounds), for a total of 49 surveys. The number of participants is summarized in Table 1; Appendix A provides more information about the research participants. The interviews and surveys were conducted as part of a larger project examining the social geographies of compound residents in Bahrain. [1]

Participants were recruited through snowball sampling (Biernacki & Waldorf, 1981; Jackson, 1983) and through their involvement in various expatriate organizations. Respondents came from diverse socioeconomic and demographic backgrounds, and the spatial distribution of interviewees generally mirrored that of compounds, with a slight oversampling of areas with higher compound concentrations. The research

Table 1
Number of participants.

	Interviews	Surveys
Female Compound Residents	48	38
Female Non-Compound Residents	11	11
Total	59	49

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[1] As part of the larger project, 19 interviews were conducted with male compound residents and 8 interviews were conducted with male expatriates not living in compounds. 17 surveys were completed by male compound residents and 7 surveys were completed by male non-compound residents.

procedures were approved by the Institutional Review Boards at the University of California, Santa Barbara and at San Diego State University.

Audio recordings of interviews were transcribed using the Express Scribe software package, and transcripts and interview notes were categorized and coded using nVivo 9.0 qualitative analysis software. Manifest and latent content analyses were conducted to extract the main themes and subthemes; the quotes presented here illustrate larger themes that emerged from multiple interviews.

1.4. Context

The growth of Bahrain's hydrocarbon extraction and export economy reshaped the country's form and land use and even the physical island state itself (through dredging and land reclamation). Simultaneously, the proportion and total population of non-citizen residents increased. Pre-oil urbanization gave way to a planned form (Ben-Hamouche, 2004) that included state-controlled projects and processes of infrastructure development and modern planning. Post-oil urbanization is characterized by residential suburbanization; most of the residential compounds described here are located in suburban areas (Salim, 2020). Contemporaneously, global processes of neoliberal urbanization are reflected in Bahrain through the relaxation of restrictions in the real estate market and the construction of megaprojects and high-rise towers (Al Raouf, 2007; Wiedmann, 2010). Gated communities reflect these neoliberal urban processes.

1.4.1. Compounds in Bahrain

Gated communities in Bahrain (and in the Gulf more broadly) resemble their North American counterparts to a certain degree. For example, gated developments are found in suburban locations, and differences in socioeconomic status are a main driver of residential segregation (Leichenko & Solecki, 2008; Marcuse, 1997). Because Bahraini citizens very rarely live in compounds, the women studied here are migrants, most of whom are in Bahrain accompanying highly skilled migrants on short- and medium-term contracts. The socioeconomic and ethnic distribution of compound residents is not rigidly structured; the socioeconomic distribution typically reflects the compound's quality and cost, and the ethnic distribution of compound residents is generally unrelated to spatial factors. Although security, prestige, and lifestyle are some of the main reasons residents live in compounds, some who choose to live in compounds in Bahrain are motivated by different factors than residents of gated communities in, say, North America. For example, because public parks are unavailable in Bahrain at the scale that western expatriates are accustomed to, access to safe open space for children to play in is one reason individuals choose to live in compounds (Salim, 2021). Furthermore, because Bahrain is an Islamic country, cultural differences between migrants and the host society may make a compound an option that provides more freedom than if one was living in an apartment building near the city center, for example. While the female residents of compounds in Bahrain are relatively diverse in terms of age, occupation, and nationality, they generally share common levels of class. Rents within an individual compound are standardized; individual compounds are homogenous enclaves based on class.

Among residents in Bahraini compounds, the lead migrant in the movement of highly skilled professionals was male, while the accompanying or "trailing" partner was typically female. This aligns with findings in other contexts (Jagganath, 2015; Willis & Yeoh, 2002). Due to gendered employment structures in the Gulf, most of the female research participants did not work outside the home.

Some domestic workers live in the compounds where they work, in a separate room or in separate living quarters. Despite the fact that compound residents and domestic workers are intimately connected, domestic workers were not mentioned as being parts of interviewees' social networks. This is a noteworthy omission that can be explored in future research, but it falls outside this article's focus on the factors that support or limit compound residents' social network formation.

2. Results

Based on a conceptualization of social networks as dynamic processes that are constituted in relation to particular factors, the Bahraini case study was used to create a typology of mechanisms or factors influencing the formation of local social networks among compound residents (Fig. 1). Two categories of factors emerged from the analysis: factors that work in one direction (either supporting or limiting the formation of local social networks), and factors that work in multiple directions (whose impacts can support or limit the formation of social networks, or whose effects on the formation of local social networks are nuanced). To provide a more holistic understanding of compound residents' social networks, their networks within and beyond the compound walls were assessed.

2.1. Unidimensional factors

Interviews revealed several factors that generally had a consistent impact (either positive or negative) on the formation of local social networks by compound residents. These factors are referred to as *unidimensional factors*. Three main factors were cited as supporting the formation of local social networks within compounds. The first of these positive unidimensional factors was proximity. Comparing interview responses of compound and non-compound residents showed that compound residents described stronger social ties with their neighbors, reflecting the spatiality of their social networks and the effects of proximity. An interviewee described how living in a compound affected social ties:

> Honestly, we don't walk around the rest of Janabiya [the neighborhood within which the compound was located] that much. We don't walk over to our other neighbors. Our neighbors are just within [this compound]. You could live in the next compound but we don't even go to [another compound, across the street].
>
> Interviewer: And it's across the street from you?
>
> It's across the street. We know tons of people there but we would never just walk over there. It's 50 yards away, but we consider it a much different area. I think there's just this perception of compounds are the places where you live and it has to be this self-contained unit that you have to sort of deal with. (Personal interview, 30 May 2012)

Describing a compound as an insular "self-contained unit" reveals the inward focus that the walls lend to the social relations of compound residents. To assess whether social ties were constructed within the environments created by compounds, survey respondents rated the strength of their social ties on a scale from 1 (lowest) to 10 (highest). Fig. 2 compares the strength of social ties of 38 female compound residents and 11 female non-compound residents with members of various social groups.

The strength of social ties among female compound residents was stronger than that of female non-compound residents for every social group (Fig. 2); the largest gradient between members of the two was with respect to social ties with neighbors. A Mann-Whitney test, conducted to evaluate the hypothesis that female compound residents have stronger social ties with their neighbors than non-compound female residents, indicated that the self-reported strength of social ties was greater for female compound residents ($n = 38$, mean of ranks $= 25.71$) than for non-compound female residents ($n = 11$, mean of ranks $= 14.64$), $U = 95$, $p = 0.0147$. This statistically significant result reveals that spatial proximity can create thick social ties.

