

A Theoretical Evaluation in the Context of Actor-Network Theory (ANT) Approaches of Urban Regeneration Implementations: Case Study of Bağcılar District, Istanbul

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Abstract

Over the past decades, Istanbul has experienced the major changes in the macro form of the city and the social structure. Development of business activities and population growth in the center by influencing the surrounding housing districts, the rapid increase of the traffic density, and the adverse environmental conditions like noise, air pollution have been affecting the demographic, social and urban texture. As a result of the rate of urbanization; A series of ‘urban transformation projects’ has become a current issue to restructure the irregular formation and transportation problems in Istanbul.

The paper analyses the development of urban design projects since the 2012 Urban Regeneration Law through a research project conducted in the Bağcılar District of Istanbul. Housing design projects exist within the highly complex social and technical networks of the human-built environment. The analysis identifies the roles of both human and non-human actors in urban regeneration project and this paper proposes a means of mapping the actor-network of housing design. The network mapping focuses on the flow of design related information between actors and proposes the use of social network analysis tools to identify important network features and facilitate system intervention. In this study, a theoretical framework is formed in the context of Actor-Network Theory and this process illustrated by a case study of Barinkent Neighborhood located in Bağcılar District. The paper concludes that

the challenges of urban regeneration projects are rooted in the context of the key actors of network mapping process in Istanbul.

Keywords: Urban Transformation, Housing Production and Design, Actor Network Theory (ANT), Social Network Analysis (SNA), Key Actors, Bağcılar District.

1. Introduction

The changing economic and social structure in the post-1980 period in the whole world is also transforming the spatial structure of cities. As the changes in employment change the social composition of the urban people, the spatial demands and preferences change and the difference between the social and economic groups opens up as the fragmentation of space. The urban decadence areas and social problems that arise as a result of these transformations, if not taken precautions, will threaten the future of the cities. Urban transformation is seen as a concept that has emerged in order to bring solutions to the problems experienced in the economic, social and spatial transformations processes that cities are in by taking advantage of such concepts as renewal, revitalization, sanitation and protection. Projects that are realized in public sector and private sector partnerships especially in public areas and urban transformation areas should be seen as a part of planning and taking into account the dynamics of urban transformation.

In Today's Turkey; reproduction of the space is emerged out as the one of the most important issues of the city's multi-actors structure. Cities evolve; space is transformed by the influence of natural or artificial factors; in this process states are increasingly becoming centers of power and control over space. As a product by definition of Henri Lefebvre, space is social and socially produced, contains social, political and ideological elements and has many conflicts, tensions and negotiations within itself. (Lefebvre, 1976; Okyay, 2008) The lack of relationships and communication disruptions in the administration and conflicts of authority, network of political relations, decision-makers, residents and other civic actors in the city, the fact that the processes and stages of participation cannot be properly structured and sustainable and the mechanisms

of monitoring and control have not been developed shake the management integrity of cities. Today, the complexities of cities development and changes have put the local government into their search for solutions through their urban transformation projects. In this context; in order to use urban transformation as a tool, it is necessary to treat spaces as elements that have a meaning with social structure and to study together with socio-economic background.

The largest cities of Turkey, urban transformation projects increasingly within the 2000s, are reshaped through housing projects produced, which are commonly named as "gated communities". The fact that the capital accumulation in cities after the 1980s is over the real estate and construction sector has supported this process. In this period, Istanbul is the city where both the studies and discussions on urban transformation and the new housing production are seen as the most intense. Urban transformation projects mobilize national and local resources and various transformations are observed in cities. At the same time, this process is seen as an action plan and a model of joint participation that ensures the integration of all actors in the city.

In the scope of study; the concept of urban transformation will be emphasized in Bağcılar district of İstanbul and the different actors and sectors taking part in this process will be examined within the framework of the relational approach to Actor Network theories (ANT) by showing the interaction with new residential areas and real estate markets. Subsequently, the local participation model by reference to UK experience is tried to be applied, but the contractor/ developer model from the private sector stakeholders is preferred by dwellings. In this study, Barinkent Urban Transformation project whose construction is completed will be analyzed and actors involved in the reproduction of the project will be analyzed by using a qualitative research method. The analysis concludes that focal actors and policy makers in Bağcılar, Istanbul have begun to face up to the challenge of charting Istanbul's route to sustainable urban regeneration and that the impact of the Bağcılar experience should be

evaluated in this context. As an employee of Bağcılar municipality in the period of 2011–2018, enabled me to understand the perspectives of key official actors / decision makers in metropolitan and district municipalities, central government and other stake holders in private sector.

2. Conceptual Expressions of Urban and Neighborhood Renewal

2.1. Definition and purpose of urban transformation

“Towns and cities change over time, nothing is immune from either the external forces that dictate the need to adapt or internal pressures that are present within urban areas and which can precipitate growth or decline” Roberts (2000, p. 26)

Urban areas are always in a state of transformation. Urban areas mirror the numerous processes that drive physical, social, environmental and economic change and they themselves are key generators of many such transitions (Sykes and Roberts, 2000). Studying urban transformation is very important to deal with urban problems and respond to urban opportunities. Nowadays, urban regeneration has evolved as a tool of managing urban transformation.

Urban transformation can be defined as the economic, social and physical reproduction process of a settlement area. Urban transformation aims to make cities into better habitable areas. It also aims to create economic vitality in the city parallel to physical healing. In this sense, urban transformation causes both quality and structural change (Tekeli, 2003: 3-7). Urban transformation; many socio-economic city planning actions; laws, politics, economic decisions and preferences, it is the whole of the actions that various actors can take.

The main purpose of these actions is to improve the quality of urban life as for the need for transformation is due to spatial distortions. The basic essence of the urban transformation system is to restructure the city's urban life with the urban people and taking into account all the environmental factors by changing and / or renewing the urban space (Turok, 2004: 60).

2.2. Development of urban transformation in the context of historical analysis of Turkey

Sennett's cities are defined as "representatives of social change and memory, incubation of the future and monument of the past" (Schubert, 1996: 81). Problems of 19th century industrial tricks have been coming for the housing assets of 20th century. An understanding of the history of Turkish urbanization is a fundamental requirement for an explanation of the contested concepts and practices of contemporary neighborhood redevelopment. An historical analysis of Turkish urbanization identifies the specific characteristics of urban regeneration by earthquake mitigation and urban regeneration law.

Turkey, with the rapid industrialization, met with squatters in the 1940s, along with the growing squatter after 1950, the city has started to grow, and this growth has continued until today in an uncontrolled manner. The new habitat of workers employed in the industry, squatters, emerged as a mass of new voters, determining the fate of the places while populist politics was the prime of 1980s.

Years of 2000s with entry efforts to European Union is meant to struggle with the challenges of globalization, it began to feel distinctly urban space with the 1990s for the Republic of Turkey. This situation has put the country to the position which in search of a radical restructuring of urban governance. The phenomenon of urban transformation in Turkey in the last fifty years metropolitan different periods in different structural, contextual, socio-economic, administrative and vary depending on the physical dynamics (see Table 1). The implementations were realized parallel to these policies.

Table 1: Evaluation of urban transformation policies (Source: Colantonio and Dixon, 2011)

Period Type of politics	1940-1950	1960's	1970's	1980's	1990's	2000's
	Physical Transformation	Social Welfare	Economic Welfare	Real estate focused Transformation	Society partnerships	Sustainable Places

Transformational interventions and tools have been determined both by local contextual conditions and by global trends. These forms of intervention are increasingly diversified to include more socio-economic dimensions than physical intervention itself. Response to gain the variety of forms ranging from planning approaches in the world and it has been in the framework of reflections on Turkey. The need to deal with transformational interventions with a more participatory and processed new planning approach has arisen by the time. Experience of urban transformation in Turkey, plans and programs, rather than the direct result of political intervention methods, market conditions, society's "spontaneous / instant" solution to, is based on the interaction of the central and local governments. The purpose of doing a historical analysis is to determine the national and international role of external factors in the process and practice of urban transformation. Fifty years of urban transformation in Turkey willingly go at the end of this period, although the physical structure of the transformation is also a result of social and economic transformation. Meanwhile, major cities of Turkey is compared to developed western countries have grown much faster. (See Table 2). The institutional and legal regulations that control this transformation and the approaching planning approaches often fall behind transformation.

