THE CHANGING STRUCTURE OF MASS HOUSING DEVELOPMENT IN ISTANBUL

Senem Kozaman Som*, Betul Sengezer**, Ayse Nur Okten***

*Research Assistant, Yildiz Technical University, City and Regional Planning Department, Besiktas, Istanbul - Turkey, senemkozaman@gmail.com
**Prof. Dr., Yildiz Technical University, City and Regional Planning Department, Besiktas, Istanbul - Turkey betulsengezer@gmail.com
***Prof. Dr., Yildiz Technical University, City and Regional Planning Department, Besiktas, Istanbul - Turkey okten.aysenur@gmail.com

ABSTRACT

In Istanbul, especially after 1980s, economic and social policies are the major axis that constitutes the development dynamics of the metropol. The urban sprawl began with the rapid urbanisation process and has continued with the increasing concentration caused by individual housing solutions and changes in real estate development policies. In this period, although planning attributes an increased importance, the spatial character of the period can be determined as the excessive concentration in built up area and low density expansion (sprawl) in the periphery of Istanbul. During this period,

- However, due to the implementations of the plans there emerged a structure, where the local plans constantly underwent revisions and amendments,
- Furthermore, in contrast to the preparation of broad scale plans, the development of housing is directed by projects that independent from the plans.
- Until 1990s, the public lands are used as a tool for creating healthier city, but in 2000s public lands are seen as the tools that provides annuity.

These are the examples of changing paradigms and problems in the housing development. With the changing socio-economic and technological conditions housing preserve its characteristic of being a major cumulative problem. In this context, current developments such as "urban renaissance", "smart growth" approaches are defined as the main principles of the new housing development process in 1990s. However from the mid-2000s, the experiences based on these trends, are questioned with highlighting the "urban capacity" contradictions. After 1990, public-private sector partnerships or only private sector has begun to develop mass housing projects. These projects are high-density projects, furthermore structuring conditions of the projects are against to construction regulations and the equipment standarts are ignored. The density has increased, on the contrary needs of the population for education, health and green space are not in the content of the projects. From the Istanbul example, with its spatial heritage and different planning culture from most of the developed countries, the subject of this paper is to review this fundamental problem with reflecting the changing concept in public and mass housing approaches. These problems and concerns are exposed with spatial schemes and based on housing and population statistics.
1. INTRODUCTION

House, which appeared for the purpose of covering the housing requirements, continued its development as an economical asset and social interaction tool in the process (Sarıoğlu, 2007). Today, house is a complicated and extensive fact as an object of housing, prestige, material, consumption investment, production, effort, urban cultural belonging and an architectural design. House, with its complex and extensive structure, protected its characteristic of being a mass of accumulated problems in different dimensions and interactions in every period in line with the changing socio-economical and technological conditions.

Big cities, in which the rapid population and urbanization are experienced, are the areas in which the house problem is experienced much more and with priority. The house problem is taken up with the different approaches based on its own policies of every period in Istanbul metropolitan area as well. The solutions produced created new experiences within the conditions of every period, however the problems which arise together with such experiences are reflected on the future as accumulated inheritance.

The recent twenty years period is a process of accumulation in which the capital is produced again on the cities. In this process, the competition between the cities escalated, plans are replaced with the projects, project scaled increased, and the problems started to resemble each others in this respect. The characteristics of the period started to be reflected in Istanbul because it is an important metropolitan. In line with the circulating global capital and the project development flows, the democracy, participation, sustainable arguments form the intellectual project of the globalization as an antidote of the potential destructive. In this frame, the main principles of the developments are defined with the flows such as urban renaissance, smart growth. However, the experiences based on these flows forming the agenda of the 1990’s are examined by means of making emphasis on the conflicts of “urban capacity” beginning from the mid of the 2000’s. Reviewing these fundamental inquiries and a look at the future in this respect form the subject of this announcement, on the Istanbul example which has a different structure and a different planning culture than the spatial inheritance of the developed countries.