A second factor supporting the formation of local social networks by compound residents was the presence of children. The connections created by the interaction between children of similar ages helped form bonds that could bridge apparent differences between their parents. The
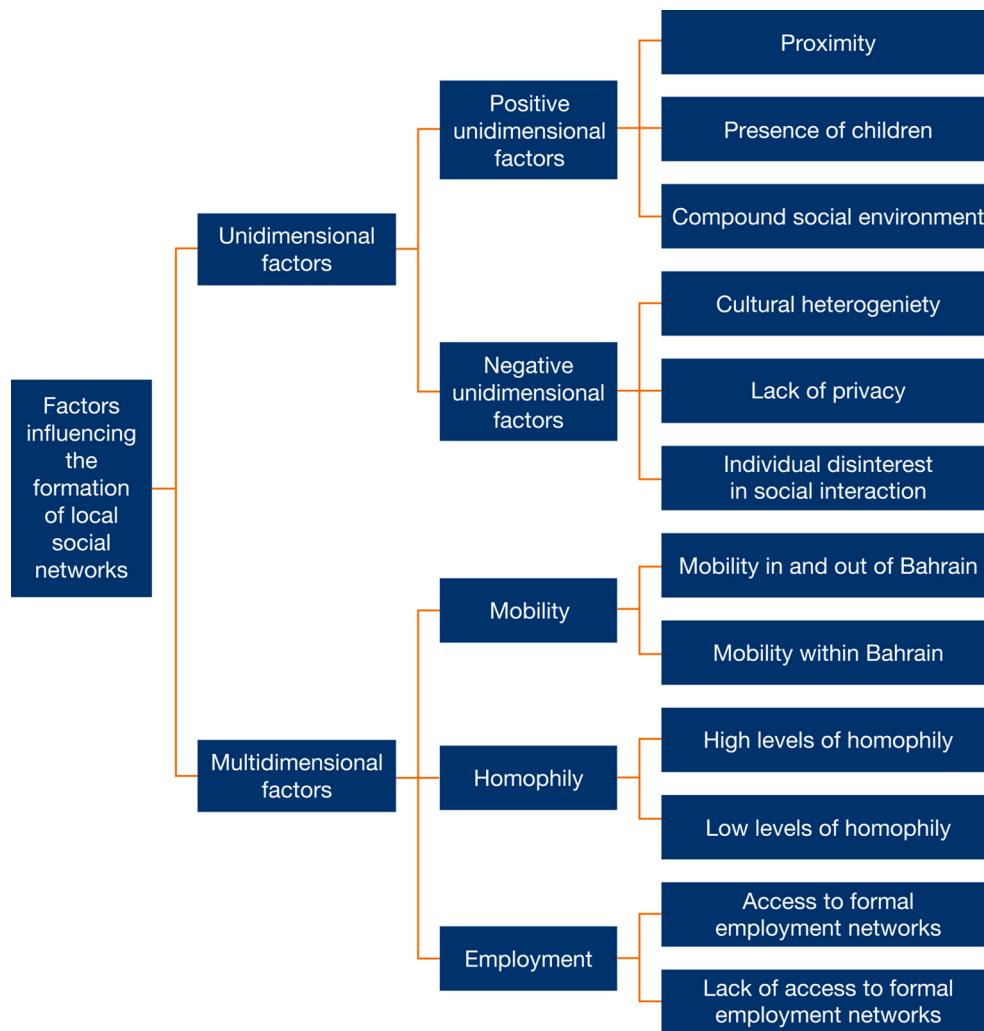
Fig. 1. Conceptual framework.

following quote from a 30-year-old who had lived in a compound since she was 12 years old, demonstrated how children could catalyze social relations[2]:

Go to the pool, you'll meet everyone there. Go to the playground, you'll meet more people there. Especially kids, kids make friends a lot easier than adults do. And the second the kids make friends with the other kids, then the adults have to become friends because the kids are friends with their kids. (Personal interview, 31 July 2012)

A third factor that helped to cement social ties and focus them within the compound was the compound's social environment, which could be further broken down into the compound's social spaces and its social events, as described by the quote above which referenced the swimming pool and playground. A similar effect was described by a British woman living on a moderately-sized compound of about 20 homes:

On the compound we have a start of summer compound party. At Christmas there's a kids compound party; there's a grown-ups compound party. (Personal interview, 27 June 2012)

To more fully understand the nature of social networks, compound residents were also asked how their social networks extended beyond their compounds. Three main factors were cited as supporting the formation of local social networks beyond compounds. The first of these positive unidimensional factors was the presence of children. For example, a mother of three young children described how children catalyzed her social ties outside the compound:

It really depends on the age of your kids. Because when your kids are that age you're still schlepping them around to play dates and this class and this class and this class, you don't drop your kids anywhere. So you're forced to stay with them and be engaged in the activity. So you ultimately are forced to develop relationships with whoever's there and has kids your age. (Personal interview, 13 March 2012)

Similarly, the school and school-related activities of school-aged children were mentioned as sources of social networks.

A second factor supporting the development of social networks was the presence of social spaces beyond the compound. For example, expatriate social clubs were cited as nodes in compound residents' social networks. A female British compound resident in her late 60s described her membership in social clubs:

I wouldn't like to be without the membership to the Dilmun [Club]. What do we do? We used to go to the Quiz Nights there, we don't anymore, but you know they are still on, they exist. We occasionally go for perhaps a meal there; sometimes meet this circle of friends

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[2] From the larger research project, a quote from a father of two young children mirrored this finding:"The bulk of people we know outside of work are from the compound. I think we know about 10 or 15 families in [compound name] that aren't associated with [employer name]. We know them through our kids. I think definitely we know them really well." (Personal interview, 30 May 2012).
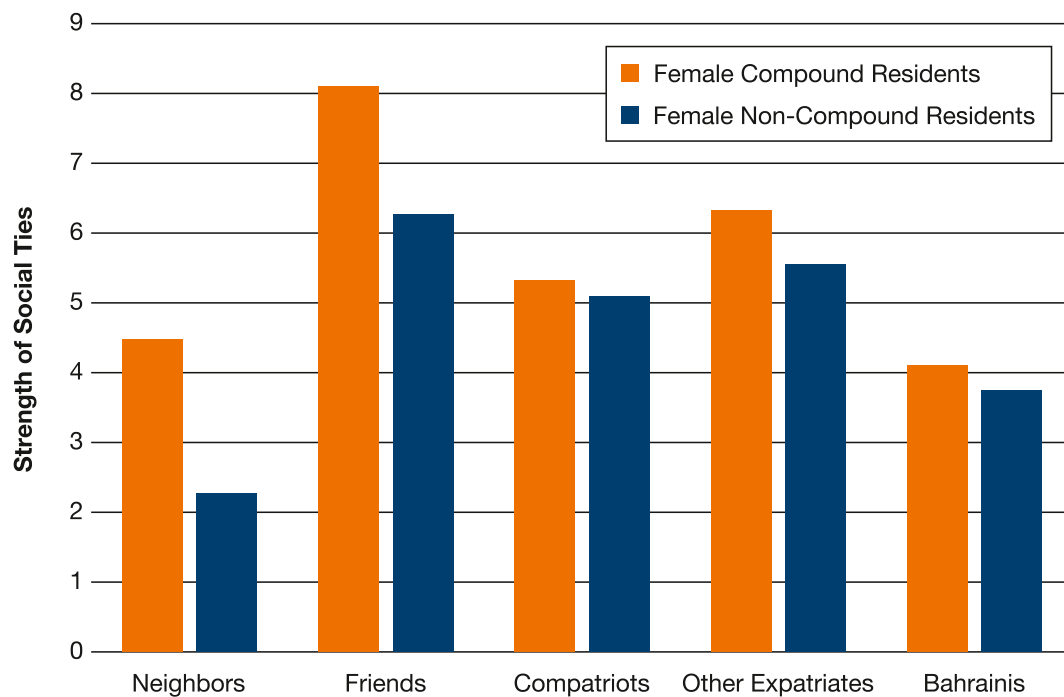
Fig. 2. Comparison between strength of social ties of female compound and female non-compound residents, for various social groups.
Source: Author's survey

there, particularly during Ramadan it's where you can get to drink, we will be there. I go to the aqua fitness there which is been going for a few weeks; sometimes I go to swim. (Personal interview, 8 July 2012)

