

Designing Houses for Change: Understanding of Changes in Mass Housing Developments in the City of Girne (North Cyprus)

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Abstract

The contemporary debate and practice in architecture focuses on the role of the occupant in the design and quality of housing. Due to a change in occupation or the dynamic nature of people's lives over time, housing design requires a variety of interior arrangements such as flexibility, freedom, inclusiveness, etc. However, this nature of the individual occupant is usually not considered in mass housing developments, which create a tension between the general and the individual requirements. The recent housing patterns and trends reveal the need for particularization at certain degrees and consequently the importance of designing adaptable housing. When the recent 'construction boom' in the island of Cyprus is considered, hundreds of mass housing units denote the range of changes to adapt the housing units during the pre and post occupancy periods. The development of mass housing is under the impact of rapid socio-economic and technical transformations. Furthermore, preference of foreigners to settle in Cyprus has created a need for designers and builders to inquire about occupants and their choices. In general, occupants, who are native (Turkish Cypriot), native living in the UK and the British, change and adapt their housing units. At this point, it is a matter of question if there is any commonality or divergence in the changes to houses made by different profiles of users. Without doubt, it is important to understand the range of architectural changes due to societal phenomena for launching design ideas and concepts. They provide the occupants with greater pre-occupancy choice and the opportunity for later adaptability. Under this scope, the aim is to understand the nature and degree of changes in the houses selected from different mass housing areas in the city of Girne (Kyrenia). This city on the north coast of the island has been densely settled by locals and foreigners. According to the findings obtained from personal observations and interviews with the occupants, change and adaptations are interpreted by considering the variables of the three occupant groups mentioned above.

1 Introduction

The role of occupant in design and quality of housing increasingly gains significance in contemporary living environments. Beyond the architecture of the recent approaches, which are more rigid in their articulation and less capable of dealing with the dimension of time, than any period before in human history, occupants are again actively participating and contributing to the development of living environment's. Even in the eternal fixity of mass housing and spatial framework, which is established by the designer, occupants intervene by adapting and being flexible with design.

Due to the occupants' physical and psychological needs, which radically and repeatedly change in an average life span of a dwelling, housing requires a variety of internal arrangements in terms of flexibility, freedom, inclusiveness and other design devices, which provide opportunities for change. A house should therefore be designed to accommodate change and be re-used by different generations according to their evolving requirements and desires. In fact, this is a matter of sustainable development, which considers both the maintenance and promotion of the common issues between generations; and respect for future generations who follow and continue to inhabit the shared spaces.

The need for change and adaptable design is inevitable even in mass housing developments, which strikingly set a tension between the concepts of generality and particularity. Although generalization in mass housing is a compulsory issue, particularization is also required, because in the end, the individual users use the spaces for their own particular needs and in their own particular manner. So, the realm of user who can change and adapt the housing unit as he wishes must be part of an approach, which sees the domestic unit as a product and part of a larger physical and social setting (as in the traditional settlements). Throughout history, the balance between general-communal and particular-private is traced in an endless variety of forms by means of identifiable users.

The island of Cyprus firstly encountered the concept of social mass housing at the end of the nineteenth century. Due to different societal and political reasons, numerous housing environments at different degrees of living quality have been established by governmental organizations, social institutions, private construction firms and housing cooperatives in different parts of the island. In the recent period, development of housing environments are at a critical threshold, re-generating the architectural, demographical and ecological characteristics of the island, especially the northern part. After the referendum for the Annan Plan, no real socio-economic contribution from international bodies was reflected in the daily life of the people living in Northern Cyprus. However, the negotiation process of the plan and the goal of EU membership for the island has re-activated and revived the construction sector at an unbelievable speed. Without doubt, the new dimension of housing in Northern Cyprus is due to international interest and investment, in cooperation with local construction firms and estates.