In this announcement, attention is attracted to the problems that the new meaning of the urban capacity will pose in respect of the developments in Istanbul, and the influence of the spatial formations in the city and the negative externalities to be brought by the intensities on the life quality is emphasized. These problems and worries are put forward with the palatial sketches based on the house and population statistics.

2. HOUSING, URBAN CAPACITY AND URBAN RIGHTS

House formed an important, complicated problem area in every period and space, with different dimensions. The expensive, long-term investment characteristic of house, the impossibility of returning from the mistakes which are made based on this; severe influence of these mistakes on the lower and medium income classes; in addition to this, the negative aspects which appear in terms of the different dimensions of the sustainability indicated that it is not possible to solve the house problem under the market conditions only. The actual contribution of the government is considered a requirement of being a “social state” in covering the most vital needs of the citizens. Because of these reasons, the place selection is controlled and arranged in the city place as well as the production, consumption and
distribution of the housing units and supported either directly or indirectly by the governments (Harsman and Quigley, 1991). Such arrangement activities not only diversify as a product of the political approach of the social-economical structures of the nations but also they resemble depending on getting universal of the technology and consumption culture within the process.

In the recent twenty years period, based on the weakening of the social state principle increasingly, the solution of the problems in the house and service presentation is left to the market mechanism. As a result of this, it became increasingly difficult for the poor people to own houses. On the other hand, the population increase and the intensity increases in the cities started to threaten not only the life quality but also the sustainability.

The trends of smart growth sourced from America and urban renaissance sourced from England suggested the land usage policies which stipulate intensification against expansion (Sierra Club, 1999; Sprawl City, 2000; Sprawl Watch, 1998). While the argument of smart growth is settled on the critiques based on the public health problems brought with the widespread urban city of America, the argument of urban renaissance is based on the determination of threatening the green bands in accordance with the urban capacity works (Bretherton, 2008). In this context, proposed strategies and basic principles are below:

(1) making urban areas more livable and attractive places (2) vitalizing the commercial areas (3) protecting natural environment, historical and cultural heritage (4) promoting mixed use and assuring low price residential areas (5) strengthening design in planning (6) providing the needs of the society in housing with the use of flexible planning standards.

The purpose intended with these strategies was to create a high-quality structuring and to increase the attraction of the centers in the city centers. Thus, it is hoped that the number of the business and resting travel flows will decrease and it will decrease the damage suffered by the environment by the for-the-day arrivals. However, it is seen that these principles adapted in the end of the first decade of the application could not be reflected in required way on the space. The arguments that the high density which is defended on the conflict between the “urban capacity” and “high quality life” has some boundaries in terms of the substructure and service presentations are settled on the agenda.

The concept of urban capacity became subject of the well-rooted approach differences in England in particular in the 2000’s years. While the approaches which are focused on the physical and social restrictions of the space selections developed (urban environment-friendly point of view), on the other hand the approaches which take part the additional house number potential appeared only (urban developing approach) (Gunn, 2006). The urban capacity means increasing the urban land quantity and house presentation which could be found in the urban parts of the urban developers. However, it means a development threshold in which the urban capacity locality could not be sustained for the urban environmentalists. The arguments between these two approaches are carried out on the usage of activity and the urban quality concepts urbanely. In the critiques which are made for the urban capacity method which is preferred by the urban developers, it is dwelled upon taking decision in terms of a narrow point of view in the space selections of the development house areas. Those who defend this method dwell upon the connections of constructible maximum house number and the service centers and the communication focuses as the space selection criteria, and do not mention the transportation and other service utilization
conditions and the quality of these services. However, it is necessary to create the problems such as the substructure insufficiency of the urban capacity method which is used for the purpose of attracting population to the city centers and the low environment and service quality and to interrogate the prevention of the “urban renaissance” (Gunn, 2006).

