

LIVENARCH VI

livable environments & architecture



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KARADENİZ TECHNICAL UNIVERSITY

Faculty of Architecture Department of Architecture

Edited by

Nilgün Kuloğlu

Asu Beşgen



LIVENARCH VI

LIVable ENVironments & ARCHitecture

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REPLACING ARCHITECTURE







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KEYNOTE SPEAKERS*



Dan TEODOROVICI

“Replacing Architecture: Marginal Thoughts on Architecture as Cosa Mentale”

University of Stuttgart, Stuttgart, Germany



Pelin TAN

“Threshold Architecture: The Unconditional Hospitality”

Art & Film School, Kabelvag, Norway



Heidi SVENNINGSSEN KAJITA

“Architectural Care: Norms of Welfare and the Mess of Life in Scandinavian Mass-Housing”

KTH School of Architecture, Stockholm, Sweden



Murat TABANLIOĞLU

“Memory in Architecture / Places of Memory”

Founding Partner at Tabanlıoğlu Architects, İstanbul, Turkey



Mehmet KÜTÜKÇÜOĞLU

“Darzanà, Border Violations and Hybridity”

Partner of Teget Architecture, İstanbul, Turkey



Kerem PİKER

“Thoughts, State of Mind and Atmosphere”

KPM-Kerem Piker Architecture, İstanbul, Turkey



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On behalf of the Architecture Department of our university, we are greatly honored and pleased to organize the sixth of conference series since its first start in the year 2001. From 2001 onwards, our enthusiasm and commitment to organize “Livenarch” has gradually increased and today it has already been associated with the Department of Architecture in KTU. It is my firm conviction that Livenarch conference series will continue as long as our department continues to exist.

Of course, not a single person is responsible from the organization. Rather, it is a teamwork and KTU Architecture Department is in the center of the team that has partners from in and out of the university. This teamwork and its continuous efforts to let this organization continue each year with great enthusiasm deserve further appreciation.

The theme for this conference is “REPLACING ARCHITECTURE”. It is obvious that in the world today, the number of those who are replaced or who are made to replace for many reasons reached to considerable numbers. The outcomes of these continuous movements made the architects and all the other related parties discuss about the issue at length. Under this main theme, the following sub-themes will also be discussed in theoretical and practical terms as well as in interdisciplinary fashion.

- Memory
- Belonging
- Transformation
- Mobilization
- Placelessness
- Acontextual
- Destruction
- Mediocrity
- Earthliness

There will be plenary speakers as well as the invited speakers in the conference and they will be expected to share their knowledge and experiences with us. We believe that these exchanges will certainly enrich the scope of the conference as well as bring up novel ideas. It will be a pleasure as well as a privilege to follow all discussions in this respect.

The keynote speakers are:

1. Dan Sorin TEODOROVICI (Dr.-Ing., University of Stuttgart, Institute of Urban Planning and Design, Chair of International Urbanism)
2. Pelin TAN (Research Prof., Art&Film School, Kabelvag, Norway)
3. Heidi Svenningsen KAJITA (Postdoc, KTH School of Architecture, Stockholm, Sweden)
4. Murat TABANLIOĞLU (Founding Partner at Tabanlıoğlu Architects (RIBA, Chartered Member, Int'l. Assoc. AIA)
5. Mehmet KÜTÜKÇÜOĞLU (Partner of Teget Architecture)
6. Kerem PİKER (KPM-Kerem Piker Architecture, The Curator of the Pavilion of Turkey in the 16th Architecture Exhibition in La Biennale di Venezia).

We are very grateful to the plenary speakers, invited speakers and our organization team of Livenarch VI- 2019 for their tremendous support they have provided with us.

The evaluation process was not easy for us. Scientific committee has spent a tremendous amount of time to evaluate the abstracts. 154 abstracts were subjected to double-blind review and as a result 131 abstracts were found to be relevant with the conference theme. Only 83 of the 131 abstracts completed the application process and are included to the conference. I would like to offer my thanks to the scientific committee whose names are given below for their efforts:

Aysu Akalın (Gazi University, Turkey), Emine Nilüfer Akıncıtürk (Uludağ University, Turkey), Burak Asıliskender (Abdullah Gül University, Turkey), Sofia Alexio (Universidade de Évora, Portugal), Havva Alkan Bala (Selçuk University, Turkey), Kathryn L. Bedette (Kennesaw State University, USA), Gonca Büyükmihçi (Erciyes University, Turkey), Özge Cordan (Istanbul Technical University, Turkey), Nilay Coşgun (Gebze Technical University, Turkey), Pelin Dursun Çebi (Istanbul Technical University, Turkey), Altay Çolak (Çukurova University, Turkey), Ebru Çubukçu (Dokuz Eylül University, Turkey), Sevinç Ertürk (Kültür University, Turkey), Demet Irlık Eryıldız (Istanbul Okan University, Turkey), Ayşe Nilay Evcil (Beykent University, Turkey), Helene Frichot (KTH Royal Institute of Technology, Sweden), Catharina Gabrielsson (KTH Royal Institute of Technology, Sweden), Şebnem Hoşkara (Eastern Mediterranean University, North Cyprus), Pınar Dinç Kalaycı (Gazi University, Turkey), Sait Ali Köknar (Kadir Has University, Turkey), Manfredo Manfredini (The University of Auckland, New Zealand), Lale Özgenel (Middle East Technical University, Turkey), Kamuran Öztekin (Doğuş University, Turkey), Christina Pech (KTH Royal Institute of Technology, Sweden), Iakovos Potamianos (Aristotle University of Thessaloniki, Greece), Gökçeççek Savaşır (Dokuz Eylül University, Turkey), Meike Schalk (KTH Royal Institute of Technology, Sweden), Levent Şentürk (Eskişehir Osmangazi University, Turkey), Marc Aurel Schnabel (Victoria University of Wellington,



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I thank to the KTU Rectorate, the Dean of Architecture Faculty, and the Head of Architecture Department for providing us with all the necessary means as well as for letting us totally free to run everything by.

I also extend my gratitude to TÜBİTAK (The Scientific and Technical Council of Turkey), KTU Scientific Research Projects Office for their financial support. They deserve this appreciation since without their contributions; this conference couldn't have been a tremendous success. I also thank to The Turkish Chamber of Architects and to Cansu BEŞGEN who is the graphic designer in Vizyon Information and Communication Company for their contributions.

I am, also, grateful to the two groups of people right in here. The first being those who have contributed to the development and institutionalization of this conference series until the day: Some of those people are not among us today but we will never forget them and remember them with love, appreciation and thankfulness. The second groups of people are those who have joined and shared their ideas with us and without whose presence this conference couldn't have been held. We are determined to continue organizing this conference series in the years to come in an effort to create a true academic environment. Many thanks for the participants as well as the contributors.

Last but not least, I offer my special thanks to the Özlem Aydın, Asu Beşgen, Sonay Çevik, Nihan Engin, Nilgün Kuloğlu, Ayşegül Özyavuz, Reyhan Midilli Sarı, Derya Elmalı Şen, Ayça Araz Ustaömeroğlu ve Nilhan Vural. I also thank to the academic and administrative staff of the Department of Architecture and to the many of our students whose names are inadvertently omitted and to whom this acknowledgement is due.

I wish to see you again in the future Livenarch conferences, the first being held in 2021.

Best Regards,

Prof. Dr. Ahmet Melih ÖKSÜZ

LivenARCH VI-2019: REPLACING ARCHITECTURE / Congress Chair

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VOLUME II



NATURE ■ ENVIRONMENT
URBAN ■ CITY ■ LANDSCAPE
RURAL
HUMAN ■ BEHAVIOUR
POLICIES ■ LAWS ■ REGULATIONS
DESIGN
INTERIOR DESIGN
EDUCATION





PART 1



NATURE



ENVIRONMENT





BIOPHILIC DESIGN: CASE STUDIES FROM TURKEY

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ABSTRACT

Biophilia is the theory that people possess an inherent affinity for nature, which developed during the long course of human evolution. Recently, studies have revealed that this inclination continues to be a vital component to human health and wellbeing. Given the pace and scale of construction today with its adversarial, the integration of nature with the built environment is one of the greatest challenges of our time. Kellert et al. frame of thought is globally accepted; the current work has adapted mainly three pillars; direct and indirect interactions with nature and the experience of space and place. World needs today more nature-inspired buildings that soothes and invigorates human emotions and fundamentally elevate the human condition. Our goal is to give examples of biophilic approaches from Turkey's regional architecture and define the next steps for researchers the ways for implementing biophilic approaches to current construction world. Vernacular architecture, the simplest form of addressing human needs, is seemingly forgotten in modern mass housing. However, due to recent rises in energy costs, the trend has sensibly swung the other way. The research suggests there should be an increase in the role of Biophilic approaches in the future design of houses.

Key Words: Biophilia; Biophilic Design; Anatolian Traditional Residential Architecture.

INTRODUCTION

During last decade, the connectedness between nature and humans were revisited and several influential concepts and school of thoughts emerged in multi-disciplinary areas such as psychology, sociology, architecture, interior design and other fields. Biophilia was one of these emerging ideas that set novel, sustainable, and practical standards in understanding of our nature, living space/environment and our, as humans, well-being. During 1980s Edward O.Wilson asserted the concept of biophilia which originally means "love (philia) of life/living (bio)" [1]. He pointed out that, we need more natural touch in our architecture to rescue ourselves from the deteriorating effects of huge cement steel blocks with no warmth of nature. Biophilia is coined by Kellert as "the inherent inclination to affiliate with natural systems and

process". In terms of sustainable living and architectural design Biophilia gives the missing or the weakest link between the living creatures with non-living structures with an innate level of consciousness.

As the darkening and sickening power of post industrialized and modern architectures or urbanization extends, biophilic perspective provides the right recipe to heal the several psychological, physical maladies. Embracement of nature and her governance not only is providing healthier places, but also economical resilience with minimal cost. Our nature works with "no waste principle" with delicate balance of biological hierarchy.

In current study, we are attempting to look deeper into the existing buildings with respect to their climate conditions with the biophilic perspective and evaluate them with Kellert's described frame work. The successful application of biophilic design should also result in a wide spectrum of physical, mental and behavioural benefits. Physical outcomes include enhanced physical fitness, lower blood pressure, increased comfort and satisfaction, fewer illness symptoms, and improved health. Mental benefits range from increased satisfaction and motivation, less stress and anxiety, to improved problem solving and creativity. Positive behavioural change includes better coping and mastery skills, enhanced attention and concentration, improved social interaction, and less hostility and aggression [2].

Contact with nature and the natural variability of daylight, particularly morning sunlight exhibit enhanced healing and recovery from illness, bipolar disorder, and SAD [3]. Our brain is effected mainly by visual ways. Van den Berg et al. found that individuals with high level of stress showed higher preference towards natural environments than urbanized areas [4], also Biederman and Vessel articulated that natural green view stimulates larger portion of cortex and triggers several pleasure receptors in our brains [5]. Patients with tree views have significant shorter hospital stays and less need for pain medications [6, 7]. Nearby trees are associated less violence and enhanced coping, adaptive and interpersonal behaviour [7]. Students in bright day-lit classrooms show signs of growing faster, better attendance and healthier teeth. This transfers to the home as well. Healthy childhood maturation and development [8] have been correlated with contact with natural features and settings. Contact with nature has been linked to enhanced cognitive functioning, concentration and memory [9]. Office settings with biophilic features result in improved worker performance, lower stress, and greater motivation (reduced absenteeism) (Productivity and Green Buildings. Environmental Building News). Regular exposure to dynamic natural sun light avoids a lack of UV-triggered melatonin production, which has been linked to sleep disturbances, carbohydrate cravings, poor performance at task, short term memory loss, depression, anxiety, increase susceptibility to disease [10].

Throughout nature, a range of physiological responses oscillate with the 24-hour rhythm of the day or a circadian rhythm. The circadian timing system controls daily rhythms such as sleep and wakefulness, body temperature, hormonal secretion, and other physiological parameters. Although light is the

primary stimulus for regulating the circadian system [11], other external stimuli such as the timing of sound, temperature, and social cues may also influence physiological functions [11, 12].

Barton and Pretty claimed self-esteem can be boosted by exercising in green space as short as 5 minutes [13]. Biophilic design ensures that individuals sustainably possess healthy life style by higher defense against pathological agents. [14]

METHODOLOGY

Main Working Frame for Biophilic Design

Kellert made an immense contribution with his Biophilic design guideline to understanding the connection between ourselves with nature. He described the biophilic architecture in three main pillars; direct experience of nature, indirect experience of nature, and experience of space and place (Table 1). Each attribute may have different impact on nature-architecture connection.

The direct experience of nature refers to actual contact with environmental features in the built environment including natural light, air, plants, animals, water, landscapes, and others that will be described. The indirect experience of nature refers to contact with the representation or image of nature, the transformation of nature from its original condition, or exposure to particular patterns and processes characteristic of the natural world. These include pictures and artwork, natural materials such as wood furnishings and woolen fabrics, ornamentation inspired by shapes and forms occurring in nature, or environmental processes that have been important in human evolution such as aging and the passage of time, information richness, natural geometries, and others. Finally, the experience of space and place refers to spatial features characteristic of the natural environment that have advanced human health and wellbeing. Examples include prospect and refuge, organized complexity, mobility and way finding, and more. Within these three categories of experience, 24 attributes of biophilic design have been identified by Kellert (Table 1).

Direct Experience of Nature	Indirect Experience of Nature	Experience of Space and Place
Light	Images of Nature	Prospect and refuge
Air	Natural materials	Organized complexity
Water	Natural colors	Integration of parts to wholes
Plants	Simulating natural light and air	Transitional spaces
Animals	Naturalistic shapes and forms	Mobility and wayfinding
Weather	Evoking nature	Cultural and ecological attachment to place

Natural landscapes and ecosystems	Information richness
Fire	Age, change and the patina of time
	Natural geometries
	Biomimicry

Table 1. Adapted from Kellerts' Biophilic Design Frame Work.

Site Selection

Naturally inspired or biophilic designs are directly associated with the native climate conditions and its flora. Climatic conditions have huge impact on design and urbanization since it directly effects raining regime, humidity, irradiation levels, etc. For each climatic region one previously studied examples reexamined for biophilic design conditions. Each distinct climatic region has its own unique architecture and biophilic attributes.

Turkey is situated within the Mediterranean climate zone. However, the climate varies across its regions. Five climate types are dominant in the country (Figure 1): I. Mediterranean climate, a Mediterranean climate dominates the Mediterranean (Ia) and Aegean (Ib) regions with hot and dry summers, and warm and wet winters; II. Black Sea Climate, the Black Sea region and the northern shores of the Marmara Region experience consistent wet and warm weather; III. Semi-dry Marmara Climate, in the Semi-humid Marmara region, the summers are hot and slightly wet, while the winters are moderate and wet; IV. Semi-arid steppe climate, the Central Anatolia (IVa) and Southeastern Anatolia (IVb) regions experience a semi-humid steppe climate, in which the summers in the Central Anatolia are hot and slightly wet, and in the Southeastern Anatolia are very hot and extremely dry; V. Continental Eastern Anatolian Climate, the Eastern Anatolian region experiences a continental climate with cool summers in the north and hot summers in the south, as well as cold and snowy winters. The highest yearly average temperatures (20°C) are observed on the shores of the Eastern Mediterranean, and the lowest temperatures occur in the Northeastern Anatolian region, which consists of high plateaus and mountainous areas. The yearly average temperature varies between 8°C and 12°C in the continental regions of Turkey. Long-term average temperatures across most of Turkey indicate a significant increasing trend in average summer temperatures. Significant trends of increasing temperatures have also been recorded in the annual average temperature (Turkey's Fifth National Communication Report under UNFCCC).

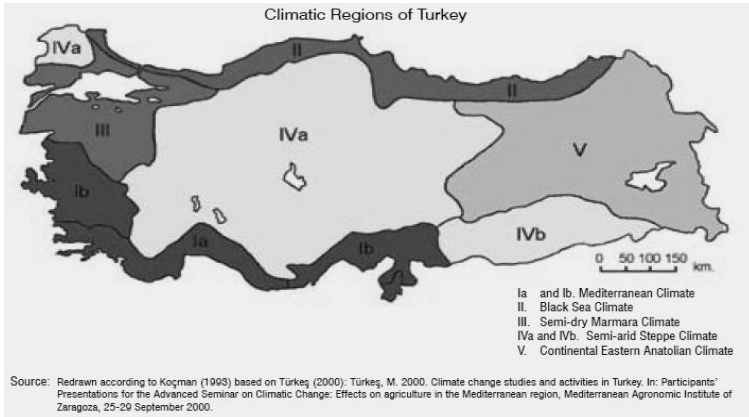


Figure 1. Climatic division in Turkey described by Ministry of Environment and Urban Planning in 2013, Turkey's Fifth National Communication under the UNFCCC [15].

Case Studies

Korkuteli Bozova. Akan E. A et al. investigated the general characteristics and sustainable properties of traditional residential buildings in climate region I [16]. The Korkuteli Bozova is in southern part of Turkey where Mediterranean Climate is effectively present in the region. There are mainly three biophilic design attribute in the architecture of Korkuteli; firstly Direct Experience of Nature where weather is very soothing for living creatures. The house is located close to the neighbor's house and front façade facing the front street has a wooden cumba which is a projection of Turkish house in this region covering from ground floor to upper floor wall. The cumba feature enhances the indoor air ventilation and provides a pleasant view for the occupants.

As for the Indirect Experience of Nature category, natural materials such as earthen plasters are used for insulation. Also, timber frames are filled with adobe blocks called "Hımiş". This unique feature gave structural strength to timber frames with natural element such as adobes. High stone wall is where occupants can have the feeling of security and refuge and the irreplaceable part of the Turkish biophilic architecture which is the hayat the garden/patio at the entrance of the building is the final biophilic attribute for integration of parts to whole in experience of space and place criteria of biophilic design.

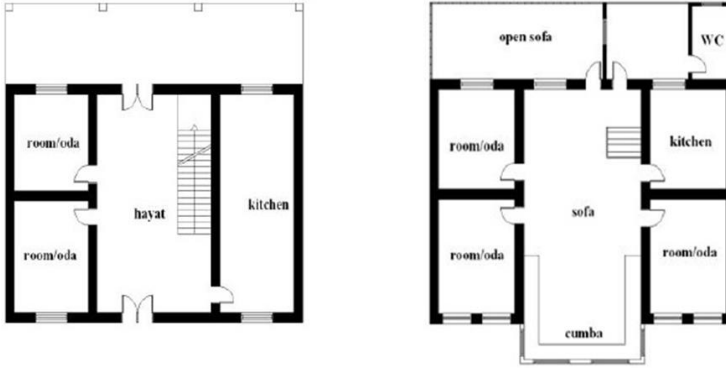


Figure 2. Drawings of Ground Floor and First Floor Drawn by Akan E. A. [15].

Eastern Black Sea Houses. Vernacular architecture is biophilic almost without exception [17]. So, Salgin B. et al. revisited the vernacular architecture of the Black sea region [18]. Black Sea region fall into climate region II and has rather soft and humid climate. The physical topology of the region is mountainous parallel to the sea which is a restrain for urbanization. The specific design of the roof structures in the region allow the natural air ventilation and adjusts the humidity and air circulation within the buildings. Orientation of facades and windows built by wooden material lessen the shading effect to preserve more day light in the building. Both these two attributes are remarkably biophilic and clearly satisfy the direct experience of nature requirement. Using chestnut wood a native flora is considerably durable to humidity which is the characteristic climatic condition of the region. The chestnut wood gets darker as it gets older which gives transformational color change to the structure. Earthen material and stone are also used for walls to maximize the durability and high resistance for rainy seasons (Figure 3).



Figure 3. Wall Structure of Vernacular Buildings in Black Sea Region. Houses embedded in the soil are also common in the region and show

several biophilic features (Figure 4). These houses are great examples of ecological attachment to place which is an important attribute in experience of space and place category.



Figure 4. Vernacular Houses Hidden in Soil in Black Sea Region [19].

Cumalikizik. Tas M. et.al, focuses on the Living Ottoman Village to reveal its sustainable architecture. Cumalikizik is located in the Marmara Region of Turkey where Semi-dry Marmara Climate is dominantly present in the region. In the Semi-humid Marmara region, the summers are generally hot and slightly wet, while the winters are moderate and wet. The coastal climate keeps the temperatures relatively mild. The multi-purpose design of the houses allow dwellers to benefit from nature in many ways. The design features of the building like the fireplace and building orientation are the main representation of the direct experience of Nature for Cumalikizik. The fireplace which is strategically located in the houses provide heat and the orientation of the building and rooms are planned to absorb more daylight for the benefit of human health. The use of local wood for bearing system provides durability is a typical attribute of Indirect Experience of Nature for historical vernacular ottoman villages. The courtyard surrounded by high stone walls is an entrance to Hayat which means ‘life’ where the productive activities of the families are carried out. The experience of Space and Place attribute of biophilic design is stated in the Cumalikizik by means of the Courtyard and Hayat which are well designed for both functionally and thematically.



Figure 5. A street in Cumalikizik Village [20]. A participatory Governance Model for the Sustainable Development of Cumalikizik, A Heritage Site in Turkey.

Urfa Houses. Inceruh, C., & Nalbantoglu rediscover the architecture of the Urfa houses with special focus on sustainable settlement. Urfa, located in Southeastern Anatolia (IVb) climate region, experience a semi-humid steppe climate, in which the summers in the Central Anatolia are hot and slightly wet, and in the Southeastern Anatolia are very hot and extremely dry. Urfa's climate has high daily and seasonal temperature differences. Traditional houses of Urfa have been built with natural materials; heavy, thick walls of mud, masonry and stone. Using natural materials is a typical representation of the indirect experience with nature. The rooms are arranged so that they overlook the courtyard with its plants and water fountain, in which pleasant view is provided. Plants, such as trees, and potted shrubs and flowers provide shade, pleasant odor and increase humidity in the courtyard. Both these attributes are noticeably biophilic and remarkably satisfy direct experience of nature. Besides, the projected windows and projected rooms over narrow streets are typical features in Urfa, are used, to provide additional shade and give inhabitants a chance to over-look on-and-along streets, which also provide security in the street. The building-complex provides shade and protection from wind hazards for public and private zones such as for mosques, shopping arcades, narrow streets and courtyards. In case of large open spaces (private courtyard and public gathering places), trees and pergolas are used. [21]. Both these two attributes are remarkably biophilic and clarify Experience of Space and Place.



Figure 6. Aerial View of Urfa [21].

Muş Houses. Keskin K. et.al. study on the sustainable architectural characteristics of traditional Anatolian houses [22]. As a case study, they provide a brief explanation of Muş houses, located in Continental Eastern Anatolia. The Eastern Anatolian Region experiences a continental climate with cool summers in the north and hot summers in the south, as well as cold and snowy winters. In cold climate region, where long and harsh winters prevail, the temperature is below 0 °C almost during the half of the year. In cold climate region, buildings that will benefit from warming effect of the sun at maximum level in the least warm season, that will provide protection from the prevailing wind and will maintain heat inside the building should be constructed. So, Muş houses face south to avoid cold caused by the local climate. That clearly shows direct experience of nature. Besides, exterior walls were built with stone in the ground floor and timber carcass filled with adobe in the first floor. Insulation that was provided by Adobe was reinforced by plastering interior and exterior surfaces of walls in the upper floor with loam with straw and later with lime plaster. Thick exterior walls, high thermal property in the structure though heavy material use, use of recyclable materials like stone, wood, and adobe [22]. This is a characteristic of Indirect Experience of Nature. Furthermore, prospect refers to long views of surrounding settings that allow people to perceive both opportunities and dangers, while refuge provides sites of safety and security. Therefore, for Muş houses, 'minimum exterior facade area, small windows, low number of windows in the ground floor, the window opening in south-west facade, no open area' are the explanatory indications of Experience of Space and Place since they are the occurrence of secure and sheltered settings.



Figure 7. Muş Houses in a Harmony with Nature [22].

DISCUSSION

Although biophilia seems to be a new and recent concept in today's architecture, the findings of this research show that it is not. Biophilic design focusing on human adaptations to the natural world over evolutionary time seems to have advanced people's health, fitness and wellbeing since centuries. There are many examples, found in different climatic regions of Turkey to which authors can refer as good examples to biophilic design according to Kellert's principles. When the architecture community explores better ways to produce residential buildings, it is fair to recall the past to comprehend sustainable aspects of traditional Anatolian Architecture. From the extensive research done for this article, the authors suggest that the Anatolian traditional residential architecture needs to get explored to be classified from a biophilic point of view.

The authors choose different climatic regions in the paper to present that biophilic design principles of Kellert are applicable for all climate types for the selected houses in Turkey as summarized in the Table 2. For 5 different climatic regions, every historical element which is analysed for its architectural details fits to different qualities of Kellert's Criteria. All the Anatolian house types presented for this research can be called Biophilic Houses. These prototypes can be used to design and plan new biophilic houses in these climatic regions. The houses summarized in Table 2, are designed and built without high technology but created a pleasant environment for their users. Individuals and organizations who built houses today on different climate regions, can incorporate the biophilic design principles based on the existing homes in these regions.

CONCLUSION

Biophilic design is an evolving discipline and is becoming an essential part of making the kind of modern, livable cities like Boston and Singapore. An increasing number of studies are beginning to measure a multitude of physiological and psychological benefits of biophilic design. Based on the

comprehensive literature search conducted for this paper, the authors suggest, there is still a need for research on correlation of human health proving that biophilic architecture paves the way for better health and longevity. There is more research needed to compare the health and wellbeing of residences living in Cumalıkızık for example with residences living in mass housing units in İstanbul (same climate region). A wellbeing survey along with longevity statistics comparing two communities could strengthen the point the authors are trying to make on the benefits of biophilic design. The climatic conditions encountered in different geographical regions of Anatolia affected the architectural environment in the regions and shaped the concept of housing [18]. Currently, more developers are needed who appreciate the effects on health and wellbeing of people living in houses designed base on biophilic criteria. Evoking traditional Anatolian Architecture may lead to an easier way to reach our health homes-healthy cities dream.

When the world seeks for healthier buildings, it is acceptable to revisit the past to understand sustainable features of vernacular architecture and its positive effects on human health and wellbeing. It is evident from the research conducted that the biophilic homes are essential to healthier people. In Turkey, developers can use Kellert's toolkit to Biophilic Design to design and built according to different climate regions. The set of criterias he presented offer measurable metrics for building projects in creating healthy places for humans and living systems alike. The research suggests there should be an increase in the role of Biophilic Design in the future design of homes.

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ECOLOGICAL SELF CONSTITUTION FOR LIVABLE ENVIRONMENTS: PHRYGIAN VALLEY NATURE CAMP FOR ARCHITECTURE STUDENTS

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ABSTRACT

Rapidly developing technology, took mankind apart from natural environment and directed towards a global life that throw down the gauntlet against nature after the Industrial Revolution. Environmental problems grew considerably and the invented solutions failed. Climate change, ozone depletion, acid rainfall threatens the future of all living things globally. Human factors play a major role in such negativities. For this reason, for the real reasons behind environmental problems, people should first question themselves and then start to produce effective solutions as soon as possible. One of these solutions is environmental education of all age groups for healthy human-nature relationships. Physical, emotional and psychological diseases that are caused by rupture from nature treats youth today. Therefore, education of young generations for raising awareness of the environment and nature have a significant importance. Architects, who have a mission of designing the built physical environment, should develop the consciousness of “nature is the whole of habitats of humans and all living organisms” in their education stage. It should be aimed that the students of architecture have the manner of designing and building with this consciousness. For this purpose, constructing the “interactive awareness of nature” and “ecological self” in the content of architectural education has a crucial importance. Environmental education of twenty first century should not only be a theoretic one, but have the potential of radically changing the environmental and vital attitudes and behaviors of contemporary people, while in interaction with nature. It is aimed to cultivate thinking, discussing, questioning architects for avoiding formation of environmental problems and developing solutions for existing problems. In this article, Phrygian Valley Ecological Self Constitution Camp of a group of students of Eskisehir Osmangazi University Department of Architecture is discussed.

Key Words: Architecture; Natural Environment; Environmental Consciousness; Sustainability; Ecological Self.

