WHAT MAKES CERTAIN HOUSING TYPOLOGIES MORE FAVORABLE: AN INVESTIGATION ON THE PERCEPTUAL QUALITIES OF THE LATE 20TH CENTURY GATED COMMUNITIES OF BATIKENT, ANKARA

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Abstract

This paper investigated the housing preferences among the residents of late 20th-century gated community settings. Batikent, a successful gated community-based urban housing development initiated in the 1980s Ankara in Turkey, was chosen as a case study location. The goal was to determine the preferred home types, and the capacity of the given home environment to maintain the perceived residential quality, as well as the prominent perceived attributes influencing residential preferences. Gated community typologies were limited to those built in the Batikent region, hence restricting their socioeconomic classification to middle-income families. The four immediately distinct gated community typologies within the given location are single-family homes with one to three floors, as well as low-, medium-, and high-rise apartment buildings. A survey of 217 inhabitants was carried out to gauge their perceptions of residential satisfaction and preference traits. Regardless of the residents' present housing type, single-family homes were most preferred, followed by low-rise apartment complexes. The results were unaffected by additional variables like proximity to transit hubs, the broader characteristics of urban neighborhoods like population density, or demographic variations like age, gender, income level, length of residence, or ownership status. Batikent residents mainly tend to relocate themselves within the same district. Its perceived qualities were thus further investigated, and single-family houses showed more satisfaction with nature bonding. Social interaction, social bonding, and place identity were the major qualities behind their preferences. Overall, the research revealed that either it is the living habits or the spatial qualities of the gated communities behind the inhabitants' residential preferences.

Keywords: Residential satisfaction, Housing typology, Gated community settings, 1980s, Ankara.

1 Introduction

Gated community living has been the most preferred housing typology amongst certain socio-economic income groups and families in different cities and countries for a variety of reasons such as security, privacy, community living, demand, prestige, etc. Besides, a neighborhood's inclusion of multi-family housing might be considered a chance to improve its social and architectural diversity (Widmar, 1984). Talking about diversity, gated communities come in all shapes and sizes, and their inhabitants frequently participate in much larger communities of interest (Grant & Mittelsteadt, 2004). In other words, such living forms also differ within themselves and may offer various housing typologies within their boundaries and the reasons behind their preference can be associated with a variety of factors embedded in such communities.

As a new living form introduced in the late 20th century, they are an antiquated urban form that started to reemerge in contemporary communities (Grant & Mittelsteadt, 2004). This might make us think of the impact of familiarity and cumulative understanding of communal living over the last few generations as well, although its compositions and scales vary one from another. Moreover, today, the physical, organizational, and institutional order that has formed contemporary cities is challenged by gated community developments (Webster, Glasze, & Frantz, 2002). Whereas, it has also been claimed that instead of promoting themselves as a search for a better social structure, gated communities have been presented as a solution to today's challenges (Blakely & Snyder, 1997). However, over time the drivers behind the choice of living in gated communities have enormously changed and thus today the patterns of residential preference characteristics among gated community inhabitants vary without doubt.

Gated communities emerged in the 1980s for the first time in the USA, and shortly spread around the world (Aliağaoğlu, 2015). Its first examples in Turkey initially appeared in Ankara, the new capital adopting a modernist and comprehensive city planning approach of the time (Tekeli, 2009; Bilgin, 2004; Tekeli, 1995; Akyol Altun, 2010). In the 1980s'Ankara, housing cooperatives were the main actors in the housing sector producing the bulk of residential neighborhoods and especially low-density low-rise urban housing projects that emerged in Ankara before anywhere else in Turkiye (Akyol Altun, 2010). One of the well-known and successful projects initiated in Ankara was the Batikent district. Batikent today is a gated community-based residential neighborhood and continues to its development from east to west following the extension of the metro lines in the same direction. However, its urban development is limited to the larger parcels occupied by different gated community settings of different compositions and sizes. Interestingly, considering the early residents of Batikent are from the 1980s, in the last decade in particular, the inhabitants show motivation to relocate themselves within the same district if not other reasons in effect like unemployment, relocation of the workplace, or changing schools or cities. Given the fact that, although the increasing interest in studying gated community living since the 2000s has focused mainly on its socio-economic contexts (Grant & Mittelsteadt, 2004), this study aims to investigate the reasons behind the residential preferences of the inhabitants of the early examples of gated communities in Batikent, Ankara which were built by housing cooperatives between the late 1980s and the early 2000s. Considering that being socially integrated is one of the compelling factors for continuing to stay in one location (Karsten, 2007), Batikent is also an interesting case with a strong sense of belonging. Besides, the typological differences within each of the gated community settings may let us seek the desired housing typology hosted by them and examine their prominent perceived qualities triggering this desire. Overall, it is expected that the outcomes of this study will guide us in redeveloping the area and in the decision-making processes of gated community design for middle-income groups.