1.1 Methodology of the study

The paper will briefly explain the background of mass housing, followed by a special emphasis on the recent housing environments which are inhabited by local and international households in the coastal city of Girne (Kyrenia). As in any housing development, people living in Girne have different reactions to their living environments at different levels due to their socio-cultural background as well as psychological and physical needs. In this context, an overview is presented regarding the changes and modifications that are required and implemented by the users respectively during the pre and post occupancy periods. As the aim is to understand the nature and degree of changes in space and spatial organization due to different users, collected data is interpreted according to the findings from the

observations and interviews with the three user groups (Turkish Cypriot, Turkish Cypriot British and the British). The field study was carried out in three housing areas and findings are obtained from observations and interviews in 16 houses. Although it is not a reasonable number of samples to generalize regarding the issue, investigations in these areas have provided a general overview on the subject as an introductory survey for further development through research studies.

In the study, topics of spatial organization, façade composition and mass configuration are brought together to systematically set the analysis of the field research. Under these topics, the determined changes and modification on each building are coded and then classified by considering the original versions. At the same time, the data, which is obtained from the mental map drawn by the householder about his/her previous residence, is considered in order to track relationships between the old and new houses in terms of meaning and uses of spaces.

1.2 Theoretical framework of the study

In order to provide a theoretical background for the investigation, certain issues related to the concepts of flexibility, adaptability, housing and open building design have been considered with reference to certain studies. It is one of the major considerations that the built environment comprises not only physical forms - buildings, streets, and infrastructure, but also the people interacting with them. It is an organism, which is permanently intervened in by human beings and their active involvement [1]. Then, the change and the sustainability of built environments are taken into consideration respectively. The built environment has to do with change and sustainability in terms of maintenance and development of the 'commons' and the respect for future generations. Thus, suggestions for its sustainability with different developments, like an open building –whether at the level of the urban tissue or at the level of architecture, are put forward for regenerating neighborhoods and adapting buildings rather than demolition [2]. In this sense, flexible, affordable and sustainable design principles are referred to in the urgent need to accommodate a wide diversity of users and household types [3]. In addition, participation in the process of housing is also considered as a shift from a paradigm of modernization to infrastructure and capital, to a paradigm that emphasizes the primacy of participatory and empowered self-initiated development [4].

2 Background of Mass Housing in North Cyprus

Different societal, economical, political and technological transformations have changed the settlement layout as well as the idea of housing on the island of Cyprus. The rapid migration of populations towards big towns has necessitated a large number of houses and consequently mass housing areas. The island firstly encountered the concept of social mass housing at the end of the nineteenth century, which coincides with a socially transitional period between Ottoman and British rule in the history of the island. The first mass housing development consisted of row of one-storey houses designed with local constraints together with European planning concepts, and constructed by an Ottoman social institution for low-income families [5 & 6]. As in other developing countries, housing projects were implemented by the British Colonial administration for low-income families and workers who migrated from rural settlements to urban centers after the First World War [7]. However, housing schemes in later periods were executed particularly for providing for the needs of refugees displaced during the years of dispute in Cyprus. By the year of 1965, a Refugee Housing Project was started to upgrade the living conditions of some of the Turkish Cypriots who were forced to leave their homes and migrate to more secure enclaves in different parts of the island. Remarkably, the housing need was accelerated by the population transfer and replacement of Turkish and Greek Cypriots respectively on

the northern and southern parts of the island through the division of the island. Under such circumstances, hundreds of social housing units have been built by the government and housing cooperatives, for the Turkish Cypriots in the major urban settlements of Northern Cyprus through the Social Housing Law of 1978 [8 & 9].

In the recent period, housing units have been built by private construction firms and housing cooperatives at an incredible speed, not only for locals but also for foreigners (mostly from United Kingdom and Germany). Northern Cyprus, with a particular density in the city of Girne (Kyrenia), which is a naturally and historically attractive place, is preferred by numerous Europeans because of cheap land and property prices. The city has also been popular due to the political resolution process with regards to Annan Plan and the EU membership of the island.

2.1 Recent housing in the city of Girne

The construction sector in Northern Cyprus is considered to be the most beneficial business for investment with the goal of political solution and European Union membership. In eight months, foreign investors bought land worth 213 trillion. When this land, of which a significant amount is in Girne region, is considered, statistics reveal that the sale of land and property to investors increased by 276% in the last four years and applications to buy new land increased by 476% [10]. Under such circumstances, the city of Girne has been one of the settlements in Northern Cyprus mostly influenced from this new situation, physically as well as socially. According to the statistical information taken from the Municipality of Girne, the average number of files that were opened for construction until 1999 was 187. In 2000, the number was 189, and from 2001-2002 it fluctuated between 176 and 177. The number rapidly increased 239 in 2003 and dramatically reached 503 in 2004. The number of files opened during the first six months of 2005 is 186. A critical point is that the construction file does not detail the number of the houses it includes. A file could include one house or fifty houses (Figure 1).