INTRODUCTION

The world's natural resources and ecosystems are increasingly being destroyed. In the case of continuity of this destruction in a similar way, future generations will be deprived of the right to live in a balanced and healthy environment. Accordingly, a fundamental transformation of mutual relation between nature and mankind is a necessity. With the recognition of the consequences of unhealthy conditions and disasters arising from human-induced environmental factors on the one hand, and the damage suffered by the living sphere and the ecosystem on the other, various temporary and permanent solutions ranging from global to local scale have been started to be tried. Not only the international contracts, technological innovations and local applications; but also, the transformation of approach and manner of individuals are critical in producing permanent solutions. For this reason, there has been an increase in the number of studies on the change in the perception and behavior of individuals in environmental issues in the last years [1].

There are various articles on the development of environmental and nature awareness of individuals. These studies approach the subject through different concepts. Among these, Jovanović et al. (2014), addressed the issue over the concept of "value" and measured how effective environmental values are in developing environmental responsibility. The concept of "value", is considered as "the criteria that people use to select and legitimize actions and evaluate people (including themselves) and events". As a result of this study, it is seen that human-centered value is more important in students aged 14-17, in the sense of responsibility towards environment and nature. In line with this conclusion, the authors made suggestions for changing the educational techniques [2].

Another concept that focuses on the development of environmental and nature consciousness is the concept of "ecological self" that has come from the discipline of ecopsychology. Ecopsychology grasps the relationship of man and the natural world through the subconscious ecological self, which is the basis for feelings of identity and belonging. According to this approach, human beings are aware of the fact that they are a part of the Earth and the cosmos and are psychologically connected to this relationship. This deep self, which has begun from the first moments of life in the context of the natural world, is defined as the olojik "ecological self". According to ecopsychologists, the health of the ecological self is directly related to the health of the natural environment. For this reason, as the ties of people with the natural world diminish, physical, emotional and mental disorders increase. Although the concept of ecological self seems to coincide with nature-centered value, it is considered to be part of the human-centered view. Though nature is considered to be good for man, it does not belong to man. It is the human, who perceives, accepts and interacts with nature. It is argued that an

improved eco-self that strengthens the connection with the natural world can save human and nature by increasing the compassion felt for nature and other living things [3].

In an efficient curriculum to raise environmental awareness; formal, informal and non-formal forms of education should be interrelated. In formal education, the individual is obliged to participate in the educational environment and to receive education about environment, nature or ecology, while he / she experiences a process in which he / she establishes a relationship with the environment and nature in informal / out-of-school education. In non-formal environmental education in which the individual voluntarily participates, the aim is to develop environmental skills and environmental ethics through a regulated program / activity [4].

Outdoor Environmental Education (OEE), naturally takes place “outdoor”, which is described as “real world” and is a kind of non-formal education. It is known that “nature” based Outdoor Environmental Trainings, which combine entertainment and concrete theory, increase the sensitivity of natural environment and nurture ecoliteracy. Ecoliteracy is the knowledge of issues affecting environmental systems, relationships between members of ecological systems, including humans, and interdependence. Ecoliterate people can use this information to create sustainable human communities. It is stated that touching nature is an important variable in efficient environmental education if long-term behavior change is a goal. Within this framework, an environmental education aiming to raise the awareness of nature and environment should be place-based. Accordingly, Outdoor Environmental Education has become an important education method in raising environmental and nature awareness. These programs can be arranged for short (eg several days) or long term (eg summer camp) according to the purpose, facilities and conditions [5].

It has been stated that the experiences gained in the real world have become more permanent in the students’ memory, so that they can use the information obtained from these experiences in other contexts and the camp has contributed positively to the students’ sense of environmental responsibility. It is seen that similar findings emerged in outdoor environmental education studies conducted with different age student groups in different parts of the world [6].

In literature review, the studies, which focus on how environmental awareness of students changed after undergraduate level studies in Turkey are also found. Descriptive statistics and quantitative methods were used in a study conducted to reveal the environmental and nature approaches and sensitivities of Gazi University students at the Faculty of Architecture, the Department of Urban and Regional Planning. Researchers used the New Environmental Paradigm Scale to determine whether students’ perceptions of

the environment and nature are human-centered or environmental and nature-centered. The scale was first developed by Dunlop and Van Liere in 1978 and then updated by Dunlop in 2000. In Turkey, the reliability and validity study of this scale was conducted by Furman in 1998 for the first time. In this study conducted at Gazi University, the New Environmental Paradigm Scale was rearranged by adding various questions in order to determine the students' environmental sensitivity and approach. According to the results of the questionnaire prepared through 5-point Likert scale, the environmental sensitivity of the students was not at the expected level [7].

As a result of the literature review, a project has been prepared within the framework of TUBITAK 4004 - Nature Education and Science Schools Support Program in order to develop environmental awareness in architectural education and turn this into a permanent behavior model as ecological self. In the project, "Applied Nature Education Model in Phrygian Valley" was proposed by Eskişehir Osmangazi University (ESOGU) Department of Architecture in order to place "nature consciousness and ecological self" behavior in a sustainable manner. In this context, the main objective of the project is to provide positive and permanent behavioral changes to the students of architecture and to ensure the active participation of individuals in the solution of the environmental problems. In this process; training and experiences are planned in which they can acquire knowledge and skills (i.e. relationship order of the nature, diversity in nature, ecological cycles, the functioning of the nutrition chain, a combination of different species and etc.). The students actively participated in the six-day training process, observing nature and history in the Phrygian valley. Phrygian Valley, which is the most important historical settlement of Eskişehir, Kütahya, Afyon region, has been chosen both for its impressive natural structure and for the recognition of the historical traces of Phrygian civilization by the students of Architecture. In addition to nature education, it is planned to "develop historical consciousness" with the analysis of historical socio-cultural structure of Phrygian civilization.

METHODOLOGY

Selection of the Site for Nature Camp

Phrygian Valleys are an important value of Anatolia with the potential of history, culture and nature tourism. These valleys, which are within the main spreading area of the Phrygians, have been the focus of European travelers and researchers since the beginning of the 19th century. In these valleys, there are monumental buildings and architectural works belonging to Hellenistic, Roman, Byzantine and Turkish periods other than the Phrygian period. Among these works are castles, cult monuments, rock tombs, rock churches, multi-storey rock spaces, complexes, lodges, tombs and monumental tombstones built on high rock plateaus. The Phrygian Valleys also have cultural landscapes with rich fauna and flora in extensive forests as well as fairy chimneys that were formed in thousands of years as natural

monuments. With these characteristics, Yazılıkaya Phrygian Valley, which is located within the boundaries of Eskişehir, has been chosen for the development of history and nature consciousness of the students of architecture.



Figure 1. 2. Frig Valley/Yazılıkaya and Gerdekkaya.

Target Group

In order to ensure the feasibility and manageability of the project, the participants of the project were selected among the volunteer students of Eskişehir Osmangazi University (ESOGÜ) Architecture Department and do not have any health problems that would prevent the camping in nature. "Nature Awareness Scale" and "New Environmental Paradigm Scale" were applied to 70 volunteer students as pre-test. 20 main and 5 reserve students (25 in total) were randomly selected after this test. At the end of the Nature Education Camp, "Nature Awareness Scale" and "New Environmental Paradigm Scale" were re-applied as posttest and the results of the project were held.

Nature Camp Experience Program

The nature camp experience program includes six-day activities and the theoretical courses. These courses and activities for the students were on historical and cultural values of the selected area, life skills in natural environment, cultural and sporting activities. The contents of this nature experience are as follows:

Health problems and solutions in natural environment (Physical therapist Assoc. Prof. Dr. Ebru Turan Kızıldoğan / ESOĞÜ): It is planned as the first course for the students in order to conduct the activity safely and healthily. Health problems that may be encountered in natural environments

are mentioned and precautions to be taken and first aid techniques are explained.

Phrygian history and civilization (Assoc. Prof. Dr. Hakan Sivas / Anadolu University): Following the theoretical information given about the history of the ancient Phrygian civilization and the examples of civil architecture in the region, a hiking activity was performed in the area and the information was reinforced by seeing some of the ruins mentioned in the course. At the same time, how the local and natural materials, plan schemes and construction techniques of the region were used in the architectural cases from the ancient Phrygian period to the Anatolian Turks, were observed. The importance of using natural and local materials in architecture on behalf of ecology is one of the aims of this education.

Phrygian music seminar (Musicologist, Prof. Bülent Alaner / Anadolu University): Music and architecture discussions on music in natural environment, Phrygian civilization music, music-nature, music-history, music-architecture and so on took place in this seminar. Double Flute, as a Phrygian instrument made up of eagle bone, was presented with a mini concert in Phrygian mode. It is mentioned how human beings use nature to satisfy their need for rhythm and music since the early ages.

Theoretical and practical hiking training (Mehmet Öcal / Eskişehir Mountain-climbing Club - ESDAK): The correct use of the body, the right energy consumption, the right choice of clothing, equipment contribution, correct nutrition, etc. play a very important role in healthy and risk-free walk in hiking. Before the hiking performed within the scope of the activity, the students were given theoretical information about this content and then, this information was repeated in practice when necessary and the student was provided to reinforce this information. The aim of this experience is to acquire the ability to cope with nature as a whole with the right knowledge and techniques, and to survive against the challenges of nature. With the right knowledge and technique, instead of fearing and staying away from nature, personal development is be provided in order to enjoy nature.

Ecosystem (Forest Engineer İlkey Yıldırım / Directorate General of Forestry): Like all living and inanimate beings on earth, man is a part of nature and ecosystem and naturally comes from nature to return to nature. During the life that the human being is the guest of nature, both the lifestyle and the activities have to be compatible with nature. No design and activity that is not in harmony with nature will be sustainable. Throughout this study, the possibilities of recognizing and observing nature with architecture students and living a harmonious life without damaging the complex system of nature were investigated.

Biodiversity and Carbon footprint (Prof. Dr. Cengiz Türe / Anadolu University): Within the scope of this seminar, the students were given theoretical information on ecology, biodiversity, general information about the effects of technological developments on ecological system and the carbon

footprints that we leave in nature as individuals. The effects of the construction material chosen by architects as a professional to return to nature as a carbon footprint are explained. Throughout this seminar, it was tried to raise awareness about environmental problems in the professional life of architects.

Orienteering (group activity): It is aimed to be aware of the nature and to perceive it from different perspectives while searching for predetermined targets in the nature with outdoor games like orienteering.

The log cabin survey in Yazilikaya (M. Arch. Hatice Dulger): The 120-year-old wooden log cabin was built by the Caucasian immigrants who settled in Yazilikaya, one of the most important religious centers of the Phrygian Civilization. The log house was measured on site and analyzed with two-dimensional drawings and sketches. The aim of this training is to create knowledge and awareness about the importance of using local materials, details and construction techniques in the sustainability of civil architecture and space.

“If I am a part of Nature....” Creative Drama Game (Psychologist Ozden Oz Uslu): With the drama in the group, the students were asked to discuss the components of nature and play the role of a component of nature that was given in a list.

Construction work with local building materials and building elements in Çukurca Village in Phrygian Valley (Archaeologist Ben Claasz Coockson): In this activity, students worked in the construction of a stone wall of the garden of the hotel stayed.

EVALUATIONS

The main objective of this project is to contribute to the formation of ecological self in architecture students. It is important whether this self can be gained through the activities carried out within the scope of the project. For this purpose, the students were asked to work on the poster with the theme “From Architect Self Towards Ecoself...” after the experience of nature. In these poster presentations, students were asked to convey their personal experiences with visual and textual content.

Student 1. Beyza Kablan made the following comments in her poster on

“From Architect Self Towards Ecoself...”:

Being there was to feel yourself out of stone and soil...

It was looking at the sky and watching the clouds with the sounds of birds.

It was to realize that I am nature and nature was me.

It was to infiltrate nature,

It was the infiltration of nature into me...

It was to become a unity...
It was to have a heyday while exploring yourself...
It was to leave trace...
It was the warmth of the sincerity and of unity on a cold night in Eskişehir...
It was spiritual...
It was living the spirit of Yazılıkaya, returning back to three thousand years ago.
It was living the team spirit, trusting in each other.
It was discovering the spirit of nature while watching it.
Being there with your body, your soul, being a part of this work cannot be described...

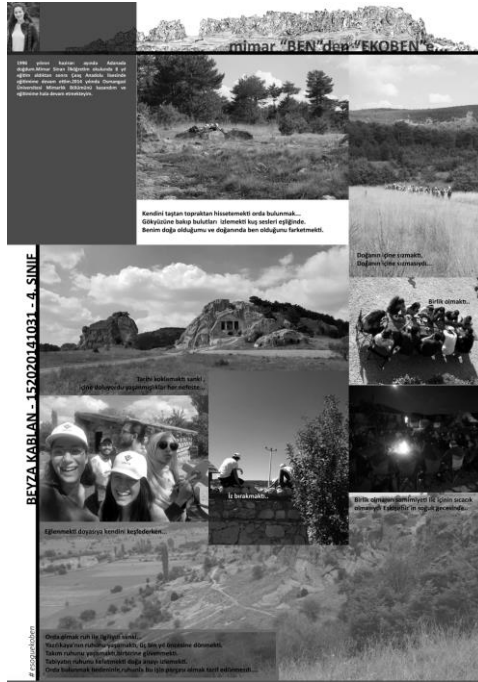


Figure 3. Poster Prepared by Beyza Kablan.

Student 2. Halil İbrahim Çelik made the following comments in his poster on

"From Architect Self Towards Ecoself...":

"As lucky participants, we participated a six days nature camp, which was supported by TUBITAK and several partners. We took part in many enjoyable activities and attended informative presentations that were prepared by experts in an intimate atmosphere. Both the natural beauty of the Phrygian Valley and space we lodged at were beyond our expectations. Everyday at

the camp was planned at high level with eye-opening activities for experiencing the things we do not know. Hiking, site seeing historical areas, playing different games, constructing a stone wall were among our activities. We made friends throughout the camp. We had fun, we learnt several things and raised awareness on nature. We were lucky to experience how beautiful and special the nature was. I hope everybody will meet nature once just like us and these great experiences will enclose us."

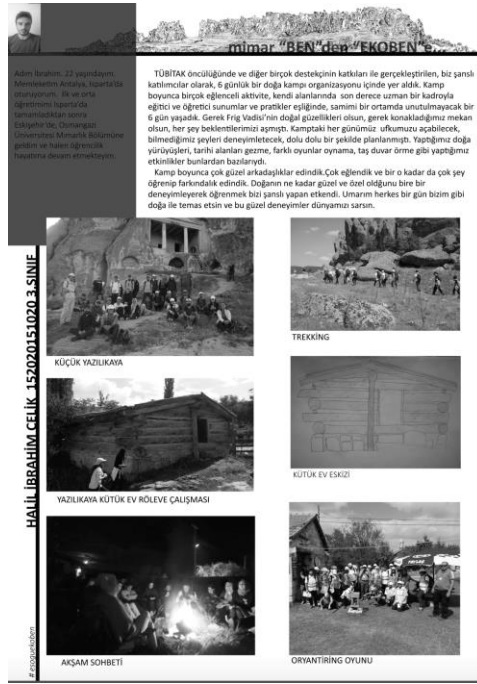


Figure 4. Poster Prepared by Halil İbrahim Çelik.

Student 3. Hamza Aktaş made the following comments in his poster on "From Architect Self Towards Ecoself...":

"These structures, which we have experienced and observed along the Phrygian way, have been able to survive to the present day and provide us with information about the ways of living of the past, the beliefs, the systematic daily work, the organization of the shelters and the relationships between people made a unique impression on me."

"We had a fifteen km nature walk on a single day of the camp. I didn't get tired because of the unity between us and the warm relationship, although the way was long. We brushed up our knowledge through the survey, educational presentations and the masonry work applied on-site. It was like an internship. We concluded our work with drawings after the camp. We had an unforgettable orienteering experience. We have re-experienced nature with this game which provides the integration between friends and teaches solidarity. I've developed skills like finding directions, reading maps and using a compass. I realized that we lost a lot with our daily routine in urban life and that we were actually a part of nature. We had more fun and active time, through warm conversations and campfire accompanied by nature."

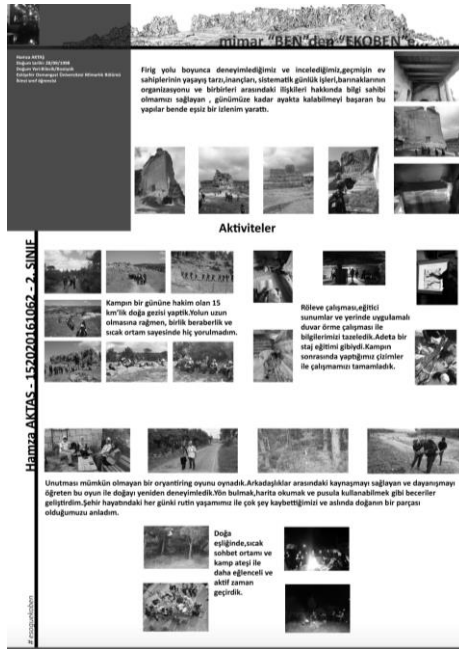


Figure 5. Poster Prepared by Hamza Aktaş.

As can be seen from the students' comments, Nature / History Camp has become an unforgettable experience for each of them. The state of being intertwined with nature made it imperative to recognize it and to live together in reconciliation. They learned the conditions of being healthy by recognizing their own body in nature. They also have developed the ability to trust their friend and fight together in nature. Being in a natural and historical formation helped them to feel the genius loci, as well.

CONCLUSION

As an important stakeholder in the formation and shaping of human settlements, it has become important for architects to participate in open-air environmental trainings that enhance their natural and environmental awareness during their undergraduate education. These open-air activities and experiences will contribute to the professional development of architecture students by allowing them to realize their ecological self and to design in line with the nature-human balance. With the nature education to be given in the natural environment, the students of architecture will be aware of the ecological self through experience and make it a part of their life.

ACKNOWLEDGEMENTS

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ECOLOGICAL EVALUATION OF THE NEIGHBORHOOD PARKS IN THE CITY: THE CASE OF BALIKESIR

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ABSTRACT

Population growth and intense building pressure in cities today change the visible faces of cities with the transformation projects carried out in the areas of social and physical collapse. However, since the social conditions of the inhabitants are not taken into consideration and the concept of ecology does not find much space in practice, these areas that are beautiful in appearance cannot contribute to the urban ecosystem and urban life. It has become necessary to take precautions against this situation in terms of sustainability of urban natural and cultural resources. At this point, urban parks are noteworthy as public spaces which have an important role on the quality of life of the citizens. In the planning of urban parks depending on the scale and location, it is becoming more and more important to reduce the consumption of energy and resources for the park and its surroundings, to use environmentally friendly technologies, and to raise awareness on ecology and environmental protection. With this understanding, the study is structured on the concept of integrating the ecological design perspective with the design of neighboring neighborhood parks closer to the houses and is discussed in two main sections.

This study, which is the first part of the research, involves the examination of the neighborhood unit parks of Balikesir city according to the ecological design criteria determined within the scope of the study. In this context, the design criteria, which are collected under three headings, primarily in the physical and ecological design axis, environmental axis, culture and education axis, have been established. The research was continued with the identification of small scale parks within the boundaries of the district municipality, which was determined as the study area. The identified parks were evaluated on the 5-point Likert scale according to ecological design criteria, the data obtained were converted into graphics and tables and interpreted and the study process was concluded.

Key Words: Urban Transformation; Urban Parks; Neighborhood Parks; Ecological Assessment; Ecological Quality.

INTRODUCTION

With urbanization accelerated worldwide, migration from rural areas to urban areas is accelerating; cities' numbers, population and complexity are gradually increasing. Today, 2% of the earth is covered by urban areas and people living in cities comprise 75% of the world's population [1]. Considering that the world population passed 7,2 billion according to the data of 2014, today more people than 5,2 billion people live in cities (table 1).

When this process is examined in particular Turkey, it is observed that urbanization pace has increased steadily from the 1950s, when the urban mobility has started, until today.

Numerical and percentage distribution of rural and urban population between the years 1927-2010				
Year	Rural	Urban	Rural (%)	Urban (%)
1927	10.342.391	3.305.879	75,8	24,2
1950	15.702.851	5.244.337	75	25
1980	25.091.950	19.645.007	56.1	43.7
2010	17.500.632	56.222.356	23.7	76.2

Table 1. [https://tr.wikipedia.org/wiki/Türkiye_demografisi].

In the result of social, economic, political and cultural conditions, the rapid increase of population in today's cities has caused to increase multi-storey buildings with the action of demolished and built especially in urban centers and to be added the new residential and industrial areas to the existing settling intensely. This tendency of quick, irregular and unplanned urbanization leads to decrease the open-green spaces increasingly in urban centers.

Open-green spaces has an important position in balancing the deteriorating relations between man and nature and improving urban living conditions. So that, in developed countries, the quality and quantity of these areas is regarded as an indicator of civilization and quality of life. Therefore, many developed countries, taking into account people's mental and physical needs, are oriented to the effort of planning and building the open-green spaces suitable for human life in parallel to ecological principles [2].

Open-green spaces; can be classified in different ways according to the dominance of green areas, property or recreation function assumed [3]. The parks, located in the classification of urban open-green spaces according to the recreation function undertaken, are one of the main factors in planning of the urban open-green spaces with the reasons such as, incorporating the gaming venues and sports fields, supporting the ecological diversity of the city with the cover of artificial and/or natural vegetation, not only developing the physical and mental health of the citizens, but also creation an environment for amusement and socializing. The individuals, coming together in these

areas, having different social, cultural, economic and demographic characteristics learn to perceive the differences of each other, to look and evaluate each other with tolerance [3], [4].

Urban parks may be classified as city, district, quarter and neighborhood unit parks depending on scale and location. In these, the neighborhood unit parks are the species having the most common usage in planning of urban open-green space with such reasons, taking place in residential areas, being accessible on foot, can being used short term but almost every day and every hour of the day by young or old. The distance of neighborhood unit parks, serving about 4-5 thousand people, from housing is limited to 500 m. in many countries, but this values can varied according to social preferences and the area's topography.

In our country, the social limitations reduce the usage rate of parks whose transport distance is remote. This rate gets bigger if site-dependent population such as old or disabled people are taken into account. In addition, instead of a few large parks, a large number of small-scale parks dispersed across the city are more beneficial in terms of recreational usage and the effect on the overall climate of the city, because parking size's contribution to the city, beyond a certain size, is very limited in terms of climate [3]. For these reasons, at a lower scale from the neighborhood unit parks, regulation of closer green areas to the housing is quite important with regard to offer a better life quality to the citizens.

In the study's extend, in these green areas defined as "small scale park", the condition of having minimum 2000 m² area in the standard of optimum park size has been sought [5], [6]. This understanding in planning of urban open-green spaces is one of the predicts of this study's bases.

In today's urban green areas, designed keeping people usage in the forefront, ignoring the ecological quality factors quite decreases the contribution of this important areas to the urban environment [7]. At this point, the necessity of developing a design approach brings the relation of human and nature forward and produces solutions to the ecological problems of the city, changing the existing design concept in the planning of green areas, is another predict of this study's bases.

In this concept, the study is built on integrating multi-faceted perspective of ecological design with design of small scale parks closer to the housing and transferring the today's endangered resources to the next generation with protecting them.

In this study developing within the frame of this base understanding, it is aimed that the small scale parks of Balıkesir are analyzed according to ecological quality criteria determined the scope of this work and proposals of recreational and ecological contribution, providing benefit from these areas in a higher rate, are developed.

MATERIALS and METHODS

Materials

Balikesir province selected as the study area (figure 1) is located in northwestern Anatolia and in the triangle of İstanbul, Bursa and İzmir which are the three advanced centre of Turkey. Balikesir, being in the position of the most developed province about agriculture and food industry, is also one of the city which has the most important renewable energy source in the country. The city has the potential of a high wind energy, thermal energy and biomass energy. Balikesir outstanding with summer tourism with its coast-coastal plains and islands, secondary residences and yacht tourism, is becoming a major regional center in the field of transportation, transporting and logistics [8].

Population growth rate of Balikesir according to TUIK's data, is below the average of Turkey and this tendency has continued for the past seven years. However, in 2014, the population growth rate of Balikesir province reached 1.189.057 people with increase of 22.60 ratio per thousand and exceeded 13.40 per thousand which is Turkey's average. These data indicate that by the year 2012, urbanization rate of Balikesir province, where the 61,32% of the population was inhabited in city and town centers that is urban areas, has an increasing tendency [8].

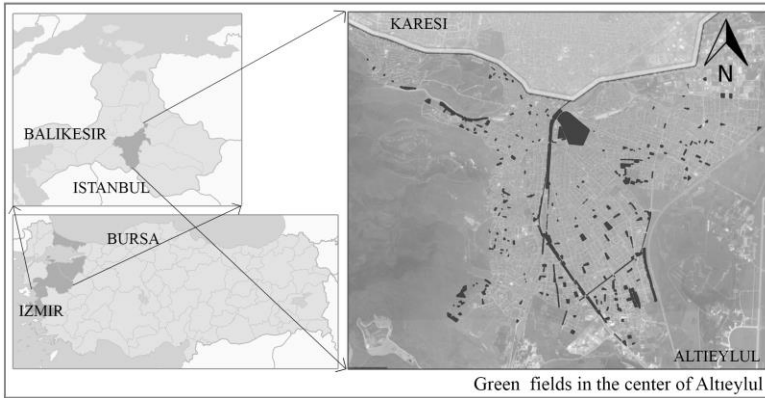


Figure 1. The Location of the Research Area.

With increasing pressure of urbanization, metropolitan and centre district municipalities of Balikesir are building small or large parks in terms of transporting the nature to the city and meeting the recreational needs of people. The open-green areas being in the boundary of Altieylül district municipality and defined as “small scale park” in the scope of study are the main material of this study. The digital maps showing the current zoning status of Balikesir province and satellite images with 1m. resolution were used in the study as assistant materials.

Methods

This study aimed to evaluate the small scale parks in the boundaries of the Balıkesir Altieylül municipality according to the ecological design criteria determined in the scope of the study was carried out in two stages.

Stage 1. Determination of ecological design criteria that will be used to analyze the ecological aspects of city parks.

Stage 2. Located the small scale parks being in research area and analyzed them in terms of ecological efficiency.

In the first phase of the study, studies about ecology, ecological planning, urban planning, creation of ecological cities and open-green areas providing urban ecology and ecological design criteria identified in these studies are examined in order to establish a set of criteria to be used in the assessment of the urban open-green areas in terms of ecology.

In the literature, the four features required to be close to natural state are emphasized in determining the ecological quality of an area. Forman (1997), stated that more objective interpretations can be made about ecological quality of an area taking into account one or several criteria expressed in the form of vegetative production, water, biodiversity and land [5], [9].

Under the scope of study, ecological design criteria for assessing the ecological characteristics of small scale parks is organized in three different groups on configuring these four ecological quality criteria. These groups are: 1- Physical and Environmental Design, 2- Environment, 3- Culture and Education.

Planning of the parks on the axis of the physical and ecological design requires that the buildings in the park, access roads inside the park, children's play areas and parking areas must be planned according to certain principles of ecological design.

The ecological criteria requiring to consider the design of buildings in parks can be summarized as follows: Utilization of photovoltaic panels for electricity production, hot water supply through solar collectors, using solar shading elements in the windows, making thermal insulation on the roof and the building shell, the use of intelligent control systems for comfort conditions, using natural and/or recycled materials, using collection systems for rain water on roofs and other surfaces, using water filtration systems, using the systems of waste separation and conversion of solid waste fertilizer, making arrangements to ensure the use of natural light throughout the day in the building design.

The standards and design requirements for access roads in parks can be summarized as follows: Walking tracks designed appropriately in terms of the structure of natural areas, enabling to connect people with nature with looking and recreation areas, the use of natural and local materials for the floor.

The standards and design requirements for parking areas in parks can be summarized as follows: Positioning them far away from the main park area, the use of water and moisture absorbing floor, designing the bicycle parking area near the main building.

