Analytical investigation of urban housing typologies in twentieth century Istanbul

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Abstract

Purpose – Turkey has been rapidly urbanizing since the 1950s. In quantitative and qualitative meanings, the problem of housing is one of the most important subjects on Turkey’s agenda. Increasing population, rapid cultural and economic transition and the dynamics of in-migration, changes in social life, consumption patterns and value systems have made a significant impact on housing demand and supply. If we try to realize a general analytical outlook to define the basic formal and informal categories that reflect specific values pertaining to housing typology of the twentieth century, it would be possible to make a classification under the following sub-titles: formal housing-row houses, separate houses, apartment blocks, social housing, mass-housing, luxury housing including gated communities; informal housing – squatter settlements/gecekondu/slums; inbetween – apartkondus/unpermitted constructions/building extensions. The paper aims to discuss these issues.

Design/methodology/approach – Istanbul has been experiencing these various dynamics of planned and unplanned housing settlements in a very radical way, since the 1950s. Changing typology is examined systematically under certain periods up to now. In confronting housing needs under rapid urbanization, “types of housing supply channels” appeared and as a result, urban texture has been changing by periods. In this paper, in order to understand each of these categories and the conditions under which they have been generated, an analysis will be realized to understand the urban housing concept of Istanbul within the twentieth century urban environment.

Findings – The factors playing a role in the evolution of twentieth century dwelling forms on Istanbul will be defined, and the physical/architectural, locational, neighborhood characteristics, as well as their user profile will be examined.

Originality/value – This study is expected to contribute to the further understanding of the urban housing stock and the future trends in housing typology.

Keywords Housing, Housing stock, Planned settlements, Unplanned settlements, Urban housing typology

Paper type Research paper

Introduction

The goal of the study is to examine the historical development of the urban communities by exploring urban housing typology in the housing market, and ultimately to discover and discuss the urban life styles through a historical analysis of the urban housing form. This will enable the projection of the future housing needs and preferences. Despite the fact that sometimes these two major housing types become blurred (Tipple et al., 1985) in order to identify in the city, the taxonomy of formal, and informal housing is based on the physical characteristics of the building and close environments. In the case of Istanbul, there is an additional category: inbetween. The informal housing market has developed, starting in the 1950s and has paralleled the formal housing market since then. Although its capacity was much smaller in the beginning, it grew extensively to require significant attention of architects and urban planners to discuss the housing issues.

By defining the basic formal and informal categories that reflect specific values attached to housing typology of the twentieth century, it would be possible to make a classification under the following sub-categories: formal housing – row houses, separate houses, apartment blocks, social housing, mass-housing, luxury housing including gated communities; informal housing – squatter settlements/gecekondu/slums; inbetween – apartkondus/unpermitted construction/building extensions. In the study, the housing type in each category will be...
defined; and the physical, architectural, locational, neighborhood characteristics and user profile will be examined.

Turkey has been rapidly urbanizing since the 1950s. Istanbul with its population of approximately 15m people has been experiencing various dynamics of planned and unplanned housing settlements in a very radical way (Sener and Ozsoy, 2007). Its growth during the last half century has been tenfold (Turkstat, 2016). Istanbul, the cultural, economical and information center of Turkey, with its high urbanization rate in parallel to the globalization process, exhibits typical metropol characteristics. In the last three decades, urban transformation, renewal activities and geographical expansion have remarkably changed the urban morphology of the city from a one- to multi-centered city. Both formal and informal markets have produced housing within their own principles to accommodate the growing population in planned and unplanned urban zones, respectively. These changes have negatively affected the life quality physically and socially in the built neighborhoods. In confronting housing needs, “types of housing supply channels” appeared and as a result urban texture has changed by periods: 1945–1960, 1960–1980, 1980–2000 and 2000– (Tekeli, 2010).

The housing development in Istanbul during the late twentieth century has impact on the housing stock. Its main characteristics depict soft transitions and intermediaries between upper, middle and working class residences, apartments and gecekondus accompanied by an urban topography based on mix-use neighborhoods and a dense and compact urban form (İşik and Güvenç, 1996). The beginning of the 1980s, neo-liberal economic and spatial policies have oriented Istanbul to become a global city (Erkan, 1996; Keyder and Öncü, 1993). These new policies changed the balance in the social structure, leading to growing socio-economic inequalities and distribution of wealth (Aksoy, 1996); giving rise to new large capitalists in the housing sector and diminishing the role of the small- and medium-sized constructors (Sey, 1998). Laws passed in the early 1980s enabled the establishment of the Mass Housing Administration (MHA), responsible to the Prime Ministry. The Mass Housing Fund (MHF) had the objective of regularizing the capital flow to the housing sector, mainly to large housing developments for middle- and upper-income classes. The MHA has been largely responsible for urban transformation, which was speeded up by the Law on Transformation of the Areas under Disaster Risk (Law No. 6306, 2012). The squatter settlements and the build-and-sell model of production have been dominant housing issues in major cities (Sener and Ozsoy, 2007). The article is a single case study based on descriptive qualities of the selected projects. Similar methodology were also followed in papers that communicated wholistic approach to present large array of projects at once by focusing on the transition over time (Huang and Li, 2006).