Finally, a third factor that helped to create social networks beyond compound walls was participation in voluntary associations, such as religious or sports activities. These sources of social capital exemplify Putnam's bonding ties (1995). A British compound resident who had lived in Bahrain for three years described an example of this:

Different friends have kind of come about for different reasons. . . . Sport, triathlon, that's created a little group of friends actually, which has been fun because it's separate from the kids. (Personal interview, 27 June 2012)

Conversely, the interviews revealed three main factors that limited the development of social ties within compounds. These factors are referred to here as negative unidimensional factors. First, while compound residents are socioeconomically homogenous, they can be culturally heterogeneous, with little to no commonality in terms of social background, leisure activities, etc. A female American compound resident illustrated an example of the effect of cultural heterogeneity, describing how a supposedly shared swimming pool was locked and residents in her compound had instead developed a system of "reserving" it:

That whole kind of modesty, you know, like not swim publicly. . . . I think it's the Indian families on our compound who are more concerned about having the pool private. (Personal interview, 5 June 2012)

Second, the lack of privacy within compounds can have negative impacts. For example, one interviewee indicated that she did not socialize with members of her national community; while she did not want to discuss specifics, she described having negative experiences with them as a group. Other interviewees mentioned lack of privacy as a drawback of living in a compound, and at least two female compound residents specifically (and independently) compared living in a compound to living in "a fishbowl". An unmarried 24-year-old female

compound resident noted:

People are concerned about what time you get home, so you get stuff like that, observations that you maybe don't want. (Personal interview, 28 February 2012)

Home is at its core a private space, but it can be, in the compound context, a public space. The underlying sentiments of being watched or judged for being out late at night, or of having social ties that limit one's privacy, illustrate some of the negative impacts caused by a lack of privacy. Experiencing or wanting to avoid these types of negative impacts can limit the formation of local social networks within a compound.

A third factor limiting the formation of local social networks is individualized disinterest in interaction. An individual's particularly strong desire for privacy or lack of desire to socialize with neighbors would outweigh any other factors related to compound design, common social background, etc., as a female compound resident who had lived on two different compounds indicated:

In our past community there were a few houses where the people, they were polite to you, but they don't reciprocate, they're not interested in socializing and all. And they just kept to themselves. It didn't make the compound bad or anything, because they were a minority. (Personal interview, 12 July 2012)

Finally, unidimensional factors can act individually or in concert. This is reflected by the following interviewee, whose response combined children, social events, and compound spaces:

There can be a lot of social interaction on compounds because sitting by the pool, particularly women with young families would naturally get to know people quite rapidly. . . you find that the day you move in you might be invited to a barbecue that night, whereas living in Britain, people take much longer to get to know each other. You could live on a street and never meet your neighbor for five years. So compounds in particular are sociable places; apartment lots tend not to be, people in apartments tend to close their door and turn up the sound on the TV and keep their heads down. (Personal interview, 18 July 2012)

2.2. Multidimensional factors

The interviews also revealed factors that could have both positive and negative impacts on the formation of local social networks by compound residents, or factors with complex effects on local social networks, both of which are referred to here as *multidimensional factors*. Three main multidimensional factors emerged from the interviews: mobility, homophily, and employment.

The two main mobility-related themes described by compound residents were the effects of mobility in and out of Bahrain, and mobility within Bahrain. In some ways, the mobility of people in and out of Bahrain can narrow the scope of social networks. A compound resident who had lived in Bahrain for three years and was scheduled to remain in Bahrain for one additional year described the effect of her anticipated move:

> I think when I first arrived I was really focused on building deep connections with a few people. And then I spread out. And now, as we're getting closer to leave, I've found myself pulling back and it's more superficial. (Personal interview, 12 July 2012)

However, in some ways, the mobility of people in and out of Bahrain can expand the scope of local social networks. Another compound resident who had lived in Bahrain for three years and planned to remain there indefinitely explained the effects of the flows of human movement from her (relatively less mobile) perspective:

> Every year it changes because every year we lose when people leave. It definitely changes every year that we're here. Different people come in and out of your life and you meet someone you like and there's different things; so you might do something else. One year I got into cookery classes with a group of girls but then they all left and so then I got into triathlon. It feels like it's always moving because people are always moving, which is great. (Personal interview, 27 June 2012)

Mobility in and out of Bahrain, thus, can support or limit the formation of local social networks. The exact direction of the effect is contextual, influenced by individual, social, and temporal factors.

Another way of considering mobility examines mobility within Bahrain. For female compound residents, mobility can create social ties across the walls, broadening social networks as residents access networks beyond those in the immediate vicinity. Bahrain's small size facilitates the development of these networks; in a country that is just under 16 km (10 miles) at its widest point, navigating the island is relatively easy. Compounds are supplemented by other sources of social interaction, such as international schools and expatriate social clubs. However, an automobile is needed to access these sites, especially when compounds are located in suburban areas where public transit and taxis are generally not easily available. Interviews with female compound residents with varying mobility levels illustrated the ways in which they negotiated their activity spaces to form social networks. An interviewee without a car whose compound was in a relatively peripheral location described life in a compound: "I've never been so isolated in my life… it gives me the sense that I'm in a desert". She described compounds as "islands on an island" (Personal interview, 5 December 2011), and her social ties were correspondingly weak. There were stronger ties that she could theoretically access – she had friends who lived about 15 min away by car – but she could not draw on them without a car. Conversely, interviewees with their own transportation described unrestricted spatial and temporal mobility and indicated that there was no part of Bahrain that was inconvenient for them to access. Survey results indicated that compound residents reported stronger social ties with friends in Bahrain than they did with their neighbors (Fig. 2). Thus, higher levels of mobility within Bahrain (beyond the compound walls) can facilitate the formation of social networks that are not connected to the compound.