Table 2: Evaluation of urban regeneration (Source: Roberts 2000)

Period	1950s	1960s	1970s	1980s	1990
Policy type	Reconstruction	Revitalization	Renewal	Redevelopment	Regeneration
Major strategy and orientation	Reconstruction and extension of older areas of towns and cities often based on a 'master plan'; suburban growth.	Continuation of 1950s theme; suburban and peripheral growth; some early attempts at rehabilitation.	Focus on insitu renewal and neighbourhood schemes; still development at periphery.	Many major schemes of development and redevelopment; flagship projects; out of town projects.	Move towards a more comprehensive form of policy and practice; more emphasis on integrated treatments.
Key actors and stakeholders	National and local government; private sector developers and contractors.	Move towards a greater balance between public and private sectors.	Growing role of private sector and decentralization in local government.	Emphasis on private sector and special agencies; growth of partnership.	Partnership the dominant approach.

2.3. Implementations of urban transformation and community planning participation models

In the process of urban transformation, existing houses are demolished and all kinds of superstructures are built, where the lower structure and the ground are intact, and multi-story residential areas are constructed and existing residential owners are also provided from these residences.

- Social and spatial problems created by the transformation applications:

1. Displacement:

Being displaced brings new problems of housing design. Such practices, especially seen in areas where certain social subgroups coexist, dissociate the segments that can survive in the social life of the big cities but cling to each other and throw them into different regions of the cities. These sections are having difficulty in adapting to new lifestyles and cultures, establishing new social relations in the transformation areas . Local residents living in those areas also suffer from difficulty in adapting to this new social layer.

2. Social Exclusion:

Social exclusion has become one of the main problem areas of urban transformation applications as the most important concept of economic, social political debates and public interventions as well as covering and / or relating to basic social policy issues such as poverty,

unemployment, social protection, inequality and discrimination.

In the 2000s years, a society-based transformation approach in urban transformation projects is beginning to attract attention. The most important reason for this has been the lessons learned from the beginning of the collapse of the studies made by leaving the back of the past and the social background of the past which will give opportunity to observe the erroneous aspects of the applications made 40-50 years ago. Public and private sectors and universities have tried to reach the best practices with cooperation. It is aimed at ensuring accession and for all stakeholders to agree on the implementation of urban transformation.

One of the most experienced countries in transformational practice, the transformational agenda in the UK, is now known to be filled with the goal of social integration, strengthening, participation, space, goodwill, social and cultural diversity in low income groups. From the beginning of 2010, Turkey has focusing axis of the discussion of the problems of cities and urban interventions.

Urban design has gained its popularity by the end of 1990s with the emergence of what is called the 'Third Way Policy' (Giddens, 2013) and the urban renaissance agenda. A huge emphasis was placed on the matters of design excellence. UTF (1999) advocates for a stronger commitment in order to have quality and creativity in the way which we design buildings, public spaces, and transport networks. Urban transformation in England has been supported by the central government at varying levels since the late 1960s. (Atkinson and Moon, 1994, Jones and Evans, 2008, Tallon, 2010). In particular, since the 1970s, cities have shifted to thematic strategies in order to increase their economic competitiveness on the global stage and to think about social problems in response to urban regression processes. All these initiatives are often referred to as 'urban Renaissance' in England from the mid-1990s (Urban Task Force, 1999, DETR, 2000).

Neighborhood Renewal Strategy

- *A strong vision for the future of poor neighborhoods, and a long-term commitment to the realization of this vision,*
- *Net geographical priorities for a 20-25-year program*

In parallel our case study design alternative explicitly focused on identifying the principles of urban and neighborhood regeneration as practiced in the UK and other EU countries. The study drew on this experience to develop an outline sustainable neighborhood regeneration strategy for Bağcılar, which embodied the first attempt to develop a Turkish version of the dual approach. (see Figure 1) These studies marked the inception of the ongoing debate about the purpose, scope, and desirable outcomes of urban regeneration in Istanbul. Further commissioned research by universities developed researches and site surveys, especially the need to integrate planning and regeneration through strategic development frameworks and action plans.

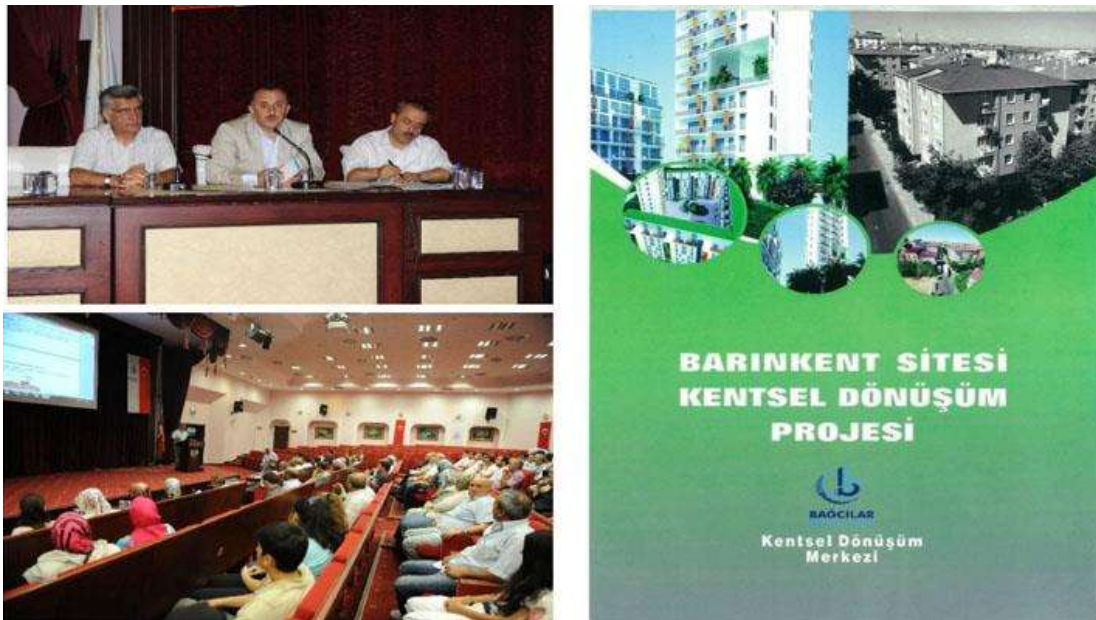


Figure 1: Neighborhood Regeneration Project in Bağcılar / Community Participation.

2.4. Legal process of urban transformation in Turkey

Especially in developing countries, the housing problem is one of the main problems in urban

areas. In the period of 1950-1980 which is defined as the migration of labor from the country to the city in our country and the neo-liberal urbanization politics, the housing policies adopted in the post-1980 period, when the capital is increasingly concentrated in the cities, are based on differentiated problem sources. However, in both periods, metropolitan areas are confronted as the areas most affected by the rapid change / transformation agenda, depending on the housing policies and practices implemented in urban areas. In recent years, large-scale housing projects, which are carried out under the scope of residential projects carried out by the General Directorate of Housing Administration and the Law Concerning the Transformation of Areas under Disaster Relief No. 6306, which are under the jurisdiction of urban transformation applications, are prominent in these areas. In relation to the same law, it is seen that the parcel-based transformation activities in urban areas are accelerated and the build-sell mechanism is revived.

While the new laws are shaped on the basic logic of the Draft Law on Public Administration, the notion of urban transformation, which has been on the agenda since the 2000s, has taken its place in these new legal structuring movements.

Legal Laws regarding the Urban Transformation:

- ‘Law of Transformation of Areas under the Disaster Risks no. 6306 (conventionally referred to as the Urban Regeneration Law) (16.05.2012 date and no: 28309)
- Implementation Regulations of no.6306 (02.07.2013 date)
- Decree related to interest Aid by the banks for proprietary rights within the law no. 6306 (13.09.2012 date and no:28410)
- Implementation Regulations in Planned Areas

Main Purpose of the Law:

- Creating safe and livable areas in transformation of areas under disaster risk and destruction of risky structures throughout the country. Any study determined according to the scientific evidence that it is risky building will be destroyed as the life safety.
- The essence of the law is the agreement procedure, and those who break down the risky structure through agreements will be given support such as credit, housing and workplace banking, housing certificate.
- If 2/3 of the owners are in agreement with the parcels on the building, the application will be made according to this agreement and the competent authority will not intervene.