Formal housing

Formal housing market is characterized by housing provided either by the public and/or the private sector. Such housing is produced and opened to the demand of the potential customers in the legally allocated urban lands to form residential zones of the city. The builders can be private small contractor firms, large-scale developers or government agencies. The supply of housing has been based on small-scale production (build and sell style), before the 1980s. Then, large-scale urban developments began to take place through “mass housing cooperatives.” As a result, large blocks have been added to the city, especially in major cities (Türel, 1989; State Planning Organization, 2001). In the early 1990s, upper income groups and some middle–upper have started to settle in gated communities, which offer their dwellers a high quality of life and rich environmental services (Genis, 2007). Taking into account all the other actors in the urban housing market since the 1980s (small producers, developers, cooperatives, private entrepreneurs, etc.), the public sector (both MHA – in Turkish TOKI – and the municipalities) has gained significant profits.
At the beginning of the 1990s, the urban local governments formed their own companies to develop housing estates. The private sector provides most of the formal housing stock for the middle- and higher-income groups, but does not service the lower and the lowest income groups. For the shelter needs of the poorer families, the government takes the responsibility, yet it could only meet 10–20 percent of formal housing stock in Turkey during the Turkish Republic Period. With the establishment of the MHA apart from the General Administration in 1984, and the foundation of the MHF, the traditional role of the Turkish public sector has also changed: from that of a regulator in the housing market to that of a direct investor in the land development process, as well as in the formal housing market (Türel, 1989; Baharoglu, 1996; Turk and Korthals Altes, 2010). MHA projects aim to provide suitable housing for the low-to-middle income groups; in Istanbul it has developed mass housing projects for mainly middle-to-upper income groups to subsidize social housing projects (Halkali mass housing area, Avrupa Houses Project, etc.). Starting with the first decades of a new century, urban transformation has been on the agenda of global cities of developing countries. Istanbul is not an exemption. In this era, an approach focusing on participatory planning and generating sustainable environment has gained significance; and protection of the local characteristics and unique identity of the city during the process of branding and globalization have been focused on (Alkışer Bregger, 2016).

**Row houses**

Row houses are the first housing implementation produced in mass. During the Ottoman Period, row houses did not constitute a typological category; until after the second half of the nineteenth century. In Istanbul, they gradually gained significance in housing architecture with their hewn stone buildings and richly ornamented house facades (Gür, 2015) (Plate 1). Batur and her team (1979) assessed them as a category, because the row houses facilitate rehabilitation, typification and standardization. The rise of row houses as a house form has been explained by the new middle and small bourgeoisie in the society. Generally, the row houses are 2–3 stories high, low-rise apartments, built on valuable land in deep plots of land to give narrow facades. At the same time, they share two long walls with other buildings. It is a type of housing in which three or more houses are adjacent to one another to maximize the size of the area with minimum cost. They reduce the cost of urban infrastructure, and thus becoming popular on a constrained budget.

Akaretler row houses, the first examples of the lodgements were constructed to meet the housing needs of the Dolmabahçe Palace and Yıldız Palace personnel (Plate 2). Their transformation in the twentieth century has taken place during the social changes with the establishment of the Turkish Republic when the houses changed hands. Most Turkish cities had constructed apartment houses. The shift to multi-family living (style) from single-family living in separate houses occurred. During the second half of the twentieth century, the row houses were rented out by floors and by rooms; thus constituting the pioneering examples of multi-family housing.

*Plate 1.* Yıldırım Street’s row houses in Balat (Ahmet Faik Ozbilge Archive) – a typical row house’s example in Fener (Hayati Inac Archive)
They form a rhythmical organization on the street with their horizontal floor profiles and cumbas. They have a particular historical, architectural quality. At the scale of a housing unit, row houses are planned using special standards. Only at the corners, the units change because they have three free open sides. Each house has an independent entry. The roofs are also separate. Plans, sections and elevations share common features. On sloped land, the row houses contribute to the lively perspective of the street. For more privacy to each house, which accommodates one family, the buildings can be designed in a way slightly dislocated from each other rather than a lined-up row. They can be lined around an arch forming a courtyard in between the houses. They were located mostly in the residential areas in the past and in the historical preservation areas today. Their repetition in blocks/buildings provides a unique property. Their user profile consists of middle-class single families.