Homophily emerged from the interviews as another significant multidimensional factor. Some interviewees described homophily in their own social networks or in the social networks they observed. A Canadian compound resident who had lived in the Gulf for twelve years described homophily based on nationality, albeit not in her own social network:

> It's easier as a UK national in Bahrain because the Brits have been here forever and they have a solid foundation here already and they cater to their own kind. Anyone's welcome, but … the things they do are very oriented to their culture. (Personal interview, 27 March 2012)

However, most compound residents' interviews revealed complex social networks that cannot be essentialized as "like stays with like". Most compound residents described their local social networks as being fairly heterogeneous on the basis of nationality and ethnicity. A British woman who had lived and worked in Bahrain for over ten years illustrated the heterogeneity of local social networks:

> I quite like that in Bahrain that you meet a lot of people from really different places in the world and then you pick up a nice smattering of friends around the world. (Personal interview, 5 August 2012)

A British woman whose children attended the British School described a similar experience:

> It's more sort of a melting pot.

> Interviewer: Did you expect that?

> No, I didn't. . . . I was quite frightened by it. I was so naive when I came, I thought it would be more Brits and that we'd spend more time with Brits. But even at the British School it's a lot of people, which is fabulous. I expected, very naively, that there would be a lot of people who did the same sort of jobs as my husband. But this is such a wide diversity, everything from people who do reclamation and building experts. It's an absolutely huge, wide spectrum. Probably more than we'd meet in the UK. There's no sort of social segregation really, social status. It's just one melting pot. (Personal interview, 27 June 2012)

Participant observation revealed complex results with respect to homophily on the basis of class. Because the cost of rent within an individual compound tends to be standardized, the common factor that links residents within a particular compound is socioeconomic status: compounds are homogenous enclaves based on class. However, social networks based on mutual interests may attract individuals with varying levels of socioeconomic status, gender, nationality, and so forth. Following Putnam (1995), bridging ties were observed to connect individuals in social networks based on mutual interests, often across ethnic or class lines, while bonding ties connect individuals with comparable demographic backgrounds.[3] As such, the patterns of homophily on the basis of class within the social networks of compound residents are intricate and potentially contradictory, depending on the set of social networks in which each individual participates and whether these social networks are homogenous or heterogeneous on the basis of class. Indeed, potential mobility means that the homogeneity of compounds on the basis of class does not have strictly deterministic effects on the residents' social networks.

Finally, formal employment was mentioned as a multidimensional

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[3] The case of housing compounds in the Gulf illustrates the importance of nuance when considering socioeconomic status. On one hand, some compound residents are highly privileged elite individuals who clearly have very high socioeconomic status. On the other hand, some compounds house middle-class individuals with lower levels of socioeconomic status. Some compound residents described the boost in social status that accompanied employment in the Gulf: they had belonged to the middle class in their home countries but became part of the elite when they were employed in the Gulf.

factor: compound residents who were employed in Bahrain were able to access social networks through their connections with employers and coworkers. However, because expatriate women generally do not work in Bahrain, most of the research participants pointed out the inability to access professional or employment social networks. A stay-at-home mother of three who took advantage of many sports opportunities for herself and her children contrasted her experiences with those of her Pakistani husband:

> I think my husband's experience would be very different. I mean, you know, you probably would have a totally different discussion with him because he would have no kids-related stuff, he would have no sports-related stuff. Because it would actually be all professional and Pakistani, truth be told. (Personal interview, 13 March 2012)

Similarly, a Canadian woman who had lived in Bahrain for a year and a half described differences between men and women in compounds:

> The men get out and at work they meet lots of different people or they work with lots of different people. It requires more effort on the woman's part to adapt and socialize and integrate. (Personal interview, 27 March 2012)

The varied effects of mobility, homophily, and employment on social networks underscore the dynamic and multifaceted nature of these multidimensional factors. The results align with the call by McPherson et al. (2001) for studies of the overlapping, cross-cutting foci that shape the formation of social ties.

3. Discussion

This article draws on in-depth interviews with female compound residents to examine their individual perspectives and to analyze the mechanisms influencing the shapes of their local social networks. As it creates a typology of supporting and limiting factors (which should be considered as interconnected processes rather than discrete categories), this article presents a generalizable conceptual framework for analyzing the mechanisms underlying the formation of local social networks among the residents of gated communities. Social networks can be understood as dynamic processes formed by the cumulative effects of the positive and negative unidimensional factors and the diverse "net" effects of the multidimensional factors. Adopting a relational approach considers the unidimensional and multidimensional factors presented here as a multi-faceted whole; considering the process of how social networks take shape illuminates the topography of female compound residents' local social networks. Taken together, these factors help explain the *social distances* between residents of gated communities. These social networks cross home and compound walls to bridge the physical distances that exist between residents of gated communities in Bahrain.

A relational approach considers connections across wider contexts, revealing that compounds are not the only nodes in social networks, as compound residents described how they extended their social networks beyond the compound, with spaces such as schools, social clubs, and religious institutions being other examples of nodes in their social networks. The findings reveal the value of qualitative methods as a foundation for or a complement to other methodological approaches when studying social networks in gated communities. Indeed, the use of snowball sampling in this research can be seen as a mapping of local social networks, indicating trajectories of trust, relationships, and social ties among compound residents.

Focusing on the human scale to study the gendered spaces created by gated compounds has several advantages. Social and economic change are often most impactful at the individual scale; the individual scale provides an especially clear understanding of the experiences of women (Katz, 2001; Kelly, 1999). Further, the results illustrate the gendered power geometry that affects the spatiality of compound residents (after Massey, 1994) in terms of mobility. Some groups (e.g. expatriate men

who interact with local employers and co-workers) may have more mobility, while others (e.g. wives who are not able to work) may be more sedentary. The social and built environments affect social networks, especially for those with lower mobility (e.g. women, children); these results align with studies of the role of gender and age vis a vis mobility (Hanson & Johnston, 1985; Law, 1999; Katz, 2001; Hanson, 2010). The finding that compounds can play a central role in creating social connections, partly because most women living in compounds do not work, supports research on the spatiality of expatriate social networks in other contexts (Olsson, 2017; Sander, 2016). As female compound residents link place, space, identity, and belonging in unique ways, their local social networks produce space at multiple scales, in multiple ways, in and across compounds. To understand the relational social spaces associated with residential gating, it is crucial to examine how social networks emerge at the interface of socio-spatial processes of residential segregation and mobility, to assess how social networks are constituted at multiple scales and in multiple ways, and to understand the nature and intensity of social ties.

This article describes the mechanisms used by women to create (new) social networks at a time when their personal identities were experiencing significant shifts. Many of the female compound residents who participated in this study had professional careers in their home countries prior to their migration; emigrating constrained them to a greater focus on the domestic spheres (see Yeoh & Willis, 2005). Yeoh and Willis argue that these individuals are "not so much 'deskilled' but 're-domesticated'" (2005, p. 220). As such, the participation of female compound residents in particular social networks acted, to a large degree, as a substitute for some of the activities and networks they had participated in prior to moving to Bahrain. Indeed, some of the participants described (relatively) abruptly finding themselves in a position where they were not working, a change that catalyzed their formation of social ties with women in similar circumstances. By examining the formation of social networks by women who have simultaneously been compelled to refashion their personal identities, this research presents unique insights into the ways in which processes of highly skilled migration unfold.