The ecological criteria requiring to consider the planning of playgrounds for children in the parks can be summarized as follows: Compliance with the standards and security policy, the use of toys designed appropriately for children scale and produced from high quality raw materials, giving place to the muddy grounds, the use of correct night lighting, establishing a bond with green spaces with designing in close proximity to trees [10].

In the planning of the parks in the environmental axis; energy, plants and animals, pollution, recycling of waste, waste water, fertilizer production and water consumption, the continuation of life cycle, sustainability of wildlife, seed provision for birds, cultivation of medicinal plants are the most important indicators for reduction of air and noise pollution [10].

In the planning of the parks in culture and education axis; the understanding proper to the concept and aim taking into recreation areas is very important.

While the parks are planning, a focal point and/or a theme of each park that is a reason for being is important. This can be a beautiful view point either a centuries-old tree, a well-maintained and attractive flower garden, periodically stage outdoor performances / concerts / exhibits, artworks symbolizing social history / culture / important events. People should know that they can find something special when they come to the park. In addition, the parks should include arrangements and functions that all age groups can find something for themselves, enjoy the time with. These include playgrounds, zoos, animal shelters for children, sports areas for young people, walking paths and resting places etc. for elderly people [3], [10].

In the second phase of the study, digital maps were examined in computer environment and 35 small scale parks with a minimum surface area between 2000m² and 8573m² were determined as of 2016 according to the scope of the study. Greening work done at roadside and intersections was excluded from the study without being considered in the park status.

The following are the criteria for evaluating parks:

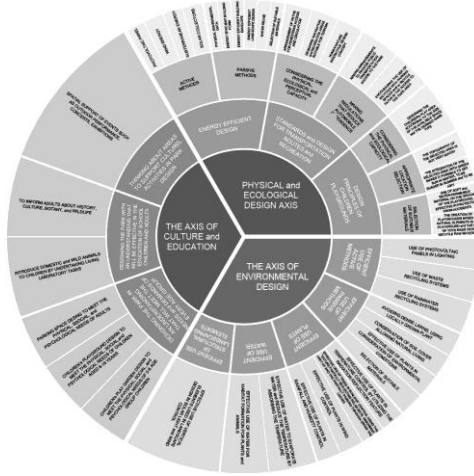


Figure 2. Ecological Park Design Criteria.

RESULTS and DISCUSSION

It has been determined after the results of the examinations made on-site that 31 of the 47 small-scale parks surveyed served as parks, while the 16th did not have a parking function because they have not arranged yet, although they are seen as parks in the 1/1000 scale implementation plan of Balıkesir province (figure 3). The evaluation of 31 small-scale parks serving as present parks according to the ecological design criteria determined within the scope of the study are made below under the main heading of each criterion.

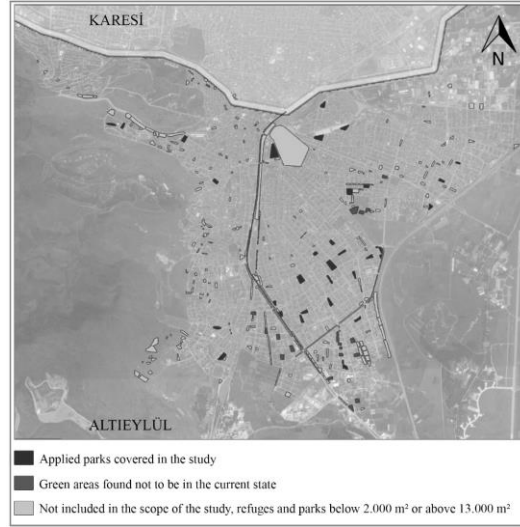


Figure 3. Small-scale Parks Evaluated within the Scope of the Study.

After the detection of 31 parks (figure 4) implemented in Balıkesir Altıeylül District, on-site evaluations were made by 3 different evaluators according to the set of generated criteria. The evaluation results are scored between 0 and 4, with the expressions "absolutely", "partially", "providing", "providing at a good level" and "absolutely providing" based on the 5-point Likert scale; the total score values of the parks were found by taking the average of the scores given by the evaluators.

According to the situation of the parks having a playground and a functional building, they were evaluated on the following total scores (table 2).

	Parks with a functional structure and a children's playground	Parks without a functional building	Parks that do not have a functional structure and children's playground
Total score	224	144	124

Table 2. Total Scores of Parks.



Figure 4. Applied Parks Covered in the Study.

Evaluation of Parks on the Physical and Ecological Design Axis

In the assessment made according to the ecological criteria that should be considered in the design of park buildings, the building (cafeteria, buffet and public building) functioning was identified in 5 out of 31 parks (P7, P11, P17, P20, P26). However, none of the buildings have been arranged according to the ecological design concept (figure 5).



Figure 5. Functional Building Examples in Parks.

In the assessment made according to the standards and design requirements for the access roads in the parks, in one of the 31 parks (P23), hiking trails, viewing and recreation areas were never considered; other than these, it has

been determined that these areas are designed in good order in some, and weaker in others. Very few of the parks evaluated have seen the use of rubber-based flooring materials with high flexibility in hiking trails (figure 6). However, it has been observed that applications do not conform to the character of natural areas, they are produced with extremely artificial solutions and are weak at the point of linking with nature. In addition, in many parks, materials, which are preferred as concrete parquet far from locality and naturalness, used for hard floors have been seen as negative at the point of the using ecologically recyclable materials.



Figure 6. Different Floor Materials Used in Parks.

In the assessment made according to the standards and design requirements for parking spaces in the parks, it has been seen that parking space is considered in the design of only 2 of 31 parks. However, design requirements such as the positioning of these areas away from the main parking area, the use of water and moisture absorbing flooring in the ground have not been fulfilled. Another design requirement, bicycle parking areas (figure 7), is seen in only 2 parks.

In the assessment made according to the ecological criteria to be considered in the planning of playgrounds for children in parks, it has been found that 27 of the 31 parks have children's play areas (figure 8). In these areas it has been observed that the required standards and safety guidelines are followed. Children's scale was taken into consideration in toys located in the fields; on the other hand, it is seen that the materials used are not natural but mostly plastic based. The floors of the areas are mostly covered with rubber material and it has been observed that the elements used to illuminate these areas are located at sufficient frequency. However, it has been found that the lighting elements used are higher than necessary and that solar energy systems are not used for lighting except only one park. In addition, it has been estimated that the point playgrounds are designed in places close to the trees so that children can connect with green areas is considered in 13 parks and P2 and P15 parks are designed in good level. In the parks except these there is no correct planning in this regard.



Figure 7. A Bicycle Parking Area.



Figure 8. Example of Playgrounds.

When the parks are evaluated on the physical and ecological design axis, three groups are allocated according to the situation of being a functioning building and a playground for children in the park. The evaluation of these three groups is given in the following tables (figure 9, 10).

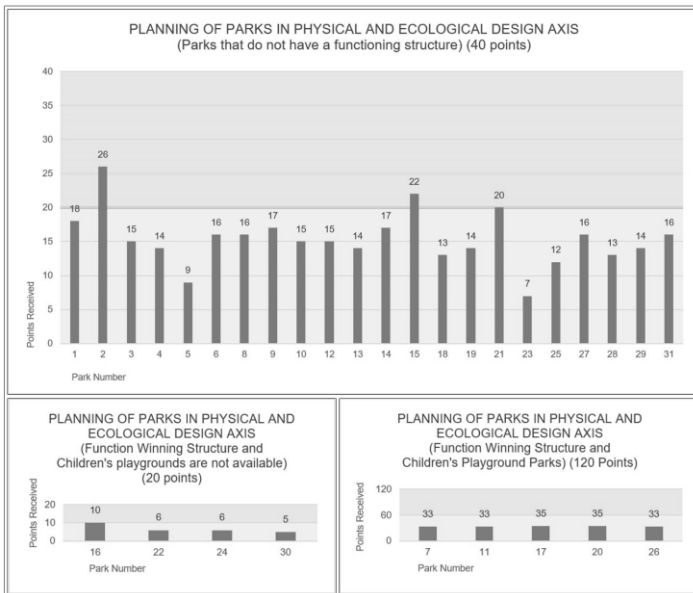


Figure 9. Evaluation of Parks on the Physical and Ecological Design Axis.

When we look at the percentage distribution of parks that have children's playground but do not have a functioning building; we can see that 91% of the parks (20 parks) get points between 25% and more of the total points and 9% of the parks (2 parks) get between 10% and 25% of the total score.

If we look at parks that have children's playgrounds and a functional building or that does not have a functional building and a children's playground, we can see that all of these parks score 25% or more of the total score they can get.

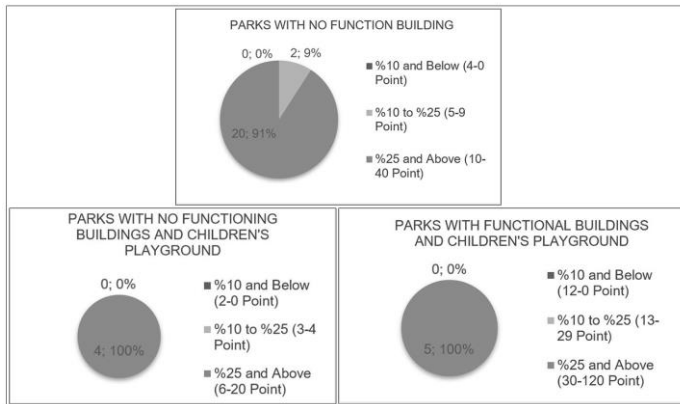


Figure 10. Percentage Distribution of Parks.

Evaluation of parks on the axis of the environment

Well in 6 out of 31 parks and in 14 partially, it has been tried to prevent the parking areas from being influenced by intense wind and sunlight with appropriate plant species and orientation according to seasons (figure 11). It was observed that in 6 from 31 parks, locally-specific plants were aimed to be cultivated by carrying out planting even if it is limited. It was found positive that utilization of the solar energy system with the use of photovoltaic panels in only seen at P11 (figure 12). In the parks where the evaluations are made apart from these limited applications; there have been no applications in the areas of continuation of life cycle, continuity of wild life, energy, plants and animals that are very important in terms of reducing air and noise pollution, environmental pollution, waste recycling, wastewater, fertilizer production and water consumption.



Figure 11. Sunlight Control with Trees.



Figure 12. Photovoltaic Panels.

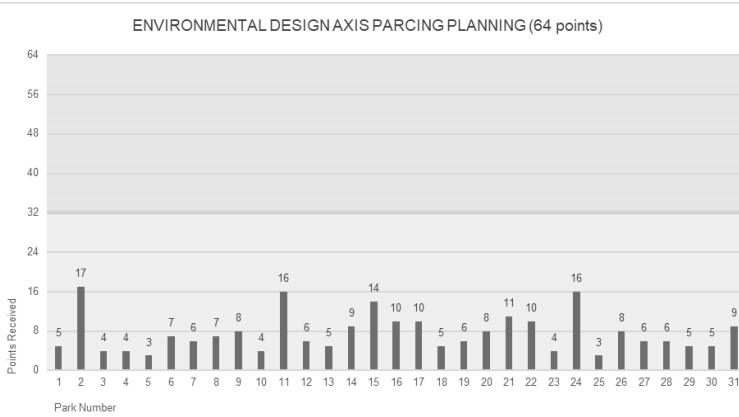


Figure 13. Evaluation of Parks on the Axis of Environmental Design.

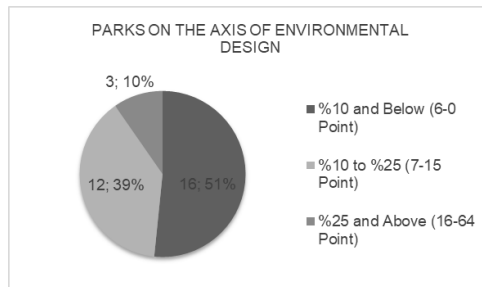


Figure 14. Percentage Distribution of Parks on the Axis of Environmental Design.

When we look at the percentage distribution of parks on the axis of environmental design; it can be seen that 10% of the parks (3 parks) get 25% and above of the total score; 39% of the parks (12 parks) get points between 10% and 25% of the total score; 51% of the parks (16 parks) receive 10% or less of the total score (figure 13, 14).

Evaluation of Parks on the Axis of Culture and Education

27 of the 31 parks have playgrounds for children, 19 of them have walking and resting areas for the elderly, 30 of them have viewing areas, 22 of them have sports equipment (figure 15), and 12 of them have sports fields for young people (figure 16). Animal shelter is not considered in any park, and no educational building is located in any park. It has been detected that only 1 park within 31 parks has been tried to be organized according to a certain theme, taking into account the existing a tree and the location and size of this tree.



Figure 15. Sports Equipment Used in Parks. Figure 16. Sports Fields in Parks.

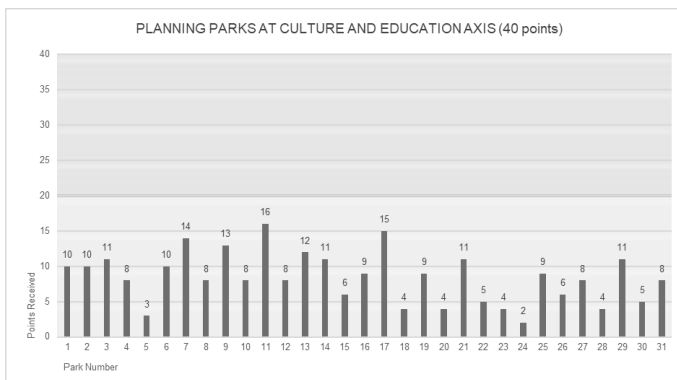


Figure 17. Evaluation of Parks on the Axis of Culture and Education.

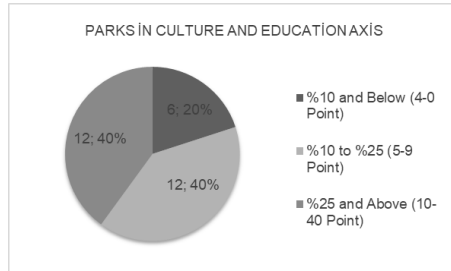


Figure 18. Percent Distribution of Parks in Culture and Education Axis.

When we look at the percentage distribution of parks in terms of culture and education; we can see that 40% of the parks (12 parks) that the parks can get 25% of the total points and above; 40% of the parks (12 parks) get points between 10% and 25% of the total score; 6% of the parks (6 parks) receive 10% or less of the total score (figure 17, 18).

CONCLUSION

The research shows that small-scale parks, which are not in bad numbers and distribution to the city, are very weak from physical, environmental and cultural aspects. In the construction of the vast majority, ecological design and efficient use of the park have been overlooked.

With the current park approach, artificial areas emerged, which were unable to provide energy even by themselves and were very weak at the point of establishing relations with nature.

If it is thought that ecological parks will bring the result of the passing of life in Balıkesir to the city in terms of the results and sustainability of the city, it will be much easier for our city to develop economically and ecologically.

The ecological arrangements to be made will contribute to urban energy rather than energy consumption, and will contribute positively to the urban climate. By creating quality spaces on this site, people can use more of these areas, and in our cities where the green areas are getting smaller day by day, the areas where people will breathe can be created.

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PART 2



URBAN



CITY



LANDSCAPE



RURAL





MOBILITY OF LAND IN ISTANBUL: PRODUCTION OF NATURE AS SPACE IN 2000's

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ABSTRACT

This study aims to explore connection between mobility of land through waterfronts and architecture of the city while exercising the rhythm of the production of nature as space in the context of Istanbul between two centuries for understanding 2000's. In this paper coastal land reclamation projects of Istanbul are exercised for to understand if it is possible to grasp production of nature as space within flow of land by taking into account social networks that are intricately related with each other through history. Concerning the rhythm of the mobility of land through urban landscape, the current agenda of waterfront areas and inner city provide a very fruitful vision of a dramatic expansion of the complex urbanized nature as well as secondary transformation circle of urban waste. Production of nature as space will be conceptualized within "moments" using language of time, and "metabolic medium", reflecting the involvement of socio-natural space. If any "moment" can only be explained in terms of the process as a whole, and is interrelated with all other moments, the nineteenth century is exercised as the very first moment of capitalist production of nature as space through coastal land reclamations while the current moment is examined through the same agenda in 2000's. In short, mobility of land heavily depends on the complex material and labor processes today. Besides, in the past, it showed a direct character concerning material and human labor processes as well as it was easier to follow these metabolic interactions before, therefore it was easy to intervene to the urban agenda. Mobility of land create debates about resilience character in Istanbul, and about negative affects the future's urban ecology and livable environments. Moreover, capturing coastal land reclamation projects as mobility of land gives significant insights of understanding the complex architecture of the city.

Key Words: Mobility of Land; Nature as Space; Coastal Land Reclamation; Yenikapi; Istanbul.

INTRODUCTION

Majority of the scholarly debates have reached to an agreement that we are living in an age of ecological rift. But, capturing the crisis as a socio-ecological rift is still quite a new context concerning urban debates and it is more complex to understand. The ongoing duality, between social and natural, historically loaded with the ideology of nature, deepens the uneven development of urban landscape as Neil Smith argues [1], as well as blurs the minds, and postpones the confrontation of possible problems & solutions for livable landscapes. Instead of using the linear arguments such as domination of nature, therefore, we need to hold much more complex process of the production of nature as space. Furthermore, it is important to understand that "how we produce nature as space and who controls this" for grasping the landscapes under complex transformation and conditions of current socio-ecological rift. This paper shows that in the current context coastal land reclamations heavily depend on the complex material and labor process that render secondary transformation of urban waste that derives from mega urban projections in the inner city of İstanbul. Besides, in the past, coastal land reclamations depended heavily primary sources of nature, human labor and nourishments like the wheat for the workers from the periphery of İstanbul and it was easier to follow these metabolic interactions, therefore it was easy to intervene the urban agenda as well as make bold to display concerns. It also renders that while managing nature, people, daily life through human labor, technology and capital flows within the historical, geographical and complex material processes in the twenty first century, on the other hand the nineteenth century may help to explain the very first insights of the same desire. At this point, in this paper coastal land reclamation projects of İstanbul are trying to grasp as the flow of materials by taking into account social networks through history. This paper aims to explore connection between mobility of land through waterfronts and architecture of the city while concerning the rhythm of the production of nature as space in the context of İstanbul. Namık Erkal whose stimulating work about the archeology of the landfills in İstanbul, gives brief insights and examples about multi-layered character of the waterfronts of İstanbul [2]. But, in this paper, we focus only the coastal land reclamations considering the mobility of land between inner city and waterfronts in case of production of nature as space. Moreover, it claims that understanding metabolic flows is the new critical dimension to understand urban transformation, and, at this point waterfronts of İstanbul have significant agenda for exercising the mobility of land within these flows [3]. Concerning the body of metabolic interaction as flows, space as transformed nature through the labor and the organization of the labor force via culture, technology, and urban struggles (mode of production) are significant for exploring the relations of nature as space. As Maria Kaika states [4] it is possible to see that urbanization of nature as a perpetual state of transformations as flow. Add to this, the study offers that capturing flows of land through waterfronts in the nineteenth century of İstanbul can be a useful tool for understanding relationally the transformation of the entire city today. The shifting socio-ecological conditions in the second half of the nineteenth

century and early twentieth century have major influence on future of İstanbul [5].

METHOD

The methodology involves a critical commitment with social media, historical accounts and secondary sources dealing with the evolution of the waterfronts where land meets water in case of coastal land reclamations of İstanbul. Therefore architects, geographers, and historians reviewed. Archival research, including the revision of legislations, policy papers, reports, the documents from Turkish Republic Directorate of the Archives of the Prime Ministry, and the reports of the Chamber of Architects has been of particular importance as well. Transformation of the waterfronts of İstanbul will be conceptualized within moment linked with other moments. David Harvey [6] argues that any “moment” in the capitalist mode of production, exchange, distribution and consumption can only be explained in terms of the process as a whole, and is interrelated with all other moments. Firstly, I start to explore the very first moment of capitalist production of nature as space which renders itself within the mobility of land through coastal land reclamations in the 19th century of İstanbul. Particularly, the Port of İstanbul and Eugene Henri Gavand’s proposal for Yenikapı will be undertaken. Secondly, I try to exercise the current moment of capitalist production of nature as space through 2000’s considering mega projection of coastal land reclamation in Yenikapı area.

Roots: Mobility of Land in 19th century

We turn back to the roots of free market conditions and capitalist production of nature as space which is fully accomplished in the current socio-ecological context of İstanbul. As David Harvey states [7] that Neoliberal label with free market basis emerged in the second half of the nineteenth century, we will visit the nineteenth century of İstanbul for understanding the practice of the production of nature through 2000’s. The edict known as Tanzimat (1839) is not only a turning point for the history of Turkey, but also carries an emblematic meaning particularly for the socio-ecological history of İstanbul too. Its character that fosters alienation human from nature through its space making agenda and concomitant legislations is important and has an influence through the first quarter of the twentieth century. For instance, the Land Code of 1858 (Arazi Kanunname-i Hümayunu) is the significant ones which opens the way and accelerates the urbanization of nature as space throughout the waterfronts of İstanbul for individuals (waterfronts residences i.e.) and companies (Port of İstanbul- private company i.e.) by providing the right of private property. This process comes into existence via the municipal organizations [8] for the sake of put into practice the rules of laissez-faire capitalism in İstanbul. Coastal land reclamations of all sizes of İstanbul are the best symbolic practice of the capitalist urbanization of nature as space which create uneven environments from nineteenth century till today. In the Government Ottoman Archive, we can find examples about the law case

about official coastal land reclamations. To clarify, according to the records of internal affairs (Dahiliye) we can understand that land reclamations and the sale of property on them on a contractual basis officially possible between the second half of the nineteenth century and first quarter of the twentieth century. For instance, any land reclamation without license along the Golden Horn (Haliç), Dersaadet (old İstanbul) and Bosphorus will be suited and punished in 1908 [9]. In other record, a foreign company, named as American Standart Oil, near Serviburnu and Sötlüce was getting a permission paper for using the coastal land reclamation as a coal yard area [10]. After an attempt of a proposal along the waterfronts of Galata and İstanbul in 1879 by Marius Michel, the area between Sirkeci and Unkapanı and from Tophane to the Galata waterfronts were the location for the second time as an intervention of coastal land reclamation by the 1890 contract (Port of İstanbul). Furthermore, according to the Article 26, in the 1890 contract, coastal land reclamation of the Port of İstanbul -can be considered as the biggest mobility of land at waterfronts of that time- would be given free of charge and could be used as a private property as docks, storehouse and office building etc. by M. Marius Michel who took the privilege of construction and operate again on behalf of the private company [11]. For providing the rockfill for the coastal land reclamation of the Port of İstanbul, the new flows of material and mobility of land in the city wide began. Zihni Bilge [12] stated that the waterfronts of Marmara, Bosphorus and Haliç, the Princes Islands, Black Sea and Kavaklar were used for new stone quarries. Moreover, Ali Fuat Örenç [13] mentions that the hills of Bahariye, Kemiklidere (Pendik), Silahtarağa, Kınalı Island, Burgaz Island were the locations for opening the stone quarries and from there transport stones to the construction area for land reclamation (Fig.1). It is important to underline that the coastal land reclamation project had been the scene of the concerns and dissatisfaction about the condition of socio-natural environment. For example, economic conflict between company and government can be observed about the rights of excavate [14] as well as Port of İstanbul was objected by the Harbor Master of İstanbul on the grounds that the natural structure of İstanbul would deteriorated [15]. Therefore, during the construction the landfill had been collapsed many times due to the various reasons.



Figure 1. New Stone Quarries of Princes' Islands and Pendik Used as New Sources of the Flows Land by the Construction of the Port of Istanbul. The Image Prepared by Author, 2019.

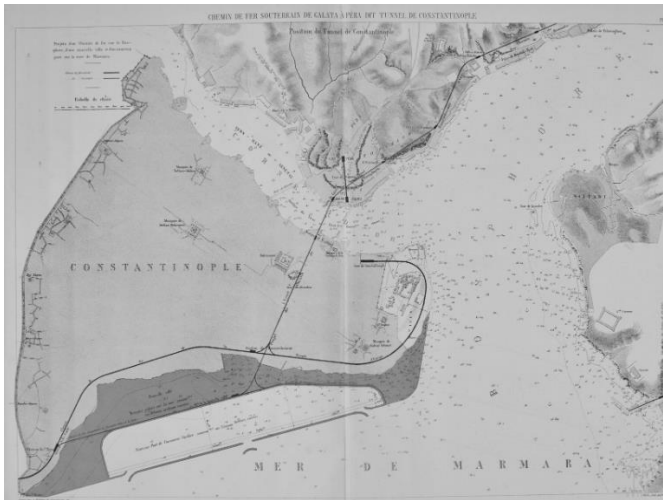


Figure 2. Eugene Henri Gavand Proposed a Grand Scale Coastal Land Reclamation Project (1874) Between Yedikule and Topkapı. Proposal for the Reclaimed Area Colored by the Author, 2019.

In the above figure (Fig.2) Gavand's grand scale land reclamation proposal plan, related with an extensive projection of the transportation system, can be seen at the waterfronts of Yenikapı in 1874 [16]. Add to this, it is not hard to guess that the material for the landfill would come from the new stone quarries and started the very first mobility of land like the future port area of İstanbul if the project could be realized. Aron Angel, who was worked with the Henri Prost on İstanbul's development, mentions about the project that Eugene Gavand's proposal found to be as "utopic" [17]. The proposal of the coastal land reclamation project, located between Yedikule and Topkapı with an estimated area of 2,200,000 square meters, is four times bigger than the project developed in 2015 nearly at the same location. Now, we will explore the coastal land reclamation projections in 2000's.

Mobility of Land in 21st century

Two centuries later between 2012 and 2015, the vision of Eugene Henri Gavand would become real with the Yenikapı Coastal Land Reclamation area as a part of a so called mega projection agenda of İstanbul which determines the very architecture of the city. Yenikapı Area has been carrying an importance not only for the last three centuries, but also for the last ten thousand years within the lights of the excavations in Yenikapı Area. For a brief explanation about the coastal land reclamation project of Yenikapı (Fig.3) I focus in this era; it can be said that it is implemented by İstanbul Metropolitan Municipality (İBB) and the Ministry of Environment and City Spatial Planning Head Office (Çevre ve Şehircilik Bakanlığı Mekansal Planlama Genel Müdürlüğü) on 518.000 square meter land along the North Coasts of Marmara Sea. Its cost reaches thirty one million Turkish Liras [18] and operated by the two private construction companies [19]. This project is defined as "arrangement of square for one million people" and as a "recreation area". Furthermore, the land reclamation area was excavated again in the November of 2015, for a biological water treatment facility [20]. We can learn from the question proposal of a deputy of İstanbul in 2013 about Maltepe Coastal Land Reclamation Area towards the Grand National Assembly of Turkey (TBMM) that the coastal land reclamation area of Maltepe (Anatolian Side of İstanbul) is composed of the land from the excavation of construction area of İstanbul Ataşehir Finance Center (3.500.000 earth-moving truck) [21]. Only imagining the cost of excavation logistics of the mega projection through earth-moving trucks gives an insight about the complex social networks behind the entire urban agenda. For an estimated calculation about the financial gain, which is partly come from transportation costs of the destruction waste and excavation materials of Ataşehir Finance Center and Dolmabahçe Stadium construction to the coastal land reclamation areas of Yenikapı and Maltepe instead of Şile storage site, look at the study of Küçükakça M. E. & Akkaya M. A. [22].

Therefore, it is obvious that mobility of land in 2000's materialized between the complex metabolic and social networks of mega urban transformation projects and waterfronts of İstanbul. Waterfront areas of İstanbul can be seen as a turnsole for the current metabolic interaction of the production of nature

as space. While this processes takes place step by step, concerns about socio-ecological environment, historical heritage, and public spaces immediately create debates via social media and urban professionals.



Figure 3. Yenikapı Coastal Land Reclamation Area, Reclaimed Area Demarcated by the Author, 2019.