3. A Theoretical Evaluation in the Context of Actor-Network Theory (ANT) Approaches

3.1. Actor Network Theory (ANT) - Social Network Analysis (SNA)

Actor-Network Theory (ANT) is rooted in science and technology studies. It has been developed from the 1980s by Bruno Latour, Michel Callon and John Law. Since the 1980s ANT has been used in multiple variations. Although ANT carries ‘theory’ in its name, it is better looked at as a method for doing research. ANT is an interdisciplinary methodology that handles the heterogeneous of human and non-human actors ‘relationships, their effects to each other within a non-technical network. ANT can be applied to all disciplines with collectible data regarding a study, given ANT’s ability to analyze the network and estimate the success of a project. Architecture and Urban design disciplines are suitable for applying ANT, since the network includes both human actors and non-human actants such as central & local government, developers, legal documents, materials, etc.

Network analysis reveals the forms of relationships among people in the social system and the analysis of the settlements of these relations in the social structure and their changes over time. The Actor Network Theory (ANT) resembles these quantitative approaches. The ANT is concerned with how objects are assembled, how relations are established, spatial rather than classical spatial network analysis rather than analyzing spatial network. It deals with issues

related to everything from society, nature, space to relational point of view. Social Network Analysis (SNA) aims to understand the changing nature of interactions, the formation of actors in one or more social networks in classical social terminology. At this point, SNA has a similar disagreement with ANT on the concept of network and relationship.

Thompson (2003) concludes in a comparison of network theories in relation to hierarchies, both ANT and SNA consider a network as a set of relations between actants and techniques; and both explain network outcomes as “*variations* of network structures.” SNA analysis provides a means of measuring and observing such variations of network structures irrespective of the properties of the actors and the intermediary in circulation.

3.2. The Actor Network Theory Stages

- Problematization
- Agreement
- Participation
- Action

The principle and the fact that the actors are brought together and the ideas they have agreed on are the economic implications. The involvement of new actors in the actor network is achieved by establishing personal or economic relations with existing actors in the network or by performing the action defined by the key actor.

- The actors agree on the economic income-earning projects of the actors who want to take part in the network, thus revealing the deal phase of the actor network; legislation, regulations, plans, etc. to legitimize the actions of actors in this process. mediators,
- Network participation phase is realized by two methods; the actors who want to join the network in the first of these are involved in the network by establishing contact with key actors or other actors in the network and the second is that the actors outside the network are invited to the network by key actors or other actors on the network,

- The actor is intended to reveal actors and intermediaries who contribute to the realization of network actions in the process of network formation. For the purpose of this study, the opinions of the interviewers and the laws, regulations, etc. It has been deemed appropriate to describe the intermediaries that contribute to the realization of the action by obtaining and resolving the data from the documents.
- On the basis of these views, it can be seen that the laws of human actors, which are derived from the law to carry out the actions of the human actors, constitute antagonism as intermediaries contributing to the actions of the human actors.
- It can be argued that the principle and the fact that the actors gathered together and agreed on these ideas are economic returns. Participation in the actor network is achieved by establishing personal relationships with the actors in the network; it is understood that the actors who are in the network but are obstructed in the action of the network are removed from the network and replaced with a new actor and the network is in a stable state.

The actor network approach provides the understanding of the relationships between the heterogeneous elements of human or non-human actors and the formation of nets by following the evolution of these relations (Latour, 2005: 5, Bosco, 2006: 137). At this point, a case study should be done to prove the thesis hypothesis. Qualitative research method should be used in order to be able to do this within the framework of actor network theory. In this context, data collection using the interview technique and related laws, plans, regulations and so on. The instruments that justify actions such as documents must be evaluated within the framework of qualitative research methods.

3.3. Actors/ Actants playing role during the process of projects

The examination of the cities is a continuous change is observed. The transformation that takes place in urban space as a result of change sometimes occurs with the spread of a long period of action in the process, with the intervention of a large number of actors, sometimes in a very

short period of time and with a certain- even often fewer- actors' desire to create a brand New and different space. Urban transformations carried out in a short period of time and under the leadership of specific actors, and the effects of these interventions made in the city on the physical and social environment, constitute the field of study for long-time urban researchers. The cities that have been shaped under the influence of different politics in each period have been structured or restructured mainly in the last thirty years under the influence of neoliberal policies.

After the 1980s, various actors began to take place in urban transformation projects. European and American cities that want to become centers of attraction have seen that urban transformation cannot be achieved by state support alone, as the time and space concept shrinks with the globalization process. Conversion projects were carried out by partnerships with the public sector, private sector, non-governmental organizations and local people.

It seems that the transformation has taken place in line with the decisions taken in the 1990s. In this sense, it seems that a sustainable urban transformation is not only a monopolistic public sector, but also cooperated with other actors, taking lessons from past failures.

By adopting a participatory approach in urban transformation projects, central and local governments have been involved in the private sector process. In addition, urban transformation projects in recent years can be realized with far wider actors with the participation of international organizations. These actors are a strong partner in terms of broader financial resources. (Sönmez, 2005: 18).

3.4. Implementations of Actor Network Theory

The theory have tried to explain the behavior of actors. Researchers can find out what they want to do, why and how they do it. The challenge for researchers is to find artificially created categories and behaviors about how actors are made.

The theory has been appreciated for its inclusion of non-human beings and the actives. However, it is criticized as being prejudiced against non-human beings (Habers and Koenis, 1996; Krarup and Blok, 2011, Newton, 1999, 2002). In addition, institutions, networks of actors which are often criticized for making black box treatments, which can be opened for futile descriptions (Hanseth, Aanestad and Berg, 2004, Krarup and Blok, 2011).

In ANT, it is investigated that how a network has emerged, what links it contains, how actors are involved in the network, and stable links and indecisiveness on the network. When the research question is identified, the first thing to do is to determine a starting point. The starting point may be the theme, the goal of the research and the central question. For example, if the implementation of a particular policy is being investigated, the policy document prepared for it may be a good starting point. It is important to be able to recognize the activists involved in the research and the new links established. For this reason, negotiating, analyzing the documents obtained, direct observation etc. must be done for analysis of theory.

- *ANT mapping inside the 'black box'*

To commence a mapping of the flow of design information in the existing housing design and its provision network the actors in the network were established employing the ANT definition of an actor as "(a)ny element which bends space around itself, makes other elements dependent upon itself and translates their will into the language of its own" (Callon and Latour 1981 p. 286). In order to represent the network as effectively as possible information has been gathered from a variety of sources including existing literature, texts, and semi-structured interviews with key industry stakeholders (as described in Diagram 1).

This complies with the two main methodological approaches advocated by ANT: 'following the actors' via interviews and ethnographic research and examining inscriptions.

KEY ACTOR INTERVIEWS DESCRIPTION OF RELATIONSHIPS

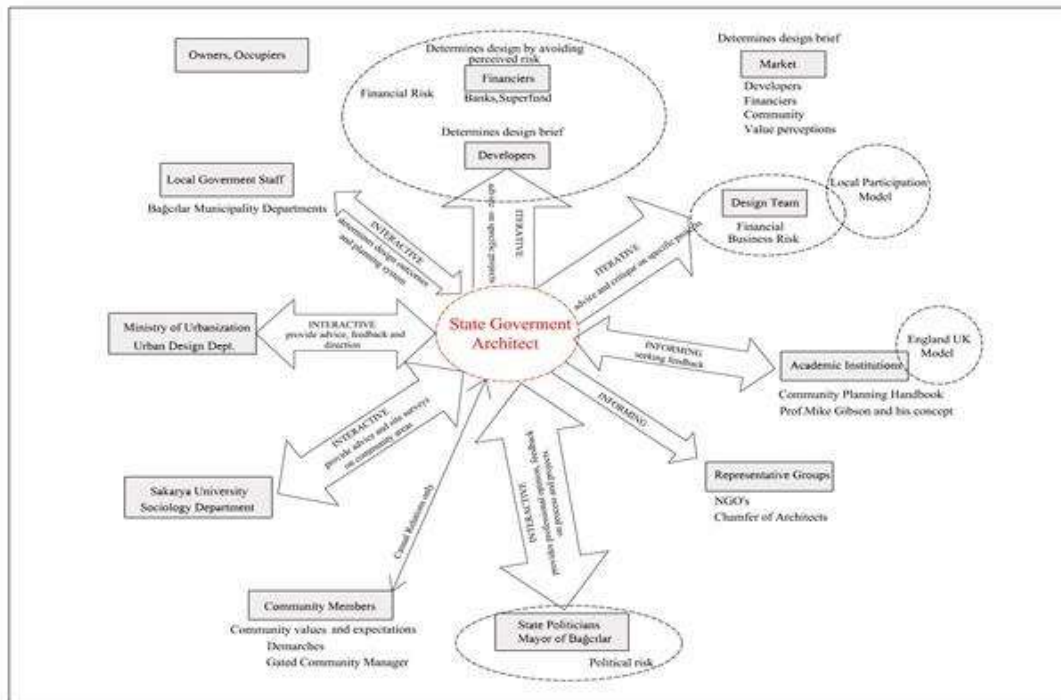


Diagram 1: Data gathering from stakeholder’s interviews to uniform ANT Mapping.