2 Housing as a Way of Thinking behind Residential Preferences

Housing is a complicated process involving many interconnected aspects of life and "one form of consumption through which the self can be expressed" (Cooper Marcus, 1995, cited in Karsten, 2007, p. 86). Thus, numerous theoretical stances and methodological perspectives have been utilized to study varying residential preferences in a variety of disciplines such as economy, environmental psychology, social geography, and housing studies (Coolen & Jansen, 2012; Im & Fah, 2018) and variety of housing types. In such studies, gated communities have gathered momentum as one type of housing formation and the literature suggested that they need to be examined from social, economic, political, sociocultural, and spatio-relational perspectives (Akyol Altun, 2010). In this paper, gated communities are defined as secure settlements that are controlled and have entrances that prevent people other than the residents from entering, and generally have restriction parameters like walls or fences (See Blakely & Snyder, 1997). Although the literature expands the discussions from broader perspectives, one of the most interesting topics of discussion is the reasons why people prefer living behind the gates (e.g., Roitman, 2005; Dowling, Atkinson, & McGuirk, 2010). Most interestingly, the meaning of gates and understanding of the enclosure they provide change over time and affect the physical, symbolic, and psychological expectations of the residents (Grant & Mittelsteadt, 2004).

For this form of living, the most significant determining variables of home choice have been presented to be economic and demographic factors (Karsten, 2007), since they are introduced to meet the inhabitants' needs mainly based on their income groups. Thus, as Turkiye's housing scarcity worsens, this way of life was undoubtedly one of the greatest options at first. However, soon after, it has been thought that mass housing projects may actually disregard the relationships between people and their environments on an individual and personal level. Whatever the reason may be, the socioeconomic, cultural, and spatial segregation in cities becomes more evident when it comes to gated communities (Akalın, 2016). This has sparked a discussion regarding the significance of spatio-relational studies and their function in examining residential satisfaction and preferences (Akyol Altun, 2010). Besides, most of the studies have focused on either the impact of gated communities which is mainly defined as social-cultural, or their development

processes which are mainly political-economic (Akyol Altun, 2010). Today, there is a consensus that such studies are abundant (Kurtuluş, 2010). Furthermore, considering the varying typological classifications for this type of living turning into the eclectic variations of supply, demand, and characteristics of built form (La Grange, 2018), there is a need to carry out more studies on the features of gated communities.

These features are mainly security-related and built form features like gates. This is understandable because the initial desire for closed or gated locations in Turkey was traditionally viewed as a security problem, however, later research has shown that the reasons for choice go beyond security considerations (Aydın, 2012). Or they are the characteristics of communal areas like gathering places, pools, car parking areas, etc. as the representation of social status. Nevertheless, these are all the secondary priorities surpassed by the supply and demand considerations (La Grange, 2018). However, especially looking at the multifamily housing typologies, it is known that there are differences in residential preferences based on physical attributes. For instance, Widmar (1984) found a strong relationship between the visual aspects of the buildings and residential preferences like older over newer, smaller over larger, single-family over multifamily, and heavily decorated over simplistic ones. However, gated community settings may involve different types of dwelling forms within their boundaries too. These can be either multifamily apartment buildings or single-family dwelling units. Besides, living in a gated community could be an alternative way of living in single-family housing units without spending the higher cost of living and land values compared to those that are not part of a gated community. This, however, requires the understanding of gated communities as a whole and as social network forms that may show differences in their residential preferences based on the low-rise single-family units against the multifamily low-, mid-, or high-rise apartment living type. Given this, this study aims to identify these differences within the context of gated community developments within the context of mid-income gated community housing developments built by housing cooperatives in the late 20th century in Ankara, Turkey. The following will introduce the case study and the rationale behind the selection for this study.