The results highlight the nuanced interplay between place and agency. Place matters in complex ways that should not be taken for granted. The built environment, inward focus, and shared common spaces of a compound allow some people to make connections with others within the walls, underscoring the strengths of territorial understanding of place. Compound residents have stronger social ties with their neighbors (compared to non-compound residents), illustrating the spatial dimensions of their local social networks; proximity can create thick social ties. The fact that Bahraini citizens generally do not live in compounds helps to explain the relatively weaker social connections with Bahrainis, particularly for residents who do not work (given that the workplace is the most common site for the formation of expatriate-Bahraini connections).

However, the effect of place on social networks is complex and must be considered in combination with agency. Social heterogeneity and the negative impacts of social networks are examples of factors within compounds that can work *against* the formation of local social networks within compounds. The formation of connections across compound walls, either with expatriates or Bahrainis, may be hindered by the very existence of walls, but individuals may draw on mobility to build social connections that overcome the barriers imposed by compound walls; compound walls can be more porous than they appear. Compound residents in Bahrain who overcome their material boundaries do so in ways that parallel de Certeau's (1998) discussion of the tactics used by individuals as they negotiate the built environment of the city. The fact that the social networks of compound residents can (and do) extend beyond the boundaries of the compound illustrates that spatially deterministic explanations of the social dimensions of residential gating provide an incomplete understanding – compounds are one of several key sites where connections are formed. The inherent spatiality of social

networks must be considered in relation to the network's outcomes (Bosco, 2001). Adopting a relational approach highlights the role of agency as compound residents form social networks. These results challenge simplistic assumptions about the socio-spatial effects of segregation. Residential segregation should not be assumed to inherently annihilate social space; agency and the context's particularities must be taken into account when studying gated communities.

While this article focuses on the mechanisms that support or limit the formation of social networks, as opposed to the content of these networks, some observations about the effects of social networks can be made. First, the strength of social ties is not uniform. Compounds tend to catalyze strong social ties amongst their residents, but individuals who are experiencing more negative unidimensional factors (such as the feeling of living in a "fishbowl") may, instead, experience weak social ties and a sense of superficiality within their social networks with other compound residents. Thompson (2009) suggests that a sense of community shapes social networks (e.g., by determining who people choose to interact with), and that enacting social networks engenders a sense of community; a circular relationship links social networks and the creation of a sense of community. However, this research provides a counterpoint to Thompson (2009) by indicating ways in which local social networks can create insularity and be a negative factor for residents. Second, social networks are dynamic, and the shape of an individual's social network will change over time in response to changes in the individual, external events and forces, and changes in the unidimensional and multidimensional factors shaping their social networks. These two findings illustrate the value of conceptualizing social networks as dynamic processes, rather than static entities.

A caveat to these findings relates to the idea of generalization. Compounds, compound residents, and resident social networks are not monolithic. An awareness of local particularities is important, and indeed crucial, when seeking to understand the experiences of compound residents. Comparable to Menjivar's study of immigrant kinship networks (1997), in the Bahraini case, the social, economic, and cultural characteristics of the receiving area combine with individual responses to the migration experience to shape responses to a new environment. Compounds are not homogenous enclaves of expatriates. The framework of unidimensional and multidimensional factors presented here illustrates the various ways in which the formations of social networks are shaped. Analyzing the overlapping influences of these diverse factors provides for more complete understandings of the experience of living in a gated community in particular and the migration experience in general.

3.1. Theoretical implications and contributions

By identifying the mechanisms limiting or supporting the development of local social networks among gated community residents, this article creates a typology of factors and offers an original conceptual framework to explain how social networks form in gated communities; this framework is generalizable and can be applied in other contexts. This framework of uni- and multidimensional factors, and its implications, advances debates about gated communities, urbanization in the oil cities of the Middle East, and social networks.

The Bahraini case study presented here makes several contributions to the gated community literature. The gated community literature that focuses on the Middle East has tended to present one-dimensional portrayals of social relations within and across gated community walls, overlooking the diverse demographic and socioeconomic factors that can affect experiences and social relations (Glasze, 2006; Glasze & Alkhayyal, 2002; Kheyroddin & Hedayatifard, 2017; Osman et al., 2021). While gated communities are clearly manifestations of socio-spatial segregation, the results presented here indicate that, in Bahraini compounds, the segregation of residents behind compound walls does not seal them off from local social networks. In fact, segregation may enhance some of the effects of these networks. This article

advances the gated community scholarship by highlighting the porosity of walls, accounting for the ability of compound residents to move beyond the gates, and contradicting representations of gated communities as bounded and isolated entities within the city. Studies of gated communities can benefit from an examination based on a relational approach.

Further, some of the most commonly mentioned negative impacts of gated communities are their effects on social cohesion and metropolitan fragmentation (de Jeude et al. (2016); Le Goix and Vesselinov (2014); Lu et al. (2018); Obeng-Odoom et al. (2013)). This article develops these perspectives by shifting the focus inward, arguing that these critical perspectives also apply *inside* the walls; studies of gated communities can examine the negative impacts on the residents themselves. The findings on factors that limit the development of social networks add nuance to analyses of the effects of local social networks in gated communities, and are a novel extension of the scholarship on the negative effects of migrant social networks (Ryan et al., 2008) to the gated community context.

This article contributes to studies of urbanization in the oil cities of the Middle East. In general, urban geography has tended to neglect the multiplicity of human processes in contemporary Middle Eastern cities (Stewart, 2002); research on housing in the Middle East rarely utilizes in-depth studies of the experiences of residents, typically foregrounding quantitative methods and/or examinations of policy or built environment (Etminani-Ghasrodashti et al., 2017; Friedman & Rosen, 2019; Ibrahim, 2017). Urban research on the Gulf often focuses on the exceptional; this mirrors popular discourse on the Gulf, which typically highlights superlatives or spectacular architectural creations (e.g., the tallest building in the world, the first seven-star hotel, etc.). Similarly, within scholarship on the Gulf city, research on residential space (the largest single land use in the city, but hardly iconic) is relatively less common. As this article simultaneously addresses these multiple gaps through an examination of factors shaping the social dimensions of residential space at the human scale, it has wide-ranging importance for studies of Middle Eastern oil cities. Finally, given that the female residents of the compounds studied here are generally non-Bahraini, this research contributes to a recent (and relatively small) body of geographic scholarship examining migration and immigrant spaces in the Gulf at the human level; notable examples include Walsh's studies of English expatriates in Dubai (2006, 2007), El Sheshtawy's work on Dubai (2008), Glasze's study of German and Lebanese compound residents in Saudi Arabia (2006), and Mohammad and Sidaway's studies of South Asian men in Doha (2012). This article advances the literature by studying gendered developments with a broad approach that does not focus on residents from particular regions.

This research offers several contributions focused on social networks. Research on highly skilled migration has focused on both male (Findlay et al., 1996; Gatti, 2009) and female perspectives (Cole & McNulty, 2011; Lauring & Selmer, 2009; Sander, 2016), but this article moves beyond a general examination of experiences and roles to a specific focus on local social networks within a particular gendered context, contributing to a relatively understudied body of research on how migrant women form social networks. While some of the factors behind the creation of local social networks described here have been studied in other contexts (for example, the role of trailing wives (Beaverstock, 2005; Purkayastha, 2005; Ryan & Mulholland, 2014), this article presents a novel analysis of the role of children in the creation of local social networks, within the context of highly skilled migration and residential gating.