In 2013, Chamber of Architects, Chamber of City and Regional Planners, and Chamber of Civil Engineering of Turkey sued the project as one million people square in Yenikapı via coastal land reclamation [23]. They claimed that the morphology of historical Peninsula is under a danger, coastal land reclamation could destroy collective archeological and historical heritage, and it would be increasing the traffic load in the historical peninsula which must be purified from vehicle traffic. Then, in the year of 2016 the Master Plan of Yenikapı Coastal Land Reclamation project was canceled [24]. Besides, the project was already implemented, and the first significant meeting was held in the Yenikapı coastal land reclamation area after attempt for a coup in Turkey in the day of 14th July of 2016. The demonstration named as "Democracy and Martyrs Meeting" at 7th August of 2016 and according to the social media data and news the area full of five million Istanbulites [25]. Shortly, we have to face much more complex metabolic relations by taking into account social networks currently for following the story of mobility of land considering nineteenth century context, and unfortunately have not adequate information and data except partial news on social media, reports and some scholarly efforts. Furthermore, radical time acceleration and quick answers of the space making agenda of mega projection with the bourgeois ideology of nature that separate natural from the social makes everything harder and slow.

CONCLUSION

The waterfronts of İstanbul has been filled through ages from -fires and earthquakes' debris thrown into the seashore and then was used as embankments-landfills- to the waterfront residences, port areas as well as to the giant recreation areas in various ways. For understanding production of nature as space focusing waterfronts throughout history gives preliminary insights of current metabolic interaction of the production of nature as space. Considering İstanbul, the very first moment of capitalist production of nature as space has its roots in second half of the nineteenth century and more or less it had a particular rhythm which still depends on the human labor force. Besides, current moment of capitalist production of nature as space is annihilated by time by complex material flows and social networks for the sake of market profit and quick solutions. Besides the previous experiences like the concerns about socio-ecological conditions in the Port of İstanbul project etc., the current projection and agenda do not cause a transformation that is articulated to former urban pattern, needed by the socio-ecological progress. On the contrary, it puts landscapes to a devastating transformation by twisting the former urban fabric with quick answers as the mobility of land for the sake of profit.

In short, it is an unavoidable fact that the projections and visions for fixing some areas within the capitalist production of nature as space create uneven landscapes and socio-ecological problems both in the two centuries. While fixing operation taking place through the inner city and its output creating the coastal land reclamation areas in the twenty first century, on the other hand, the fixing operation in the nineteenth century took place on the waterfronts by a desire to transform entire city. The common point for both is the capitalist production of nature as space, and it could be seen briefly in the coastal land reclamation projects and projections exercised in this paper. Even though construction of waterfronts would seem to have public goods, it is questionable that it have been give the way for private property for the business companies and increase the environmental awareness for the socio-natural environment in the past, and today add to this it is a metabolic output of an uneven landscapes of mega projection of İstanbul, and the public good discourse is seem to be under a certain and tough debate in 2000's. It is important to underline that the coastal land reclamation projects have been the scene of the concerns and dissatisfaction about the condition of socio-natural environment in the last two centuries. Mobility of land create debates about resilience character in İstanbul, and about negative affects the future's urban ecology and livable environments. The mobility of land through controlling, excavating, transporting, filling and commodifying the land in history of İstanbul renders the production of nature as space and possible expansion of an urbanized nature.

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Figure. 1. Prepared by the author (Esra Sert, 2019) using the «1853 City Map» of İstanbul from <http://www.istanbulurbandatabase.com/>

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LOST COLLECTIVE MEMORY: GÖLDE (İNCESU) BEFORE THE POPULATION EXCHANGE

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ABSTRACT

This paper aims to reveal the collective memory of Gölde (İncesu), a neighborhood of Kula-Manisa, before the population exchange in line with the Lausanne Treaty of 1923. Before the population exchange, Rum Orthodox and Turkish Muslim communities were living together in Gölde. The built environment, economic activities, daily life practices, and rituals were shaped by the existence of these two different communities that shared a common life. After the population exchange, the Rum community left the settlement. Thus, various tangible and intangible characteristics of this bi-communal life are lost in time. This paper aims to reveal these lost tangible and intangible characteristics. This revealing requires an extensive and holistic analysis of the settlement before the population exchange. To be able to discover the tangible characteristics, the existing built environment is analyzed in detail with conventional techniques of architectural conservation. The buildings constructed before the exchange are deciphered and their original characteristics are analyzed. The intangible characteristics, on the other hand, deciphered via narratives of both existing locals and former Rum inhabitants. The oral history studies with existing locals are carried out by the authors whereas the narratives of former Rum inhabitants are obtained from the Center for Asia Minor Studies in Athens. The way of life, agricultural practices, economic activities, rituals and relationship of two communities are deciphered with the help of oral history studies. The analyses of both tangible and intangible aspects made it possible to understand the mutual relationship between the built environment and daily life practices; how daily life practices shaped the built environment or vice versa.

Key Words: Gölde; İncesu; Population Exchange; Collective Memory; Identity.

INTRODUCTION¹

Gölde (İncesu) is a settlement located 7 km north of Kula-Manisa, a city in the Egean Region. Although it is officially the neighborhood of Kula with the name of İncesu today, it was called as Kollyda, Gyölde, and Gölde respectively throughout history [1]. The settlement is placed on the skirts of Hızırilyas Hill and surrounded by Hızırilyas, Aytepe and Boztepe Hills (Figure 1).

Although the region was ruled by different civilizations throughout history, the built environment of Gölde is shaped during the Ottoman Period, late 19th century respectively. This is the period that Turkish Muslims and Orthodox Rum communities were living together. The buildings, economic activities, daily life practices, and rituals were shaped by the existence of these two different communities which shared a common life. After the population exchange, the Rum community that constitutes more than half of the total population left the village. Various tangible and intangible characteristics of this bi-communal life are lost in time correspondingly. This paper aims to understand these lost tangible and intangible characteristics. The method of this understanding is the comparison of today's condition with the pre-exchange state. Conventional techniques of architectural conservation; which is composed of field survey, analysis and evaluation, helped to understand the built environment and how it is transformed in time. However, the buildings that no longer exist as well as the daily life practices from past to present could only be deciphered via narratives of existing locals and former Rum inhabitants. The oral history studies with existing locals are carried out by the authors. The elders of the village still remember their parents' memoirs related to the environment and daily life before the migration of the Orthodox community. The narratives of former Rum inhabitants, on the other hand, are obtained from the Center for Asia Minor Studies in Athens. Although only two narratives were recorded in the archive, they provide invaluable information about not only the buildings and open spaces but also the way of life, agricultural practices, economic activities, rituals and relations of two ethnic groups in the village.

Historical Background of Gölde

There are very limited sources regarding the Gölde however some reveal that the settlement was inhabited dating prehistoric times. In a brief chronological order, the settlement was ruled by Lydians, Persians, Romans, Byzantines, Germiyanogulları during the Principalities Period and Ottomans [2]. Gölde is one of the few places where the Turkish Muslim and Rum Orthodox communities lived together during the Ottoman period until the establishment

¹ This paper is based on the master thesis entitled "Understanding Gölde (İncesu) with its Tangible and Intangible Characteristics" by Esra Eken under the supervision of F. Nurşen Kul-Özdemir at İzmir Institute of Technology in 2018.

of the Turkish Republic. The tension that started with the Balkan Wars created a conflict between the two communities during the War of Independence and ended with the population exchange following the Treaty of Lausanne of 1923 [3]. As a result, the Rum community left Gölde in 1924. Contrary to many Anatolian settlements where both communities lived together, Turkish migrants from Greece did not settle in Gölde after the population exchange. Existing Turkish community continued to live in the village. Some of the properties of Rums were occupied by the Turks after the exchange however, many of the buildings dramatically declined and never recovered, thus, some houses and public buildings of the Rum community were doomed to collapse.

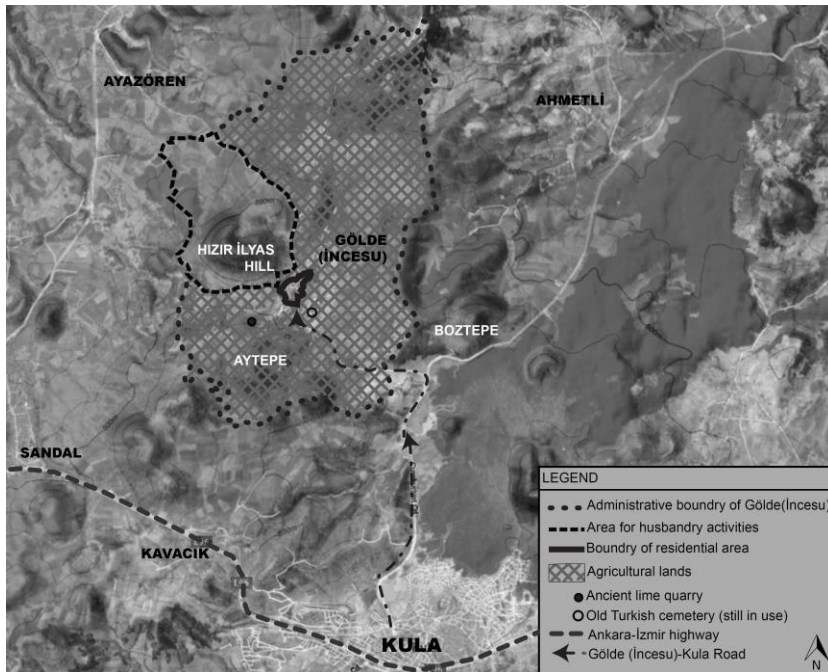


Figure 1. Gölde (İncesu) and its Environment (Source of Base Map: Google Earth, Retrieved July 19, 2019).

The main income source of the Turkish community was mainly agriculture and livestock during the first decades of Republic as it was before. After the establishment of Kula Mensucat Factory in Kula in 1940, the textile industry becomes an alternative means of livelihood. The factory employed people from surrounding villages including Gölde. In addition to being a new source of income, it was also an opportunity to employ and keep the young generations in the settlement. After closing of this factory in the 1950s, people of Gölde began to migrate to more developed towns and cities like Kula,

Salihli, Manisa, İzmir, and Denizli for better job opportunities. Although a primary school was constructed in 1980, this school was closed after ten years due to the small number of children in the community. Thus, the inadequacy of educational opportunities in the settlement has also become another reason for migration in addition to economic problems.

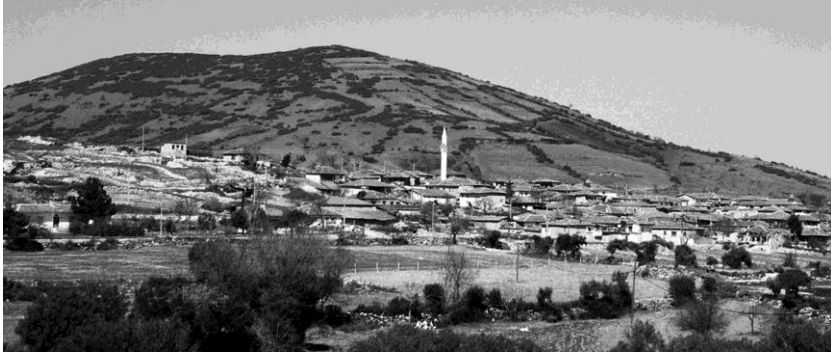


Figure 2. Gölde on the Foothill of Hızırilyas Hill (Source: Kuladan. n.d. "İncesu-Gölde." Retrieved May 22, 2018. <http://kuladan.com/incesu-golde.html>.)

The settlement remained as a village of Kula until 1963. Then it became a neighborhood with the name İncesu. Due to the rapid decline in population, today many dwelling units have been abandoned and some of them have partially collapsed. The settlement composed of 140 dwellings by the year 2017. However, according to Hulusi Uzun, the previous mayor of the settlement, nearly half of the dwellings are inhabited and among them, approximately 20 dwellings are occupied by elderly couples. The total population is around 170 officially but the mayor of the settlement states that 19 people of the total population do not live in the settlement at present. Thus, it can be said that nearly two people live in each house on average. Existing locals live off agriculture and husbandry. They went to Kula to sell their products to maintain their livelihood. Thus, the relationship of the settlement with the close environment is limited to Kula at present.

Built Environment before the Population Exchange

The residential area of Gölde is located on the foothill of Hızırilyas Hill, on a slightly sloping terrain (Figure 1, 2). Buildings are mainly located with their back or side facades facing the hill and they do not interrupt each other's view. At the end of the slope, the main square of the village is located.

According to the narratives of existing Turkish and former Rum inhabitants, the two communities were living in different neighborhoods (Figure 3). Although the name(s) of the Turkish neighborhood(s) is unknown, the narratives of former Rum inhabitants make it clear that there were two Rum neighborhoods; one was called the Taksiarhis Neighborhood or *Yukarı Sokak* and the other was the Hagia Triyada Neighborhood or *Aşağı Sokak* [4]. It is possible to differentiate Turkish and Rum neighborhoods with the information coming from the location of the religious buildings, Greek inscriptions above the entrances of some of the residential buildings and some architectural elements that are only found in the Rums' houses such as the common *mahzen* in the courtyard, iron entrance door, and gypsum ornamentations in cupboards. Accordingly, the north of Gölde was settled by Rums, whereas the south was settled by Turks. There was also a mixed plot where both ethnic groups lived together. This situation is quite extraordinary since Rums and Turks prefer to live in separate quarters although they had good social and economic relations.

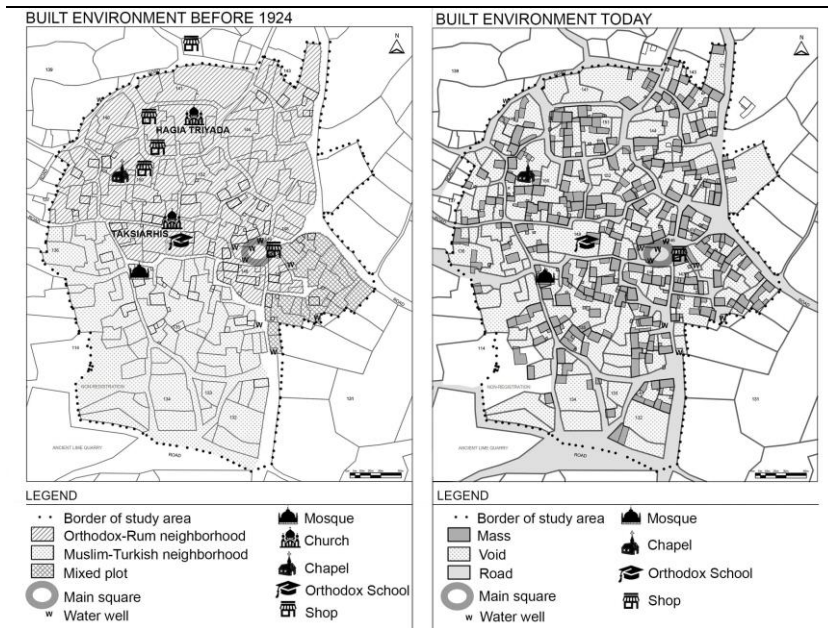


Figure 3. Gölde before 1924 and Today.

Roads of the settlement coming from the main square were covered with *kayrak* stone (Figure 4). Waterwells were significant elements that are distributed in different parts of the village. Although eight water wells can be observed at present, it is known according to narratives of former Rum

inhabitants that there were twelve wells. Four of them were located in the main square, eight of them were located on the roads within the settlement, six of them including water wells in the main square were within the border of Rum neighborhood and four of them were located within the Turkish neighborhood (Figure 3, 4). Former Rum inhabitants emphasize that there were fountains in the settlement until 1880. However, when the water cut off suddenly the local people started to obtain water from the wells. All water wells had a local name and they were landmarks for local people. The main factors for the origin of their names were their locations, the aim of the usage and extended families who drilled the well around their dwellings. According to the narratives of existing Turkish and former Rum inhabitants, it is understood that the names of water wells change among two ethnic groups. However, all were used by both ethnicities. Apart from the wells, there was also a cistern at the northwest of the settlement. It was a stone masonry structure with a dome.



Figure 4. Three Water Wells in the Main Square, which is Surrounded with Dwellings (Eken, 2017).

While the main square was surrounded by dwelling units, public buildings were intertwined with dwelling units (Figure 3, 4). The coffee-house and hair-dresser were used by both ethnic groups. However, Orthodox school and religious buildings were used by related ethnic groups. They also had significance in differentiating neighborhoods as Orthodox and Muslim.

Among public buildings, the Orthodox School was located close to the main square and at the center of the village (Figure 5). It can be easily

distinguished from dwellings thanks to its location, scale, plan and façade characteristics and its big courtyard. According to the inscription that was located above the entrance door, the school was constructed in 1911. The Taksiarhis Church was also placed in the same courtyard as the school. According to narratives of a local, the courtyard was entered by a marble staircase. When the marble staircase was examined, a bell tower was located. At the top of the bell tower, a stone clock was placed. The Taksiarhis Church had ancient icons and it was used for regular worship. According to the transmission of Orthodox migrants, many antiquarians came to the settlement to retrieve these icons but executors did not allow them to do so. In the period of migration, these icons were transported to Izmir by the Greek Army but then were lost there [4].



Figure 5. Orthodox School and the Mosque (Eken, 2017).

Apart from Takiarhis Church, there was another church named Hagia Triyada. Unlike Taksiarhis, Hagia Triyada had a women's gallery that had a separate entrance. This church was located north of the village and it was surrounded by dwellings. Although there is no trace of the church at present, the exact location of it was determined through narratives of existing locals. In the courtyard of this church, there was an *ayazma* which was always closed with a metal covering. It is told that the tyrant came to the settlement with his guards and wealthy families hosted them for three days in the settlement. On the Teofania festival day, *ayazma* was opened by the tyrant and Orthodox people drank a glass of water from this well to acknowledge the consecration¹. Fair was established in the courtyard of the church; sheep were sacrificed for God. This church was also used for wedding ceremonies

¹ In the past, during the Teofania Festival celebrated on January 6th by Greek people holding the name of "Ta phota" or "Theofania" or "Epiphania". It was based on the Baptism of Christ in the Jordan River. It is a significant Greek celebration and it is the last one held on the 12-day celebration period, which starts on Christmas. (Omilo. "Teofania Festival", last accessed July 6, 2019. <https://www.omilo.com/celebration-epiphany-lights-greek-national-holiday/>)

[4]. For this reason, it was called as *Gelin Kilisesi* (Bridal Church) by the Turkish community. Apart from these churches, there was also a chapel at the northwest of the village. Local people state that at times Orthodox people could also be married in this chapel. However, the chapel hosted more modest ceremonies. Entrance to the building was provided from the west and three niches were observed within the east wall of the chapel. Despite three religious buildings dedicated to the services of the Rums, there was only one mosque for performing religious rituals of the Turkish community. The mosque, which is still active, is placed opposite of the Orthodox school. Although there is not an inscription giving information about the construction date, it is known that it existed at the same time as the churches. The mosque has been constructed with a traditional stone masonry technique. It is covered with a hipped roof and it has a wide wooden eave (Figure 5).

Apart from public and residential buildings, some shops were operated by Rums. While the ground floor of some dwellings was used as shops, separate shop buildings also existed in the Orthodox neighborhood. Like water wells, hairdressers and coffee houses, these shops served all residents of Gölde.

The residential core of the village was surrounded by lands for husbandry activities and agricultural areas. An ancient lime quarry was located at the southwest of the village. According to narratives of locals, stones from this quarry were used by Orthodox stonemasons to construct dwellings before the population exchange. The old cemetery, which is still in use, is placed at the southeast of the village. The cemetery is surrounded by masonry walls and the entrance was provided from the road that links Gölde to Kula. While this cemetery was only used by Muslims, Orthodoxies have mostly used the courtyard of Taksiarhis Church for burial ceremonies [4]. Additionally, there was another cemetery in the courtyard of Panagia Church that was located in *Karataş* region, which is at the southwest of Gölde (Figure 6). The cemetery was surrounded by masonry walls and there were wooden crosses that give information about the dead.

Daily-Life Practices before Population Exchange

According to 1890 dated public records, there were 165 dwellings and the total population was 811 in Gölde [5]. Thus, it can be assumed that each family consisted of 4-5 members. Although these records do not give information about the distribution of the population according to ethnicity, it was known that there were about 150 Rum families in Gölde before the population exchange [4]. Therefore, it can be assumed that the population of Rums was around 600 and that of Turks was less. Differences between the size of Rum and Turkish neighborhoods also verifies this information.

In terms of administrative issues, Gölde was connected to Kula. The top directors of the village were headmen. Rum and Turkish communities had

their headmen. The headman of Rums was Kiriakos Khakalmazoğlu. His duty was collecting the taxes and providing communication according to that of Turkish rule [4].

In addition to Kula with its administrative significance, locals of Gölde had a relationship with nearby settlements to meet their needs. Although water wells existed within the village, these wells were mainly used for irrigation, for cleaning, and the care of animals. The locals preferred the water of Lake Bakırgöl for drinking. Bakırgöl was located at the northeast of the village and the drinking water was transferred via buckets. Additionally, Kavacık, Sandal and Menye villages had commercial relations with Gölde (Figure 6).

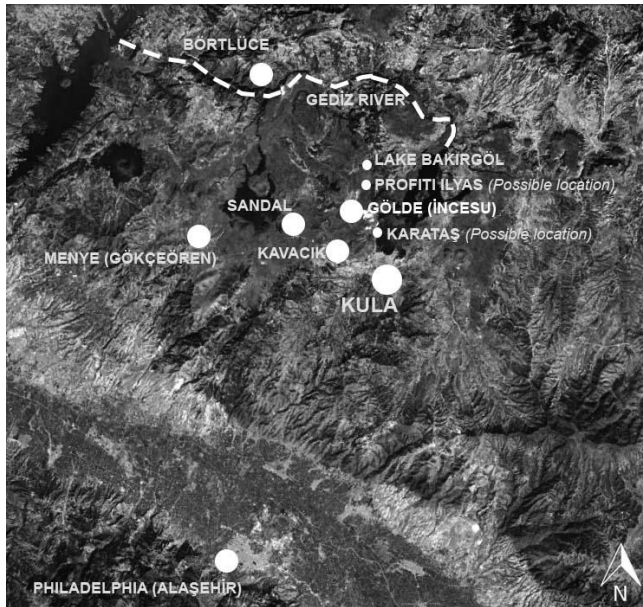


Figure 6. Position of Gölde and Some other Places that had Relations with Gölde.

The Rum community spoke Turkish but, they used the Turkish language with the Greek alphabet. It is not known when Rums gave up their original language, but a former Rum inhabitant remembers that her grandmother could speak Greek with another five or six old women. These women helped the priest with the translation of some Turkish words to ancient Greek [4].

According to the narratives of former Rum and existing Turkish inhabitants; two ethnic groups were interested in different types of economic activities. Although Muslim families' incomes were based on agriculture and husbandry,

Orthodox families were interested in trade as well. They had agricultural fields but Muslims worked in their fields for a fee. They also had shops. Additionally, some peddlers sold their goods to neighboring settlements like Kavacık, Sandal, Menye and Kula. Rums' agricultural activities were based on viticulture. Many vineyards were located around Hızır İlyas hill and extended to Sandal village that belonged to Orthodox families. They produced wine and grape molasses and stored them in the space that is referred to as *mahzen* located in the courtyard. In addition to *mahzen*, there were stone elements called *apilimi*, which are found in the courtyards (Figure 7). These stone elements were used to crush grapes. Rums had also mills around Börtlüce and Gediz River and lots of Rums worked in these mills.



Figure 7. *Mahzen* and *Apilimi* (Eken, 2017).

Building construction was a significant working area for the Orthodox people. Some skilled stonemasons constructed houses not only in Gölde but also in other neighboring settlements. Local people emphasize that Turks have learned the construction business from Rum stonemasons [6].

In terms of rituals, Gölde was an important settlement for the Teofania Festival of Orthodox Rum community. Turks also participated in these celebrations in Hagia Triyada Church. Within the scope of the festival, all people drank water from *the ayazma*. This water had to be drunk as being hungry in the same day. Otherwise, it was a sin [4]. It was believed that if the water level was low evil would come to the settlement. Thus, Muslims were also curious about the level of water and they visited Haya Triyada Church during the festival [4]. The Rum people who lived in Kula, Menye, and Philadelphia (Alaşehir) also visited Gölde during this festival. In addition to the Teofania Festival, the Easter was celebrated in the Profiti İlyas Region where is located 1 km to the east of the village [4]. The area had an abundance of pear trees and there was a small church of Profiti İlyas in this region.

Water wells were significant elements for social relations in addition to being a source of water. Villagers came together around the water wells in the square and made conversation for hours. The main square and water wells also were

part of wedding ceremonies. In the wedding ceremonies, there was a ritual based on the circling of the bride on the horse. The bride was accompanied by *seymens* around the water well, which was called *Gelin Kuyusu* in Turkish, which occurred after exiting of the bride from her father's house. Following this ritual, large tables were established in front of the bridegroom's dwelling and local dishes were cooked in large boilers. The square also hosted many of the Muslim celebrations (*bayrams*) where four water wells were placed and were significant which shows the utilization by all in the community. Locals state that swings were established between the trees in the square for children during feasts.

Despite the intimate relations, there would be no marriage between two ethnicities. Muslim families married their sons and daughters to a Muslim person from the same settlement or another settlement such as Kavaçık and Sandal. On the other hand, Orthodox people espoused their child with an Orthodox from Gölde, Menye (Gökçeören) and Kula. It was not understood whether people from different ethnicities participated in wedding ceremonies of each other via the conducted interviews. However, according to Nicholas Doumanis, while Orthodoxes participated in Muslims' wedding ceremonies, Muslims did not participate in Orthodox wedding ceremonies because they were performed in the churches [7].

Lost Tangible Characteristics

After the population exchange, the ownership rights of Rums' properties passed to the state. Afterward, some dwellings were bought by the existing Turkish population. However, some of them were never occupied again and fell to the danger of collapse due to lack of care. According to narratives of the last stonemason in the village, ruins of upper floors of some dwellings were reconstructed in the 1950s with the dismembered building materials of the building while trying to maintain the original plan organization [6]. Additionally, new dwellings were also constructed. However, after the 1950s, local people began to migrate to the cities and many houses were abandoned. At present, among a total of 140 lots; houses and service buildings in 10 lots exist in ruin (Figure 8). On the other hand, the buildings in 43 lots have been abandoned totally and others in 18 lots are used as storage or stables. Life continues to thrive traditionally in nearly 69 existing dwelling units. Although the traditional construction technique is observed in the majority of the dwelling units today, there are also newly constructed concrete dwellings as well as concrete additions to the traditional buildings.

While the main square still keeps the original *kayrak* stone floor covering, the original *kayrak* covering was replaced by modern concrete-based stonework towards the skirts of the village. In total eight water wells and a cistern were observed in the settlement during the site survey. However, it is known from the narratives that there were twelve wells distributed in different parts of the village, but some of them were presently closed. The running water comes

from Kavacık village by waterlines today, so the wells have lost their original function.



Figure 8. Ruined Houses within the Village and Ancient Lime Quarry (Eken, 2017).

In terms of original public buildings, the mosque is the only structure that is still used by local people. After the migration of the Rums, the school continued to be used by the Turkish community until 1980. Depending on the inadequacy of spaces, a new primary school was constructed at the south of the village in 1980 and education continued in this school until 2000. However, the current education system is based on mobile teaching due to decreased population. While the Orthodox school still keeps its original features due to the active utilization of the population post exchange, the churches are lost. Traces of the Taksiarhis Church can still be observed, however, a new building was constructed in the place of the Hagia Triyada Church. Only some ground stones that include Greek writings and figures can still be observed in the courtyard. The chapel still stands, but it is owned by a villager today and used as storage.

The hairdresser and coffee houses are also totally abandoned. However, there have been some initiatives to create new public spaces in the village. A new concrete coffee house was constructed at the east of the village but it was not in high demand. However, it is used as a gathering space of local people especially for important events, such as elections. Also, a doctor comes to the village from Kula once a week and examines the villagers who have health problems.

In terms of the current condition of places outside of the residential area, the ancient lime quarry still stands and was declared as a 1st degree archaeological site (Figure 8). However, it is not being used at present. The old cemetery at the southeast point of the village is still used by existing locals. Gravestones dating back to the 13th century can be still observed in the cemetery.