3 Introduction to the Case Study Site and Case Study Rationale

This study has been conducted in the capital city of Ankara, the first planned city of Turkey after the proclamation of the Republic of Turkey in 1923. In its urban development, the historical development of the residential settings is of crucial importance since the urban development was triggered hugely by the rapid population growth as the new Turkish capital and the socio-economic and political problems accompanying them. Among which, the Batikent Project, situated 13 km from the city center, on the north of the Ankara–Istanbul highway, and on a 1034-hectare plot of land, is the largest housing estate of its kind built exclusively by cooperatives (Figure 1) (Batikent Konut Uretim Kooperatifleri Birligi, n.d.) and transformed into clusters of enclosed and privatized urban residential settings.



Figure 1. Batikent Master Plan (Batikent Konut Uretim Kooperatifleri Birligi, n.d.)

As the representatives of the period, this study focused on the gated community developments built between the late 1980s and early 2000s. The rationale behind this selection is initially to represent the resident profile as discussed above and to control the impact of the demographical variables by conducting research among the mid-income families and to turn the focus towards the spatial and typological variety offered by the gated community settings more specifically based on the building heights. Besides, no gated community was involved if constructed after the mid-2000s, to keep a certain period length of residence and test the late 20th-century gated communities' performance to meet the residents' needs today. Another measure was taken to eliminate the impact of the popularity of living near transportation links since it is one of the most prominent reasons behind the residential location preference. That's why, for this research, the gated communities have been chosen amongst the ones in proximity and walking distance to metro stations. Considering the status differences and target group variations made according to the number of bedrooms per housing unit (Akalin, 2016), in this research, the gated communities have been limited to those with 3-bedroom units regardless of hosting single-family units or apartment buildings.

3.1 Methods and Data

To reach the aims and objectives of the study, multivariate comparisons have been made based on the typological classification of the gated communities available within the targeted study area. Based on the height of the buildings they host, the four gated community typologies were determined: 1- to 3-floor single-family dwellings, and low-, medium- and high-rise apartment buildings. A residential satisfaction survey has been conducted with 217 residents of Batikent (47 for single-family housing units, 78 for low-rise, 50 for mid-rise, and 42 for high-rise apartment buildings). These were classified into four groups based on the identified four typological residences they currently reside in, and comparisons were made accordingly.

| | Age | Gen | der | Education level | Marital | status | Length of residence |
|--------------------------|----------------------|--------|-------|---------------------------------|---------|--------|---------------------|
| | 25-55 years range | Female | Male | At least undergraduate level | Married | Single | 15 years and over |
| Single-family Houses | 74.4% | 57.4% | 42.6% | 78.8% | 55.3% | 44.7% | 95.8% |
| Low-rise Apt. Buildings | 66.7% | 55.1% | 43.6% | 73.1% | 65.4% | 34.6% | 88.5% |
| Mid-rise Apt. Buildings | 78% | 54% | 44% | 74% | 64% | 36% | 74% |
| High-rise Apt. Buildings | 78.6% | 52.4% | 47.6% | 85.1% | 71.4% | 28.6% | 63.9% |

 TABLE 1. SUMMARY OF THE DEMOGRAPHICAL VARIABLES

In terms of the gated community typologies, since this study only included the residents of those constructed in the Batikent region, the socioeconomic classification was automatically confined to middle-income families so that one might not question the socioeconomic understanding of gated communities within the context of this study and impact of the demographical variables could be controlled at a certain degree too. However, the survey has still asked about the demographical variables such as age, gender, income level, ownership status, length of residents, etc. as these are the commonly utilized demographics to explain housing preferences (Im & Fah, 2018; Rossi & Weber, 2010) and tested their impact on the results, too. Table 1 above summarizes the demographics of the survey participants according to the defined four typological classifications.