In this research, interviews have been conducted with Actors/Actants in order to understand their approach to network mapping process. This information has been used to determine both the actors in the network and, importantly, the flow of design information between them. A complex range of human and non-human actors were identified with intermediary flows/connections. The actors and intermediary flows identified constitute a stabilized network which, having formed over time through a variety of translations and inscriptions (Callon 1986), has been offering Barinkent Housing Real Estate to the housing market in İstanbul for an extended period of time. That is, they represent the contents of the stable ‘black-box’ (as described in Diagram 2).

KEY ACTOR INTERVIEWS- STRENGTH OF RELATIONSHIPS WITH STAKEHOLDERS

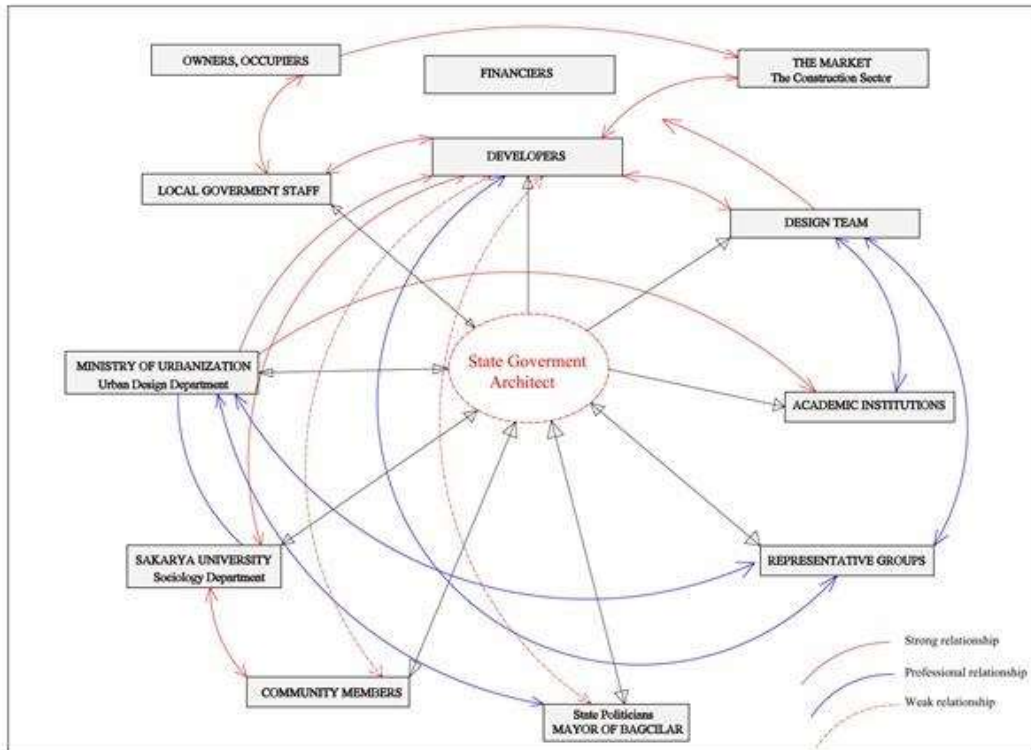


Diagram 2: Flow of design information between stakeholders through ANT Mapping.

In mapping this network, the interest to the project is to open the ‘black-box’ and observe its contents: to visualize the actors it contains and how design information flows between them to result in the urban transformation projects we have today. That is to say, the proposed mapping does not intend to map the preceding, or historic, translations and inscriptions which led to stabilization of the network and subsequent creation of the ‘black box.’ (see Table 3).

Table 3: Design relationship – unlocking the design “Black box”.

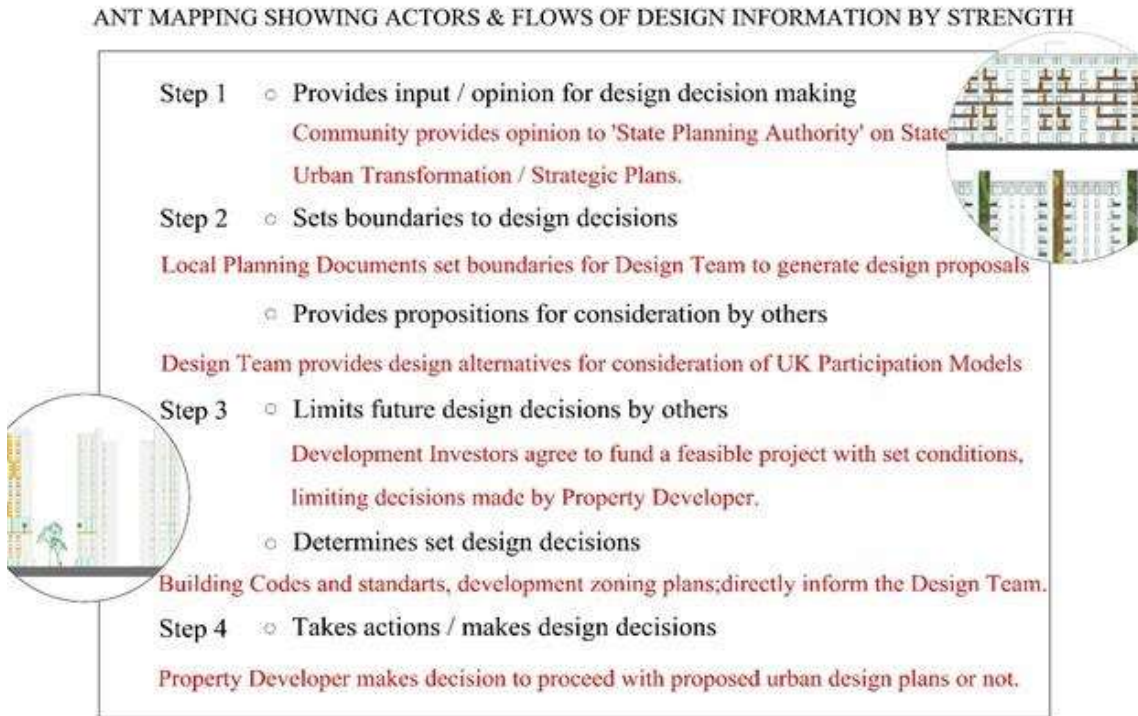


Table 4: Actor Network Theory Definitions.

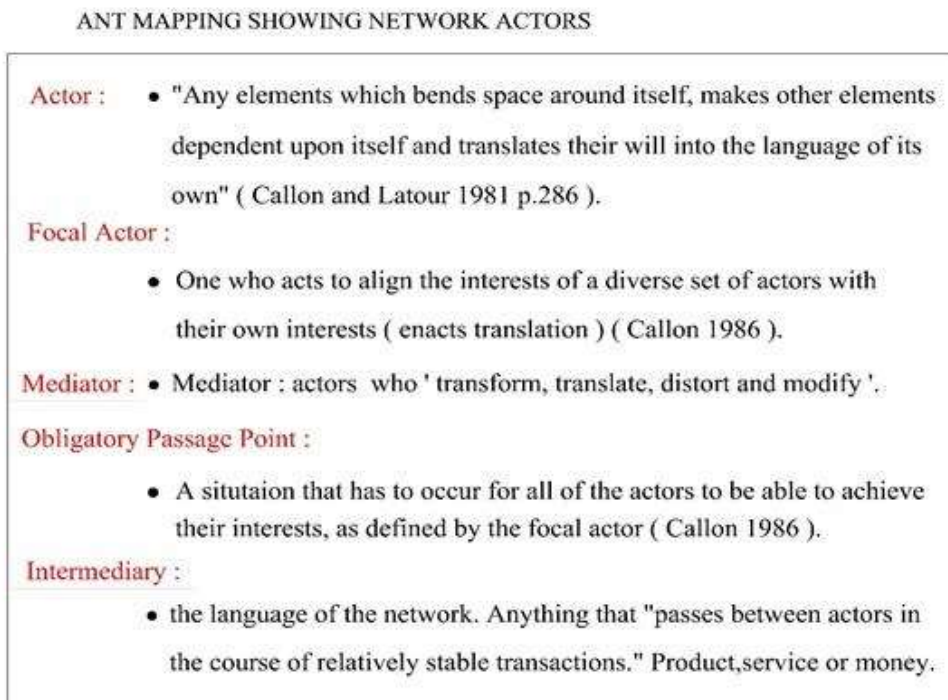


Table 5: Actor Network Theory Definitions (applied on the case study)