Lost Intangible Characteristics

The migration of Rums in 1924 is the main breaking point in the late history of Gölde. Physical and social characteristics of the village are both negatively influenced by this sudden decline of the population. The continuous migration of Turkish population to cities after the 1950's also affected tangible and intangible characteristics of the settlement.

Although some daily-life practices continue, most of them, especially related to the Orthodox community, are lost. In terms of economic life, although agriculture and husbandry continue in Gölde, there is no one interested in weaving, viticulture, beekeeping and silk farming at present. There is only one beekeeper who does not work for economic gain. In terms of husbandry activities, the population is still interested in sheep and goat farming in addition to cattle farming.

Like some lost income sources, some daily life practices are lost at present due to the decreased population. Although many buildings in the settlement were used as a coffeehouse in different periods, at present there is no such building that is used for gathering people. It can be assumed it is due to the lack of social adequate spaces. Local people, especially women, prefer the courtyards of dwellings for conversation at present. Although the settlement is not spread over a large area, there is not much communication between locals in daily life contrary to the mundane and ordinary.

In addition to lacking communication between locals, relationship with the close environment is more limited with Kula at present. Kula is still the administrative as well as a commercial and educational center for locals. Trade between neighboring villages and Gölde was interrupted, thus they mostly prefer selling their products in the Kula Bazaar. Moreover, although there is an old Orthodox School and a modern primary school in Gölde at present, education does not continue and a limited number of students go to Kula for their education. In terms of obtaining water, although the water was provided from Kavacık by tile drains in the 1960s instead of transportation with buckets from Bakırgöl, potable water is provided by bores at present.

The rituals that have been adopted to the whole society by Orthodox Rum community like drinking from *ayazma* during the Teofanya Festival and hosting the priest are lost at present. Like the Teofonya Festival, the Easter Festival is not celebrated in the region. However, wedding ceremonies are still performed with *seymens* around the *Gelin Kuyusu* in the main square although the water wells are not actively used today. Additionally, local dishes are cooked and served to all the villagers in front of bridegroom's house.

While the settlement was a religious center due to the hosting of the Teofania Festival in the past, it has lost this feature completely at present due to the

migration of Rums. Although *the Bayram's* of Muslims are still celebrated in the settlement, this celebration is only based on family visits. Establishment of swings between trees in the main square is not observed since the 1970's due to the small number of children at present.

CONCLUSION

In places like Gölde, where historical data is limited, conventional methods of architectural conservation based on site analysis is not enough in revealing intangible characteristics. In such places, oral history studies are an invaluable source to fill the gaps where conventional methods are inadequate. In Gölde, it could be possible to holistically understand the built environment, means of living and daily life practices, how they shaped each other and how they transformed in time with a combination of conventional techniques and oral history studies.

Although the physical environment of Gölde still presents its original characteristics to an extent, it is not possible to sense various intangible aspects as well as some characteristics of the physical environment which are now hidden in its history. The migration of the Rum community in 1924 resulted in the abandonment of most of the buildings and loss of rituals and cultural practices belonging to them. This loss in tangible and intangible characteristic continued after the exchange with gradual migration of Turks from the village for better job and education opportunities and abandonment of traditional means of living. Regaining most of these tangible and intangible characteristics within the scope of a possible conservation approach is not possible. There is no sufficient information to reproduce the lost buildings and it is not meant to revive lost intangible characteristics due to the validity of the causes of these losses. However, it is important to understand these aspects which are very important for the history of Gölde, record them and evaluate them within the scope of a possible site presentation plan.

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INVESTIGATION OF URBAN MEMORY TRACES IN THE CASE OF AMASYA YAVUZ SELIM SQUARE

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ABSTRACT

With the industrial revolution, people's lifestyles, habits, demands and places of living have rapidly changed. This rapid change has caused people to try to understand the relationship between culture and memory, urban identity and the problems of urbanization. Urban memory gains meaning with the place of life and stimulates individual, social, historical and cultural values in the minds of the users of the space. Elements of urban memory in cities urban squares, civil buildings, monuments, mosques, urban open spaces. Interventions to cities affect the urban memory and urban identity positively or negatively. As the study area, Yavuz Selim Square, which is used extensively by the people in the central district of Amasya province in the Black Sea Region, was chosen. The aim of this study is to examine the changes in the natural and cultural texture of Yavuz Selim Square in the historical process, the changes in building functions and the traces left in urban memory in the direction of change in land use decisions. Within the scope of the study, the use of the work area carried out in the past period, benefiting from the photo belongs to Amasya 1925-1943-1960-2019 year development plan for the years 1945-1966-1981 and has revealed the traces of the city in the urban memory. In order to determine the current uses of Yavuz Selim Square and to determine the meaning it expresses for the users, survey techniques and observation techniques were carried out. As a result of the study, it was determined that Yavuz Selim Square, which was opened for use in 1960, did not allow for multi-use, did not offer diversity of activities and lacked green space. It is observed that the developments in the urbanization process after 1980 have a negative impact on urban memory and urban identity.

Key Words: Urban Memory; Urban Identity; Yavuz Selim Square; Amasya; Turkey.

INTRODUCTION

Today, due to the development of technology and the increase in population, the need for building is increasing in cities. In this case, the city of unplanned development, the emergence of urbanization problems, is caused by damage to the image of the city and urban identity.

Roads, streets, architectural structures, squares, green spaces, parks, natural and cultural values in the cities constitute the urban texture. The elements that add meaning to a city, make it different from the others, its geographical structure and the sum of the elements specific to the city constitute the identity of the city. The identity of the city is a collection of values that associate in the minds of even those who do not see that city and is shaped in different ways depending on the culture and region in which it has been living for a long time. Therefore, the areas that give identity to the city are considered as a whole, not one by one [1]-[2].

The characteristics that differentiate the cities are the relationship between natural, social and built environment. It is very difficult to differentiate these three basic elements of urban identity [3]. While cities that do not change rapidly and have a long historical background, maintain their identity quite well; cities that are in constant change must constantly redefine or regulate their identity. The lack of urban identity brings about monotony and monotony [4]-[5].

The concept of memory in the Turkish Language Dictionary of the Turkish Language Association; 'experiences, learned subjects, their relationship with the past consciously the power to keep in mind is defined as [6]. Memory is a process of reminder or forgetting. This process contains important meanings and information. The extent to which the society and the individual remembered or how they remembered in the historical process is an important indicator for the survival of society [7].

The urban memory is defined as the physical plane in formation of a memory connected urban location [8]. The built environment that emerges with the shaping of urban space is very important in the formation of urban memory. Urban space constitutes the basic plane 'which will allow us to explore the past in the present' [9]. Changes in the physical environment of the city cause changes in the urban memory [10]. The buildings, streets and other physical components of the city provide the urban identity along with the urban memory [11].

There is a close nurturing relationship between urban memory and urban identity. The concrete traces of this relationship are evident in interventions in urban spaces. For this reason, this study has been dealt with from the question of how Yavuz Selim Square left in the memory of urban people in the spatial development of Amasya city.

Study Area

Yavuz Selim Square, located in the central district of Amasya city with its Yeşilırmak River and Valley, has been chosen as the study area with its deep-rooted history, historical urban texture and traditional Ottoman House examples [Figure 1]. The study area is located in the Central Black Sea Region of the Black Sea Region.

The city of Amasya is known as one of the oldest settlements in Anatolia. Hittites, Phrygian, Persian, Roman, Byzantine, Seljuk, İlhanlı and Ottoman houses, including 17 civilizations [12]-[14]. Traces of different civilizations appear in many parts of the city, including Yavuz Selim Square. This diversity is important for urban memory. This situation made the city of Amasya different from other cities.

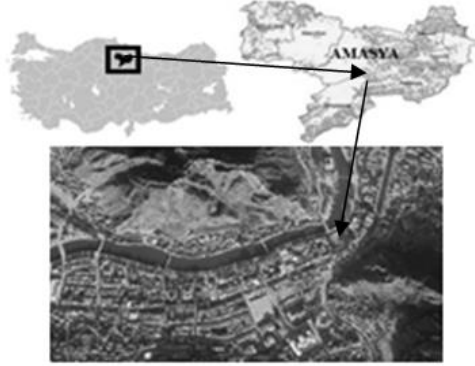
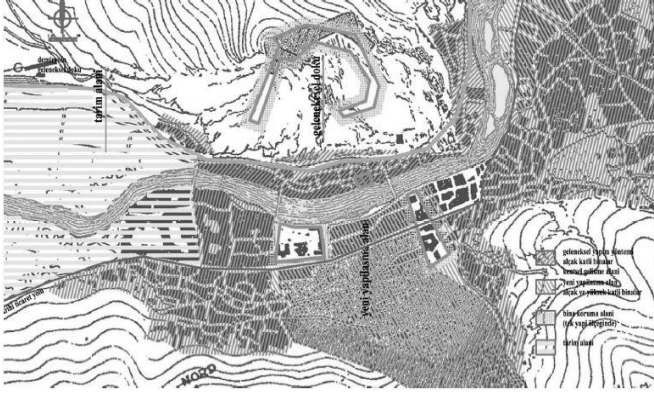


Figure 1. Study Area.

Purpose and Method of Study

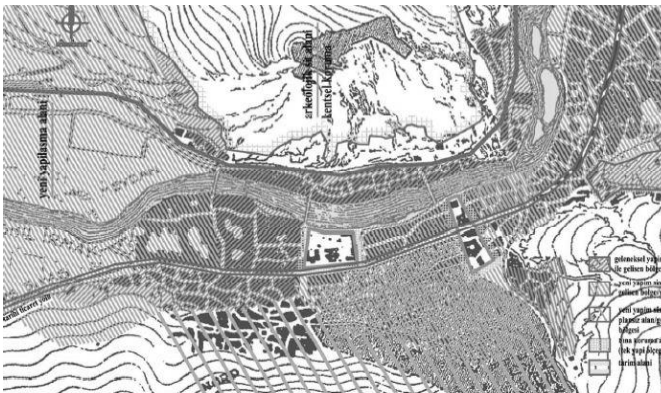
The aim of this study is to examine the changes that Yavuz Selim Square left in the urban memory in line with the changes in natural and cultural texture, changes in building functions and changes in land use decisions in the historical process. In this study, by utilizing the development plans of 1945-1966-1981 [Figure 2] and photographs of 1925-1943-1960-2019 of Amasya city [Figure 3], the past usage of the study area and the traces left in the urban memory were revealed. In order to reveal the current uses of Yavuz Selim Square and to determine the meaning it means for users, questionnaire techniques were conducted in the study area. The questionnaire consisted of a total of 12 multiple-choice and open-ended questions which included the demographic characteristics of the participants. A questionnaire was conducted with 112 randomly selected people from Amasya.



Development
plan of
Amasya city in
1945



Development
plan of
Amasya city in
1966

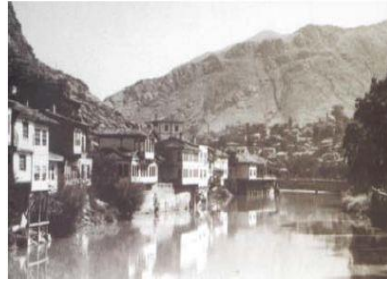


Development
plan of
Amasya city in
1981

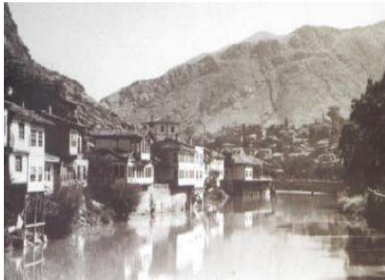
Figure 2. Development Plans of Amasya City for 1945-1966-1981.



View of the year 1925



View of the year 1945



View of the year 1960



View of the year 2019

Figure 3. Photographs of Amasya City from 1925-1943-1960-2019.

In addition, in order to determine the value of Yavuz Selim Square in terms of semantic aspects, the contexts of using the study area other than their preferences and expectations were detected in accordance with adjective pairs using the Semantic Differential Scale. In this respect, the participants were asked to evaluate Yavuz Selim Square using the adjectives 'functional', 'harmonious', 'aesthetic', 'attractive', 'special', 'memorable', and 'safe' and their paired counterparts using a 7-point scale. The scale given in Figure 4 below was used for scoring. The participants were people living in Amasya who used Yavuz Selim Square. The data were analyzed using the SPSS 16.0 statistical program. In the study, correlation analysis was performed with descriptive statistics.

Criteria	1	2	3	4	5	6	7	Criteria
Dysfunctional								Functional
Irregular								Regular
Not aesthetic								Aesthetic
Not attractive								Attractive
Ordinary								Private
Forgettable								Unforgettable
Insecure								Secure

(1: dysfunctional, 2: somewhat dysfunctional, 3: minimally dysfunctional, 4: average, 5: minimally functional, 6: somewhat functional, 7: functional)

Figure 4. Evaluation System of the Criteria Used in the Questionnaire.

Urban Space Development of Amasya City

The city of Amasya, which has a history of 8500 years, is one of the oldest settlements in Anatolia and has been home to various civilizations throughout history. The traditional residential texture in the diversity of historical buildings that give the city its character and the structures of civil architecture has been preserved to a great extent from the past to the present day. The city is an open air museum with its historical buildings and natural beauties such as many mosques, madrasas, fountains, tombs, inns, baths, castles, city walls, ruins, bridges, covered bazaars, traditional residences, especially from the Seljuk and Ottoman periods [12].

The first map of the city of Amasya was prepared by city planner A. Gabriel in 1928 [Figure 5]. For the city, a development plan was carried out in 1966, 1971, 1981 and 1987. The city of Amasya entered a rapid urbanization process after the 1950s. Until the 1950s, agriculture was the most important economic activity in the city. After 1950, with the increase of the urban population, agricultural areas began to be transformed into residential areas. In 1960, Yavuz Selim Square was opened for recreational use. In the 1970s, the first signs of negative change in the city were seen and the urban open spaces that brought the society together started to be created. After 1980, with the preservation of the historical texture, a search was made for a new settlement. In 1981, agricultural areas were opened for reconstruction, thus accelerating the negative development seen before 1980. In 1990, the historical texture in the city center was taken under protection with the increasing population requiring a new settlement to meet the housing needs. After the 2000s, the city became an area where projects for recreational use were produced [15]-[18].

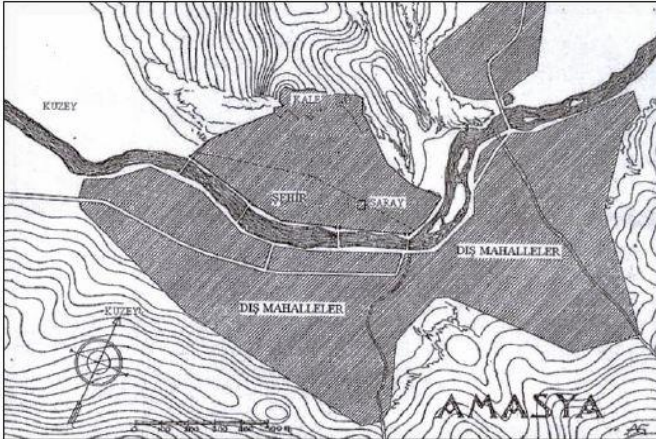


Figure 5. The First Map of the City of Amasya.

Geographical situation is one of the factors that shape the settlement plan of the city. Since the city is founded on the valley floor, it develops in the direction of Yeşilırmak River and Valley. Due to the surrounding mountains, the city center cannot expand much. This situation causes various problems in urbanization process. These problems are as follows:

- The physical constituents of the city and the new construction damage the historical urban landscape to a great extent,
- Inadequate green line emphasizing the topography of the city,
- It is the fact that Yeşilırmak River, which is the natural corridor of the city and which is thought to form the city identity, cannot be included in the city too much,
- The fact that the city's natural texture and historical, cultural and semantic values are not perceptible and do not emphasize the identity of the city,
- Inadequate urban spaces in the city center against increasing housing demand,
- Allowing the construction of 5-6 storey buildings in the development plans, causing the formation of high structures parallel to the Yeşilırmak River,
- Decreasing green areas throughout the city by converting agricultural areas to residential areas.

The spatial change in Amasya throughout the city also affected Yavuz Selim Square in the same way.

FINDINGS

When the development plans of 1945-1966-1981 and the photographs of 1925-1943-1960-2019 of Amasya are examined;

Yeşilırmak River and Valley, which constitute the city identity of Amasya, are the main factors affecting the settlement plan of the city,

The city and Yavuz Selim Square entered a rapid urbanization process after 1950s,

After 1965, the city lost its green areas due to rapid concretion and the traditional 2-3-storey residential texture was replaced by 5-6-storey buildings and the historical urban landscape was damaged,

After 1980, the historical texture in the city center was taken under protection and the zoning of agricultural areas was opened,

'Turk Telekom General Directorate' building, which was built in 2013 on the banks of the Yeşilırmak River and Yavuz Selim Square, adversely affects the quality of urban space.

The results of the questionnaire conducted with 112 local people are as follows:

Gender: 57,3% of the respondents were male and 42,7% were female.

Age: 9,1% were aged '16-25 years', 10,3% were aged '26-35 years', 23,7 were aged '36-45 years' and 56,7% were aged '46-65 years'.

Education status: 3,8% had completed 'primary school', 8,7% 'secondary school', 45,3% 'high school', 37,4% 'university', 4,8% 'post-graduate (master, PhD)'.

Occupational status: 3,8% were 'housewife', 11,2% were 'student', 13,8% were 'civil servant', 21,7% were 'self-employment', 49,3% were 'retired'.

'How often do you use Yavuz Selim Square?'

Of the total of 112 people, 45,3% answered 'Everyday', 27,6% '2-3 times per week', 13,8% '1-2 times per week', 9,4% '2-3 times per month', 3,9% 'Rarely' [Figure 6] .

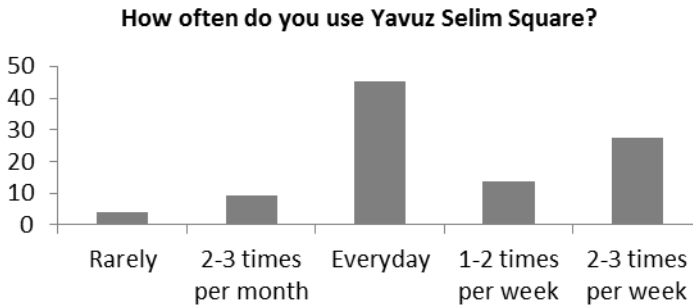


Figure 6. Frequency of Yavuz Selim Square Use.

'Where would you use Yavuz Selim Square to go to?'

All of the participants answered 'for transitional purposes' [Figure 7].

Where would you use Yavuz Selim Square to go to?

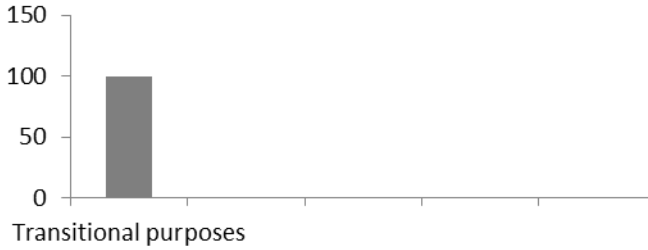


Figure 7. Reasons for Yavuz Selim Square Use.

'What is the reason you prefer Yavuz Selim Square?'

In first place 76,0% of the participants answered 'Transitional', followed by 12,7% in second place with 'Meeting', 11,3% in third place with 'Sitting-Resting' [Figure 8].

What is the reason you prefer Yavuz Selim Square?

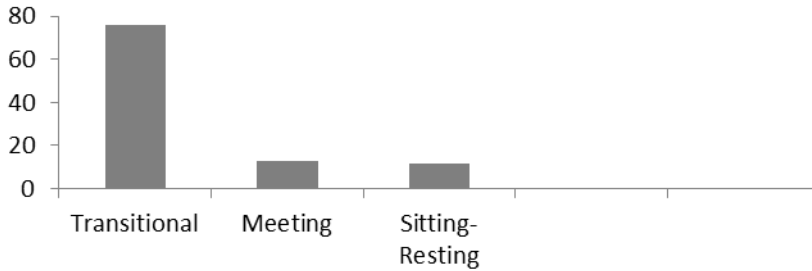


Figure 8. Reasons for Preferring Yavuz Selim Square.

'Do you remember the initial version of Yavuz Selim Square?'

The answer given by 35,7% of respondents was 'Yes' and by 64,3% 'No' [Figure 9].

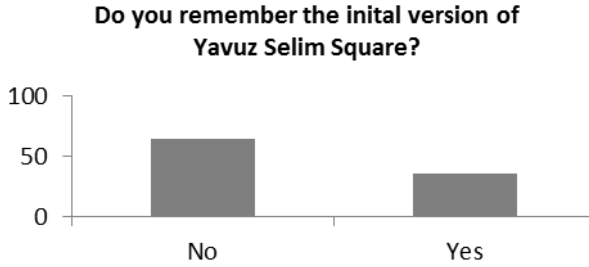


Figure 9. Remembering the First Version of Yavuz Selim Square.

'What does Yavuz Selim Square mean to you from past to present?'
Of the total of 112 participants, 41,1% gave the answer 'Nothing', 34,9% 'Witness of history' and 4,0% 'Sitting-Resting' [Figure 10].



Figure 10. Expressions of the Meaning of Yavuz Selim Square.

'Do you find Yavuz Selim Square safe?'
All of the respondents answered 'Yes' [Figure 11].

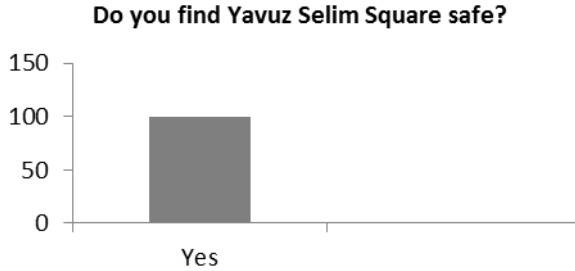


Figure 11. Opinions on the safety of Yavuz Selim Square

'Would you like Yavuz Selim Square to be used only by pedestrian and cyclist?'

All of the participants answered 'Yes' [Figure 12].

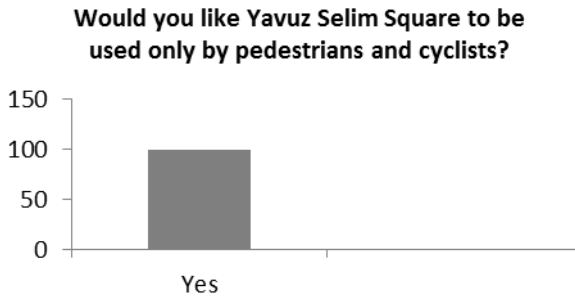


Figure 12. Opinions on Usage of Yavuz Selim Square.

'What activities do you perform Yavuz Selim Square?'

Of the 112 participants, 34,9% gave the answer 'Sitting-Resting', 31,8% 'Meeting', 22,4% 'Eating-Chatting', 7,2% 'Walking', 3,7% 'Taking photo' [Figure 13].

What activities do you perform Yavuz Selim Square?

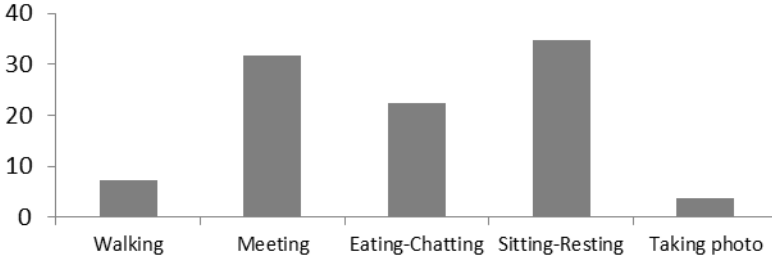


Figure 13. Activities in Yavuz Selim Square.

According to the questionnaire; Yavuz Selim Square is used by retirees over 46 years of age. According to the questionnaire and observation results, it is seen that urban people mostly use this area for transit purposes. Activities such as walking, sitting, chatting, resting, eating and drinking, watching, meeting and taking photos are held in the area. Users want the square to be closed to vehicle traffic and pedestrianized. They stated that the area does not make sense in the context of urban identity from past to present.

The average value of each criterion was calculated according to the results of the questionnaire [Figure 14].

Criteria	Min.	Max.	Average	Std. deviation
Functional	1,00	7,00	5,3387	1,50277
Regular	1,00	7,00	4,1774	1,93827
Aesthetic	1,00	7,00	3,1532	1,69190
Attractive	1,00	7,00	3,2339	1,59322
Private	1,00	7,00	3,1774	1,62825
Unforgettable	1,00	7,00	3,6210	1,76503
Secure	1,00	7,00	4,3065	2,02094

Figure 14. Average Values of Questionnaire.

The existence of a relationship among the criteria of 'functional', 'harmonious', 'aesthetic', 'attractive', 'special', 'memorable', and 'safe' was assessed by applying the Sperman correlation test. According to the Sperman correlation, a significant positive correlation was found among all the criteria ($p < 0.01$). Among the criteria, the highest correlation coefficient values were found for 'functional' with 'harmonious', 'harmonious' with 'aesthetic', 'harmonious' with 'safe', 'aesthetic' with 'attractive', 'attractive' with 'special' and 'special' with 'memorable' [Figure 15]. The expected result was that all the criteria were interdependent because they all supported each other.

Relationship Criteria		Functional	Regular	Aesthetic	Attractive	Private	Unforgettable	Secure
Functional	Correlation coefficient	1,000	,569**	,457**	,403**	,279**	,303**	,550**
	Significance level	-	,000	,000	,000	,000	,000	,000
Regular	Correlation coefficient	,569**	1,000	,613**	,502**	,447**	,324**	,574**
	Significance level	,000	-	,000	,000	,000	,000	,000
Aesthetic	Correlation coefficient	,457**	,613**	1,000	,825**	,633**	,573**	,522**
	Significance level	,000	,000	-	,000	,000	,000	,000
Attractive	Correlation coefficient	,403**	,502**	,825**	1,000	,670**	,576**	,503**
	Significance level	,000	,000	,000	-	,000	,000	,000
Private	Correlation coefficient	,279**	,447**	,633**	,670**	1,000	,721**	,424**
	Significance level	,000	,000	,000	,000	-	,000	,000
Unforgettable	Correlation coefficient	,303**	,324**	,573**	,576**	,721	1,000	,464**
	Significance level	,000	,000	,000	,000	,000	-	,000
Secure	Correlation coefficient	,550**	,574**	,522**	,503**	,424**	,464**	1,000
	Significance level	,000	,000	,000	,000	,000	,000	-

Figure 15. Relationship Values among the Criteria.

CONCLUSION

There is a strong relationship between urban memory and urban identity. The spatial development of the city plays a decisive role in the identity of the city. Therefore, it is important how the spatial development of cities leaves traces in the memory of the city people.

Yavuz Selim Square, located in the central district of Amasya city, which has been studied within the scope of this study, has taken place as a witness of history in the memory of people from past to present. The area was mostly used for transit purposes in the past and is still used in the same way today. When the development plans of 1945-1966-1981 and the photographs of 1925-1943-1960-2019 of Amasya are examined. It is seen that the structures around the area are less than today. The construction movements in the area and throughout the city accelerated after 1980 with the opening of agricultural areas. This situation causes the cities to develop in an unhealthy way by being deprived of green spaces.

In order to protect a city, the people of the city need to establish a connection with the city. The fact that urban open spaces, which are included in urban memory and are integral parts of urban identity, are continuous and functional, which means cities owned by the people of the city.