Then, the participants identified the physical features of their current house type and their future house type preferences if they would like to relocate themselves within the same neighborhood amongst the available other types of gated community developments. A series of questions have also been asked further to better understand what motivates them to stay in or move out concerning those gated community typologies since people blend their overall preferences for a home with their satisfaction levels for the various attribute

categories (Coolen & Jansen, 2012). The perceived qualities of the residential environment have been rated over ten items: privacy, sense of belonging, place attachment, place identity, place dependence, social interaction, nature bonding, familiarity, and social bonding. These items were inspired by reliable and valid measures such as Neighborhood Attachment Scale (NAS) and Perceived residential Environment Quality Indicators (PREQIs), (Bonaiuto et al., 1999; 2003; 2015) and Place Attachment Instrument (Vaske, 2003) and rated based on a 7-point Likert scale and analyzed through SPSS software. Any rating between 5 and 6 was high; between 4 and 5 moderates; and less than 4 was deemed to be a low level of satisfaction with SoP. The assessment of the ten-attribute level has been comparatively evaluated regarding their combined (as an aggregated sum to evaluate the overall satisfaction) and decompositional impact (with a regression analysis).

4 Results

4.1 Defining residential preference characteristics by housing types

The scores for each of the four residential typology groups have been statistically tested and the results showed a statistically significant difference between single-family housing dwellings and any other typology available within the study area (p-values<.005). The differences were not only significant between low- and mid-rise apartment buildings (p=.481); between low- and high apartment buildings (p=.200); and between mid- and high-rise apartment buildings (p=.178).

As seen in Figure 2, more than 95% of people who live in single-family homes have a strong desire to stay in the same housing typology. This is a sizeable figure; however, the other dwelling types also showed demand for living in single-family dwellings (at least over 45%). The results in Figure 2 also indicate that there is a tendency to prefer a house type that is similar to the type they currently live in. This ratio is the highest in single-family units as reported above and followed by low-rise buildings at 48.7%, high-rise buildings at 35.7%, and mid-rise buildings at 32%. However, overall, the most demanded housing typology for all was still reported as single-family housing units. Besides, it is also believed that the former experiences with housing or the current home choices may influence future residential preferences (See Tokunaga & Murota, 2023). Considering the highest reported scores among the inhabitants of the single-family housing units at the time of the interviews conducted, it is also essential to report that 80% of them have previously lived in apartment buildings and only 5% have also previously lived in single-family units.



Figure 2. Residential preferences of the inhabitants in the four gated community types

This also indicates that over two or three generations, the degree of the actual behavior of moving into single-family units has also increased. The same figure was lower in other typologies and the respondents from the high-rise apartment buildings have only resided in apartment buildings in their life course.

4.2 Testing the impact of street network and transportation hubs

As discussed earlier, there are a variety of reasons behind residential preferences. Although most of them have been tried to be controlled within the given context, based on the responses given by the inhabitants, this study has tested the impact of the street network connectivity and being near main transportation hubs to validate the results. It is seen then, that the inhabitants participated in the survey from the gated communities located in the surroundings of four subway stations.

| TABLE 2. COMPARISON OF STREET NETWORK CONNECTIVITY AND DISTRIBUTION OF GATED COMMUNITY TYPOLOGIES | | | | | | | | |
|---|----------|----------|----------|----------|--|--|--|--|
| | Subway 1 | Subway 2 | Subway 3 | Subway 4 | | | | |
| | | | | | | | | |
| СО | 109.23 | 56.68 | 59.75 | 57.59 | | | | |
| IN | 2.80 | 2.59 | 2.53 | 2.11 | | | | |
| СН | 10793 | 3844 | 4496 | 7834 | | | | |
| CTRL | 0.99 | 1 | 1 | 0.99 | | | | |
| MD | 4.41 | 4.16 | 4.26 | 5.11 | | | | |
| RA | 0.002 | 0.005 | 0.004 | 0.004 | | | | |
| RRA | 0.378 | 0.405 | 0.415 | 0.494 | | | | |
| INCO | 0.47 | 0.33 | 0.57 | 0.50 | | | | |

CO: Connectivity, IN: Integration, CH: Choice, CTRL: Control, MD: Mean Depth, RA: Real Asymmetry, RRA: Real Relative Asymmetry, INCO: Legibility

Given this, the street network pattern has been analyzed in the DepthmapX software regarding its key syntactical parameters such as connectivity, integration, control, etc. (Jiang et al., 2010). Since the main concern of the study is not directly related to these measures, the results reported in Table 2 above have only been used to validate that the calculated scores show quite a resemblance among the residential gated communities within the same walking distance to the nearest subway stations. Amongst these, the higher connection values represent better permeability, and this is prominently observed in Subway 1 area, while others more or less have the same average connectivity values.