Separate houses
In general, the house type that meets the ideal home image of the families with children is the separate house (Dülgeroğlu Yüksel et al., 1994). These houses have four free sides and are located in a garden. They are either one story high and/or low-rise houses. Their increase has been through independent living for the family. This category includes duplex houses as well, because it has the criteria of belonging to one family and for its private life (Plate 3).

Separate houses provide ideal sitting, eating and playing opportunities to their users. They link the interior and exterior spaces. Compared to the shared-or non-separate houses, their initial cost is higher, due to the high cost of connecting to the urban infrastructure. In Istanbul, Levent houses, designed through the period between 1954 and 1960, in the international style, are examples of good quality separate houses. The plan type has developed on the basis of a square scheme; and has been influenced by the Ottoman–Turkish architecture, mainly the yalıs (large houses by the sea) in generating big and spacious rooms. Linking the house to the garage is a novelty in the contemporary separate houses.

Although in most cases they are typically found in summer home zones and seasides, recently they are located in mix-house type large-scale projects where free-standing houses have been specifically preferred. Their numbers are decreasing considerably because of
urban land scarcity, and therefore, they tend to be located in the relatively more peripheral areas. Neighborhood characteristics of the separate houses are similar to small mahalles/quarters where people come to know each other over time, and these areas are planned as low-density neighborhoods with abundant greenery. The user profile of the separate houses indicates that they represent a higher middle-income people, or those wishing to climb up the social ladder. Lately, within the mass-housing projects, separate houses are occupied by high-income families, because they are much more expensive than the other types. Another sub-type of separate houses is mansions, kiosks and detached family houses. For the upper middle class group mansions, which accommodated extended families and were designed with Islamic traditions became a dominant typology in the early twentieth century (Plate 4). In Istanbul, those close to Bosphorus are more prestigious and costly (Öncü, 1997).

**Apartments**

After 1980, the apartments have been constructed within mass housing projects. During this period, squatter houses in the informal-illegal zones have been transformed into apartkondus. The main idea is two-fold: to meet the spatial needs due to demographic increase of existing families; to gain extra income via renting the extra space. Typical apartments of the 1980s and 1990s can be characterized by being part of large housing estates, such as Ataşehir, Bahçeşehir and Halkalı. Further, they have targeted to provide housing for mostly high middle and higher-income groups. The sizes have also varied widely from small to very large.

Apartments started with the new millenium and are mostly observed in the form of residences. This luxury housing is within the mix-use or self-standing locations. The idea behind is to provide a home with hotel services. After the mass-housing law, apartment houses have been produced by Real Estate Investment Trusts. In the 2000s, digital architecture provided more flexible and dynamic architectural forms to the existing mass-housing apartments lacking any architectural characteristics. After 2012, all risky areas were to be converted into stronger and healthier living environments by the Urban Transformation Law. Through it, more apartment blocks have been constructed outside the central city and individual apartment blocks have been demolished and high-rise apartment blocks have been built in the same location (Görgülü, 2016).

A multi-family house type was developed with the aim of combining many housing units around the same staircase. In Istanbul, apartment houses were built in the 1960s at the end of the international style era, with the influence of western architecture in order to meet the housing needs of the middle-income families without much cost. With this type, flat-ownership rights were established. This represents the dominant type of living in the cities for the middle-income families during the period in which pluralism was the main attribute of the city composition.

The first apartment buildings were built in reinforced concrete and had 5–6 stories (Plate 5). With the development plans and regulations, their implementation was constrained by side gardens with the nearest apartment blocks in the same neighborhood. The distance to the street is bounded by the front garden and the distance to the building...
behind regulated by the back garden. The build-and-sellers had put pressure on the villa/separate house owners in the urban areas to sell their houses. Thus, in place of 1–2 story houses, multi-story apartment buildings were built to maximize rent of the urban land, at the expense of increasing the demand of urban facilities, infrastructure, transportation and social services from the local authorities. Sometimes light is not sufficiently obtained to some of the interiors. While meeting the demands of modern urban dwellers, they also refer to the past separate houses called konaks.

Based on the geometry of the blocks by the observer’s eye, they can be in Point Block, or wall, or fragmented block form (Dülgeroğlu Yuksel, 1995). The first one provides reference points in a mix-house type residential development, and helps to break up the monotony, aiming to provide to the bachelors or couples without children the benefits of the facilities of the city center. The second one accommodates multi-families, and its form is rigid, elongated and on plain horizontal-looking blocks, having more than one core (stairs, elevators) and having all units with two orientation sides homogeneously. The third type is a version of the second, generated to humanize the scale of the wall blocks and to provide a variety of form by making occasional voids in mass and angles in geometry to increase lighted facades and green within the building blocks.