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SUSTAINABLE CITIES IN CONTEMPORARY AND FUTURISTIC ARCHITECTURE: CITIES IN FUTURISTIC FILMS

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ABSTRACT

After the negative changes in the major cities of the world since the Industrial Revolution, an escape from the city in search of alternative settlement areas started and in this direction, urban housing areas attracted large populations. The reality reflected by these movements is that the quality of life in cities is becoming less and less. However, the phenomenon of better quality of life and spreading out of the city has brought to the agenda new issues related to the whole city as well as housing and business areas. In this context, cities have been lost ownership, cities have been abandoned to unqualified planning and design, social alienation and isolation and domination of motor traffic. 21. at the beginning of the century, developments in technology and industry reached a milestone, while the deterioration of ecological balance and the destruction of natural resources were the cost of these developments. One of the main causes of global warming today is the destruction of harmful gases, nature and the change of balances. Today, serious consequences will be discussed. Sustainable approaches and principles have emerged as a solution to this. Of course, the concept of sustainability in architecture is often discussed. The main purpose of this study is to determine the sustainable urban targets and discuss whether these goals will be effective in futuristic urban design in the future. Although both approaches basically serve the same purpose, it can be seen that there are differences in some points. Even if futuristic cities are not built today, we see a number of details in futuristic film frames. These details give us some insight into how the future cities will be.

Key Words: Sustainability; Futurism; Futuristic Film; Sustainable City; Futuristic City.

INTRODUCTION

Today, many problems have emerged with rapid population growth. With the increasing population, the damage caused by man to nature has become unthinkable. Every year thousands of forests burn, among the main causes of global warming, while people play a major role in environmental pollution, whether a person's nature is alive or a life threatening nature is a question that puzzles all of us. It is also very difficult to reach a definitive solution. The conferences given by non-governmental organizations and schools have started to seek solutions from many sections of society in order not to harm human nature, has even been in contact with experts and has provided new professions to emerge on this subject.

Sustainability is a term that arises in order to better carry nature to future generations and not to harm nature, ecological balance and society. In 1987, by the United Nations Commission on Environment and Development, "humanity is capable of sustaining development by ensuring its daily needs, without jeopardizing the ability to respond to the needs of future generations." it is defined as". Since the emergence of the term sustainability, it has gradually been used everywhere for human life. Sustainable energy, sustainable development, sustainable industry, sustainable tourism, sustainable transport, sustainable agriculture, sustainable logistics, sustainable animal husbandry, sustainable architecture are just a few of these areas and the number of these sub-headings is increasing day by day. It does not stop counting the contributions of a sustainable environment to human life. Thanks to sustainability, it is possible to lose the hunger level completely. The destruction of class society, everyone has equal rights and is guaranteed to be income. Welfare level increases. Economically developed countries emerge. There may not be any health problems or the number of patients may be reduced to a very low level. Land, sea and air pollution can be completely destroyed. Therefore, it is not very accurate to use sustainability only at certain points. The use of man anywhere in everyday life allows us to see the effects of such beautiful results.

Sustainable architecture is an arm in our country that we have started to take the first steps. First of all, we need to design a product without revealing it. Therefore, sustainable design is the beginning of sustainable architecture [8]. According to the United Kingdom Design Council, "Sustainable design involves the strategic use of design to meet current and future human needs without harming the environment. The demands of society include the re-design of products, processes, services and systems for dealing with imbalances and exchanges between the environment and the economy, and ultimately for the restoration of the damage already inflicted.". For sustainable design, first of all, we need to do a research on what we need to use on the basis of design, the relationship between environment and nature, the relationship between man and nature to make decisions, the materials used to hold it, and the tools we need to help to bring out that structure. If this research process is incomplete, it is impossible to mention a fully sustainable

architectural example. The materials to be used during the construction phase, as well as the vehicles are as suitable for sustainability, makes that structure a step forward from the perspective of sustainability. After the transfer of design to real life, it is possible to show it as a sustainable architectural example and to see its relationship with nature clearly. As a matter of fact, this kind of structure is no longer subject to any harm to nature and human beings [6].

Sustainable architecture means a building that has little energy consumption, which can save energy, which solves the ventilation system inside itself, which is suitable for water systems design, which harm the environment as little as possible. In other words, the energy efficiency of the building itself means that any material does not harm the environment, heating it against the required air changes, and being more efficient and sensitive by using renewable energy sources instead of depleted energy sources. This is why it is important that the research phase is important. Because sustainable architecture is very important not only for our country, but also for our whole world, especially where environmental pollution is high. For example, installing solar panels on roofs is a great advantage for a building. Besides, the greenness of the land should not be forgotten. Especially when we look at the works of famous architects such as Vo Trong Nghia, Daisuke Sanuki, Shunri Nishizawa, Unsangdong Architects, it is possible to see that the outstanding elements are actually plants and they are used in unusual places [7]. Both on roofs and between layers, the use of plants affects the ambiance and emphasizes the importance of nature to man. Considering that every architectural work can sometimes be transferred as it is for hundreds of years and thousands of years, today's sustainable architectural examples can be a great example for the next generations, a groundbreaking work, a masterpiece that will come centuries from us. American futurist writer, Alvin Toffler; ' 21. the ignorant of the century will not be those who do not know how to read and write; they will not forget what they have learned wrong, nor will they open to re-learning, change and transformation.'. According to the Toffler, how fast the culture and life of today has changed and our lives will play a much bigger role in the future. Of course, this change will cause a major change in architecture and cities.

Target of Sustainable City

The concept of sustainable urbanization, the intensification of urbanization, the growth of the economy, the rapid population growth and the ability to cope with the growing environmental problems and the protection of the ecosystem are discussed. The concept of sustainability, which means the continuity of biodiversity and productivity of biological systems, was first used today by the United Nations Commission on Environment and Development in 1987. Increasing migration from rural areas to urban areas increasingly and rapidly brings with it the problem of urban infrastructure. About 4 billion people live in cities today. The city is responsible for the harmful gas emissions in the

atmosphere. With the rise of problems, the concept of sustainable city has come to the fore. As the most important elements of this concept, we can talk about a city that is useful to the environment, to nature, to man, as well as to meet the needs of future generations. One of the most important elements of the city's survival as a living area is the ability to continue. There are many factors that can achieve this: conservation of Biological Diversity, orientation to renewable energy sources, ensuring that people are able to benefit from services equally, and providing training for new generations to grow environmentally sensitive [3 - 11].

In order to contribute to sustainable development, vertical planning initiatives to intensify and create settlements without compromising quality have recently been supported. This attitude raises the concept of "urban intensification" or "vertical growth" [5]. Vertical growth approach can be defined as the so-called mixed-function usage scheme, where urban land use patterns are blended or intertwined and high-density construction decisions are taken and the land is used more efficiently [3]. With the approach of vertical growth, in the process from the Industrial Revolution to the present, it questions the limitless right of man on nature and the right of nature on artificial environment, which is human production [5]. The main components of urban compactness (vertical growth) are [2] ;

Centralism: it is impossible for human settlements to spread homogeneously to geography. Certain functionality, such as the presence of common uses, brings a certain centralization and focus. As the degree of centralization increases, the presence of a compact form of settlement is also opened. As a matter of fact, other indicators of compactness are meaningless without centralization.

Integrity; continuous urban concentration (density), structural elements (structures, uses, etc.) tight and continuity to a friend that it depends on offers. Density; density of people and living spaces (work – housing, etc.) has a significant local in the form of vertical growth.

Diversity: this phenomenon is expressed as 'use of mixed areas'.

In the 21st century, with the changes in communication, transportation technologies, time and space perception in the city was transformed and due to this transformation, the borders of the urban space were lost [4]. With developing road construction processes and developments in vehicle technology, there is no need to live in the city center. With the expansion of mass and personal transportation vehicles, different spaces and activities of the metropolis are integrated, separating internal fluctuations into a collapsible relationship of time and space. By contributing to urban expansion, the car has enabled the creation of large individual residential areas that span the entire region and their connection to various functional areas by means of rapid vehicle routes [1]. Thus, the urban – countryside divide loses its visibility and expands rapidly towards the natural areas around the city.

The advantages of vertical growth approach in the perspective of sustainability can be summarized as follows [2] ;

Protection of Rural / natural areas is prevented from spreading to the rural / natural areas around the city through vertical growth.

Reduction of Urban Infrastructure and service costs; as a principle, vertical growth form urban infrastructure lines (roads, sewerage, etc.) of shorter length, on average, according to common urban forms.) requires. The average cost of the infrastructure decreases as long as it does not push the coverage power and the user who benefits from the same line increases the intensity.

Increasing urban mobility (in terms of pedestrians) and reducing automobile dependency; increasing urban concentration, and transforming the average urban mobility. Because a large number of urban functions are offered to the user within walking distance. Due to the urban activity in the same place, there is a decrease in arrivals and departures from the area. With the increases in focal density at the end of the journey, the public transport system is easier. Finally, the ownership of private vehicles in the intensive housing and central area becomes difficult.

Reducing the use of personal and Urban Energy; the fact that the mobility between urban areas (living, working and leisure areas) is dependent on the vehicle reduces fuel consumption while reducing the energy used in buildings by means of structures built for compact living. Ensuring social sustainability can be prevented, even in part, by ensuring the co-ordination of different social groups, even with low level spatial isolation based on income, status or ethnicity. [9-10] Although the vertical approach to growth is defined as the ideal form for sustainable urbanization, the applicability of this approach is an important issue in the literature. Criticism of the approach of vertical growth can be summarized as follows.

Comparison of Sustainable City Targets and Futuristic City

Today, sustainability and sustainable urban concepts are discussed frequently. Sustainable city design has basic design principles. These basic design decisions are also very important in today's architecture. There are still many cities around the world trying to reach the concept of sustainable city. Another frequently discussed issue today is the futuristic city and architecture. It is discussed how futuristic cities will affect the cities and culture. However, there are many futuristic city design. The aim of this study is to determine how sustainability targets affect futuristic urban concepts. It is to bring a perspective on whether these basic design principles can continue to be important 50 years from now. Louis Sullivan; *"A building that is made right rises by overcoming all the conditions in it in a natural, logical and poetic way."* With his word, we understand how important design decisions are for the future. This section compares the Sustainable City and its goals and futuristic

city concepts discussed today. In this comparison, futuristic city concepts and visual images from futuristic films were used.

1) Centrism:

Centralism is one of the main principles of sustainability. Instead of spreading population density, it is one of the main targets to gather at a certain point and minimize all energy costs, especially transportation. This approach of today's sustainable cities is quite effective. When we look at the examples of futuristic cities, we see that the concept of centrism is more effective. In fact, the concept of centralism has not emerged with the concept of sustainable city. The concept of Ebenezer Howard's Garden City, which emerged in 1898, is the basis of this approach. The main purpose of the Garden City concept is to protect nature by creating cities and cities that will contain everything in it.



Figure 1. Elysium City, Futuristic Film.

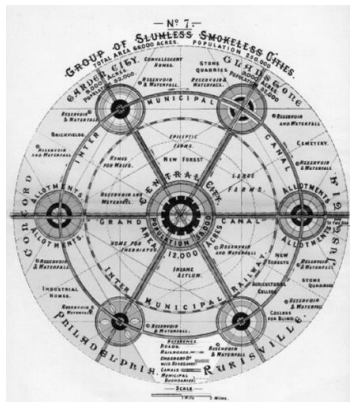


Figure 2. Ebenezer Howard, Garden City Concept.

A futuristic film produced in 2013, the Elysium film is a good example of the centralism approach. The film, which is a place where the world can no longer live, focuses on the establishment of a mechanical city that is man-made in

space. The form and function of this man-made City are similar to the concept of Ebenezer Howard's Garden City. The city of Elysium has a central form and design principle. The city, founded on a circular plan scheme, has an introverted approach. Today, the concept of Sustainable Cities and Ebenezer Howard is to create an economically sustainable structure by creating centrism.

2) Integration, Density, Diversity:

In another concept of sustainable cities, together with centralism, entehration is intensity and diversity. In order to fully operate the concept of centrism, a wide variety of functions must be combined. Thus, density should be increased at certain points. People will thus have the opportunity to access multiple functions at a single point. Implementation of this design principle also leads people to more public transport. This will provide sustainability in terms of economic and energy consumption.



Figure 3. Futuristic City Example.



Figure 4. Le Corbusier, Villa Radieuse, 1924.

In fact, this concept has not just entered the architecture. Although sustainability is a newly discussed concept, Le Corbusier's Villa Radio Project contains all the concepts of diversity, integration and density. Le Corbusier argues that design will provide both centralization and integrity to solve cities by raising them vertically. It was an approach where there were commercial areas on the ground floor, where there were more office spaces on the top and there were houses on the top. In fact, this approach we discussed within the concept of sustainability has already been reflected in architecture such as centralism.

3) The Protection of Rural and Natural Areas

Another target of sustainability is the combination of multiple design principles. Centralism, diversity, density, vertical growth, such as design principles are the most important elements. The migration from rural to urban areas with the industrial revolution has rapidly increased the city's population. However, structuring has achieved the same growth rate. The horizontal growth of cities is one of the most important reasons for the destruction of green areas. On the other hand, the principle of vertical growth in urban designs, instead of horizontal growth, will largely protect green and rural areas. Leonardo Da Vinci said: *"We must choose everything we paint from nature and take the best things from nature."* with his word, he stresses the importance of nature once again. It emphasizes that architectural structures or cities should be found in a frame of paintings intertwined with nature.



Figure 5. Sustainable City, Concept Project.



Figure 6. Cloud Atlas, 2012, Futuristic Film.

Vertical and compact designs play an important role in sustainable urban design (Figure 5). The vertical growth of cities allows the protection of rural areas and green areas. A futuristic film, *The Cloud Atlas*, is also seen in the frame of the film, where the cities are now very high buildings. The roads are no longer on the ground, but in the sky and are digitally designed. *Cloud Atlas* is a city model where there is no growth on the floor. In this way, it is seen that it is more successful in the name of conservation of nature than today's sustainable cities.

4) Reducing Urban Infrastructure and Service Cost

Most of the economy goes to urban infrastructure needs. For a sustainable city, economics is the most important factor. This cost is higher especially in the cities that are growing horizontally. As cities develop horizontally, they need to grow on their way to transportation. Together with the growth of the road, asphalt, traffic light, circle, etc. infrastructure needs, such as increasing. Springs, however, need electrical, water, and Rogar substructures for residential areas. When we think about all this, we understand how important compact and centralism is.



Figure 7. Fifth Element, 1997, Futuristic Film.

Today, compact and central city designs have gained importance in order to minimize infrastructure in sustainable cities. However, even if infrastructure and maintenance costs are reduced this way, a budget is still needed for all of these infrastructure jobs and maintenance. A futuristic film, The Fifth elements, reflects a Space-Age city to us (Figure 6). When we examine this futuristic city, we see that the entire transportation system is now provided with bells. In other words, today we see that the infrastructure costs have been reduced to almost zero in futuristic cities. This indicates that future cities have a more sustainable structure in this context.

5) Increasing Urban Mobility (in terms of pedestrian) and Reducing Automobile Dependency

Today, there are many pedestrianization projects in cities. Some of them are successful, while some of them are still not fully functioning. At the beginning of this problem is the lack of design. In cities which have not adopted the principle of centrality and compact solution, people prefer to make transportation with their own vehicles. In this approach, it takes people away from broadcasting. Pedestrianization projects should be resolved as a whole with urban design and architecture. Otherwise, the use of a large number of vehicles causes a dirty atmosphere and traffic. Today there are many successful cities implementing this project. Amsterdam city is one of them.



Figure 8. Fifth Element, 1997.



Figure 9. Fifth Element, 1997.

The most important tools that enable us to obtain information with futuristic city designs are futuristic films. '*Home is the machine in which you live*' Le Corbusier, when the frames taken from the Fifth Element film are examined, it is seen that public transport is used again. However, it is seen that public transport is widespread in the vertical rather than in the horizontal. The aim of sustainable cities is to increase the pedestrianization. When looking at futuristic films, it is seen that people provide their individual transportation with flying individual vehicles. In other words, in futuristic cities, pedestrianization has almost disappeared.

6) Reducing Household and Urban Energy Use

Today, the most widely used and sustainable energy is the most effective method of energy saving. Renewable energy systems are becoming more widespread today. There are two types of renewable energy that are widely used. Solar and wind energy types are the most common. With wind turbines

and solar panels, renewable energy is produced. Today, it is also started to be produced in vehicles that operate with electrical energy.



Figure 10. The Largest Building-Integrated Wind Power System in The U.S. is Now Spinning on the Roof of the Oklahoma Medical Research Foundation.



Figure 11. Wind Turbines in Futuristic Building.

When we look at futuristic building concepts, it is built directly on cities and buildings that produce their own energy. Because these buildings and cities are large-scale, they need large areas in order to generate energy. Of course, they have to protect nature as well. For this reason, the surfaces of futuristic city and building concepts are covered with solar panels and energy is provided. Another method is to adapt the wind turbines inside the building to produce energy. Thus, nature is not harmed.

	SUSTAINABLE CITY CONCEPT	FUTURISTIC CITY CONCEPT
CENTRISM	HIGH	HIGH
INTEGRATION, DENSITY, DIVERSITY	MEDIUM	HIGH
THE PROTECTION OF RURAL AND NATURAL AREAS	MEDIUM	HIGH
REDUCING URBAN INFRASTRUCTURE AND SERVICE COST	LOW	HIGH
INCREASIN URBAN MOBILITY	HIGH	MEDIUM
ENERGY SAVING	HIGH	HIGH
SAFE CITY	HIGH-MEDIUM	HIGH-MEDIUM
PSYCHOLOGICAL/ CULTURAL EFFECTS	HIGH (SUCCESSFUL)	LOW (UNSECCESFUL)

Table 1. Summary of Comparison between Sustainable and Futuristic City Concepts.

CONCLUSION

One of the most important problems of today is global warming, air pollution and the destruction of nature. All these effects negatively affect human life. To prevent this extinction, the concept of sustainability is frequently discussed today. Sustainable urban and futuristic urban concepts are basically the same goals. In both concepts, a sustainable city has emerged for a better quality of life and a sustainable economy. Futuristic cities have not yet been implemented, but many films and projects show these approaches. Sustainable cities are becoming increasingly widespread today.

The goals of futuristic urban and sustainable urban concepts differ within themselves, even though they are the same. Centralism and compact solutions in both concepts are seen as fundamental principles. Vertical-growing bald approaches are seen at a higher rate than futuristic cities. With the central approach, many functions were solved in the same building or in the nearby environment. Thus, it is aimed to provide people with access on foot. It is seen that futuristic cities will use this compact solution more effectively.

The most important concept of sustainable city and futuristic city is to protect nature. It supports vertical growth in both approaches. Instead of growing horizontally, it grows vertically and preserves the countryside and nature in both concepts. When we look at the futuristic city concept, we can see that transportation is by flying aircraft. Therefore, no extra economy is required for infrastructure and maintenance. Futuristic cities can be maintained in this regard more than the cities can be maintained. Sustainable cities are more successful than futuristic cities in terms of pedestrianization. The concept of pedestrianization is a combination of multiple design principles. Centralism and compact approach are the most important elements. although these concepts exist in futuristic cities, the propagation was not successful. The main reason for this is the use of flying individual vehicles in futuristic cities. Thus, the pedestrianization is eliminated.

In terms of energy production, it has adopted renewable energy sources in both cities. In terms of a safe society, there are a number of weaknesses in both concepts. Both concepts adopt compact and intensive designs. Although safety is an inward-looking and safe design concept, it is also possible that in a bad situation, the loss of life due to intensity will be at the highest level. Thus, the risk is actually seen at the highest level while providing security. Another negative aspect of futuristic cities is that they fail in terms of cultural and social cohesion. It is observed that there are fewer social areas than sustainable cities. Thus, people are directed to live alone and individually rather than spending time with each other.

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VISUALIZATION OF CORRIDOR SCENARIOS THAT ESTABLISH EDUCATION-RECREATION RELATIONSHIP IN THE CASE OF KTÜ KANUNI CAMPUS

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ABSTRACT

The university campuses provide recreation as well as educational functions to their users thanks to their open-green areas. These areas, which offer open air classrooms especially for natural sciences-related departments, can host planning-design solutions that offering information to provide social benefit for the region, country and other countries. An activity in this direction will also be beneficial for the promotion of the university at national and international level. In this context, scenarios with the activity fiction written for corridors determined in the example of KTÜ Kanuni Campus have been visualized. As a result of observations made within the scope of the Green Roads course, there are activities such as walking, sitting, resting, getting information, interaction with nature, reading books, landscape viewing, riding bikes in scenarios written by third year Landscape Architecture students. Visualization of the activities included in the scenarios by using the plan-section-view-renderings constructed in line with the planning-design principles for the use of the campus users (students, teachers, domestic and foreign visitors) was made. As a result of the study, the functions of these corridors in education and recreation relations were emphasized in university campuses. With the planned corridors in this direction, it has been revealed that KTÜ Kanuni Campus has the potential to contribute to the "ecological literate" with the presence of plants and animals. The study will serve as an example for other universities.

Key Words: Karadeniz Technical University; Ecological Literacy; Sustainable Campus.

INTRODUCTION

The green road is a green area sustainable usage model which provides the recreational activities and green area protection at the same time. The green ways are the linear corridors which connecting each other; natural corridors such as ridges or valleys, along the railway channel converted to recreational usage, landscape roads or parks, natural reserve area, cultural objects or historical settlements or residential area [1,2]. The green roads are the corridors which provide a lot of benefits such; economic, social life to the region and the communities. The green road not only provide environmental protection and wild life protection, also at same time these area play a role of connecting people with the nature provide to act recreational activities [2].

The concept "campus" appeared at social structure that in change and develops in the name of socialization at the large area which content of characteristics of the city [3, 4]. The campuses became an important part of changing social, political and cultural from the past to today. The campuses are a means education and training at national and international level as well as a tool gaining social and environmental responsibilities [4, 5]. In this context; the green roads/ways to be created at areas where university located shall be established the target of human and nature socialization and education. In addition, the green roads at campus shall ensure the connectivity and eliminate the disconnection and fragmentation. This will increase accessibility in between independent recreational areas. The universities are playing an important role and have impact to the residential areas and their environs, as per statement of urban morphology specialist Peter Larkham; with its four characteristics; it should be considered as a part of the morphological changing urban environment and even an urban type [6, 7]. By Larkham, the universities:

1. It affects nearby urban area according to their location within and out site of city, primarily economic resource, creation of employment in its environment and as a campus occupies considerable space in the urban environment.
2. Are long terms institutions,
3. Almost they develop and grow without exception,
4. Over the time this growth may take different typologies such as spreading near or spreading to different place in the city.

Not only with its buildings, also with their open spaces, the university campuses had a great importance. The campuses are not only the field of education and training, but also develop relationship with nature and meet their physical and mental needs of students, academicians, staff, children, young people, the elderly people and disabled individuals [8]. These areas

also include the areas where many users develop themselves, get education; revived, relaxed, rested, entertained, enjoyed and recovered physically and spiritually [9]. With the correctly planning, the open area spaces should be provided service to the campus users and also to the people of the city. During the planning of campuses open space, should be take in consideration that the beside to provide a healthy environment, also will reduce the burden on the environment by presenting a healthy environment to the inhabitants [10].

The university campuses are the areas with their richness of floras and faunas, exploring and learning to the people of outside of campus and especially the children engage in recreational activities and learning. The green spaces on the campuses contribute to the development of animal species such as birds, small mammals and rodents, as well as areas where people can learn, explore and perform recreational activities.



Figure 1. Malaysia University [11].

Within this scope, the green space located between the gate C at campus of Kanuni at the Karadeniz Technical University (KTU) and library and the green space in between gate E and KTU Stadium; in the context of ecological literacy, explained with the cross section, how it can be used as a green way. In this area, which is considered as a green road, it is aimed for campus users and other visitors to have a pleasant time, to engage in recreational activities, to ride bicycles, to observe the existence of animals and plants and to learn different species and to interact the people with the nature. The university campuses are the area where the work, housing, transportation and

recreational activities are located. With this sense, they are small cities that occupy an important place in the urban area. In addition, the university campuses have an important place in the landscape matrix of the city with the their hosted landscape areas. For the aim of meet relatively the green area need of the cities can be achieved with right planning and design green roads at the campuses. The green roads can contribute to recreational activities for all campus users, some parts to education activities of some departments in universities and some part for the social life. The activities associated with education on campuses, the green routes will make a significant contribution.

MATERIALS and METHODS

Material

As the study area; the KTU, Kanuni Campus where located at the Ortahisar District of the city of Trabzon at the Black Sea Region, part of Eastern Black Sea is selected. The geographical location of this campus is; is between the 40°59'22"-40°59'55" North latitudes and 39°46'10"-39°46'39" eastern longitudes. The Kanuni Campus shown at Figure 1 contain a 62.534,70 m2 immovable area its own (university) property and 998.584,06 m2 (Treasure Land) a total of 1.061.118, 76 m2 [12]. At the same time, this Campus is away 3,5 Km from city centre, 1,5 Km from the intercity Bus Station and 1 Km from the International Trabzon Airport. In scope of this project, as a corridor; the green area in between of Gate C and Library and the green area in between of Gate E and KTU Stadium of KTU Kanuni Campus selected. In addition, the selected are having beside natural resources, containing educational and training areas, social cultural, sports, accommodation, nutrition and shopping facilities.

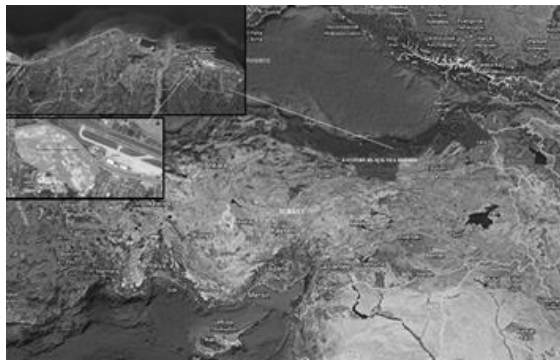


Figure 2. Location of the Studying Area.

Methods

In this scope of project, primarily; with the project titled as “KTU BAP FYL-2016-5504 the Green Road Planning at the Campus, Sample of KTU”, in the report prepared by 30 landscape architecture student with the theme of “Ecological Literacy at KTU Campus Example, Interdisciplinary Project”, the forms plant/animal information and human observation evaluated. Then the observations result, the scenarios prepared by the student on the corridors examined. As a result product, the activity potential and functional characteristics of the corridors determined in the scenarios are took into consideration, suggestions for the design of corridors for campus users (students, lecturers, domestic-foreign visitors) are visualized with cross-sectional views.

FINDINGS

At the report named “In the Case of KTU Campus, “Ecological Literacy” Interdisciplinary Project” the activity potential, functional characteristics and recommendations created in line with the regions identified as per (Figure 3).



Figure 3. Map of Studying Areas Observation Points [13].

Regions 1., 2., 3. and 4

The area between the back of the Faculty of Law and the road leading to the Faculty of Medicine is one of the special areas of the campus, with its dense vegetation. Although there is no a planned route, the area is used by the cycling club at the certain times. As a result of the observations made by the students, functional features of the area determined; enabling human-nature relationship, providing shadow, noise control, experiencing nature. Again, in the line to the scenarios prepared by the students, the activity potential of the region appeared as activities of walking, relaxing, watching the scenery, experiencing nature, relaxing, doing sports, cycling.



Figure 4. Regions 1., 2., 3. and 4.

In this respect of the current situation and evaluations the area and the design proposals results are given in Figure 5. In addition, considering the presence of plants and animals in the campus, information boards will be placed between the 1-6 regions so that the users can have information about the living things such as plants, birds and squirrels in the zone. Again with the QR codes placed on the plants, the users will learn about the characteristics of the plants. Knowledge of the users about the ongoing life in their environment will help to increase their sensitivity by changing their perception of the environment.

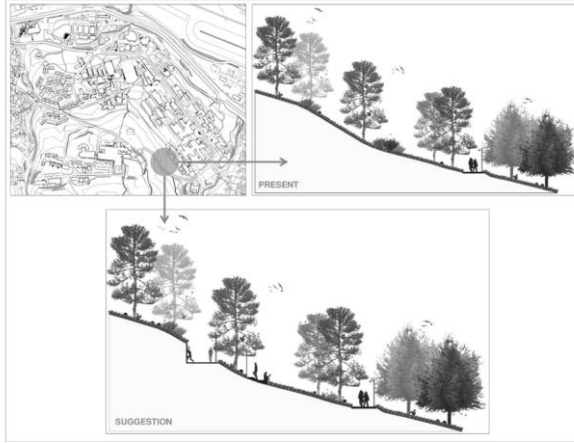


Figure 5. Present and Suggestion.