Even though the area of each system has been determined similar to each other, each system has a different number of nodes involved in syntactical measurement. Thus, to allow comparison amongst the systems, RRA values have been calculated based on IN, MD, and RA values (Hillier & Hanson, 1984, pp.109-10). RA scores were depicted as quite low, indicating shallowness and high integration (Hillier & Hanson, 1984). When the RRA values are inspected for a more robust comparison, the values of especially around 0.4 mean that all systems are strongly integrated and there is greater control over movement increasing the

degree of social hierarchy. This is also confirmed by the control values where the degree of choice each node represents for its directly linked nodes and considered the relations between a space and its immediate environment. The values of around 1 also indicate the presence of strong control areas in each system. Finally, the correlation scores of IN against CO present legibility values of the systems, respectively (Hillier et al., 1987). Its values around 0.45 indicate easiness to develop familiarity with the areas in terms of wayfinding (Hillier & Hanson, 1984). Overall, regardless of evaluating the performance of the current network patterns in each of the four cases, they provide the same street network qualities.



Single-family housing Low-rise apartment buildings Mid-rise apartment buildings High-rise apartment buildings

Figure 3. Distribution of housing typologies around the subway stations

Despite having similar network pattern characteristics and being nearby the subway stations, 61.6% of the respondents living around Subway 1, 79.5% in Subway 2, 37.4% in Subway 3, and 35.3% in Subway 4 showed a desire in living in single-family housing units. This demand is still considerable since only less than 20% of the residents who live around those metro stations currently reside in single-family housing units (Figure 3). Besides, the lowest ratio of such typology is seen around Subway 2 with 11.4% and this is also the neighborhood reporting the highest desire to live in single-family houses with 79.5%. The further regression analysis has also statistically proved that the current housing type is the main determinant of future residential preference (p=.000) and living nearby a main transportation hub offering a similar street network pattern has no impact on this choice (p=.131).

4.3 The control over the impact of demographical variables

Another control measurement has been conducted on the demographical differences among the inhabitants who participated in the survey. In particular, ownership status, population density within the gated community the inhabitant currently lives in, and length of residence have been tested as the major socioeconomic variables. Ownership status, for instance, has been tested against the preferred housing typology and no impact has been revealed statistically (p=.937); besides, preferences were still dominant around the single-family housing units with 57.1% of the tenants and 60.9% for owners. In terms of population density, it is claimed that the more populous a settlement is, the more likely it is to represent some degree of social or economic variety and address inhabitants' needs (Grant & Mittelsteadt, 2004). Further investigation has been therefore made on the number of housing units; the preferences were equal when the number of total housing units in one gated community is less than 20. When it approaches 50 and above, over 50% of each group reported their desire to live in single-family houses (p=.415). The length of residence has no impact too with the p-value of .267.

4.4 Determining perceived qualities of the living environment according to house types

The results above are clear that single-family houses are the most favorable form of living. However, one wonders what the perceived qualities behind these choices are if not the physical form or the social-economic demographical variation themselves. This is because housing cannot be defined by economic and demographic factors alone (Karsten, 2007); it is also the main identifier of the residents with not only

their physical needs but also cultural and psychological needs and expectations. Besides, the identity of the resident can be even linked to the location and the neighborhood's quality (Forrest & Kearns, 2001; Karsten, 2007). Moreover, A house also serves as a representation of who we are and what we want to be, as well as being a comfortable place to live, a place of solitude and territory, a place for social interaction, and a sense of community (Coolen & Jansen, 2012; Grant & Mittelsteadt, 2004).

Given this, further analysis was conducted to measure the perceptual quality performance of the inhabitant groups of four housing typologies. The inhabitants rated the ten qualities listed in Table 3 below, and the results presented below showed that the highest effect sizes and statistically significant impacts have been noted about four of them only, namely, social interaction, place identity, nature bonding, and social bonding (p-values=.000, See Table 3). For the other six factors, all the gated community settings showed a resemblance. Among the ones differentiated between the four types, nature bonding is by far the most important quality contributing to residential satisfaction with the highest effect size of 24.426, which is followed by place identity and social interaction, and social bonding the latest.