Starting from this point, it is attracted attention to the evaluation of the sufficiency or insufficiency of the urban areas, in other words the analysis of the saturated and unsaturated areas, in order to ensure the additional houses in the urban capacity works. The indicator of such an analysis is density. The capacity limit of the present substructure (technical and social) and the substructure costs which will appear for the additional intensity should be taken into consideration in the capacity analyses. The necessity of answering the questions which will be encountered by whom and how is emphasized in the reports which are prepared in this direction (Essex County Council, 2005). While the transportation capacity analyses take part in England planning guides before the year 1990, it is made optional following the year 1990, and as a consequence of the arguments and inquiries, the arrangements which require analyzing the compliance with the substructure (transportation and social substructure) and the substructure covering cost are made in the house development space selections in the 2000’s.

While the developments experienced in the last century indicate the negative aspects of expansion, the experiences in the recent twenty years period attract attention to the negative aspects which are brought or will be brought by the excessive density (Table 1). These experiences require interrogating the solutions for the urbanization and housing problems in the frame of the indispensable principal principles of the urban life. These principles are expressed as follows, with the urban rights specified in the Europe Urban Condition which is accepted in the year 1992: 1) Ensuring the livable and beautiful houses with the affordable prices and having environment-friendly conditions and also, well positioned, illuminated and having sufficient space; 2) Taking the protective health measures such as sufficient green area, sunlight, silence, flora and beauties; 3) Ensuring a concordant balance between the cultural opportunities, sports and recreational activities, social development, free circulation and all of the road users (mass transportation, private cars, pedestrians and bicycles); 4) Providing the necessary social activities, measures against poverty and in particular necessary equipments for the handicapped people, and also providing the rights of security, welfare, business, training and education opportunities, and having cultural and historical inheritance.

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Table 1: The negative effects of expansion and excessive intensification

European Urban Condition and Urban Renaissance approach are the complementary parts of the argument of a livable city. The arguments have a meaning within the integrity. Putting one or several of these components on the uppermost importance, at the cost of ignoring the other components, spoil the balances. It may cause getting away from the ideals which are indicated by the argument and some conflicts. The search of the capital for free circulation and increasing the capital, minimizing the land and substructure costs per house in house...
availability and the opportunities which are provided by the developing technology may trigger the excessive intensification.

Istanbul has a lot of experiences which should be argued in the frame of these fundamental urban rights and it experiences a lot of new searches. The development of Istanbul is taken up in this respect and the problems to be caused by the problems which may be created by the intensification and expansion in the recent period are underlined as below. As the house developments are observed in the recent 20 years period of time, it is seen as an inevitable fact that the presentation of the public services which is already insufficient will be more and more difficult with the increasing density increases.

3. HOUSING DYNAMICS OF THE RECENT 20 YEARS IN ISTANBUL

Covering the innocent housing requests of the people who came to the city as a result of the industrialization and mechanization in the period of 1950-1980 in Istanbul and the shanty houses which are used as a tool of policy in the inexpensive labor force supply started to change shape in the years 1970’s. In this period, the primary dynamics of urban expansion are industry and the shanty house formation which developed based on this to an important extent. When the 1980’s years are reached, the urban identity is qualified with the areas with and without improvements or those with or without legal nature. The spatial projection of this separation is the medium density compact (planned areas) and low density expansion and eave formation (unplanned areas). The population increase between the years 1970-1980 became 1720000, and the incoming population particularly settled under E5 in both Asian and European sides (Map 1).


With the opportunities which are provided also by the development discharges which were enacted in the 1980’s years, the shanty houses became a tool for taking share from the unearned income (Karasu, 2005). The shanty house areas and the wide areas which connect them with each others experienced the transformation of the innocent shanty houses into multi-storey structures through the Improvement Development Plans in the period of
1980-1990. By means of this intensification policy, the house availability of the wide masses of people is realized at the cost of healthy housing and healthy environment. The density in the coastlines and some accumulation regions is about 400km/hectar. The settlements such as Esenkent, Sultanbeyli, Sariğazi became evident towards the years 1990’s, surrounding the TEM motorway along with the western and eastern axles of the city.