ACTOR NETWORK THEORY DEFINITIONS : IMPLEMENTING ON THE CASE STUDY

ANT CONCEPTS			
ACTORS / ACTANTS			
HUMAN ACTORS		NON - HUMAN ACTORS	
Central-Local Government Developer-Design Team-Politics		Urban Transformation Area Bağcılar District-Design Tools	
Both Actants in the network system have equal capacity to do actions.			
INTERMEDIARES / MEDIATORS			
INTERMEDIARES (Non-effective on action)		MEDIATORS (effective on action)	
Public Institutions, Municipality Demarches , NGO's , Community Groups		Master and Development Plan, Plan notes, Legal documents, Site surveys and polls.	
TRANSLATIONS			
Problematization	Agreement	Participation	Action
Human & Non-HumanActors Focal - key actor :	Consensus between actors	Participating to the network	Action Plan for Urban Transformation Projects

The case of the Local municipality (Bağcılar) and sub-institutions of local governments (BAŞAK Company) as well as local governments' associations and home investors turned out to be human actors in the change of the physical space,

- The public power of the central and local governments and the investors and the community itself are the human actors in the change of the physical space,
- The key actor- the outcome of an individual, an entrepreneur, a local government and a central government, which can vary according to the project and the implementation.

As the human actors in the center of the physical space (the government, the political power and the state apparatus in the framework of their understanding) and local administrations (Istanbul Metropolitan Municipality and Bağcılar Municipality) and investors (housing and construction investors).It is understood that the central (government, political power) and local administrations (Istanbul Metropolitan Municipality and Bağcılar Municipality) and investors

(residential and construction investors) play a leading role in the investments leading to the change of the physical space. From these findings it can be stated that the Bağcılar Urban Transformation Areas are an important factor in the human change in today's physical change. (See Table 4 & 5).

3.5. The formation of Actor Network Theory and the phases

Cities are the result of the change in the economic organization as a reflection of social relations. During the reproduction of the physical space of the city, alliances are formed between the groups forming the society. It should be emphasized that the state apparatus is part of these alliances within the framework of the paradigm change that is happening today. These alliances, which are conceptualized as actor networks in the time frame we are in, are in the framework of unseen and unordered relations. In this context, the underlying cause of the loss of cultural heritage can be explained as the acts of the actor network, which is aimed to generate income from the urban land during the reproduction of the urban space in line with the needs of the changing social structure.

The actor network theory describes the concept of 'mediator' as the means / agents that take on and contribute to the realization of the actions of the actors. These tools include laws, regulations, development plans, etc. The documents are in conflict. The second topic on the occasion of the intermediary which does not play a role in the actors' actions, is not influenced by the actor's networking process, and facilitates the establishment of relations between the actors.

What are the principles and facts that bring the actors together and cooperate on them?

- How does the actor participate in the network?
- What are your thoughts about the impact of urban networking on actor networking?

From this perspective, the principle and the fact that the actors come together and agree on the idea are the economic implications. The involvement of new actors in the actor network is

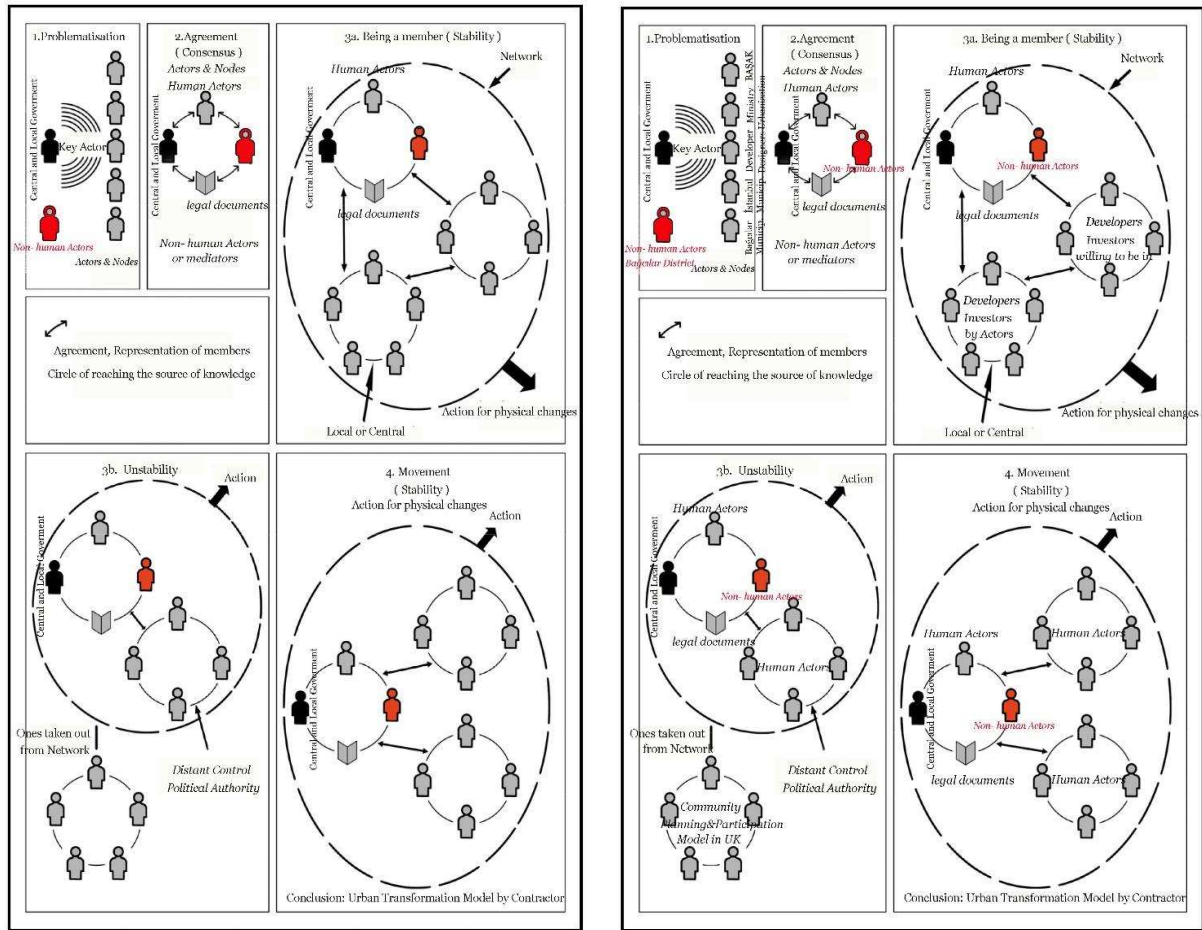
achieved by establishing personal or economic relations with existing actors in the network or by performing the action defined by the key actor. Regarding the exchange of space, the related individuals, groups and so on. the key actor definition of the conditions created to attract attention, the network describes the problem-solving phase,

- The actors agree on projects that bring in economic income to actors the actor will reveal the deal phase of the network; in this process the actors' actions laws, regulations, plans, etc. to legitimize the mediators,
- Network participation phase is realized by two methods;

At the first method; actors who want to join are involved in the network by contacting the network's key actor or other actors; At the second method; actors outside the network are the key actors or other actors on the network invited by the network.

- The next stage from the network participation phase,(the first arrives at a fixed position in the network, the second takes effect in the network if the actors are not satisfied with the progress or action the deterioration of the stability of the network, the removal of the actors that disturb the stability, with the participation of the actors or with the rest of the actors who have been out of the network to come to a fixed position again with the reach of stability, (see Table 6), the results of the actor network have been reached that the Bağcılar Community have been involved in the transformation of the physical space in the urban transformation area.

Table 6: The formation of the Actor Network and the phases of its process (Source: Selman,2000) .