| | F | Sig. |
|--------------------|--------|------|
| Privacy | 2.198 | .095 |
| Aesthetics | 0.097 | .961 |
| Sense of Belonging | 2.105 | .107 |
| Place Attachment | 1.054 | .374 |
| Social Interaction | 10.384 | .000 |
| Place Identity | 10.504 | .000 |
| Place Dependence | 1.795 | .155 |
| Nature Bonding | 24.426 | .000 |
| Social Bonding | 7.550 | .000 |
| Familiarity | 2.312 | .083 |

TABLE 3. PERCEIVED QUALITY PERFORMANCE ACCORDING TO THE FOUR GATED COMMUNITY TYPOLOGY



Figure 4. Comparison of the performance scores of the prominent perceived qualities

Considering the other six features showing homogeneity among the cases, identifying their four distinct perceived qualities is of crucial importance, too. Since the study has already been conducted in an area showing lots of residential and typological features in common, the detailed examination helps us further examine which perceptual qualities are more crucial in what house typology and thus may become a reason to relocate themselves to other types. Given this, Figure 4 above compares the performance scores of the four prominent qualities, and it is evident that single-family housing unit inhabitants show more satisfaction than apartment buildings. The satisfaction rates drop, as the number of floors of apartment buildings increases.

5 Discussion and Conclusions

This study has not aimed to look for the reasons behind the increasing popularity of gated community living. Instead, it has examined the residential preferences of the residents living in early examples of gated communities erected in Batikent, Ankara. These are also the representatives of early gated community houses in Turkey, following the late 20th century gated community construction trend in the world too.

The results have initially empirically proved a well-predicted desire to live in single-family housing units. Single-family housing unit residents have already shown greater residential satisfaction and have preferred living in the same typology. However, the study also revealed that low-rise apartment buildings can be an alternative form of living to those single-family units, but not mid- and high-rise apartment buildings. However, the outcome has been limited to those located within the gated communities. Therefore, the results of this study cannot be generalized to the inhabitants of non-gated community settings since the research design has been particularly set into those whose lifestyles have already fit into gating typologies.

This research has also acknowledged that the choice of a residential location may be influenced by travel needs, and as a result, the residential typological preferences may be constrained to those that are currently available (See Rehman & Jamil, 2021). As a result, this study has examined the effects of this decision while also adopting a case selection rationale that mitigates its effects. The comparison made between the gated community groups showing resemblance in their street network patterns and living close to major transit centers have not shown any difference between the cases and any impact on the residential choice. However, among individuals who do not already reside in such housing typologies, single-family homes were more favored. Such comparison in this research was for validation purposes only. However, the results

lead to further investigation regarding the accessibility patterns of each gated community development and their reflection on the inhabitants' living habits. Another discussion could be expanded on the urban built environment shaped by gated community developments of different sizes and shapes. Their different combination will probably provide a greater variety in the wider tissue, if not within their smaller boundaries. This should be also reflected in the inhabitants' residential preferences and satisfaction independent of the individual housing unit itself.

The main contribution of this research was to identify the perceived characteristics that underlie residential choices in the context in question. Among ten subjective indicators rated by the inhabitants, only four of them have been validated: Nature bonding, social interaction, place identity, and social bonding. Singlefamily homes have been favored mostly due to the ability to connect with nature. The low-rise apartment complexes' emphasis on social connection makes them the second most preferable kind of housing after single-family homes. Gated communities with high-rise apartment buildings, on the other hand, have failed in all four subjective qualities despite providing other superior characteristics. Given these results, as being a very peculiar area and an interesting case, Batikent's urban development history can teach us lessons in guiding today's gated community projects initiated in Ankara and other big cities of Turkey such as İstanbul and İzmir. Since these new developments focus more on physical qualities and prestige and are simply promoted as house marketing strategies focusing on quantifiable features (Akalın, 2016), it will be beneficial to identify what qualitative qualities can contribute to residential satisfaction and in what types of housing. This is significant because, contrary to popular belief, gated communities may not be generally associated with social segregation. After all, residents' value shared amenities and specialized facilities or put a high priority on maintaining property values. Moreover, the physical borders that separate gated communities may appear to strengthen a sense of affiliation with the setting, if not necessarily with the residents (Blakely & Snyder, 1997).