The intensification and available house arguments of the universal house policies of 1990’s were realized in the period of 1980-2000 through the Improvement Development Plans in Istanbul. The population increase is 2.5 persons between the years 1980-1990. It is seen that the incoming population went away from the center, and settled at the north of E5 in the European side and at the south of E5 in the Asian side (Map 2). The densities increased for more than twice in 10 years and exceeded 1000km/hectar in some places as of the year 1995.

Beginning from 1985’s, the requirement for the motor areas of the city which takes part in the global economical networks is emphasized, and the privileged rights are distributed with the “modification plans”, “revision plans” and “tourism area advertisements”. The density increases also started on the areas with improvements with the discrete increases and plan notes. Beginning from the end of 1980’s, the increases which started with the glorious office towers, hotels and shopping centers in Levent-Maslak region continued by means of converting into residences and mixed-usage structures concept following the year 1990. In While the spatial identity could be defined with the discrete and symbolic skyscrapers building in a compact city with medium height in 2000’s, passing towards the skyscraper regions which became intensified in 2010’s became faster. The population increase became 2.8 million between the years 1990-2000. While the population coming to the city prefers to the second generation of the European side as the settlement area, it is seen that Ümraniye and Kartal/Pendik region got attraction with the influence of the bridges where the development became faster in the Asian side in particular (Map 3).
The population increase is below the previous period with 2.5 million people in the period of 2000-2007. It is observed that the intensification increased because of adding the incoming population on the expansion area of the previous period (Map 4).

When the flat numbers are examined according to the increased population and building counts in the period of 1970-2007, it is observed that the population is absorbed in a band with the radius of 30 km and the attraction of the region neighboring MIA such as Gaziosmanpaşa, Bayrampaşa is at the highest level.
When the applications of the period 2000-2009 are observed, it is seen that the introverted lifestyle is emphasized in the spatial and social meanings by means of the keywords such as residence, security, mixed usage, pool, sports in house presentation. In this period, it draws attention that the high blocks are crucial in the period. During the marketing process of these houses, the hospital and school numbers of the related district of the houses are listed mostly by means of emphasizing the life quality and social and cultural opportunities. 640 estate or residence announcements are found and examined by scanning the real estate websites in internet in the year 2009. According to the table which is prepared based on this finding, the distribution of the skyscrapers which became intensified on Levent Maslak axle in particular in Istanbul in Istanbul is observed in the Map 5 as a result of the internet scanning, of the house projects which were built before the year 2005 as well as the houses which are built between the years 2005-2009 and being marketed at present. This map indicates that the buildings which were constructed in recent 10 years. This development is positive in terms of preventing exceeding and expanding the natural thresholds. However, it is an important danger for this development to be continued without taking into consideration the common equipment areas, substructure capacities in terms of livability and sustainability.

When it is looked in terms of the project area in the projects which were built after the year 2005, it is seen that the single storey house projects have an important share in the distribution of the total project area (57%). In spite of this fact, when the house number is examined, the house projects having high density have an important share in the total house number (71%). While the existence of the inexpensive and wide lands in the perimeters makes the development of the houses with less densities and more project areas possible, also the house projects with the high density and high stories show development in the city center because the land is valuable and scarce.
At this point, inquiring the inclination of creating high densities in the city in the frame of the Europe Urban Condition may help us to put forward the dimensions of the danger in a better manner. To this end, the house development in Istanbul is examined with regard to the employment, house, health, sports and recreation, high-quality architecture and physical environmental and personal integrity (education) rights of the people living in the city. In this examination, the quantitative nature of the presentation of the services such as health, education, sports and recreation is examined. The education, health and green area equipment standards are compared according to the years throughout Istanbul and based on the districts.