The apartments in Istanbul have been constructed in the central parts of the city to form the major residential zones (Plates 6 and 7). With their increasing number, the existing transportation networks could not meet the needs of the apartment house dwellers. Apartments can be located in one block to form multi-story towers, or in the city, they can be sitting on narrow sites according to the development regulations, or they can be located in
large areas in mass-housing sites to be controlled by the local development rights. Small construction firms with weak financial and professional capacity develop small plots to generate neighborhoods of apartment blocks in the planned areas.

The families living in apartment housing do not necessarily know each other and have to form neighborly relations afterwards. The dwellers of apartment houses are middle-class families in general, and many families could be sharing the same floor and the same housing block. Similar to the squatter communities, neighborhoods of apartment houses show a heterogeneous composition of people in terms of social class and status. These people considered living in apartments as both modern and urban; while they associated living in squatter houses as peasant-like, and being in a lower class category (Ayata, 1988; Öncü, 1997). Apartments also differed: middle-class and upper-class apartments were based on such criteria as location, size, construction quality and view.

Social housing
Social housing is provided by governments directly/indirectly in developing countries in the absence of the private sector’s interest in producing affordable housing. Government-provided and subsidized housing is to meet the housing needs of the people who have no alternative other than squatting. They have minimum space standards. They are selectively sold first to the dwellers of squatter houses denoted to be in the demolition zone, and to the people who cannot afford to buy housing by other channels.

Same plan types are almost everywhere in Istanbul and in the whole nation. Mostly, five–story housing blocks of three types only; and 4/5 house plan types exist in social housing projects. There is not much to say about the landscaping. The facades all look the same. The social housing projects are established usually near a squatter settlement, to be demolished or rehabilitated. Seven such regions in Istanbul were determined as suitable zones, based on the criteria of land availability for large scale developments, on the European side three areas (namely, Osmaniye, Küçükköy, and Atatürk Çiftliği); and four on the Anatolian side (namely, Gülsuyu, Örnek Mahalle, Şerifali Çiftliği and Kânlica).

People have tight social ties to each other, if the whole community had formerly been living in the same squatter settlement. In the long run, the government aims to prevent further formation of squatter neighborhoods and prevent urban land speculation. It usually lacks social services for the youngsters. About 3,000 housing units on 61 hectares of land were planned for the Osmaniye social housing zone in late 1960s. Recently, people living in Sulukule have been forced to move into Kayabaşı and Taşoluk MHA/TOKİ houses, which are located very far from Sulukule. Some came back to Karagümüş. Only a small portion of the MHF has been allocated for the production of affordable housing in Turkey. The resident composition is of low-income urban groups with a low level of education. Among these social housing households, the proportion of the working children is higher than households elsewhere. They are characterized by traditional religious habits and lifestyles. The allocatees of the social housing are also given housing credit with a low interest rate and long-term returns to become owners of these houses while they stay in them for 16–20 years. Such houses are mainly for ownership, not for tenancy.

Core housing projects
During the 1st planned period (1963) for the prevention of informal housing development, the government started core housing projects. They usually consist of one room, a kitchen and a toilet to constitute a “core-house,” a type of government-provided housing. Its net-area is very small, about 26 m², with front and backyards. It is aimed for the dweller to expand the house to become a full house, with the permission of the Provincial Development Directorate. These were small and minimal, and were distributed by the government to the needy. They either turn out to become formal houses when completed on the designated site;
but they become like squatter houses when the dwellers are unable to complete them with the credit they receive. They are located near the social housing project sites. It is a version of allocation of serviced land. Lots are approximately the same size: 160–220 m$^2$. Since the infrastructure is pre-laid and pre-planned, the site has certain standards of life quality. User's profile is the same as that of social housing: the characteristics of the allocatee are the same: to have no house owned in the city, to have lived in a gecekondu. Since examples on core housing typology are not common in Istanbul and Turkey, Quinya Monroy Housing, one of the best projects known for core housing is included within the study.

The Quinta Monroy Housing project designed by the Elemental Aravena architecture practice company is the first example of the core housing projects built in the center of Iquique, Chile. This “half-a-house” designed by Elemental Aravena was essentially the core of a home, the half that the residents could not build on their own because of financial issues and housing policies (Tory-Henderson, 2016). The main problem was to settle the 100 families of Quinta Monroy, in the same 5,000 m$^2$ sites that they had illegally occupied for the last 30 years (ArchDaily, 2008). The aim was to keep the families’ social and economic networks, instead of evicting the families to the periphery, they wanted the families to live in houses to achieve a middle-class standard instead of condemning them to an everlasting social housing one (Laureate Alejandro Aravena Image Book, 2016).