Additional conceptual contributions come from the use of a relational approach to assess mobility and social networks. As long-term residents can live in compounds where they are surrounded by neighbors who move in and out of Bahrain fairly rapidly, this article offers the term *"relative mobility"* to describe the concept that a person who is immobile can experience mobility as result of the changes in their surroundings. This original insight, which reflects the dynamic nature of

social networks, can enrich understandings of other settings in other high-mobility contexts and in settings with differentiated levels of mobility. As Sheppard (2002) and Ettlinger (2003) indicate, actors in networks are situated by several interconnected attributes: relationship, distance, and place-specific social relations. The spatiality of these factors helps illuminate the (spatial) structure and effects of social ties and networks: paying attention to place, space, and time facilitates analyses of social networks.

The results reveal that aspects of compounds' built and social environments can act in some ways to support the formation of local social networks, while simultaneously acting in other ways to limit them. Thus, a relational approach reveals a paradoxical ambivalence that complicates the materiality of space, showing that it cannot be taken for granted, even when dealing with a space as concrete and physical as a gated community. Dunn's discussion of embodied everyday transnationalism indicates that the localization of global processes varies from place to place, even for similar groups (2010). This research extends Dunn's discussion, as it reveals that the localization of global processes varies from person to person, *even in similar places*.

3.2. Limitations

Certain limitations are unavoidable given the study's subject. Census data on the demographics of compound residents are publicly unavailable, and participant recruitment was affected by security and controlled access to compounds, which made it impossible to enter a compound without a prior contact. Thus, the goal for the recruitment and sampling procedure was not to obtain a representative sample of experiences per se, as the degree of representativeness or generalizability was impossible to assess (due to the unavailability of demographic data). Instead, the goal of recruitment and sampling, which was successfully accomplished, was to obtain a broad cross-section of resident perspectives.

4. Conclusion

Given that residential space comprises the largest single category of land use within a city, housing studies can illuminate city functions and social patterns. The oil cities of the Gulf are a particularly productive place to examine urbanization and migration, considering the high degree of urbanization and the region's location as a node on circuits of human flows.

By drawing on in-depth interviews with a large set of respondents to focus on the perspectives of female expatriates in Bahrain, this article examines what Favell et al. (2007) refer to as the "human face" of migration, through an analysis of "street-level socio-spatial interaction" (Mohammad & Sidaway, 2012, p. 622). Focusing on women's everyday experiences and social connections contributes to understandings of how social networks are made and unmade in gated communities, highlighting some of the gendered dimensions of gated compound experiences. As it draws on often-overlooked perspectives to create a typology of generalizable factors that act to support or limit the development of social networks, this article contributes to studies of urbanization, migration, and social networks. The gated housing compounds at the center of this research are explicit examples of enclave urbanization. Future studies can build on this research to conduct comparative assessments of the factors that shape the creation of social networks in other enclave contexts, and to explore the effects of the social networks of gated community residents.

Credit author statement

Zia Salim: Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data curation, Writing – original draft, Writing – review & editing, Visualization, Supervision, Project administration, Funding acquisition.

Declaration of competing interest

None.

Appendix A. Participant Profiles

Female participants: Age and Time in Bahrain.

	Age	Time in Bahrain
Minimum	22 years	2 months
Maximum	68 years	32 years
Average	38 years	4 years 6 months

Female participants: Major Nationality Groups.

USA: 50%
UK: 22%
Canada: 10%
Other: 8%

Number of participants.

	Interviews			Surveys		
	Female	Male	Total	Female	Male	Total
Compound Residents	48	19	67	38	17	55
Non-Compound Residents	11	8	19	11	7	18
Total	59	27	86	49	24	73

Appendix B. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.habitatint.2022.102557.

References

Al Raouf, A. (2007). Cities in the clouds and pearl towers: Gated vertical residential developments, an analytical study of New Juffair, Bahrain (in Arabic). *Paper presented at Housing Symposium 3, Riyadh, Saudi Arabia, 20-22 May*.

Alaily-Mattar, N. (2008). Beyond gated communities: Detachment and concentration in networked nodes of affluence in the city of Beirut. *Urban Design International, 13*(4), 263–271.

Bagaeen, S., & Uduku, O. (2010). *Gated communities: Social sustainability in contemporary and historical gated developments*. London: Earthscan.

Bagaeen, S., & Uduku, O. (2015). *Beyond gated communities*. London: Routledge.

Beaverstock, J. (2002). Transnational elites in global cities: British expatriates in Singapore's financial district. *Geoforum, 33*(4), 525–538.

Beaverstock, J. (2005). Transnational elites in the city: British highly skilled inter-company transferees in New York City's financial district. *Journal of Ethnic and Migration Studies, 31*(2), 245–268.

Beaverstock, J., Smith, R., & Taylor, P. (2000). World-city network: A new metageography? *Annals of the Association of American Geographers, 90*(1), 123–134.

Ben-Hamouche, M. (2004). The changing morphology of the Gulf cities in the age of globalisation: The case of Bahrain. *Habitat International, 28*(4), 521–540.

Biernacki, P., & Waldorf, D. (1981). Snowball sampling: Problems and techniques of chain referral sampling. *Sociological Methods & Research, 10*(2), 141–163.

Borsdorf, A., Hidalgo, R., & Vidal-Koppman, S. (2016). Social segregation and gated communities in Santiago de Chile and Buenos Aires: A comparison. *Habitat International, 54*(1), 18–27.

Bosco, F. (2001). Place, space, networks, and the sustainability of collective action. *Global Networks, 1*(4), 307–329.

Caldeira, T. (2000). *City of walls: Crime, segregation, and citizenship in Sao Paulo*. Berkeley: University of California Press.

Caldeira, G., & Patterson, S. (1987). Political friendship in the legislature. *The Journal of Politics, 49*(4), 953–975.

de Certeau, M. (1998). *The practice of everyday life: Volume 2*. Minneapolis: University of Minnesota Press.

Cole, N., & McNulty, Y. (2011). Why do female expatriates "fit-in" better than males? An analysis of self-transcendence and socio-cultural adjustment. *Cross Cultural Management: International Journal, 18*(2), 144–164.

Daskalova, D., & Slaev, A. (2015). Diversity in the suburbs: Socio-spatial segregation and mix in post-socialist Sofia. *Habitat International, 50*, 42–50.

Deleuze, G., & Guattari, F. (1987). *A thousand plateaus: Capitalism and schizophrenia*. Minneapolis: University of Minnesota Press.

Drouhot, L. (2017). Reconsidering "community liberated": How class and national context shape personal support. *Social Networks, 48*, 57–77.

Dunn, K. (2010). Embodied transnationalism: Bodies in transnational spaces. *Population, Space and Place, 16*, 1–9.