3.2 Green area, education and health equipment standards of Istanbul according to the years

i. Green Area

The green area is 8,986,823 m² in Istanbul as of the year 1995, and the quantity of green area per person is 1,13 m² (İBB,1995). According to the data of the Directorate of Parks and Gardens, the green area per person as of the year 2004 is 1,1 m². It is seen that there is an increase, even slightly (Chart 1) (Aksoy, 2004).

![Chart 1: Park areas per person 1975-2004 (Aksoy, 2004)](image)

However, the fact that the green area is still one tenth of the standards of the Development Regulation reflects the insufficiency. Although 10,773,640 m² park area is arranged or added beginning from the year 1975 to the year 2004, the population which is added with the new population increases prevented the green area quantity per person to increase sufficiently. In other words, the opportunities for developing the standards are eliminated with the new structuring. On the other hand, it is declared in the Council minutes that IBB (Istanbul Metropolitan Municipality) increased the green area from 30,109,933 m² to 47,983,986 m² in the recent 5 years period, and increased the green area by 59% (Ministry of Environment and Forestry, 2009).

It is not possible for the green area per person to approach to the required standards by means of increasing the population and densities with the increase of the green area quantity arranged as park. On the other hand, the total size of only four example areas which are “converted from green area to house” by the way of plan change which became subject in the news from internet, is 375,000 m² and its rate in the total green area is 4.2%. The number of revisions made in the recent 5 years period by the municipality is 1383², and the purpose of the plan revisions remain unclear. These application examples indicate that these opportunities are not used at the required level while there is opportunity to increase the park

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¹ This value is 1.65 m² in IMP 2005 report.
² http://saglik.milliyet.com.tr/Dunya/SonDakika.aspx?aType=SonDakika&ArticleID=969816
areas and the problem reaches the unsolved points by means of opening the empty open areas for the structuring intensively.

ii. Education

According to the statistics of the National Education Directorate as of the year 2008 in Istanbul the average of the number of students per classroom is 53 and the number of students per branch is 37 in the primary school, and these numbers are 44 and 34 respectively in the secondary education. However, it is interesting that the number of students per classroom in the official primary school in 26 districts is above the average, and this value reached 89 students in some districts. When the change in the primary and secondary educations is examined according to the districts in the recent 10 years period, it is seen that the number of students per classroom increased in all of the districts except for Büyükçekmece. There are some districts in which the number of students per classroom exceeds 100.

![Chart 2: The average of the number of students per classroom in primary schools 2008-09](image)

It seems quite difficult for Istanbul, which could not realize the technological expansion in conformity with the world economically, to make a great leap with such educational opportunities. When these educational indicators and quarter density increases are evaluated together, while there is opportunity to increase the educational areas, it could be

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3 Being less than the year 2008 of the school, student and classroom numbers in comparison with the year 2007 reflects the fact that there are some schools which are not added on this database. The considerable increase of the numbers of students per classroom in comparison with the previous year may result from the failure in including the private schools in the database of this year.
seen that these opportunities are not used sufficiently and also the empty open areas are opened for structuring and, as the number of users increased, the problem remained unsolved.

iii. Health

When the health equipments and service presentations are examined according to the years in Istanbul, it is seen that the number of beds per 10,000 persons decreased including the private and public hospitals. While it is necessary to reach 40 persons per 10,000 persons according to the universal standards, it is seen that this rate is 49 as of the year 1975 in total of the official and private hospitals and 25 as of the year 2004 in Istanbul. The health standards in Istanbul are also below the country average as of the year 2004. While the average of the healthcare establishments per person should be 4 m² according to the related regulation, the healthcare establishment average per person is 0.11 m² in Istanbul (IMP, 2005). Taking into consideration that the services are presented not only for Istanbul province but also throughout the country, it could be derived from these indicators clearly that the service provided is at very insufficient level in terms of the physical standards.

In spite of this insufficiency on the health area, some applications could be encountered that the areas which are seen as the health area on the development plans are converted into house area by means of the partial arrangements such as the improvement plan modifications. Converting 10 hectares of health area taking part in Halkali public housing region into house area and bringing 7000 persons population to this region is a concrete example of this fact (Scheme 1). As it is seen in this concrete example, such partial arrangements which are away from the plan integrity and inspection could cause the deformation but not enhancing the life quality.