Regions 5. and 4.

The area between Building Technique Laboratories and KTU Mosque is again an area with dense vegetation and a bit more slope. This area, which is used by campus users as a transit route, is also the area used by students for various activities. As a result of the observations made by the students determined functional features for the region as; experiencing the nature and provide shadow. Still, according to the scenarios prepared by the students, the activity potential of the region; walking, relaxing, watch the scenery, experiencing nature, relaxing, sporting and cycling.



Figure 6. Regions 5. and 4.

In this respect, the current situation of the area and the design proposals resulted from the evaluations are given in Figure 7.

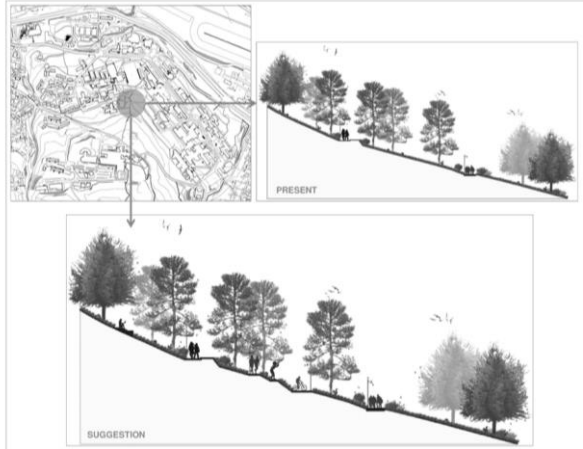


Figure 7. Present and Suggestion.

Regions 10. and 11.

The area between the Library and Trabzon-Rize Highway is a region where noise is higher in comparing with the other areas. The area having gradually the terraces are preferred by students during the day, but not in the evening due to security and safety problems. As a result of the observations made by the students, functional features of the region determined as; experience nature and provide shadow. Again, according to the scenarios prepared by the students, the activity potential of the region appeared as; walking, playing games, doing sports, socializing, having fun.



Figure 8. Regions 10. and 11.

In this respect, the current situation of the area and the design proposals resulted from the evaluations are given in Figure 9. It was decided that the application between zone 1 and zone 6 would be performed with headphones due to noise between zone 10 and zone 14. Thanks to a mobile application

that can be prepared, users will be informed about their environment by wearing their headphones and they will be away from noise.

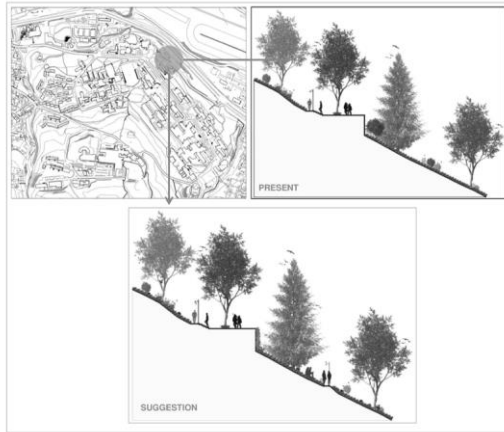


Figure 9. Present and Suggestion.

Regions 12., 13. and 11.

The area starting from gate C to the library is the area with almost flat green areas. The area, which is used by some students as a transit route, is not preferred for relaxation due to noise pollution produced by the airport and the highway. As a result of the observations made by the students resulted, functional features of the area; limitation and shadow. Again, according to the scenarios prepared by the students, the activity potential of the region appeared as; sports, cycling, use for transit purposes.



Figure 10. Regions 12., 13. and 11.

In this respect, the current situation of the area and the design proposals resulting from the evaluations are given in Figure 11.

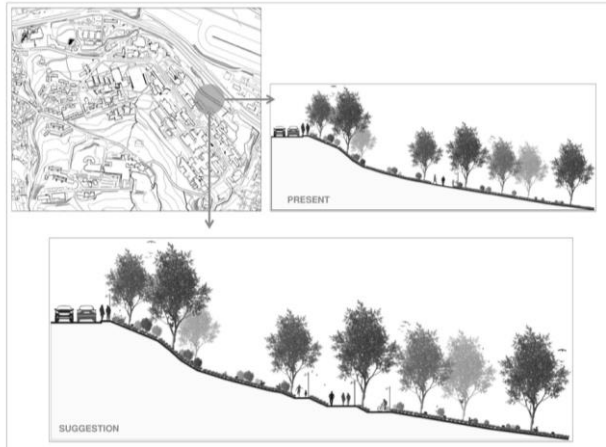


Figure 11. Present and Suggestion.

CONCLUSION

When the returns of the present century are taken into consideration, it is expected that the students who have completed their undergraduate education that not only the expected level of knowledge is sufficient but also the level of individual's personal and social skills must be at expected level. In other words, the individual who completes his / her undergraduate education should be sensitive to the problems of his / her age and should use the opportunities (technological etc.) in a beneficial way. For this reason, nowadays, universities are not only educational centres', but have become living spaces that contain services that can improve the personal and social skills of the individual. Thanks to these qualifications, universities have a large share in directing changes and developments in social, economic and environmental issues. The sustainable campuses have emerged in order to increase sensitivity to environmental problems and to take necessary measures, which is one of the biggest problems of our time. Sustainable university campuses are structures that use energy saving methods, serve their users well and create environmental awareness.

In this context, KTU should provide high quality education to its students as well as adequate social services to their students during their education and should be effective in creating environmental awareness. Within the scope of

this study, the continuity within the campus was ensured by combining between the social areas within the campus with the concept of green road. At the same time, the activity areas that are left idle are brought according to their potential and these areas are revived and students' interaction with nature is ensured. As a matter of fact, these are areas where people can listen to themselves and observe that other living things have a life in this campus by observing their surroundings.

In this study, different scenarios produced with the theme of sustainable campus are visualized on the routes determined for different seasons and users in the case of KTU. Thanks to this concept, it is tried to exemplify the contribution of the campus to the introduction of the plant and animal assets belonging to the region and the region where it is located for both its users and the citizens.

When contemporary education and training techniques are examined, universities should be an exemplary model that serves innovative educational practices such as outdoor education, experiential learning and active learning. The activities on the designed routes will provide information on ecological literacy and contribute to education.

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SPATIAL AWARENESS, PLACE ATTACHMENT AND USER PROFILE RELATIONSHIP

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ABSTRACT

The city centers are the heart of cities. They develop within a long period of time and the urban fabric is formed in a historical process. This historical and spatial process also enhances collection of memory. Thus, city centers are places where collective memory emerges spatially. These characteristics of city centers differentiate them from the newly developing parts of cities. Even if the city centers go through changes in time or transform, spatial characteristics that refer to the history of the place can still be found.

This paper claims that collection of memory or spatial configuration that refers to the history of place helps to develop feelings of belonging and also helps in development of social life. In order to test this hypothesis a survey has been carried in the city center of Bornova, İzmir.

The historical spatial characteristics of Bornova city, are partly conserved and some parts are destructed. The Ottoman Bazaar, the Levantine mansions and their landscape can be easily observed. These characteristics attract most of the users. Therefore, this paper aims to discuss whether the users are aware of the historical potential of the area. The paper also aims to examine the relation between the characteristics of the users such as age, education, profession, the gender, place of residence of İzmir and the reason for being at the area with their awareness about the historical potential of the area. Secondly, the paper aims to discuss whether the historical characteristics of the area helps the users to develop feeling of belonging of the users.

These discussions depend on a morphological site survey that marks the historical potentials of the area. The users characteristics, feeling of belonging and historical awareness information depend on the results of 450 questionnaires held at the city center of Bornova in March 2018. The results of the analysis are obtained by Chi-square test.

Key Words: Place Attachment; Historic City Centre; Bornova; User Profiles; Memory.

INTRODUCTION

In the modern era, the cities have tended to develop in a uniform pattern mostly, thus the loss of diversity in the cities also resulted with loss of meaning, character, place attachment and identity in some aspects. However, the urban pattern and architectural heritage of the past, as part of the collective memory that still remain within the cities enable to develop and sustain place identity. Collective memory indeed is a collection of all spatial and temporal elements, ideas, emotions and values of communities (Assman, 2011, p.25). Thus collective memory is the bound to the specific identity of place. We may claim that collective memory is the source for the identity and meaning of place (Ozbek Sönmez, Erin, 2017). Aldo Rossi (1984) pointed out that city acquired consciousness and memory. Because the city is not only a form, the experiences and values make up its memory and form (Rossi, 1984, p.21). In this context, Ujang (2009) points that place identity also contribute to the development of place attachment. In other words, sustaining the meanings and identity of the urban elements is important because they contribute to self-identity, sense of community and sense of place (Hull, 1994). Likewise, this study claims that collective place memory or spatial configuration that refers to the history of place helps to develop feelings of belonging and attachment.

In order to test this hypothesis a survey has been carried at the central area of Bornova District in the city of Izmir, Turkey. The survey area is the place where collective memory of the past is recognized by the heritage buildings and an Ottoman bazaar. Second part of the study will briefly focus on the collective memory of Bornova and its spatial configurations that contribute to place identity. Third part of the paper consists of the results of the site survey that imply the results of interviews with respondents at the site. 452 interviews have been carried depending on questionnaires. Probability sampling strategy is used. The questionnaire first focused on the socio-demographic characteristics of the participants, later it focused on the attractiveness and awareness of the heritage characteristics and development of place attachment feelings of the respondents.

Collection of Memory and Spatial Configuration-The Case of Bornova

The study area is the most visited part of Bornova District in Izmir, Turkey (Figure 1). The area attracts visitors from all around the city, because it is the heart of the district, there is a traditional Ottoman Bazaar (Figure 2), two university campuses are close by and all the public transportation routes reach the area (Figure 1). The site survey area is also characterized by the large mansion houses of the Levantine families whom lived at the area since the 18th century and some still do. Most of the mansions of the Levantine

families have been adopted for public use in the past or some of their private ownerships have transformed. For this reason, today most of them are being used for public purposes such as museums, schools, and libraries and some are being used as cafes and restaurants.

Although the urban fabric of the past have been destructed by high rise modern buildings, the low rise buildings of the 19th century along the high rise ones still exist as part of the collective memory of the city (Figure 3 and 4).



Figure 1. Location of the Study Area and its Environment.





Figure 2. Ottoman Bazaar (Buyuk Carsi and Kucuk Carsi).



Figure 3. Levantine Mansions and Other Heritage Buildings (Most of Them have Public Uses Currently).

There are other significant characteristics that represent the cultural diversity of the past. There are two churches, one is a catholic church St. Maria Church which is actively used by the residents, and the other is Maria Magdalena Church. Huseyin Isa Bey Mosque is another heritage of the Ottoman Bazaar area. It is assumed that the mosque was built in the 16th century because there are records that refer to its renovation in 1740 (Mert, 2009, s. 90-92). Santa Maria Catholic Church was built in 1797 and was restored in 1832 (Arıcan, 2003, s. 163). Saint Mary Magdalene Church is still active in Bornova. It was first built in 1857 by Charlton Whittall (Arıcan, 2003, s. 165; Mert, 2009, s. 99) (Figure 3).



Figure 4. Religious Buildings that are Part of the Multi-Cultural Identity and Heritage of Bornova.

Other than the historical urban fabric, modern urban fabric had developed at the central part in time and the city grew with the construction of modern high

rise buildings within the modern urban fabric. Those housing buildings also gone through transformation due to the attractiveness of the area and most of the ground floors transformed to commercial uses such as cafes and restaurants in the 2000s.



Figure 5. The Heritage Building among the Newly Built High-Rise Building.

The Relation between Feeling of Place Attachment/ Awareness/ Attraction and User Characteristics

This paper claims that collection of memory or spatial configuration that refers to the history of place helps to develop feelings of belonging and place attachment and also helps in vitality of the area. For this reason, firstly, we will discuss place attachment, place identity, and awareness concepts briefly.

Place attachment is defined as the development of affective bond or link between people or individuals and specific places (Hidalgo and Hernandez, 2001). It is developed when a place is well-identified and felt significant by the users and able to provide condition to fulfill their functional needs and supports their behavioral goals better than a known alternative (Williams, Patterson, Roggenbuck and Watson, 1992) (From Ujang, 2009). "Place attachment helps to tighten behavioral relationships between people and environment. It is a vital component in urban development and acts as an important aspect to the quality of functionality in landscape" (Shao Y., Binyi, L., 2017).

Place attachment has dimensions. According to William, et.al., (1992) place attachment has dimensions such as place dependence and place identity. "The term place identity was first used by Proshansky (1978) who defined it as a sub structure of self-identity consisting of memories, ideas, feelings, attitudes values, preferences, meanings and conceptions of behavior and experience that occur in places that satisfy and individual's biological, psychological, social and cultural needs" (Anton and Lawrence, 2014).

According to this identification, the physical characteristics of a place, its legibility, the functions and social activities it implies all have influence on place identity. Because the more social interaction or the more legibility may result with more memories that help to develop place identity. On the other hand, the perceived place identity may have negative meanings too.

In the case of Bornova Central Area, many physical elements refer to the complex social and cultural history of the city. If the resident or a visitor is aware of the historical potential of the area, the place may have more meaning for him/her. Thus, awareness may contribute to place identity and place attachment of the self. It may also be claimed that the legibility of the area, the landmarks, the paths, the nodes and regions may all influence place identity. According to these assumptions if the residents or visitors of Bornova have social and cultural satisfying experiences within legible places, then that may influence perceived place identity. Thus, place identity may also have influence on the development of place attachment feeling.

Giuliani referred to place attachment as “the section of human experience, in various ways and varying awareness, with reference to places in which they are born, live and act; also in the relation to the other persons who live and operate in the same places” (Giuliani, 2003, p.137; from Wirth et.al, 2016). According to the discussion of Giuliani, we may claim that place attachment develops with our own experiences and others experiences, or with our interactions.

Ujang (2009) also mentions that besides physical characteristics, users are the key components of urban places. One of the factors that influence place attachment is the degree of engagement of users. Place attachment may vary according to the users' roles such as their involvement in the activities, or their social and cultural characteristics.

This study claims that historical physical characteristics of the site or the place identity may affect the development of feeling of awareness and place attachment. Relph (1976) had asserted this approach. According to Relph's place-based approach, place is a space imbued with meanings. The physical and cultural characteristics combined with the individual's affective perceptions and functional needs shape place attachment (Bott, 2005, from: Ujang & Zakariya, 2015).

METHOD

In order to test this hypothesis, a survey is carried in the city center of Bornova. The results are based on the interviews at the site. The survey included 452 respondents. Some of the respondents were mobile visitors such as students or shoppers and some of them were static ones such as residents and shop owners whom had permanent relation with the area. The respondents were selected by random sampling method.

Result are analyzed to find out these four questions below;

1. What are the frequencies of user characteristics?
2. Do the distributions of user's responses for attractiveness differ from each other?

3. Do the distributions of user's responses for place attachment differ from each other?
4. Do the distributions of user's responses for awareness differ from each other?

After representing the descriptive statistics, chi-square test were conducted to find out attractiveness, place attachment and awareness difference due to the user characteristics (categorical variables); age, gender, occupation and education status.

Socio-Demographic Characteristics of the Respondents

According to the results of the interviews carried at the central area of Bornova, the mean age of the respondents is 37.89 ± 17.24 years. While the ratio of women respondents is 40.9%, the proportion of men is 59.1%.

Among the respondents; the proportion of students is 32.1%; the proportion of housewives is 8.8%; the ratio of those who are public employees is 6.4%; 18.1% are of the private sector employees; the percentage of self-employed is 10.2%; 7.3% are business owners; the rate of retired persons is 16.2%; the rate of unemployed is 0.9%. The highest proportion of respondents is students.

Among the respondents the proportion of primary school graduates is 27.9%; the proportion of high school graduates is 23.9%; the rate of high school students is 7.1%; 3.3% are college graduates; 1.5% of the students are college students; 12.8% of the students have undergraduate degree; the proportion of undergraduate students is 20.6%; 1.8% of the graduates have master's and doctorate degrees; 1.1% of the students are master and doctorate students. According to these results we may claim that the education status of the respondents is high, especially the high proportion of the undergraduate students is in relation with the location of the survey area which is close to the universities.

Residential Place and Duration of the Respondents

The rate of those living in Bornova is 76.3%; the proportion of people living in Buca is 6.2%; the rate of those living in Konak is 3.1%; the ratio of those living in Karsiyaka is 2.9%; the ratio of those living in Gaziemir is 2.0%; in Kemalpaşa it is 1.8%; in Balçova it is 0.4%; in Narlıdere it is 0.2%; the proportion of those living in other districts is 7.1%. According to the results, it is observed that most of the respondents are from Bornova District and 64.3% of the respondents have been living in Bornova more than 16 years. That is most of the respondents are local Bornova residents.

Measuring Place Attachment Frequency and Reason of the Visits

According to Hidalgo and Hernandez (2001) the main characteristic of place attachment is to maintain closeness to the object of attachment. For this reason frequency of visits and the reason to be at the survey area may help to measure place attachment.

According to the results, more than half of the respondents (57.7%) prefer to visit the survey area every day, this result may also be due to their permanent location. The rate of those who visit the area 3-4 days a week is 15.9%; the rate of those who visit once a week is 8.8%; the ratio of those who visit once a month is 4.0% and the ratio of random passers-by is 13.5%. From the responses, we may claim that although the permanent residents of the area mostly visit the survey area, the area is also attractive for the visitors because the rate of visitors once a week or 3-4 times a week is 24.7%. These results mean that respondents have familiarity with the environment and they continue their daily engagement with the place that helps to sustain place attachment. Although preference of the visit may depend on the permanent location of the respondent, it may also be the result of a choice by the respondent.

Another survey question to measure attractiveness and place attachment is the reason for being at the area. The answers of the respondents can be grouped under necessary activities, optional activities and social activities with reference to Jan Gehl. Gehl (1986) classify out activities as necessary, optional and social activities. Necessary ones are the compulsory ones such as going to school, to work and shopping. Optional activities exist only under favorable external conditions. This category includes taking a walk, just sitting or sunbathing. For the existence of social activities presence of others are necessary. In that case optional and social activities emerge only if the place attracts the users and if there is place attachment. 30% of the respondents said that they are at site with optional and social reasons. This means that the site is attractive for optional and social purposes. 54 % of the respondents on the other hand said they were at the site for necessary purposes.

Attractiveness

Ujang & Zakariya (2015) mentions that there are emotional attachment indicators such as expressions of happiness, and positive impressions contribute to the measure of attachment. In this study, in order to measure the place attachment of place, we evaluated the answers of the respondents about the physical and social characteristics and attractiveness of the survey area. In this means, we asked respondents to evaluate the descriptive terms about the physical and social attractiveness of the area such as; architectural originality, attractiveness of the landscape, the heritage buildings, social and cultural atmosphere of the area.

The majority of (48.2%) respondents agrees that the area has a modern character. In the means of architectural character, the majority of the respondents (29.0%) evaluates the survey area as “very attractive”. The ones who find “attractive” are 15.5 %. The ones who cannot decide are 29% of the respondents. Totally, almost half of the visitors find the area attractive but there is also a big majority who can’t make a decision.

		n	%
Reason for being at the site?	Sitting (<i>dinlenme</i>) optional	41	9,1
	Meeting with friends /social	79	17,5
	Going to school / necessary	46	10,2
	Shopping / necessary	46	10,2
	Going to work /necessary	124	27,4
	Sports/walking /optional-social	17	3,8
	Transportation / necessary	29	6,4

Table 1. Reason for Being at the Site.

	Completely Agree		Agree		Undecided		Disagree		Strongly Disagree	
	n	%	n	%	n	%	n	%	n	%
Modern	150	33,2	66	15	123	27	43	10	70	16
Architectural character very attractive	112	24,8	70	16	131	29	52	12	87	19
Well-groomed	146	32,4	64	14	90	20	37	8	114	25
Natural landscape is attractive	153	33,8	73	16	111	25	48	11	67	15
Heritage buildings are special	190	42	87	19	91	20	35	8	49	11
Culturally important	244	54	71	16	61	14	26	6	50	11

Socially important	321	71	51	11	35	7,7	20	4	25	5,5
Beautiful	268	59,3	82	18	73	16	13	3	16	3,5
Visually compatible	187	41,4	81	18	80	18	37	8	67	15

Table 2. Levels of Expressions about Attractiveness and Architectural Character.

About half of the respondents find the area well-groomed, and the natural landscape attractive. The evaluations about the heritage buildings and social and cultural importance of the areas are different. 61.2% of the respondents evaluates the heritage buildings as special. 69.7% evaluates the survey area as culturally important and 82.3 % evaluates the area as socially important.

Beauty and visual compatibility are other indicators of attractiveness, in the means of beauty 77.3% of the respondents find the area beautiful and 59.4% of them evaluates as visually compatible.

Legibility

The physical characteristics of a place and its legibility, the functions and social activities, it implies all have influence on place identity. The more legibility may result with more memories that help to develop place identity which is a dimension of place attachment. For this reason, legibility of the survey area is evaluated as an indicator of place identity and attachment. In our survey, 52.7% of the respondents completely agree that the area is impressive and 15% is agree. About 55% of them find the area uncomplicated, and 64.8% find the survey area's cultural diversity noticeable. The majority of the responses agree on the legibility of the site in the means of its impressiveness and noticeability of cultural diversity.

	Completely Agree		Agree		Undecided		Disagree		Strongly Disagree	
	n	%	n	%	n	%	n	%	n	%
Impressive	238	52,7	67	15	76	17	29	6	42	9,3
Uncomplicated	194	42,9	58	13	80	18	43	10	77	17
Noticeability of regions' cultural diversity	207	45,8	84	19	72	16	24	5	65	14

Table 3. The Legibility of the Place.

In the survey, the most attractive aspect of the area is also asked to the respondents. The social vitality of the area is evaluated as the most attractive

(%36.5) aspect according to the respondents. Secondly respondents find the landscape and the cafes/restaurants attractive. Historical buildings take the fourth place as an aspect of attractiveness.

		n	%
Things that you like the most in the region?	Trees/Landscape	135	29,9
	Cafes/Restaurants	133	29,4
	Silence	50	11,1
	Social vitality	165	36,5
	Historical Buildings	81	17,9
	Streets	49	10,8

Table 4. Attractiveness in the Region.

Awareness

In this paper, it is claimed that awareness about the historical heritage of place improves the development of feeling of place attachment. For this reason, questions referring to the awareness of the heritage are asked. According to the answers, 61.7 % of the respondents are aware of the historical bazaar in the area. 72,3 % of the respondents know that some of the mansions were used as residences in the past. According to those results majority of the respondents are aware of the heritage of the area. Another aspect of awareness about the heritage is visit to the museums in the survey area. Majority (31%) of the respondents replied that they did not visit the museums.

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS AND PLACE ATTACHMENT RELATIONSHIP

The second part of the paper focuses on respondent characteristics and place attachment relationship. This relationship is investigated in various studies. In this study in order to examine this relationship indicators such as, age, gender, education and profession are examined with a chi-square test.

		Do you know there is a historical bazaar in this area?		Chi-square test	
		Yes	No	X2	p
Age	19 and below	31 50,8%	30 49,2%	37,893	0,000*
	20-29	64 46,4%	74 53,6%		
	30-39	35 60,3%	23 39,7%		
	40-49	42 70,0%	18 30,0%		
	50-59	51 73,9%	18 26,1%		
	60 and above	56 84,8%	10 15,2%		
Gender	Female	96 51,9%	89 48,1%	12,819	0,000*
	Male	183 68,5%	84 31,5%		
Profession	Student	65 44,8%	80 55,2%	37,098	0,000*
	Housewife	24 60,0%	16 40,0%		
	Public sector worker	17 58,6%	12 41,4%		
	Private sector worker	51 62,2%	31 37,8%		
	Freelancer	33 71,7%	13 28,3%		
	Business owner	28 84,8%	5 15,2%		
	Retired/Unemployed	61 79,2%	16 20,8%		
Education	Elementary school graduate	90 71,4%	36 28,6%	17,046	0,002*
	High School	93	47		

Student/Graduate	66,4%	33,6%
College (Yuksekokul)	13	9
Student/Graduate	59,1%	40,9%
Undergraduate (Lisans)	74	77
Student/Graduate	49,0%	51,0%
Master/PhD	9	4
Student/Graduate	69,2%	30,8%

Table 5. Relation of User Profile – Knowledge of Existence of a Historical Bazaar in the Region *P<0,05: A Significant Relation Exists.

According to the chi-square test results, there is strong relationship between age and awareness of the Ottoman Bazaar ($p<0,05$). The ages of the respondents between 20-29 are less aware of the Ottoman Bazaar. Other age groups are aware of the historical Ottoman Bazaar. There is also a strong relationship between gender and awareness ($p<0,05$). The ratio of men who are aware of the bazaar is higher. There is no meaningful relationship between occupation and awareness of the bazaar, but most of the students are not aware of the historical bazaar, on the other hand, other occupation groups are aware of the bazaar.

There is strong relationship between the awareness of the bazaar and education status ($p<0,05$). The rate of master and PhD students' awareness is higher compared to the other education status. Only elementary school graduates are less aware of the bazaar.

		Do you know that some of the mansions have been used as residences in the past?		Chi-square test	
		Yes	No	X2	p
Age	19 and below	34 55,7%	27 44,3%	11,399	0,044*
	20-29	99 71,7%	39 28,3%		
	30-39	44 75,9%	14 24,1%		
	40-49	44 73,3%	16 26,7%		
	50-59	54	15		

		78,3%	21,7%		
	60 and above	52	14		
		78,8%	21,2%		
Sex	Female	130	55	0,674	0,412
		70,3%	29,7%		
	Male	197	70		
		73,8%	26,2%		
Profession	Student	93	52	21,486	0,002*
		64,1%	35,9%		
	Housewife	26	14		
		65,0%	35,0%		
	Public sector worker	26	3		
		89,7%	10,3%		
	Private sector worker	65	17		
		79,3%	20,7%		
	Freelancer	27	19		
		58,7%	41,3%		
	Business owner	27	6		
		81,8%	18,2%		
Education	Retired/Unemployed	63	14	9,327	0,053
		81,8%	18,2%		
	Elementary school graduate	81	45		
		64,3%	35,7%		
	High School Student/Graduate	102	38		
		72,9%	27,1%		
	College (Yuksekokul) Student/Graduate	19	3		
		86,4%	13,6%		
	Undergraduate (Lisans) Student/Graduate	113	38		
		74,8%	25,2%		
	Master/PhD Student/Graduate	12	1		
		92,3%	7,7%		

Table 6. Socio-Demographic Characteristics and Awareness about the Mansions *P<0,05: A Significant Relation Exists.

According to the chi-square test results, there is meaningful relationship between social-demographic characteristics and awareness about the mansions ($p < 0,05$). 50-59 age groups and over the age of 60 are much more aware of the mansions past. There is no meaningful relationship between education and awareness of the past of the mansions.

According to the chi-square test results, there is meaningful relationship between age and visit to the museums in the survey area ($p < 0,05$). The age group 60 and over tend to visit the museums more compared to other groups.

There is relationship between occupation and the visit to the museums. ($p < 0,05$). Housewives and freelance workers are groups that least visit the museums. There is no meaningful relationship between education status and visit to the museums. ($p > 0,05$).

Socio-Demographic Characteristics of the Respondents Factors Predicting Places Attachment

		Do you feel belonging to this environment?		Chi-square test	
		Yes	No	X2	p
Age	19 and below	48 78,7%	13 21,3%	19,047	0,002*
	20-29	92 66,7%	46 33,3%		
	30-39	42 72,4%	16 27,6%		
	40-49	45 75,0%	15 25,0%		
	50-59	54 78,3%	15 21,7%		
	60 and above	62 93,9%	4 6,1%		
Gender	Female	140 75,7%	45 24,3%	0,007	0,931
	Male	203 76,0%	64 24,0%		
Profession	Student	95 65,5%	50 34,5%	17,407	0,008*
	Housewife	31 77,5%	9 22,5%		
	Public sector worker	24 82,8%	5 17,2%		

	Private sector worker	63	19		
		76,8%	23,2%		
	Freelancer	34	12		
		73,9%	26,1%		
	Business owner	28	5		
		84,8%	15,2%		
	Retired/Unemployed	68	9		
		88,3%	11,7%		
Education	Elementary school graduate	102	24	10,97	0,027*
		81,0%	19,0%		
	High School Student/Graduate	113	27		
		80,7%	19,3%		
	College (Yuksekokul) Student/Graduate	18	4		
		81,8%	18,2%		
	Undergraduate (Lisans) Student/Graduate	101	50		
		66,9%	33,1%		
	Master/PhD Student/Graduate	9	4		
		69,2%	30,8%		

Table 7. User Profile - Attractiveness Relation in the Region *P<0,05: A Significant Relation Exists.