However, these arguments have different implications for how gated communities might influence city planning (Walks, 2014). In such a way, gated community living can be promoted as an ideal living form rather than a forced living environment causing segregation over time. This will then contribute the city planning by eliminating the negative/unaccepted consequences of gate community settlements on urbanized land.

This research is also not without its limitations. Although the research developed measures to control the demographical variables and also proved the lessened impact on the results, such rationale has limited the results of the study to a certain socio-economic group of residents residing in the early examples of gated communities. This research also limited its focus on multi-family housing stocks and thus the results cannot be generalized to single, independent units even though they consist of the same or similar building typologies defined in this research. However, the results are still significant due to being representative of a certain period of a specific multi-family (gated) housing typology that has played an important role in the history of the housing formation in the 1980s in Ankara, Turkey. Besides, measuring residential preferences in such communities may enhance communication between generations since it will be possible to connect with potential customers if providers are aware of consumers' housing preferences more effectively (see Coolen & Jansen, 2012). This is important within the given context too, especially considering that the children of the time today are in their 20s and 30s and have developed culturally embedded residential preferences over time by living in these communities. Another concern of the study is the misinterpretation of the concepts of residential preferences and choice (See Coolen & Jansen, 2012). This research has focused on the preference and relative attractiveness of certain typologies rather than the actual behavior of moving/relocation of the residential which will involve many other parameters on top of which are their affordability and property and land values.

Overall, housing is a delicate issue involving various dimensions and thus requires certain methodologies to solve specific problems (Coolen & Jansen, 2012). Given this, this research has revealed that the living habits and the spatial qualities of the gated communities are behind the inhabitants' residential preferences

and also their social embeddedness within the given context. Future research can compare the results with the new form of gated community development built by private construction companies after the 2000s and 2020s to conduct a performance analysis on their capability of providing perceived qualities.

References

[1] Akalın, M. 2016. Mekansal Ayrışmanın bir yeni biçimi olarak kapalı/kapılı siteler: Akkent Konutları Örneği (Translation: Closed/gated sites as a new form of Spatial Segregation: The Case of Akkent Residences). *Hitit Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, Vol.9, No.2, pp.923-956.

[2] Akyol Altun, T. D. 2010. Kent Çeprlerindeki Az Katlı Konut Topluluklarının Kullanıcı-mekan ilişkisi Bağlamında değerlendirilmesi: İzmir Örneği. PhD Thesis, Dokuz Eylül University, Department of Architecture, İzmir.

[3] Aliağaoğlu, A. 2015. Balıkesir Şehrinde Güvenlikli Siteler, Çağdaş Kent Örneği. *Doğu Coğrafya Dergisi*, Vol.34, pp.157-170.

[4] Aydın, S. 2012. İstanbul'da Orta Sınıf Ve Kapalı Siteler. İdeal Kent, Vol.6, pp.96-123.

[5] *Batikent Konut Uretim Kooperatifleri Birligi*. (n.d.). Retrieved May 2023, from Kent-Koop-1979: http://www.kent-koop.org.tr/detay_proje/batikent/2

[6] Bilgin, I. 2004. Anadolu"da modernleşme sürecinde konut ve yerleşme. In Y. T. Sey, *Tarihten günümüze Anadolu'da konut ve yerleşme içinde* (pp. 472-490). İstanbul: Tarih Vakfı Yayınları.

[7] Blakely, E. and Snyder, M. 1997. *Fortress America: Gated communities in the United States*. Brookings Institution Press.

[8] Bonaiuto, M., Fornara, F. and Bonnes, M. 2003. Indexes of perceived residential environment quality and neighbourhood attachment in urban environment: A confirmation study on the city of Rome. *Landscape and Urban Planning*, Vol.65, pp.41–52.

[9] Bonaiuto, M., Aiello, A., Perugini, M., Bonnes, M. and Ercolani, A. P. 1999. Multidimensional perception of residential environment quality and neighbourhood attachment in the urban environment. *Journal of Environmental Psychology*, Vol.19, pp.331-352.

[10] Bonaiuto, M., Fornara, F., Ariccio, S., Cancellieri, U. G. and Rahimi, L. 2015. Perceived Residential Environment Quality Indicators (PREQIs) relevance for UN-HABITAT City Prosperity Index (CPI). *Habitat International*, Vol.45, pp.53-63.