Elemental designed a typology that, as buildings, could make very efficient use of land and as houses allowed for expansion. In the project, the architect Alejandro Aravena, who was awarded the Pritzker Prize in 2016, offered low-cost housing with a closed area of approximately 40 m$^2$, where the entire infrastructure required for housing suitable for the use of a core family is provided. The difference of this structure from other social housing projects is that it is designed to be transformed into an 80 m$^2$ house by expanding according to the user’s budget and desire over time. With this feature, the design is an open system example (99percentinvisible.org., 2016). During the project, Aravena led an organization that makes users and local government participants of the project. His approach reveals a democratic process that goes beyond architect–client or architect–user relationships, making the user the designer of the rest of the structure (Aravena, 2014).

Mass housing projects
As the social housing policies changed in the nation, a social housing fund implementation by the Housing and Gecekondu Directorate had been abolished in the 1980s. The major reason for the rise of mass housing is the ever-increasing need for urban housing. Due to decreasing urban land resources, mass-housing projects aim at producing multi-story, multi-block designs. In a unit of mass housing, several house types may co-exist. The most dominant characteristics of mass-housing projects are that they are large-scale housing projects that may contain different typologies, but nevertheless cannot avoid anonymity to some extent. Their sizes include 100 s of units.

The transformation from small-scale (single plot-single building) into large-scale dwelling production (single plot-multiple buildings and units) increased in the 1990s. The process for producing large-scale dwelling projects (mass housing areas), introduced following the Law No: 2985 (1984) and Reconstruction Law No. 3194 (1985, still in effect), is more complex as it engages in more urban actors in the housing market than those of the traditional process.

Most applications of mass housing in Istanbul are located at the open land toward or at the boundaries of the city where new land will be urbanized with such development (Plate 8).

After the 1980s, the public and private sectors constructed mass housing projects extensively, on both sides of the Bosphorous, to meet the shelter needs of high-density population. The Mass Housing Law facilitated such developments, called satellite settlements, by providing credit (Bilgin, 1996).
The mass-housing implementations, directed to meet the quantitative housing needs in urban areas, have not always met the qualitative needs of contemporary urban populations and identities of inhabitants. Mass housing projects in Turkey are realized differently in public enterprises (TOKI, municipality) and private enterprise projects (developer, cooperatives and individuals). The quality of the present housing stock is an issue: as the 1999 Marmara earthquake indicated, large parts of the existing older housing stock are in bad condition, due to their vulnerable location. According to estimates by Association of Turkish Real Estate Investment Companies, in Istanbul, only 48 percent of the buildings have construction permits, and 19 percent of the dwellings have occupancy permits, meaning that many dwellings are built and occupied with no construction permits (GYODER, 2017).

**Gated communities**

As a word, “rezidans” in Turkish derives from French: “residence” means house, place to live. It means the same in English, which is the equivalent of “domus” in Latin, meaning the houses of the rich in the ancien Roman period (Glossary of Turkish Language Society, 1998). The residences are characteristically tower type houses, which give a distinguishable characteristic to the city center. Their form is architecturally appealing and as a prestigious building, the construction materials are of high quality. They are luxury houses and are not new for Istanbul, because villas, konaks of the past are all of this type (Plate 9).

Gated communities emerged in Istanbul in the beginning of the 1990s and have increased in the 2000s. Gated settlements accommodate luxury housing.

In Istanbul, large-scale upper income housing projects have begun when metropolitan and local master plans for zoning and construction codes were by-passed to open the areas previously under conservation (e.g. the Bosphorus hills and water basins around lakes and forests (Kurtulus, 2005a, b; Sönmez, 2000; Sener and Ozsoy, 2007).
During the last 20 years, gated communities increased in all the metropolises around the world. Major cities in the USA (Blakely and Snyder, 1997; Davis, 1992; Low, 1997; Zaner, 1997) and Latin America (Caldeira, 1996; Coy and Pöhler, 2002) have been pioneering in this development. Various forms of gated communities have been spreading to other places as well, such as Bombay (King, 2004), Jakarta (Dick and Rimmer, 1999), Johannesburg (Lipman and Harris, 1999), Manila (Connel, 1999), Shanghai (Miao, 2003) and Tokyo (Waley, 2000) in addition to cities in Europe (Graham and Marvin, 2001; Atkinson and Flint, 2004). Genis (2007) argues that the emergence and spread of gated communities have been under the influence of the neo-liberal policies of the State. It changes the housing sector through the dynamics between multi-actors: real estate actors, new major investors and the state. They have been orienting the urban society to need gated communities as a "modern" solution to the disorderly and unsafe city. Although they have a relatively short history, the number of gated communities in the city has increased geometrically, from approximately 650 at the end of 2005 (Danis and Perouse, 2005) to 2,290 in 2012 (Yalçın et al., 2014).