4. Urban Transformation and Neighborhood Planning Process: Case Study of Bağcılar District

This section establishes the context and rationale for the Barinkent Real Estate Project (Bağcılar case study) in terms of an analysis of the emergence of urban and neighborhood regeneration since the early 2000s. This process was driven by the acceptance of the need for regeneration as a component of earthquake mitigation action and the impact of the ongoing restructuring of the city's economy. Feasibility studies such as site survey, technical building risky reports, community meetings, conferences and market statistics have contributed to the re-shaping of the long-established processes of urban transformation and renewal projects.

4.1. An overview of urban regeneration in Istanbul Province

Istanbul has recently started to address the challenge of developing of sustainable urban regeneration, with previous experience to build on. However, Turkish analysts and decision makers have the opportunity to learn from both the successes and the failures of the historical and contemporary experience of major cities. Since the early 2000s, it has been increasingly acknowledged in Istanbul that the changing processes of urbanization are presenting problems and challenges which require government interventions through urban and neighborhood regeneration programs which would be the equivalent of those in many EU cities.

4.2. An overview of urban regeneration in Bağcılar District – Case Study

Bağcılar was a village in open countryside until the 1970s when land brokers began selling shared title deeds for small plots of peripheral agricultural land. From the 1980s the area developed increasingly rapidly and almost wholly illegally, with the exception of a significant number of co-operative housing estates and was constituted as a separate Municipality in 1992. Rapid urbanization intensified through the 1990s and the population was estimated at 754,623 in 2014 (Figure 3 &4). The 2002 JICA-IBB study estimated that 90% of the resultant building stock is made up of earthquake vulnerable concrete frame structures. This stock is dominated by 6-8 stores apartment blocks in primarily residential areas, often with small scale commercial and industrial users on the ground floor (Table 7). JICA identified Bağcılar as one of the 11 most earthquake vulnerable districts in Istanbul. It estimated that 7000 buildings, 20% of the district total, would suffer heavy or moderate damage, causing over 5000 deaths with more than 7000 severely injured. The study recommended strategic improvement or redevelopment in all 22 neighborhoods.

Table 7: Situation of the Building in the District of Bağcılar / Source: JICA Report.

District		Low < %50		Medium Level Of Regeneration Speed % 50 - %75		High > %75		New Urbanized Neighborhood		Total Numbers	
Kod	İsim	Mahalle	Alan (Ha)	Neighbour Hood	Area (Ha)	Neighbour Hood	Area (Ha)	Mahalle	Alan (Ha)	Mahalle	Alan (Ha)
5	BAĞCILAR	0	0	7	375	0	0	15	1,819	22	2,194

In the context of the 2012 Urban Regeneration Law the municipality established an Urban Design Department (UDD) which was given the powers and responsibilities of the three main municipal departments in URAs: Planning, Development and Urbanism, Licensing and Audit. It introduced significant improvements to communications with the public, including giving residents more direct access to municipal staff via shop front style offices.

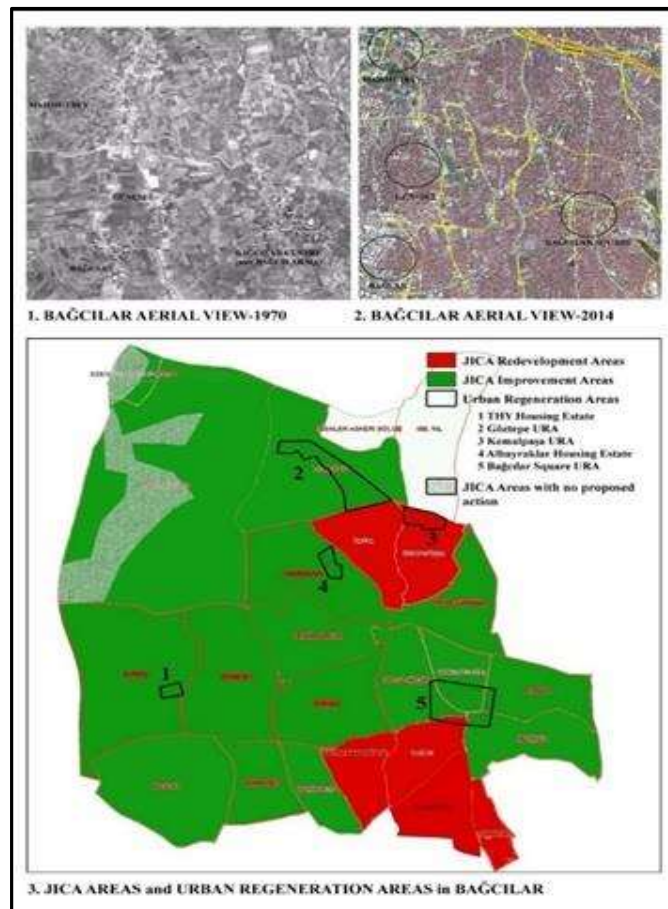


Figure 2: Map of the Bağcılar District / Source: JICA Report.

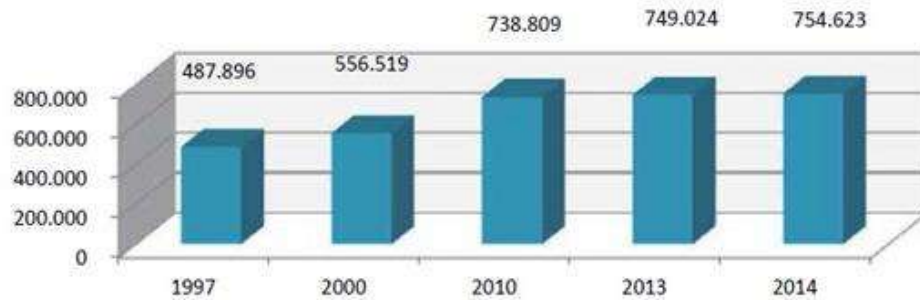


Figure 3: Population Growth of Bağcılar District / Source: Bağcılar Municipality Report 2015.

A multi-disciplinary team of architects, urban planners and civil engineers, secured the designation of URAs: the low rise, low density neighbourhoods, which include Barinkent Compound of Case Study. Since 2012, the municipality has commissioned consultants to deliver a prototype model of project development in Barinkent (see Figure 4) which, in sharp contrast to conventional practice, involved designers working residents from the outset (see Figure 5). But notwithstanding unprecedented levels of collaborative work involvement, the residents were persuaded by a construction company to choose a feasible design and reconstruction is now underway, demonstrating the inherent limitations of the share of construction process.



Number of Buildings:	12
Number of Houses :	146
Number of owners :	149
Population :	556
Area :	7.837 m²

Figure 4: Location of Barinkent Housing Estate / Source: Bağcılar Municipality.

The first stage of the design process was to engage fully with the residents through a face to face questionnaire survey of property owners to establish their needs and priorities, and regular meetings between the consultants, the municipality's urban regeneration department and the residents to explain the redevelopment process. The second stage was the development of two

detailed design alternatives which were shared with the residents at an evening meeting at the Municipal Hall attended by the Mayor and Deputy Mayor. At the end of the meeting, another short questionnaire was given to the residents asking for their views on the alternatives. The municipality subsequently published the design alternatives as a booklet. The survey results were used to revise the selected alternative and produce the final version of the design proposal which was submitted to the municipality. The Municipality's preferred design has 146 flats for residents and 51 flats for the contractor in 3 low-rise and 1 high rise blocks. Residents will have to pay 40.000 TL. The private contractor's design has chosen by the residents has a total of 240 flats in 4 high rise blocks- 146 flats for residents and 94 flats for the contractor. Residents will have to pay 27.000 TL (see Figure 5).