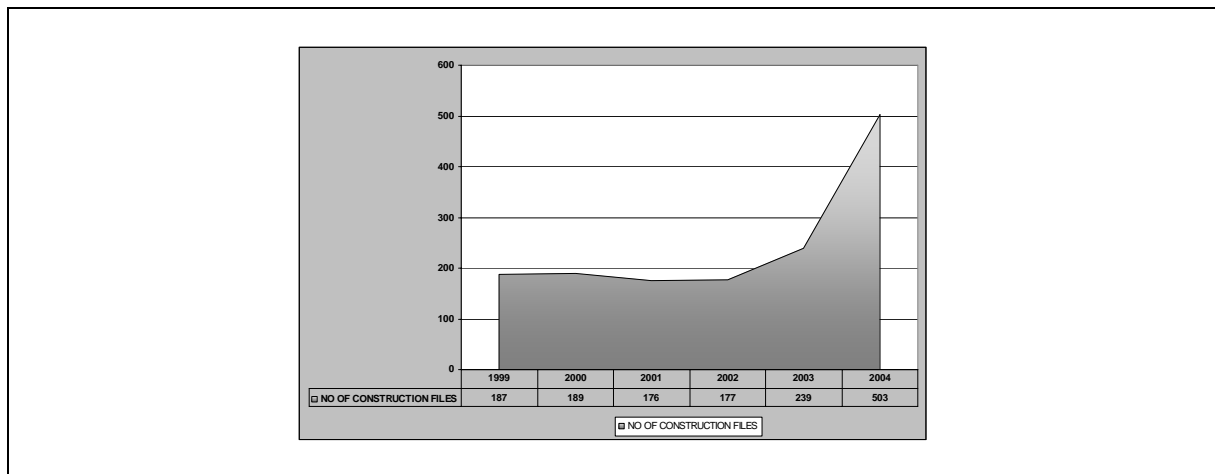


Figure 1: Distribution of housing construction in Girne region per year.

Besides affordable land and property prices, the natural and historical richness of Girne also attracts people from different places to settle. The city is bordered to the north by the sea and to the south by the greenery of the mountain ranges. It has a strong historical link dating back to the 10th century BC. Throughout history, it has been a trading post in the Mediterranean Sea, and by the second half of the 20th century it was transformed into a touristic city. However, today, new housing areas have developed very rapidly and official authorities cannot control them properly and sufficiently. At the

same time, the lack of a master plan for sustainable development has accelerated the increase and expansion of these unplanned living environments in the city. As a matter of fact, most of the implementations do not consider the natural environment, historical accumulation, architectural precedents, traditional urban tissue, and consequently the urban identity of the city.

In general, two types of housing dominate the built environment in Girne: apartment and villa type housing complexes. These complexes are usually composed of identical blocks of apartment blocks or villas without having any variety in form and usage. With their introverted spatial organization and separate location with a constant distance from each other, they do not respect to the coherent and organic urban fabric of the old city. On the other hand, climatic comfort is usually not considered and they usually do not contain compatible architectural detailing, space orientation and building material, according to the tried and tested solutions in traditional Cypriot architecture. In both types of housing, integration with the topography of the region is mostly ignored (Figure 2). Without doubt, this attitude of designer and nature of design have degraded the quality of the living environment and consequently the satisfaction of users. At this point, the need for change and modification is inevitable for the user, either during the design process or the post occupancy period of housing. Yet, change and adaptation of a house does not always relate to the merit of design. Predominantly, households usually re-organize space relationships and façade elements of a house due to their desires and requirements.