According to Blakely and Snyder (1997), Low (2003), Caldeira (2000), Atkinson and Flint (2004) and Le Goix (2003), gating is a form of segregation. Typically, physical barriers take the form of high walls or fences, and controlled entry gates for monitoring the privatized space (Blakely and Snyder, 1997; Low, 2003; Atkinson and Blandy, 2005; Madanipour et al., 1998). These barriers not only provide permanent denial of non-members access but also represent exclusivity for members. Gated community conflates the idea of "physical" neighborhood defined by territory with "social" communities defined by the relationships, associations, etc. All the boundaries of the gated developments undermine social-spatial integration in the local area.

These communities are quite closed to the external world and their users are elite people who would like to use the quality of their houses as symbol of prestige and status. They can be horizontal and vertical designed as housing projects. The horizontal housing developments are usually built at urban peripheries to have large green areas, etc. The dwellers learn to become neighbors after living in the same community for a while and start to raise children and send them to the same schools and other activity zones in the settlements. Kemer can be taken as a prototype representative of the general characteristics of gated communities in Istanbul and what they offer to Istanbul’s upper classes.

Another subtype developed most recently is residences, which are located within mix use developments, either as a separate building or as top floors of mix-use commercial structures. Elite residences in Istanbul, Lofts, Polat Residence are examples of single tower-type houses: Akmerkez, among the very first; Kanyon a shopping center and residences, and Zorlu center, residences and hotel, are the latest examples (Plates 10 and 11).

They are close to the cultural, leisure and commercial activities in the city. Their development in Istanbul has been along the major commercial axis (Şişli-Büyükcdere Street) toward North, the new CBD (Plate 12).

The urban land pattern is increasingly dictated by the profitability of various land uses, as opposite to one on the key purposes of sound urban planning (Renard, 2010). Urban transformation projects in both formal and informal zones have been taking place in Istanbul for the last decade.
Informal housing
Unlike the formal housing stock, the informal housing stock is formed without a master plan and is not located on formally designed residential lands. On the contrary, it tends to be constructed on areas that are unsuitable for qualitative land development. They are very difficult to bring urban amenities, such as roads, infrastructure and schools by the local governments. As in many major cities of developing countries, Istanbul is suffering from such informal developments that accommodate more than half of the urban population. Most dwellers are rural-to-urban migrants or the very poor section of the society the demands of which cannot be met by the supply of housing in the formal housing market, mainly because they are unaffordable for them. Like the formal housing market, in the informal housing market there are regulating actors, such as landowners (especially of agricultural land at the fringes of the city), builder–owner–occupants, and landlords (Gür and Dülgeroğlu Yuksel, 2011).

Gecekondu (squatter settlement)
Squatting started in developing countries after the Second World War. The factors that influenced were the mechanization in agriculture, surplus of labor in the villages, in-migration from rural to urban to seek jobs, and incapability of urban economies to emit this inflowing labor force into a formal economy and incapability to house them affordably. Living in a gecekondu was considered to represent “a peasant way of life, backwardness and a lower-class disposition” (Ayata, 1988; Ontu, 1997).

The Squatter Law of 1967 defines the squatter house as the house built usually by the builder-occupier on a piece of land, which is acquired by invasion (Law No. 775, 1966). The earliest squatter houses were one or two story single-family houses, to be characterized by inadequate load-bearing structure and temporary construction materials (Plate 13). A significant property of squatter houses is that they grow over time: sometimes from a single one-room house to a multi-room house. Their growth is first at the horizontal and second vertical on the same plot of land originally invaded and protected. The local and re-cycled construction materials are replaced by reinforced concrete and the roof has become tiled.
The squatter houses can be located at the center of the city or at the outskirts, depending on the availability of the vacant public land. They start out at the peripheral city mainly on agricultural zones surrounding the city; but as the city grows, they end up being within the boundaries of the city. Squatter neighborhoods are organized around quarters, which are locally called “mahalles,” the smallest administrative units in the Turkish system. The squatters – the former villagers who used to be cultivating their agricultural land – are the builders, owners and occupants of the squatter house. After the late seventies, the users of almost half of the squatter houses have become tenants in the “gecekondus” built by former squatters. This indicates the commercialization of this type of informal house.