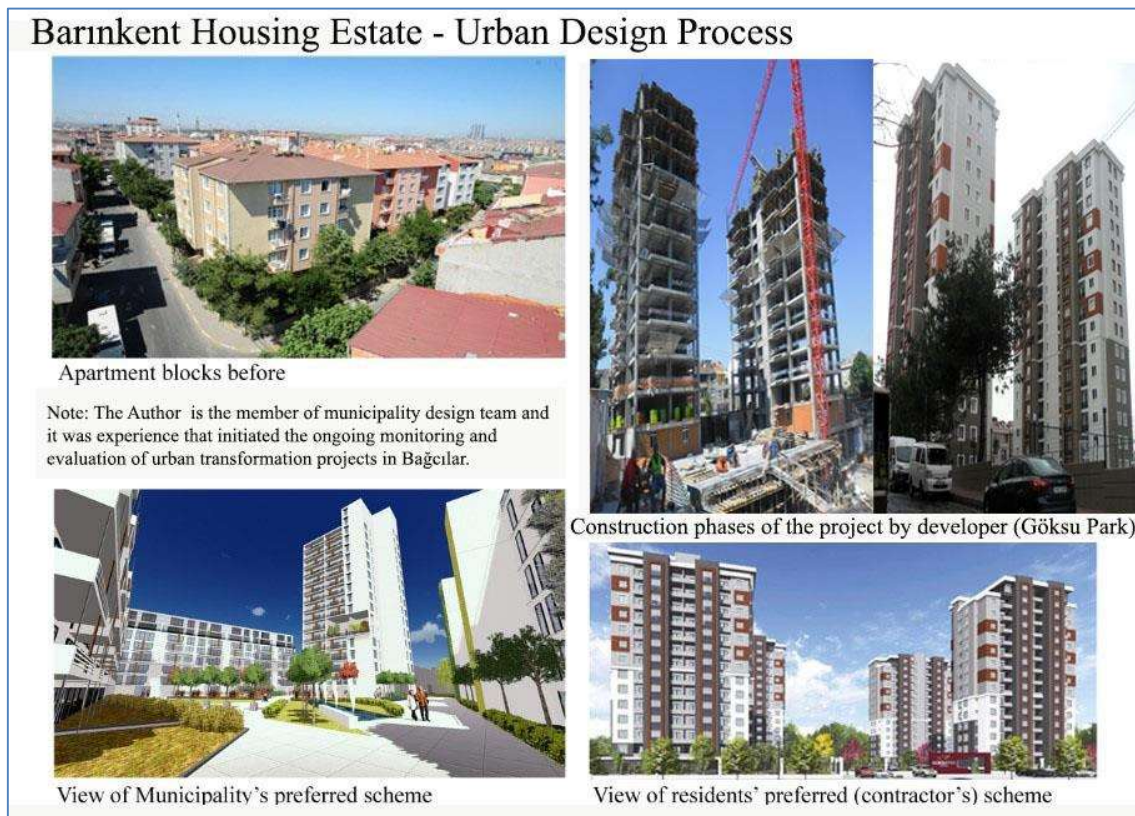
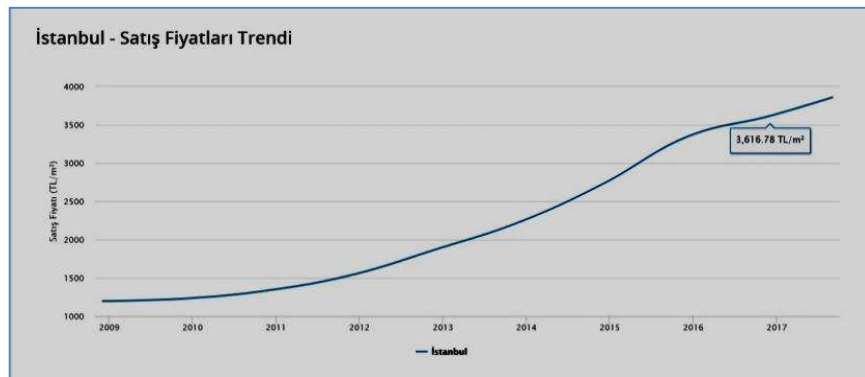


Figure 5: Design Alternatives of Barinkent Urban Transformation Project/ Source: Goksin 2016.

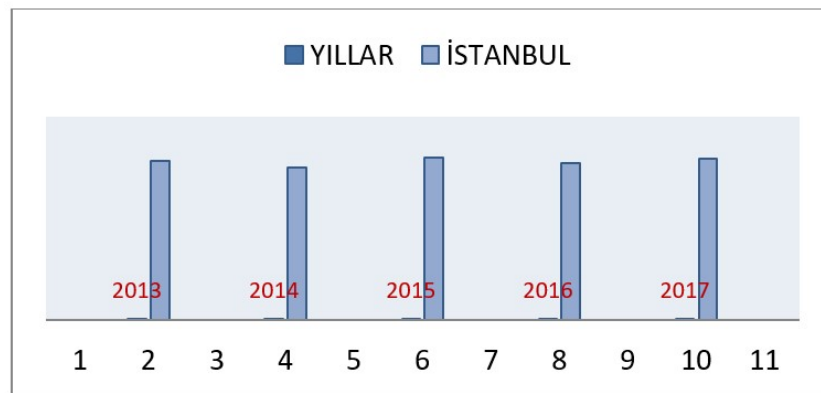
4.3. Housing market in Bağcılar district of Istanbul

An important factor in the success of urban transformation initiatives is the need to relate to urban markets and production sectors in the direction of pre-determined goals and policies. Housing markets and housing production sectors are closely related to urban transformation processes.

The social agenda, participation, partnership, financing, project durations and low profitability ratios, which are at the forefront of the neighborhood scale transformation initiatives, are the biggest obstacles in attracting private sector initiatives. The involvement of the private sector in the process has an important share in urban regeneration projects in the interest of ensuring access to finance and experience.



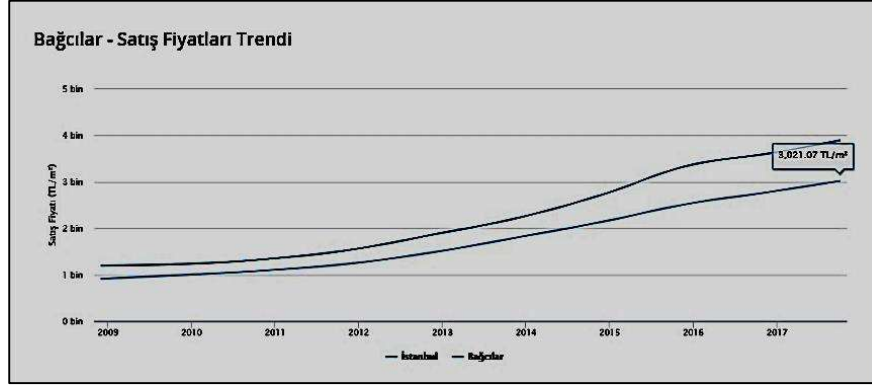
Graph 1a: İstanbul Housing Sale Prices by years /Source: Zingat.



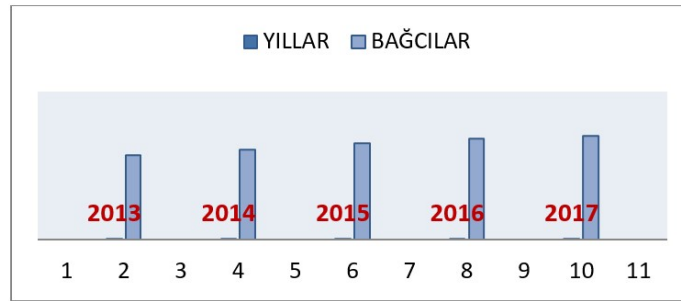
Graph 1b: İstanbul Housing Sale Numbers by years /Source: TUIK.

Istanbul is at the first place in residential sales of rates. Turkey's largest city with 16.336 numbers of residential sales (16.8 percent) taking place at the first line. Accordingly, the

average price of a 100-square-meter residence purchased in Istanbul in the real estate index and regional report for the year 2018 was between TL 296,915 and TL 494,900. House prices for sale in Istanbul have increased by 0.48% in the last one year. (Graph 1a -1b).



Graph 2a: Bağcılar Housing Sale Prices by years /Source: Zingat.



Graph 2b: Bağcılar Housing Sale Numbers by years /Source: TUIK.

Accordingly, the average price of a 100-square-meter residence purchased in Bağcılar in the 2018 real estate index and regional report was between TL 232.759 and TL 387.900. Bağcılar house prices for sale in the last one year increased by 1.22%. The average residential square meter prices in Bağcılar district are 3.103 TL while the return period is 17 years. (Graph 2a-2b)



Graph 3: Housing Sale Prices of Barinkent Housing Estate (Gökusu Park) / Source: Zingat.

4.4. Earthquake Risky Report of Barinkent Housing Estate

Economic Life of the Building (50 Years): It has been determined that the age of the building is 20 years. Implementing Regulation on the Law Concerning the Conversion of Areas Under Disaster Relief Determined as "Risky Structure." The renewal of the Barinkent apartment blocks was deemed appropriate due to the risk of earthquake.