Etminani-Ghasrodashti, R., Majedi, H., & Paydar, M. (2017). Assessment of residential satisfaction in Mehr housing scheme: A case study of Sadra new Town, Iran. *Housing, Theory and Society, 34*(3), 323–342.

Ettlinger, N. (2003). Cultural economic geography and a relational and microspace approach to trusts, rationalities, networks, and change in collaborative workplaces. *Journal of Economic Geography, 3*(2), 145–171.

Fahlberg, A., & Vicino, T. (2016). Breaking the city: Militarization and segregation in Rio de Janeiro. *Habitat International, 54*(1), 10–17.

Favell, A., Feldblum, M., & Smith, M. P. (2007). The human face of global mobility: A research agenda. *Society, 44*, 15–25.

Findlay, A., Li, F., Jowett, A., & Skeldon, R. (1996). Skilled international migration and the global city: A study of expatriates in Hong Kong. *Transactions of the Institute of British Geographers, 21*(1), 49–61.

Friedman, R., & Rosen, G. (2019). The challenge of conceptualizing affordable housing: Definitions and their underlying agendas in Israel. *Housing Studies, 34*(4), 565–587.

Gao, Q., Yin, D., & Zhu, H. (2020). Urban regeneration and emotional politics of place in Liede Village, Guangzhou, China. *Habitat International, 103*, Article 102199.

Gatti, E. (2009). Defining the expat: The case of high-skilled migrants in Brussels. *Brussels Studies, 28*(31), 1–15.

Geniş, Ş. (2007). Producing elite localities: The rise of gated communities in Istanbul. *Urban Studies, 44*(4), 771–798.

Glasze, G. (2006). Segregation and seclusion: The case of compounds for western expatriates in Saudi Arabia. *GeoJournal, 66*(1), 83–88.

Glasze, G., & Alkhayyal, A. (2002). Gated housing estates in the Arab world: Case studies in Lebanon and Riyadh, Saudi Arabia. *Environment and Planning B, 29*(3), 321–336.

Glebbeek, M.-L., & Koonings, K. (2016). Between Morro and Asfalto: Violence, insecurity and socio-spatial segregation in Latin American cities. *Habitat International, 54*(1), 3–9.

Glückler, J. (2007). Economic geography and the evolution of networks. *Journal of Economic Geography, 7*(5), 619–634.

Grabher, G. (2006). Trading routes, bypasses, and risky intersections: Mapping the travels of networks between economic sociology and economic geography. *Progress in Human Geography, 30*(2), 163–189.

Hampton, K., & Wellman, B. (2000). Examining community in the digital neighborhood: Early results from Canada's wired suburb. In T. Ishida, & K. Isbister (Eds.), *Digital cities: Technologies, experiences and future perspectives* (pp. 194–208). New York: Springer.

Hanson, S. (2010). Gender and mobility: New approaches for informing sustainability. *Gender, Place, and Culture, 17*(1), 5–23.

Hanson, S., & Johnston, I. (1985). Gender differences in work-trip length: Explanations and implications. *Urban Geography, 6*(3), 193–219.

Hardwick, S. (2003). Migration, embedded networks and social capital: Towards theorising North American ethnic geography. *International Journal of Population Geography, 9*(2), 163–179.

Hollstein, B. (2011). Qualitative approaches. In J. Scott, & P. J. Carrington (Eds.), *The SAGE handbook of social network analysis* (pp. 404–416) (Los Angeles: Sage).

Hollstein, B. (2014). Mixed methods social networks research: An introduction. In S. Dominguez, & B. Hollstein (Eds.), *Mixed methods social networks research: Design and applications* (pp. 3–34). Cambridge: Cambridge University Press.

Ibrahim, M. (2017). How do people select their residential locations in Egypt? The case of Alexandria. *Cities, 62*, 96–106.

Jackson, P. (1983). Principles and problems of participant observation. *Geografiska Annaler Series B Human Geography, 65*(1), 39–46.

Jagganath, G. (2015). Migration experiences of the "trailing wives" of professional and highly skilled NRI's in Durban, KwaZulu Natal. *The Oriental Anthropologist, 15*(2), 405–417.

de Jeude, M., Schutte, O., & Quesada, F. (2016). The vicious circle of social segregation and spatial fragmentation in Costa Rica's greater metropolitan area. *Habitat International, 54*(1), 65–73.

Katz, C. (2001). On the grounds of globalization: A topography for feminist political engagement. *Signs, 26*(4), 1213–1234.

Kelly, P. (1999). The geographies and politics of globalization. *Progress in Human Geography, 23*(3), 379–400.

Kheyroddin, R., & Hedayatifard, M. (2017). The production of exclusive spaces in coastal pre-urban areas: Causes and motivations: Middle shoreline of Caspian Sea in north of Iran. *Journal of Coastal Conservation, 21*(3), 333–341.

Kuppinger, P. (2004). Exclusive greenery: New gated communities in Cairo. *City and Society, 16*(2), 35–61.

Lauring, J., & Selmer, J. (2009). Expatriate compound living: An ethnographic field study. *International Journal of Human Resource Management, 20*(7), 1451–1467.

Law, R. (1999). Beyond "women and transport": Towards new geographies of gender and daily mobility. *Progress in Human Geography, 23*(3), 567–588.

Le Goix, R., & Vesselinov, E. (2014). Inequality shaping processes and gated communities in US western metropolitan areas. *Urban Studies, 52*(4), 619–638.

Leichenko, R., & Solecki, W. (2008). Consumption, inequity, and environmental justice: The making of new metropolitan landscapes in developing countries. *Society & Natural Resources, 21*(7), 611–624.

Liu, Y., Li, Z., & Breitung, W. (2012). The social networks of new-generation migrants in China's urbanized villages: A case study of Guangzhou. *Habitat International, 36*, 192–200.

Louch, H. (2000). Personal network integration: Transitivity and homophily in strong-tie relations. *Social Networks, 22*(1), 45–64.

Low, S. (2001). The edge and the center: Gated communities and the discourse of urban fear. *American Anthropologist, 103*(1), 45–58.

Low, S. (2003). *Behind the gates: Life, security, and the pursuit of happiness in Fortress America*. New York: Routledge.

Lu, T., Zhang, F., & Wu, F. (2018). Place attachment in gated neighbourhoods in China: Evidence from Wenzhou. *Geoforum, 92*, 144–151.

Maggioni, M., Nosvelli, M., & Uberti, T. (2007). Space vs. networks in the geography of innovation: A European analysis. *Papers in Regional Science, 86*(3), 471–493.

Ma, Z., Li, C., & Zhang, J. (2018). Affordable housing brings about socio-spatial exclusion in Changchun, China: Explanation in various economic motivations of local governments. *Habitat International, 76*, 40–47.

Mantey, D. (2017). Social consequences of gated communities: The case of suburban Warsaw. *The Professional Geographer, 69*(1), 151–161.

Marcuse, P. (1997). The ghetto of exclusion and the fortified enclave: New patterns in the United States. *American Behavioral Scientist, 41*(3), 311–326.

Massey, D. (1994). *Space, place, and gender*. Minneapolis: University of Minnesota Press.