Most squatter housing originally consists of one or two story houses. However due to socio-economic changes in the family, they tended to grow vertically (see section on Apartkondus). It is hard to define squatter villages/towns nowadays because they exist mostly in the South American developing countries, such as Brazil, Peru and Mexico; and some Asian countries such as India. In the case of Turkey, other than Zeytinburnu in Istanbul, there is no such big scale squatter town. Physical/architectural characteristics of the structures as houses are not much different from those squatter settlements that occupy relatively smaller sizes of land within the city. These villages constitute the transition zones from more rural to more urban; from more traditional to more modern (Plate 14). The land is prepared by the landlord, who is not necessarily the owner of the land, but who subdivides a usually agricultural land illegally and sells out to the newcomers inflowing from the villages in need of jobs in the city. The dwellers are usually from the same village or are relatives or of the same ethnic group. The whole neighborhood develops on urban neighborhood associations, which are formed on a voluntary basis and which aim to gain legal status by establishing solidarity.

Slums in the central city
It is hard to detect the slums’ but the worn outlook of the historical and legal structures implies their existence. They are overcrowded shelters. The houses, which have rooms to rent out, are usually located in the old center of the city because these houses are old and sometimes transformed from other uses to be rented out cheaply. The houses, which have crowded rooms, are usually located near job/work places in the city.

Sometimes they are located in the old commercial zones, or in a central squatter settlement where the owner of the squatter house rents out the rooms to the workers who cannot afford even a squat to rent or who has no relative in the city to stay with. Mostly, the
dwellers are young and are searching for jobs for survival on a daily basis. The turnover rate is high, as in the case of slums. The occupants are short-term dwellers in these rooms and sometimes they rent out just a bed in a room full of many other dwellers. This constitutes a very minimal and substandard shelter.

The land and the housing block on it are legal in slums but the illegality comes from the status of the occupant; the dweller is not a renter but an invader of the building. Although the slums refer to the ghettos of the early twentieth century of the developed countries, the squatter settlements refer to those in the second half of the century in developing countries. Paraphrasing Geddes’s words, squatter houses are slums of hope while the real slums are the slums of despair. They refer to the ghettoized areas, called also as _taudis_ in the western countries, in which people live in very poor multi-story, multi-family buildings with very low physical and spatial quality. The tenancy rate is very high (as opposed to ownership in squatter settlements). This type of house constitutes a relatively much smaller proportion of the housing stock in developing countries and in Istanbul, Turkey. They are located in the center of the large cities, close to many urban amenities, especially to the transportation nodes. The green and open areas are very few. The slums are old and not well maintained, and their owners are absentee in most cases: they have either moved to the suburbs, as a result of urban infiltration process or migrated out of the country, as in the case of the Waqf Foundation houses.

People do not know each other necessarily, neither in the house nor within the neighborhood. The scholars describe the inhabitants of the slums as non-law-abiding, illegal, irreligious people who are urban already. Unlike the squatters, slummers are not coming from the villages to the urban areas. They are not in-migrants therefore, but they can be out-migrants with no jobs. Some are drug addicts, while others can be burglars hiding from the police. These people are transients in some cases, and have emotional and social problems. Generally, they have no will nor means to improve their situation in the urban context. They prefer to live marginally, rather than integrate into the urban society, as one would see in the squatter communities.

**Inbetween (formal and informal)**

On formal housing, informal additions or extensions are made. Such transitions are seen in Turkey (Istanbul), similarly in China (Kawloon City), in Egypt (Cairo). These houses are built on planned areas. However, despite their construction permits, they violate certain development regulations before or after the completion of the house. For example, a new floor is added to a social housing block or a balcony is covered to gain more floor area to the living room. Sometimes, when the residents move in, they change the house as they wish, without getting any permission from the city authorities. Same is the case with the social housing projects in Istanbul: their facades are changed to have larger windows for more light or extensions are made to be covered by walls or glass, for more living space inside. Almost all formal house types in which the middle-class lives are of no exemption to such modifications, including apartment houses and even elite houses. Their modifications are mostly inside the house, regarding divisions between the walls (Gür and Dülgeroğlu Yüksel, 2010).

On informal housing formalization has taken place through amendments to the squatter law from time to time allowing squatters to reconstruct their squatter houses in the form of multi-story apartments. These apartments constitute examples to other squatters to add rooms and upper stories to their existing squatter house to make apartkondus.

**Apartkondus**

The apartment blocks started in the squatter settlements in the late 1970s and flourished in the 1980s (Dülgeroğlu Yüksel, 1995). They are the equivalent of apartment houses in formal settlements. Similarly, they are multi-family housing structures (Senyapılı, 1978).
The apartkondus are 4–5 stories, multi-flat structures. Unlike their counterparts in the formal areas, these are not constructed at once, but gradually following the economic availability of household. One story at a time is built and the quality is not as good as the apartment houses in regular neighborhoods. They are located in the squatter settlements, in place or on the same place as the gecekondus. They can be close to the center or its periphery.