4.5. Site Surveys of Barinkent Housing Estate

The "urban transformation project" carried out at Bağcılar requires specific measures to improve the social, physical and environmental conditions of high-risk areas of earthquake damage risk through comprehensive and holistic approaches. According to the earthquake risk report, residents of Barinkent Site, where the damaged structure was found, were surveyed in the "Steps of Urban Transformation in Bağcılar" in the framework of the "urban transformation project". The second issue is; urban transformation was carried out in a few sites which were taken as an example and it was aimed to be able to remove the hesitations of various sections and to give a new impetus to future developments. Urban transformation work, which can be

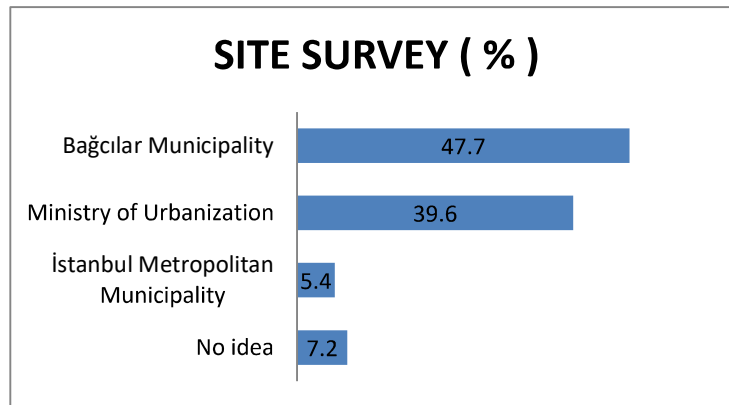
carried out in one or two or three sites for a certain period of time, will become a good example for other sites and regions and will be a convincing event for groups of people to trust. Therefore, with concrete demonstrations, the concerns of the community will be abolished. According to the results of the "Urban Transformation Steps in Bağcılar" survey done by Sakarya University – Department of Sociology, residents of Barinkent Housing are willing an Urban Transformation study with a high rate of 75% and have signed consent. 12% of them have unconverted owners. According to this, 87% of the residents have a favorable attitude towards the urban transformation (see Graph 4).

Bağcılar Municipality Urban Design Site Survey, General View of Urbanization

Questions	Requirements in the flat (%)	Reason of selection the site (%)	Satisfaction of living in the area (%)	State of damage (%)	Satisfaction of living in the district (%)	Would you like to move smaller flat? %	What the requirements to be need? (%)	Demand ratio of urban transformation (%)	Who is leader of urban transformation? %	Financial situation (%)	The most important thing in the environment (%)
Barinkent Real Estate	Study room:51 Guest room:6 Relaxing:3 Kids room:3 Garage:60 M.bedroom:3 Balcony:2	Relatives:54 Quiet:24 Transport:22 People:17 Shopping:6 Others:4	Satisfied:87 Not satisfied:13	Heavy damage:8 Medium damage:41 Less:24 No damage:27	Satisfied:84 Not satisfied:10 Neutral:6	----	Park-garden:27 Prayer:16 School:16 Health center:14 Playground:7 Mall:5 Parking lot:5 Cultural center:3 Sport center:3 Others:3	Agree:72 Disagree:16 Possible:8 No idea:4	Municipality: 48 Ministry: 40 No idea:7 Both:5	Max: 50000 TL	Sport, park, garden:11 Feasible projects:14 Security:10 Landscape:7 Earthquake resistance:6 Technical infrastructure: 4 Parking lot:2

Graph 4: Questionnaire Form of Barinkent Housing Estate / Source: Bağcılar Municipality.

Dwelling of Barinkent are highly willing the urban transformation to be carried out by the Bağcılar Municipality as a majority of 48% of the urban transformation efforts. Secondly, they want the Ministry of Environment and Urbanization to work together with the municipality at a rate of 40%. In the third place, there is no idea of a group at a rate of 7%. (see Graph 5).



Graph 5: Questionnaire Result of Barinkent Housing Estate / Source: Bağcılar Municipality.

5. Conclusion

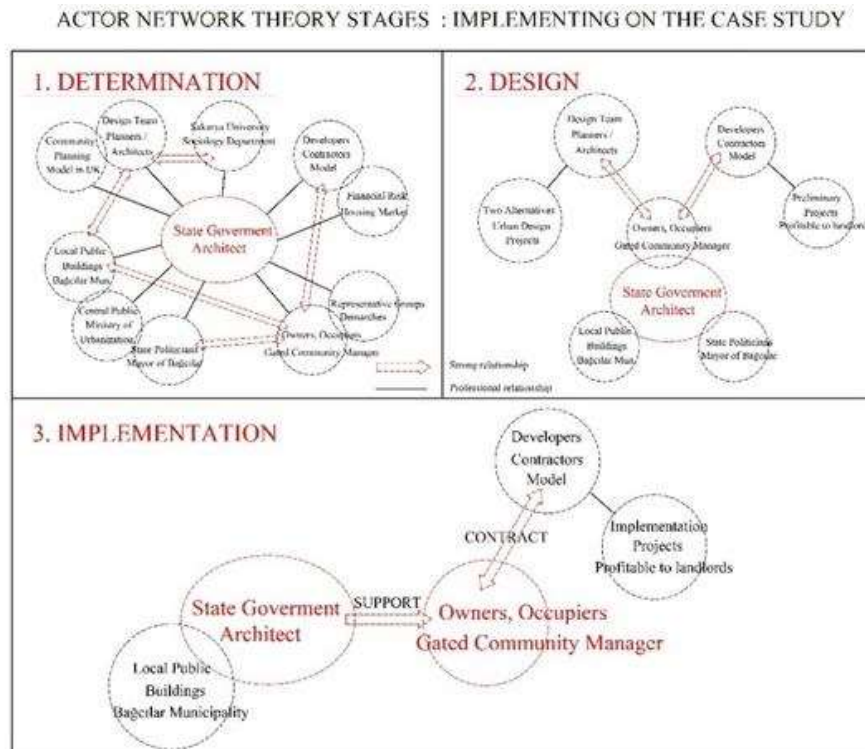
Within the scope of the paper, when the occurrences stages of the actor network are evaluated with the action taken from the data obtained from analyzes and interviews done at the Barinkent Real Estate of Bağcılar District. The emergence of the human actors is in the central (government, political power and the state apparatus formed by the understanding of them) and local (İstanbul Metropolitan Municipality and Bağcılar District Municipality) administrators and investors (housing and construction investors)

- The fact that the central government (government, political power) and the local government have a key role in the urban transformation areas,
- Investments leading to the change of the physical space have a leading role in the central (government, political power) and local (İstanbul Metropolitan Municipality and Bağcılar Municipality) administrations and investors (housing and construction investors), defining the key actors as the conditions created,
- The actor agrees on the economic income-earning projects of the actors who want to take part in the network, thus revealing the deal phase of the actor network; laws, regulations, plans, etc. prepared by the actors in this process. Mediators:
- Network participation phase is realized by two methods; the actors who want to join the network in the first of these are involved in the network by establishing contact with key actors

or other actors in the network and the second is that the actors outside the network are invited to the network by key actors or other actors on the network,

- The network, which is the next stage of network participation, may emerge in two phases of movement (the arrival of the first network in a fixed position, the second in the event that the active actors in the network are not satisfied with the progress or performance of the network, the disturbance of the network, the removal of the disturbing actors from the network, recuperating with the rest of the actors who have been brought in or out of the network); In the case of the Barinkent Housing Real Estate, the actor has acted on the transformation of the physical space and the results of the economic income demands and works of the actors have been reached. (See Table 8).

Table 8: Actor Network Theory Stages (applied on the case study of Barinkent Housing Estate).



The actor network theory within the context of the institutional approach to the reproduction of space in the field and the poststructuralist approach has been examined. Within the framework of the institutional approach, the quantitative and qualitative analyzes of problem-solving and problem-solving methods have been deemed sufficient to explain the relationships and interactions of actors involved in urban transformation. Hence, the need to address the problem within the framework of the approaches that can analyze today's existing structural constructs and the methods of these approaches is obvious. From this need, the analysis of the network resulting from irregular and complex relationships should be evaluated in the context of the Actor Network Theory- ANT, in a post-structuralist context rather than an institutional approach. As noted in the paper, this working paper presents Graduate research in progress and as such acts to open further questions for discussion and investigation. The project aims to continue analysis of the alternative Bağcılar urban transformation cases identified through actor-network analysis. The mapping approach proposed here provides a starting point for this process and represent the transformation between different formations of the network.

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