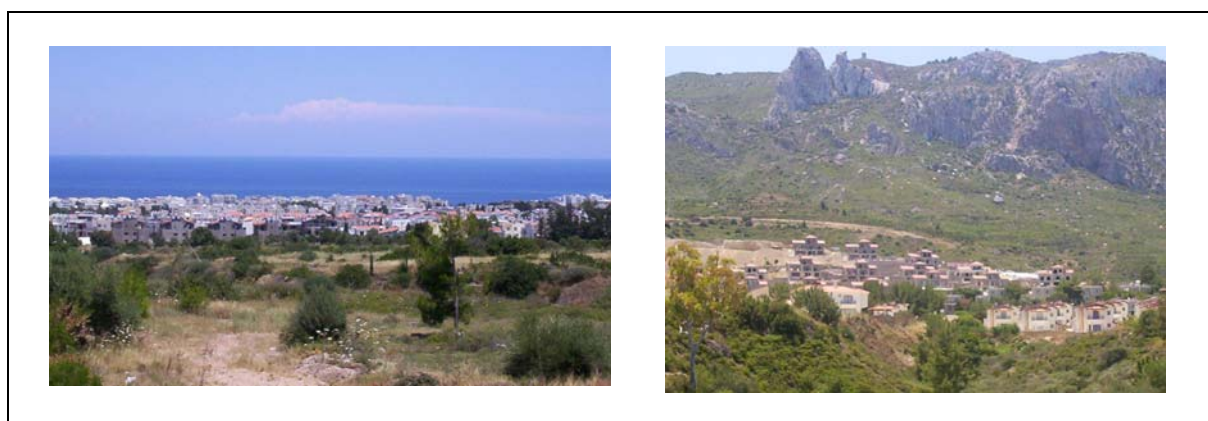


Figure 2: Aerial view of newly developed housing areas of Girne

3 Change and adaptability of housing in the city of Girne

Observations and interviews were carried out in different residential areas, containing between 6-30 units of a similar type. The houses have been changed and adapted by the occupants who have owned and lived in the newly developed housing areas of Girne for 2 to 3 years. In general, they are two-storey detached houses with an average area ranging between 150-170 sq m. They are mostly owned by middle-aged couples from Cyprus and United Kingdom (Figure 3). Although the occupancy period has not been so long in these housing areas, certain ingenious changes, which were made by individuals themselves or with the help of builders, are found, especially in the houses of permanent occupants.



Figure 3: Typical housing examples and their spatial organizations in Girne

Findings indicate that changes have mostly been made in houses where the occupants are permanent. Generally, change is not needed in the houses which are temporarily used during the summer period. This can be interpreted as a reasonable reflection of the power of daily life and routines in shaping the living environment. The permanent house is usually tailored due to the routine needs of daily life whilst the houses for temporary use are not changed. Thus, they are not personalized (like any bungalow in a holiday village). The observations and interviews with the residents indicate certain changes that have already been done or are expected to be done in the future. In general, the following priorities appear:

1. changing the size of bedrooms,
2. changing the use of bedrooms,
3. changing the kitchen interior,
4. increasing transparency amongst the indoor spaces,
5. dividing the kitchen and living room with movable devices,
6. increasing transparency between the indoor and outdoor spaces,
7. removing the fireplace,
8. enclosing the space in front of the entrance,
9. adding a shed,
10. enlarging the balcony on the upper floor,
11. enclosing the balcony,
12. dividing the living room into two subspaces,
13. enlarging the toilet on the ground floor,

As a general overview, the kitchen, living room, bedrooms and the balcony predominantly have undergone the most change. Generally, the small size of bedrooms does not satisfy the requirements of the users. In some cases, one of the three bedrooms is usually changed into a study room because of functional necessities. Similarly, functional changes are observed in the kitchen for working stages. In order to provide sufficient surfaces for working and appropriate cupboards for storage, additional furniture is frequently needed. Even electronic devices such as the refrigerator are usually moved to the utility room to add more cupboard space to the kitchen. On the other hand, strong visual and physical relationships, which yield transparency on the ground floor, are enforced with additional openings. However, this re-arrangement can cause another set of problems at later stages of