Chart 4: The bed capacities of hospitals in Istanbul comparison between 1975 and 2004
Scheme 1. Converting 10 hectares of health area taking part in Halkalı public housing region into house area

4. CONCLUSION

The logic of the projects which trigger the inclinations of intensification in Istanbul is settled on the compact city (intensive and mixed usage) argument at the universal level. This argument uses the frequently criticized urban capacity management as a tool. This method, which is widely adapted by the urban developers, is focused on the space selection of the development house areas in connection with the house number, service centers and transportation focuses. The matters such as the accessibility of the services such as health, education, culture, recreation, clean and green environment for all of the urban people, its nature and on what part of the society its costs are imputed are not taken into consideration in the capacity management. However, the outlet of the idea of attracting population to the city centers is the argument of “urban renaissance”, and the fundamental idea here is to enable the city to present a higher quality life surrounding and to become attractive. It is important to perform the applications which are performed in accordance with this purpose in the manner not damaging the basic rights of the urban people as well as improving the life quality of the city and not losing the liveliness of the city center. Europe Urban Condition put forward obviously the urban rights which should not be damaged in any manner.

The indicators which are put forward with regard to the population, density and physical standards of service presentation in the development of Istanbul in the recent twenty years period inform us that the insufficiencies increased in terms of the education, recreation and health equipments and the accumulative results will reach the grave levels in the long term.
1999 earthquake, its destructive influence and the awaited earthquake scenarios for Istanbul indicated that the city should have a secure and healthy structure. It is emphasized in the Earthquake Master Plan which is prepared in the year 2003 that it is necessary to make the structure secure, and on the other hand to enhance the life quality of the city and additionally to comply with the integrity principles in planning. The areas which exceeded the saturation and having the absorption capacity in terms of the life quality are indicated on the plan. It is also stated that the it is not possible to catch the life quality without reducing the density on the dense areas, and because of this reason, the population and functions on the problematic areas should be melted down in the potential areas which are defined throughout Istanbul and the density limit should not exceed the densities which are specified by the related regulations.

In Istanbul Metropolitan Area Environment Arrangement Plan Report, it is emphasized that the attention should be taken for presenting the urban equipment areas which integrate all of the masses of people living in Istanbul with the city, public areas and green areas at a sufficient level. As the Main Strategy directed at the Health and Living Quality, while it is emphasized that the high level of the present structuring densities in Istanbul Metropolitan Area and the insufficiency of open areas as the problem of “unhealthy living environments”, it is also stated that the related regulations should be also enacted relating to the structuring on these areas (IMP,2005). It is recommended to observe the evaluations relating to the life qualities of the people living in Istanbul by the municipalities at the continuous basis (IMP,2005).

In spite of all of the above-mentioned warnings and recommendations, leaving the principle of using the public land stocks for the equipment requirement of the society in the frame of the planning approach of 2000’s gives rise to various applications which form threats in terms of the urban rights and the livability of the city. The lands, which are public property and even separated for the public services on the plans which are currently in force, are considered as the potential for unearned incomes. Their market values are increased for several times by means of the new functions and new structuring rights which are introduced with the plan changes. The participation of the public in the competition of obtaining unearned incomes, in addition to the companies and individuals, push the doors of new masses of problems. Ignoring the life quality concept by means of adapting the application of increasing the density for the purpose of ensuring the financing which is required for the restructuring poses danger not only for the unique identity of Istanbul but also for the life of the urban people. Increasing the urban transformation or the density of some other projects on the areas of urban saturation which already push the livability level in terms of meeting the fundamental requirements more are the applications which cause conflict with a more livable culture vision of the city. Towards these critiques, alleging that these developments are inevitable and necessary for Istanbul to be a world city is the most important one of these conflicts.
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