When the apartkondus were first developed, they were occupied by the same family members, owner-occupied in the squatter house. The neighborhood may still be illegal and unplanned from the authorities' point of view, but the general intensity of the built-up area is increased to a great extent, with the vertical growth of the original one-story gecekondus. Some solidarity might have been obtained in the meanwhile so that at least the neighborhood has received the basic urban services. However, the quality of social facilities is quite low. The settlement becomes crowded, at the expense of open, garden areas.

In the same apartment house where the extended family used to live is basically the original core family. They are poor but have improved their economic situation to some extent, so to invest on house upgrading (as they look at this as improvement). The driving force was cultural: as the sons got married they needed their own private housing units to raise their families. Such a situation indicates how squatting becomes a way of obtaining shelter in the city for generations. However later, these extra flats or housing units have become means of economic income: new renters who are not necessarily kin to the family that built the apartment house start to occupy them. In that case, the gecekondu becomes a means of commercial gain rather than a method to meet the basic need for shelter. Unlike the slum dwellers, the gecekondu inhabitants are motivated to invest more in their houses in the hope of obtaining the land-titles and gaining legal status.

Discussion and conclusion
Actually, almost all house types exist in different eras; however, due to socio-economic and cultural dynamics, certain house types come forth and gain popularity in the housing market. Mass housing has developed over the last several decades by the Mass Housing Authority, affecting the formation of urban housing settlements, and typified almost all urban centers in Turkey. By the mid-1980s, the Mass Housing Authority was founded and the MHF was established. Mass housing construction was encouraged by the housing market actors as well as the governmental institutions. However, housing typology, which has existed before as apartment housing, row housing still has continued to make up a significant proportion of the total urban housing stock. While konaks (large separate housing types) have significantly diminished by the changing family structures from extended to core family type in the second half of the twentieth century, residences have been preferred nowadays as the city of Istanbul has become open to the global markets. Characteristics of house types and production of which dominant type of house typology is provided can be read from Figure 1.

In the fulfillment of the goals set at the beginning of the article regarding the urban house in the late twentieth century, Istanbul shows that there exists a wide-variety of houses. Each type of housing has its own period of dominance, which helps to understand the housing development process; although they have simultaneously existed in contemporary Istanbul. The most dominant house type produced is mass housing, for the middle- or higher middle-income families. The informal housing types continue to rival the formal housing, indicating the continued urbanization, under the factors of the globalization process. Each type of housing in the formal and informal market co-exist in the metropolitan arena; pointing out the different needs of different groups in the urban society. Each group is differentiated by variety of housing preferences, tastes and payment capacities. Such heterogeneity in the late twentieth century and the beginning of the twenty-first century. In the housing market has advantages and disadvantages for its dwellers and for the city in general.
Gated communities represent a relatively novel form of housing development in Istanbul and their number is increasing; therefore, “privatization of housing production should go hand in hand with the overall privatization of public sector enterprises and the state should pave the way to market forces in provision, marketing and financing housing” (World Bank, 1993, p. 66). Both the central and local governments should have unique roles in urban land development, as well as the private and the popular sector. The growth and spread of house types in Istanbul, Turkey also give a perspective on the housing history and cultural history of urban society, and how it has become a culturally rich big community on an urban scale. Master plans should accommodate such variety in creating future urban neighborhoods, and should not allow the isolation of upper-income groups from the middle- and low-income settlements. Only then, an integrated urban development can be achieved culturally and spatially, that would provide a satisfactory lifestyle to each group. Urban housing stock in Istanbul is changing while expanding through changing actors in the urban market, rehabilitation, renewal as well as transformation policies. Having explored Istanbul as a case is expected to have contributed to the exploration and understanding of urban dynamics. Planners may use the typology chart to expand on. They can carry this to the settlement scale and to an upper city scale and morphology. This study can be a base for developing further housing typologies. For policy makers, this study suggests that social policy should accommodate housing. The presented study is an effort for documentation and discussion of the diverse types of housing in Istanbul. The need for measuring the urban impact of these projects still do exist and require extensive field research to include citizen participation for understanding and acting on the problems of today and future.

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Further reading

Keyder, Ç. (2010), “Housing and the welfare regime in the periphery”, ENHR, Urban Dynamics and Housing Change, Crossing into the 2nd Decade of the 3rd Millennium, July 4-7, ITU Faculty of Architecture, Istanbul.
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