[11] Coolen, H. and Jansen, S. 2012. Housing Preferences. *International Encyclopaedia of Housing and Home*, Vol.3, pp.606-612.

[12] Dowling, R., Atkinson, R. and McGuirk, P. 2010. Privatism, privatization and social distinction in masterplanned residential estates. *Urban Policy and Research*, Vol.28, No.4, pp.391-410.

[13] Forrest, R. and Kearns, A. 2001. Social cohesion, social capital and the neighbourhood. *Urban Studies*, Vol.38, pp.2125-43.

[14] Grant, J., and Mittelsteadt, L. 2004. Types of gated communities. *Environment and Planning B: Planning and Design*, Vol.31, pp.913-930.

[15] Hillier, B. and Hanson, J. 1984. The Social Logic of the Space. Cambridge: Cambridge University Press.

Hillier, B., Burdett, R., Peponis, J., and Penn, A. 1987. Creating Life: Or Does Architecture Determine Anything? *Arch. & Comport/Arch. Behavior*, Vol.3, No.3, pp.233-250.

[16] Im, L. P. and Fah, C. Y. (2018). Preferences of Residential Typologies of Urban Malaysians. *Journal of the Malaysian Institute of Planners*, Vol.16, No.3, pp.171-181.

[17] Jiang, B., Claramunt, C. and Klarqvist, B. 2000. An Integration of Space Syntax into GIS for Modelling Urban Spaces. *International Journal of Applied Earth Observation and Geoinformation*, Vol.2, No.3/4, pp.162-171.

[18] Karsten, L. 2007. Housing as a Way of Life: Towards an Understanding of Middle-Class Families' Preference for an Urban Residential Location. *Housing Studies*, Vol.22, No.1, pp.83-98.

[19] Kurtuluş, H. 2010. Konut sunum biçimlerinde radikal dönüşüm ve mekansal ayrışma ile yeniden biçimlenen metropol yaşamlar. Ulusal Konut Konferansı: Kapalı Konut Yerleşmeleri, Yeni Yaşamlar, Yeni Mekanlar, Yeni Sınırlar. İstanbul: ITU.

[20] La Grange, A. 2018. Classifying elements of a typology of gated communities. *International Journal of Housing Markets and Analysis*, Vol.11, No.3, pp.520-540.

[21] Rehman, A. and Jamil, F. 2021. Impact of urban residential location choice on housing, travel demands and associated costs: Comparative analysis with empirical evidence from Pakistan. *Transportation Research Interdisciplinary Perspectives*, Vol.10, https://doi.org/10.1016/j.trip.2021.100357.

[22] Roitman, S. 2005. Who segregates whom? The analysis of a gated community in Mendoza, Argentina. *Housing Studies*, Vol.20, No.2, pp.303-321.

[23] Rossi, P. H. and Weber, E. 2010. The social benefits of homeownership: Empirical evidence from national survey. *Housing Policy Debates*, Vol.7, No.1, pp.1-35.

[24] Tekeli, I. 2009. Modernizm, Modernite ve Türkiye'nin Kent Planlama Tarihi. İstanbul: Tarih Vakfı Yurt Yayınları.

[25] Tekeli, I. 1995. Bir modernite projesi olarak Türkiye''de kent planlaması. Ege Mimarlık, Vol.16, pp.51-54.

[26] Tokunaga, R. and Murota, M. 2023. Residential preferences based on life stage groups of residents and factors related to types of intentions to continue living in or relocating from super-high-rise condominiums. *Journal of Asian Architecture and Building Engineering*, Vol.22, No.2, pp.765-782.

[27] Walks, A. 2014. Gated communities, neighbourhood selection and segregation: the residential preferences and demographics of gated community residents in Canada. *Town Planning Review*, Vol.85, No.1, pp.39 - 66.

[28] Webster, C., Glasze, G. and Frantz, K. 2002. The global spread of gated communities. *Environment and Planning B: Planning and Design*, Vol.29, pp.315-320.

[29] Widmar, R. 1984. Preferences for Multiple-family House: Some İmplications for Public Participation. *Journal of Architectural and Planning Research*, Vol.1, No.4, pp.245–260.

[30] Williams, D. R. and Vaske, J. J. 2003. The measurement of place attachment: validity and generalizability of a psychometric approach. *Forest Science*, Vol.49, pp.830-840.