occupancy. Generally, spatial continuity between living room-kitchen, living room-staircases and living room-entrance hall is highly preferred. In the case of any closed spaces, users usually change it to have openings in the enclosing wall/s for visual impact, or abolish the entire wall for a physical contact between the two indoor spaces. Moreover, strong spatial relationships and continuity between indoor and outdoor spaces are considered as a psychological necessity, which is usually achieved by dimensional changes of windows or transformation of a window into a door. In fact, this is an expression of the need for extrovert space organization in close contact with nature as it was in the traditional architecture of Cyprus [11, 12 & 13, 14]. With the same purpose, terraces on the ground floor and the balcony on the upper floor take on important roles in daily living. However, their dimensional insufficiency necessitate dimensional and spatial changes. Small balconies are usually enclosed and utilized as a sunroom, whilst terraces are expanded to have larger platforms in the garden for daily uses. This proves the importance of outdoor spaces as important to achieving climatic comfort on the island. Moreover, indoor spaces of the contemporary houses are not sufficiently equipped to enjoy the advantages of the natural environment. Instead of natural/thermal solutions, mechanical devices and air conditioning systems are extensively utilized for cooling and heating. For example, some occupants have removed the fireplaces. This is an ironic situation in a country that frequently has electrical energy shortage. The construction of a shed is also a very common addition in the newly developed housing areas. Although it has no direct contribution to the architectural body of the house, this additional construction in the garden is important as it indicates the need for extra spaces for storage purposes.

Plans and photographs of these houses convey the changes predominantly in terms of room function, growth and division of spaces, and spatial arrangements for connection. Most of the time, use of spaces is changed with some amendments, which include *adding* or *replacing* certain built-in furniture, due to the new function. Users usually have serious complaints regarding the size of spaces. They therefore mostly increase the size and artificially grow the spaces by making *extensions* (a kind of spatial enlargement by adding a formerly non-existing space) or *enclosure* (another kind of spatial enlargement by adding already existing space defined structurally). On the ground floor, open organization of spaces is commonly accepted, with variations according to the individual attributes of users. Thus, the degree of spatial relationships is increased through different sizes and shapes of openings for visual and physical connections.

4 Discussion and Conclusion

When the reasons for changes in the houses are considered, physical and psychological comfort of the occupants with regard to dimensional problems and functional necessities of spaces come forward. However, no clear distinction between the requirements of local and foreign occupants is traced in the study. It is difficult to identify a certain set of changes specific to a certain user group.

Beyond the differences in changes, it is quite striking to observe similar and common solutions in the houses of Turkish Cypriot and the British users. Due to strong social interaction, neighbours from different backgrounds, suggest and prefer similar changes in their houses. For instance, the popularity of the utility room, a requirement of the British users, is integrated into the design of the houses. It is then commonly accepted, and also required by the Turkish Cypriot occupant. On the other hand, the role of past experiences and memories regarding change and the adaptation of a living environment is mostly traced in the houses of British users. The need for conservatory space is a specific example of this attitude of users. Distinctively, British users have a tendency to segregate kitchen and living room from each other by means of a movable partition. This is an implementation which is not a common practice in the house of the Turkish Cypriot user. British users have also given significance to the

traditional forms, images and materials of the indigenous architecture of the island. However, local users do not usually prefer the use of such images or approaches in the design of their houses.

In the light of the findings mentioned above, the housing sector in Cyprus has to do with the change and sustainability of the built environment. The maintenance and nurturing of common issues and respect for future generations should be considered. To solve certain problems - whether at the level of urban tissue or at the level of architecture, sustainable design approaches could be developed to regenerate neighborhoods and adapt buildings rather than demolish them. Moreover, the new housing systems such as flex-buildings which are designed to be able to change with limited structural intervention and adaptable infill (mainly related to the mobility of walls and re-use of building components by the users) can be proposed to be implemented in the new housing projects. In this sense, it is important to develop a procedure for the design process and for the building process that will assure the central role of the user.

Without doubt, it is important to understand the range of changes in the newly developed areas of Girne. This overview presents some of the basic architectural changes that have been made by the occupants. It is valuable for builders, manufacturers, investors, developers, housing corporations and firms; and the other related sectors of housing, to enable them to launch design ideas and concepts that provide occupants with greater preoccupancy choice and the opportunity for later adaptability. It is important to always consider the house as a unit which can individually be adapted to the ever changing needs and desires of users over the course of time.

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