McLafferty, S. (2003). Conducting questionnaire surveys. In N. Clifford, & G. Valentine (Eds.), *Key methods in geography* (pp. 87–100). Thousand Oaks, CA: SAGE Publications.

McPherson, J., & Smith-Lovin, L. (1986). Sex segregation in voluntary associations. *American Sociological Review, 51*(1), 61–79.

McPherson, J., & Smith-Lovin, L. (1987). Homophily in voluntary organizations: Status distance and the composition of face-to-face groups. *American Sociological Review, 52*(3), 370–379.

McPherson, M., Smith-Lovin, L., & Cook, J. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology, 27*, 415–444.

Menjívar, C. (1997). Immigrant kinship networks: Vietnamese, Salvadoreans and Mexicans in comparative perspective. *Journal of Comparative Family Studies, 28*(1), 1–24.

Michelini, J., & Pintos, P. (2016). Metropolitan expansion and new socio-spatial segregation scenarios in contemporary Argentina. The case of Nordelta-Las Tunas (Buenos Aires). *Habitat International, 54*(1), 40–49.

Mohammad, R., & Sidaway, J. (2012). Spectacular urbanization amidst variegated geographies of globalization: Learning from Abu Dhabi's trajectory through the lives of South Asian men. *International Journal of Urban and Regional Research, 36*(3), 606–627.

Obeng-Odoom, F., ElHadary, Y., & Jang, H. S. (2013). Life within the wall and implications for those outside it: Gated communities in Malaysia and Ghana. *Journal of Asian and African Studies, 49*(5), 544–558.

Olsson, E. (2017). The guide to comfort: The diasporic practices of Swedish clubs in Southern Spain. *Nordic Journal of Migration Research, 7*(3), 156–164.

Osman, F., Moustafa, Y., & Fahmy, A. (2021). Residential satisfaction in gated communities according to stages in the life cycle with reference to Cairo, Egypt. *Journal of Engineering and Applied Science, 68*(41).

Plöger, J., & Becker, A. (2015). Social networks and local incorporation: Grounding high-skilled migrants in two German cities. *Journal of Ethnic and Migration Studies, 41*(10), 1517–1535.

Purkayastha, B. (2005). Skilled migration and cumulative disadvantage: The case of highly qualified Asian Indian immigrant women in the US. *Geoforum, 36*(2), 181–196.

Putnam, R. (1995). Bowling alone: America's declining social capital. *Journal of Democracy, 6*(1), 65–78.

Rosales, R. (2014). Stagnant immigrant social networks and cycles of exploitation. *Ethnic and Racial Studies, 37*(14), 2664–2679.

Rosen, G., & Grant, J. (2011). Reproducing difference: Gated communities in Canada and Israel. *International Journal of Urban and Regional Research, 35*(4), 778–793.

Rosen, G., & Razin, E. (2008). Enclosed residential neighborhoods in Israel: From landscapes of heritage and frontier enclaves to new gated communities. *Environment and Planning, 40*(12), 2895–2913.

Ryan, L. (2011). Migrants' social networks and weak ties: Accessing resources and constructing relationships post-migration. *The Sociological Review, 59*(4), 707–724.

Ryan, L., & Mulholland, J. (2014). Wives are the route to social life": An analysis of family life and networking amongst highly skilled migrants in London. *Sociology, 48*(2), 251–267.

Ryan, L., Sales, R., Tilki, M., & Siara, B. (2008). Social networks, social support and social capital: The experiences of recent Polish migrants in London. *Sociology, 42*(4), 672–690.

Salim, Z. (2020). Mapping gated communities: An empirical assessment of Wikimapia data quality. *International Journal of Applied Geospatial Research, 11*(3), 48–67.

Salim, Z. (2021). Gated communities in Bahrain: Historical and urban geographies. *Human Geographies, 15*(1), 147–167.

Sander, M. (2016). Shanghai Suburbia: Expatriate teenagers' age-specific experiences of gated community living. *City, Culture and Society, 7*(4), 237–244.

Sheppard, E. (2002). The spaces and times of globalization: Place, scale, networks, and positionality. *Economic Geography, 78*(3), 307–330.

Sidaway, J. (2007). Enclave space: A new metageography of development? *Area, 39*(3), 331–339.

Sommer, E., & Gamper, M. (2018). Transnational entrepreneurial activities: A qualitative network study of self-employed migrants from the former Soviet union in Germany. *Social Networks, 53*, 136–147.

Stewart, D. (2002). Middle East urban studies II: Growth, environment, and economic development. *Urban Geography, 23*(4), 388–394.

Sue, C., Riosmena, F., & LePree, J. (2019). The influence of social networks, social capital, and the ethnic community on the U.S. destination choices of Mexican migrant men. *Journal of Ethnic and Migration Studies, 45*(13), 2468–2488.

Tanulku, B. (2018). The formation and perception of safety, danger, and insecurity inside gated communities: Two cases from Istanbul, Turkey. *Journal of Housing and the Built Environment, 33*(1), 151–173.

Thompson, E. (2009). Mobile phones, communities and social networks among foreign workers in Singapore. *Global Networks, 9*(3), 359–380.

Thrift, N., & Olds, K. (1996). Refiguring the economic in economic geography. *Progress in Human Geography, 20*(3), 311–337.

Tong, D., Zhang, Y., MacLachlan, I., & Li, G. (2020). Migrant housing choices from a social capital perspective: The case of Shenzhen, China. *Habitat International, 96*, 102082.

Vacca, R., Solano, G., Lubbers, M., Molina, J., & McCarty, C. (2018). A personal network approach to the study of immigrant structural assimilation and transnationalism. *Social Networks, 53*, 72–89.

Walsh, K. (2006). 'Dad says I'm tied to a shooting star!': Grounding (research on) British expatriate belonging. *Area, 38*(3), 268–278.

Walsh, K. (2007). 'It got very debauched, very Dubai!': Heterosexual intimacy amongst single British expatriates. *Social & Cultural Geography, 8*(4), 507–533.

Wiedmann, F. (2010). *Post-oil urbanism in the Gulf: Case study: Kingdom of Bahrain*. PhD diss. Stuttgart University.

Willis, K., & Yeoh, B. (2002). Gendering transnational communities: A comparison of Singaporean and British migrants in China. *Geoforum, 33*, 553–565.

Wilson-Doenges, G. (2000). An exploration of sense of community and fear of crime in gated communities. *Environment and Behavior, 32*(5), 597–611.

Yeoh, B., & Willis, K. (2005). Singaporeans in China: Transnational women elites and the negotiation of gendered identities. *Geoforum, 36*, 211–222.

Zhang, S., Tang, J., Li, W., & Zheng, G. (2020). Does gating make residents feel safer? Evidence from the gated villages of Beijing. *Cities, 101*, Article 102676.

Zhao, P., & Zhang, M. (2018). Informal suburbanization in Beijing: An investigation of informal gated communities on the urban fringe. *Habitat International, 77*, 130–142.

Zipf, G. (1949). *Human behavior and the principle of least effort*. Oxford: Addison-Wesley Press.