According to the chi-square test results, there is meaningful relationship between social-demographic characteristics and place attachment feeling ($p<0,05$). Such a relationship has been asserted by Anton and Lawrence (2014) too. The age groups over 60 have much more feeling of place of attachment compared to other age groups. *"Older people are often found to be more attached than younger people"* (Anton and Lawrence, 2014). *"It has been theorized that elderly people have developed an insideness with a place over time which leads to the place becoming an extension of the self"* (Rowles, 1983). In this survey, no relationship is found among gender and place attachment. ($p>0,05$). There is relationship between occupation and place attachment. ($p<0,05$). Public sector workers, business owners and retired groups develop place attachment more compared to other groups. Place attachment and education status also has meaningful relationship ($p<0,05$). Primary school graduates, high school and college students or graduates develop more feeling of attachment compared to other groups.

CONCLUSION

In this study first the relationship between place attachment and collective memory has been evaluated in the case of Bornova, İzmir. It is claimed that the heritage of place helps to develop feeling of place attachment. In order to measure place attachment, frequency and reasons of visit, attractiveness, legibility and awareness indicators are evaluated. According to the results of

the interviews with 452 respondents, it is found that respondents are a well-educated group in İzmir which may be due to the location of two universities close by the survey area. Most of the respondents live in Bornova close to the survey area and the duration of residence in Bornova is high, mostly more than 16 years. Measurements about the place attachment show that the survey area is attractive for the visitors, and it is frequently visited and the respondents developed daily engagement with the area. The site is attractive for necessary purposes mainly but for optional and social services as well. The area is evaluated as modern and attractive, but there is big majority who cannot decide on attractiveness. It is also evaluated as well groomed, and the natural landscape as attractive, heritage buildings are special, and the area is socially and culturally important, beautiful and visually compatible by most of the respondents. Majority of the respondents also agree on the legibility of the place. In the ranking of attractive aspects landscape takes the first place and historical buildings take the fourth. Most of the respondents are aware of the Ottoman Bazaar, but the age group 20-29 are less aware of it. It is mostly the elderly groups who are aware of the heritage Ottoman Bazaar. Awareness about the past of mansions has similar results. Elderly groups are much more aware of the heritage of the area and tend to visit the museums at the survey area. Elderly groups also develop more feeling of place attachment. Relation among gender and place attachment has not been found. Results show that the survey area is attractive in some aspects but there is more to be done about conservation and urban design of the heritage site because younger age groups are not aware of the historical heritage of the area. Urban design developments and conservation projects would also help to enhance feeling of place attachment for the residents and visitors as well.

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URBAN CHANGE AND CHALLENGES IN BALIKESIR CITY CENTER

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ABSTRACT

The city is a changing and developing phenomenon over time. The events that occurred over the years and the developments that emerged in the historical process leave physical and social traces in the urban space. Urbanization trends increased rapidly after the 1950s in Turkey, these situations have resulted in the change of balance in rural-urban areas and it has become legible through the spatial organization in cities.

Balıkesir is an essential focus of sea and land transport networks. This situation has resulted in the fact that the transportation decisions taken at the upper scale directly affect the spatial choices. Its relationship with neighboring cities shapes urban space. The differentiation of rural-urban population ratios, the demographic structure that changed with the university, the sub-centers that are being reconstructed based on the requirements of present-day and the new residential areas associated with them, have become the main parameters determining the dimension of urban growth in Balıkesir. The city center, which is inadequate to respond to the current requirement, has undergone non-integral transformations. The research context includes a detailed examination of the morphological changes in Zagnos Pasha Mosque, TTM-Old Bus Station, Cay Riverside Recreation Area, which are thought to be the distinct representations of urban transformations.

With the new investment and construction activities, the city started to lose its monocenter structure. New residential areas have emerged around İzmir and Balıkesir-Bursa Highway and new nodes have begun to form due to the distance of residential areas. These nodes couldn't be structured compatible with urban identity cause of the effect of globalization. Transformation projects in city center resulted in the demolition of the buildings that contributed to urban memory and it became necessary to review urban policies.

Key Words: Urbanization; Urban Growth; Urban Change; Urban Transformation.

INTRODUCTION

According to Keles, urbanization defined as population movements took place under the repulsive and attractive forces. This flow, which resulted in an economic transition from agriculture to the non-agricultural sector, can be considered as one of the most critical factors shaping cities. [1] Along with the urbanization process, the quality of the built environment and daily lifestyles evolved. Within the scope of the research, the urbanization processes in Balıkesir examined through the direction of urban growth, the differences in spatial organization, the change and transformation activities implemented in the city center.

Considering the environmental relations of the city (on the Istanbul-Izmir transport line), it is seen that Balıkesir has an essential geopolitical position in the South Marmara. So, one of the most critical factors in determining the growth direction of the city was transportation networks. While the urban growth in the historical process is related to the railway, today it is formed by progressing over highways and fringing in some zones. When urbanization rates are analyzed, contrary to the rising trend in metropolitan cities, the urbanization rates in Balıkesir, which progressed in line with the country's urbanization average in the 1950s, remained below the country's average after the 1980s and rural-specific activities continued in the urban periphery. [2] This has resulted in the city maintaining its single-centered position for a long time. The field was tried to be reshaped by internal and external factors such as the university, regional health center, organized industry. After the 2000s, the search for a sub-center started in the region. While efforts to establish a sub-center in the city continue, projects have begun to be developed to transform the city center, which is dense by the increasing population. In this context, Zagnos Pasha Mosque, TTM-Old Bus Station, Gümüşçeşme Neighborhood emerged as areas that were intervened to eliminate density in the city center and to create new focal points. Within the scope of the research, morphological changes in the mentioned areas have examined and the gains and losses of the city have been revealed.

Historical Development of Balıkesir City Center

After the Karesi Seigniorship was attached to the Ottoman Empire, the settlements in the area continued to function as an ensign in Anatolia. After the I. Murat period, the historical and spatial development of the city center, which was used as a prince flag, began to form in this period. In the 17th and 18th centuries, which served as a small town where production and trade activities were intense, the railway was one of the most important elements shaping the urban space. The city was founded on the hill slope and a sheltered living area was created based on the western border. Even through the sources of pre-Republican urban pattern are limited, Ibn Batuta's travel book mentions a town-scale residential area and a large bazaar in the center. [3]

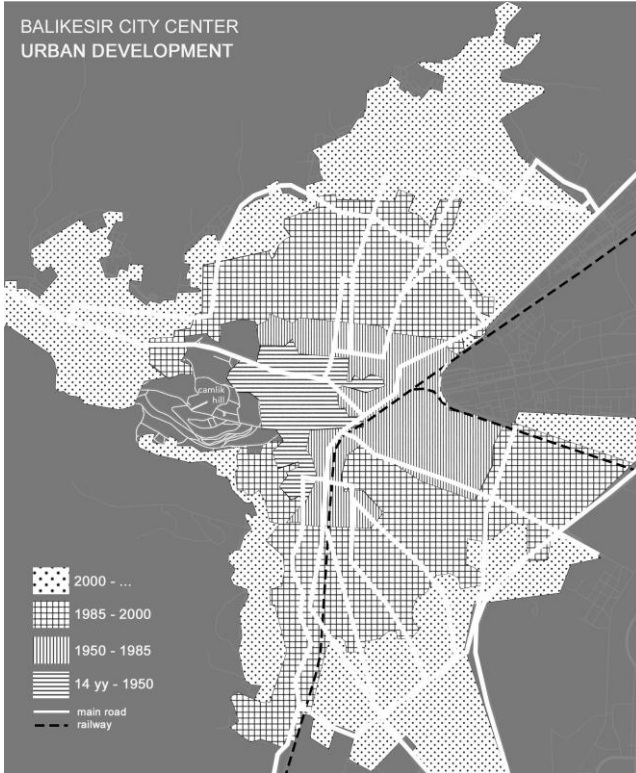


Figure 1. Balıkesir Historical Development.

The first public improvements started in 1863, and in 1916, Milli Kuvvetler Street, which still seen as one of the most important axes of the city center, was opened. With the construction of the Station and Old Municipality, the urban space used as a residential area has turned into the line where the commercial uses are the most intense.

During the Republican period, the region began to lose its rural character. It became important for the military and this situation affected the built environment and population structure of the city. From the 1940s, strategies have been developed to increase industrial activities throughout the city. In this sense, industrialization activities such as Flour Factory, Cotton Weaving Factory, and Balıkesir Cement have great importance.

One of the most significant steps towards planned urbanization in the region is the first city development plan which was prepared by Ernst Egli in 1941 and entered into force in 1944. He stated that mountainous area in west of the city and the railroad in the southeast prevented the development of the town and proposed axles in the north and east directions for the new settlements. When

Egli's plan examined; it seen that the new settlement areas formed in a modernist approach and geometric order. [4] It is a fact that the strategies in the plan affect the urban settlements of Balıkesir in the Republican Period, even if they abolished later.

Until the 1950s, urban growth shaped around the existed urban environment. After that, Balıkesir city center has grown in the north and southeast direction due to the expansion of the road network, the industrial zones, and the increasing population. Although migrants were coming to town placed in a detached area from the city center, the city macro form has become more holistic with the continuation of urban growth. [5] In the plan become valid in 1972, some policies were developed on the following subjects. The decrease in density from the center to the urban periphery, the formation of small-scale commercial areas within the city, the movement of small industrial buildings from the city center, etc. Also, functions that require large areas in the city center, such as DSI, KGM, military areas, must be shown improvement in their parcels. In the early 1980s, a sectoral development form was targeted. Another issue mentioned in the master plan is the lack of sub-centers in the city. [2]

The city, which develops and grows in line with different parameters over time, is gathered in a single central business district despite new residential areas distant from the center of town. This resulted in density in organic city pattern. When the urban renewal projects in different scales were developed by the municipality to solve these problems. The city has a new tendency with the relocation of the university to the Cağış Campus (2002).

Dynamics of Current City

Changing technologies, today's requirement, the development of urban awareness, efforts to improve the quality of life have made it necessary to restructure cities and evolve through necessities. In this sense, Balıkesir is no different from other towns. The problems of urban space, such as the increase in population, migrations, young population-related the university, etc., accumulated over the years and resulted in urban sprawl.

After the 2000s, urban renewal and transformation projects, most of which were carried out by the municipality, began to take place in the city. All these processes created new dynamics in urban space changed the direction of urban growth and played an impressive role in the changes of urban land-use.

If we examine the process of change, the actions that bring the city to its current state can be listed as follows: (Figure 2).

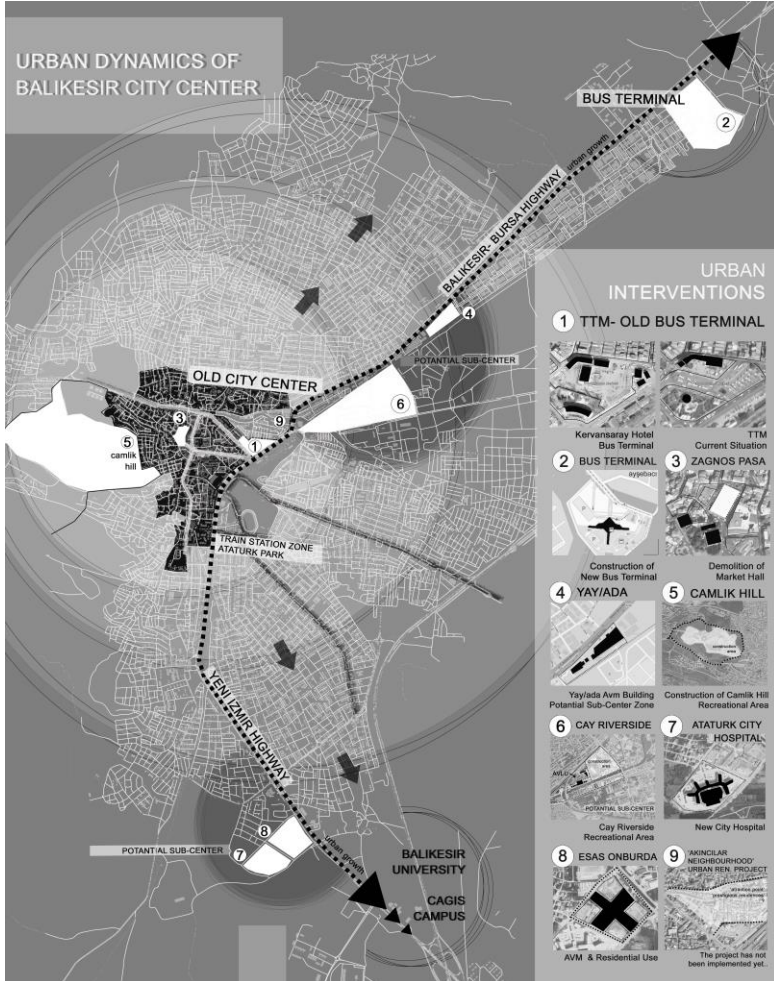


Figure 2. Urban Dynamics of Balıkesir City Center.

The university moved to the Cagis Campus in 2002 and created a new orientation to the southwest of the city. The courthouse relocated, structures such as teachers' houses and city hospitals built in this part of the city. New settlements have emerged towards the university axis. [7]

In 2018, Esas OnBurda AVM opened next to the city hospital, and the region started to act as a sub-center. This situation increased the construction activity around the area and created a new focus in the city. New settlements have developed on both sides of the New Izmir Highway. The districts of Bahçelievler and Plevne have transformed into integrative housing area including Çayırhisar Village. Today, structural production is continuing in that zone.

The beginning of the comprehensive renewal and transformation projects in Balıkesir is based on the transfer of the intercity bus terminal to the northeast of the city (Ayşebacı village) and transforming the area into an urban transportation center. The subsequent process results in the destruction of the Kervansaray Hotel, one of the most famous landmarks and representations of modern Republican architecture in the city. [8] Although detailed morphological analyzes of the situation will be discussed in the following headings, the event can be seen as the trigger for the development of the city in the northeast direction. In the later years, many concurrent activities were carried out which affected the growth in this direction. The yay/ada shopping center opened in 2007 can be considered as another result of these situations. It can also be seen as a sub-center effort that is not integrated with the city.

While urban growth continues through housing production on the periphery, projects are being developed to solve the problems in the city center. In this sense, local government and TOKİ play an active role in making decisions about urban space. When the studies carried out by Toki are examined, one of the crucial examples implemented is the mass housing near the new terminal. However, "Akincılar Urban Transformation Project" is another project that can directly affect the organization of urban space and completely change the urban land use. The proposal has led to years of speculation in the city. No steps have been taken in the direction of implementation yet. The project aims to transform the industrial buildings in the city center into prestigious residences and offices. The professionals criticized the plan for being a "Standardized TOKİ Project." [8], [9] If this happens, it is a separate study of whether the city center can gentrify.

We mentioned in the headings that the city center is becoming stuck with growth. At the end of Milli Kuvvetler Road, Zagnos Pasha Mosque, Yeni Carsi, Hasan Baba Bazaar and Market Hall are used as a traditional shopping complex in the city and fulfill the main commercial axis. [10] After the 2000s, one of the efforts to reduce the density in the city center was the partial pedestrianization of the Milli Kuvvetler axis and the other was the creation of an open area, around the Zagnos Pasha Mosque. The open space was intended to be used as a square, and the underground car park planned to minimize the problems caused by the vehicles in the vicinity. In this respect, 2012, "earthquake resistance" was mentioned and demolition decision was taken and implemented for "Market Hall." Today, there is no trace of building,

which considered as one of the essential elements of urban memory and project is not implemented as designed in strategy Action Plan 2013-2023. The urban space that has been created, has turned into an undefined area rather than a square.

Within the scope of South Marmara Region Plan 2014-2023, so the city has been designated as a sub-central planning region to restructure South Marmara and many mega projects have been proposed. Balıkesir is directly related to the main development corridors of the area. Socio-economic balances inevitably change with the ease of access between regions. [11] Besides, within the scope of Law No. 6360, it was decided to establish metropolitan municipalities in fourteen provinces nationwide. Balıkesir was chosen as one of these cities. Since the 2014 local elections, the city has been managed as a metropolitan municipality. As a result of these decisions, the town restructured in many areas from tourism to industry, education to production. Planned projects for the future of the city were shared with the citizens in 2014-2023 Strategic Action Plan. When the projects put forward within the scope of the plan are examined, it is seen that many targets have been set under general headings such as social, ecological, green and technological. Considering the multiplicity of goals, the scale and cost of the projects planned to be implemented an effort to brand the city stands out. This effort also manifests itself in the city center. In the table below, the projects planned to realize over the borders of Altıeylül and Karesi municipalities and their current statuses are listed. [12]

Open to Use	In Process of Construction	Design Phase
Zağnospaşa Mosque and Square	Çamlık Hill Recreational Area	Historical City Center Boutique Hotels
Neighborhood Markets	Çamlık Hill Telefrik Line	Reserve Areas Prestige Satellite Cities
Multi-Storey Car Park	Çay Riverside Rec. Project / II. Stage	Town Hall
Akıllı Ulaşım Sisteminin Entegrasyonu		
Çay Riverside Rec. Project / I. Stage		

Table 1. 2014-2023 Strategic Action Plan/Altıeylül Karesi Region.

Under the pressure of regional strategies and the restructuring of local government, the emergence of new dynamics in the city is essential. However, when the contents of the projects are examined, it is seen that the urban rent is focused, which puts the urban image above daily life. (Example: Çamlık Hill, Telefrik Line, Prestige Housing). When the new buildings planned to produce and the squares planned to transform are taken into consideration,

the adaptation of the projects to the urban pattern and effects of interventions discussed.

In this sense, current approaches that reshape the city, such as regional strategies and efforts to create a brand city, should be re-evaluated to protect urban identity. Otherwise, these investments, which are established to develop the city economically, may result in a standardized, dysfunctional urban environment.

Change in Urban Pattern

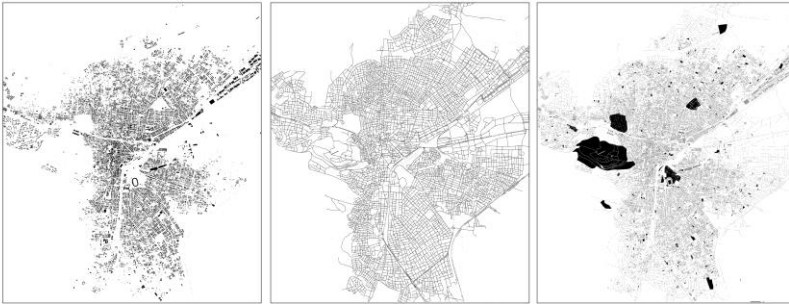


Figure 3. 4. 5. Urban Pattern of Balıkesir: Buildings, Street Networks, Green Spaces.

Hasol defines the urban pattern formed by the distribution of structures, roads and green areas in the settlement. [13] When urban space evolves with life, the time-space relationship becomes primary in shaping the built environment. Urban plans are examined through the elements that form the city such as streets, plots and buildings. City plans are discussed through the elements that constitute the city such as streets, plots and buildings. Each spatial combination produces “uniqueness” resulting from the area and conditions. When analyzing the plans, not only the development of the physical environment but also the social and economic conditions of the region should be taken into consideration. [14] In this context, Balıkesir has changed radically under the pressure of different socio-economic strategies over the years and reached its current macro form. (Figure 3,4,5)

We already mentioned the increasing construction and transformation activities in the city after the 2000s. When the growth direction of the city is examined, it is seen that the new sub-centers are formed around shopping malls. (OnBurada, Avlu) The built environment produced through these kinds of projects tries to come to terms with its values rather than adapting to the existing urban pattern. These uses, such as City Hospital, OnBurda, Cay Deresi Recreational Area, Camlik Hill, which are located on large plots in the city, have formed morphological zones separated from the urban fabric.

Therefore, their relations with urban space are also weak. On the other hand, the transformation and renewal activities carried out in the city center caused the destruction of the structures that are part of the urban identity, while trying to create urban open space. Within the scope of the research to reveal the losses and gains caused of intervention in the city, TTM, Zagnos Pasha Mosque and Square, Cay River Recreational Area Projects were examined in terms of environmental relations, land uses and structural changes.

Intercity Bus Terminal and Kervansaray Hotel to Public Transportation Center

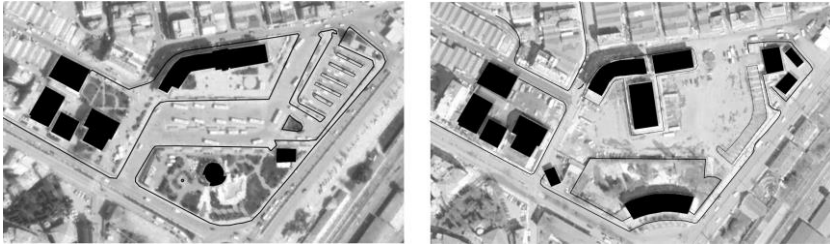


Figure 6. Public Transport Center (TTM) – 2019.

Figure 7. Balıkesir Old Bus Terminal, Kervansaray Hotel – 2005.

Today, the area which is the center of public transportation used as Kervansaray Hotel and Intercity Bus Terminal in the past. The area located on the main axis of the city along with Cumhuriyet square and railway station. This place, which can be defined as the welcome area of the town, has been dramatically changed in 2006 due to the demolition of the Kervansaray Hotel and relocation of the intercity bus terminal. (Figure: 6, 7) The Kervansaray Hotel project, which was selected in the competition held by the General Directorate of Foundations in 1955, is essential representations of modern republican architecture in Balıkesir. The building, which was a highlight of Cumhuriyet Square, became one of the symbols of the city. [15] In 2004, the Chamber of Architects made efforts to document and preserve the building, but this was not enough to prevent the destruction by the municipality. [16] As Birol mentioned, while the city loses the traditional, it has problems in the point of reconstructing the modern. [16] As Birol said, while the city loses its traditional structures one by one, it has issues to produce functional urban space [17].

Although the project and implementation process can be managed much better, the reorganization of the Public Transport Center has some positive aspects in terms of creating human-centered uses in the city center. The area became more accessible and pedestrian-oriented. With the demolition of the surrounding walls of Salih Tozan Cultural Center, it gained a holistic view and some of the elements that limit the use of the citizens in the area were

eliminated. However, the architectural practice operates under the existing potential due to the problems such as lack of green spaces and irregular distribution, lack of urban furniture and shade elements, standardized floor materials, etc.

In a city like Balıkesir that is in the process of urbanization and trying to become a brand city, encountering such a situation is an indication of the inadequacy of urban policies. Even though the current location gives positive results in keeping the intercity traffic away from the city center and regulating the transportation in the city, it is evident that there is a loss in terms of urban culture.

Zagnos Pasa Mosque and Square

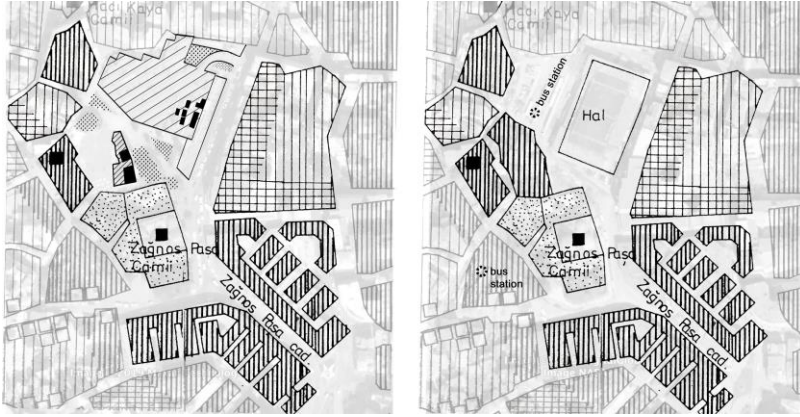


Figure 8. Zagnos Pasa Mosque and Square – 2019.
Figure 9. Zagnos Pasa Mosque and Market Hall – 2005.

Zagnos Pasha Complex, which located on the borders of Karesi district, is one of the essential buildings reflecting the city heritage from the Ottoman Empire to the present day. The complex consisting of a mosque, a bath, a mausoleum and a bazaar is still meeting point beside Ali Hikmet Pasha Square. It is the intersection of critical commercial axes of the city such as Milli Kuvvetler Street and Anafartalar Street. [18] With the construction of civil architectural elements such as Hasan Baba Bazaar, Yeni Bazaar, market hall, during the republican period, the area served as a traditional trade zone. [10] Despite the construction activities that continued with the discourse of modernization in the city after the 2000s, it has managed to preserve itself as the only area where we can still see the traces of the past in mostly anonymized urban pattern. Market Hall and the structures around it have been damaged during the years due to the wrong interventions and neglect. The frequency of use has decreased with the relocation of public transportation from the region. In the area which has to be rearranged, decisions in the

projects developed by the municipality can be listed as follows; construction of an underground car park to solve the traffic problem, produce urban green spaces and demolishing the market hall. Today, the implementation process of the decisions, which paved the way for the area to become concrete and unfavorable, started in 2012 with the demolition of the market hall. (Figure: 8,9) There are not only critical public buildings in the region but also examples of civil architecture used as housing. Today, during the renewal of the square, demolition decisions including some of these structures continue to be taken.

While restructuring the urban space, the idea of the expendability of architectural elements which are part of collective memory causes significant damage to the urban identity. The market hall was demolished rather than seeking solutions such as re-functionalization, and the designed project implemented as promised. Differences in the design and implementation phases undermine the reliability of the projects planned by the municipality.

Cay Riverside Recreation Area

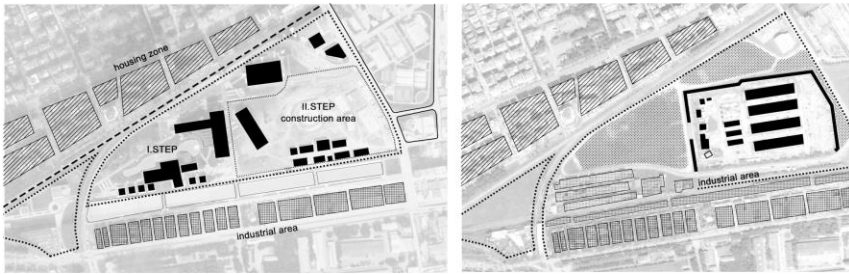


Figure 10. Cay Riverside Recreation Project – 2019.

Figure 11. Cay Riverside, Industrial Zone – 2005.

Industrial area and wholesales market, which were urban periphery in the 1950s, was confronted with the pressure of urban growth. This pressure resulted in the relocation of industrial structures to the new area in the northeast of the city. However, the boundary effect created by the suburban railway line and the existing creek bed is currently the most significant barrier to effective use of the area.

This area is one of the zones that the local government, which continued to serve as the Metropolitan Municipality in 2014, considered important as the “attraction center.” It declared as a special project area covers 240.000 m2. The implementation process and details of the project are given in the 2014-2023 Action Plan and the construction of the project is planned in two stages. The complex, which was started to built in 2017, has many different functions such as showroom building, commercial buildings, conference hall, artificial pond, children playground, green spaces, jogging track, skate park, fitness area, parking lot. [19] In addition to the project, a telfer line is proposed between Çamlık Hill and Çay Riverside Recreation Area.

The strategies developed to create the brand city has led the urban economy to advance through megaprojects and rent. From the perspective of Balıkesir, the potential of the area to interact with the city center and to become a sub-center is noteworthy. However, the requirements of projects such as Camlik telfer line and artificial pond need be questioned. When the scale of the investment is evaluated, its weak relationship with the rest of the city should be considered unacceptable. Although the project has positive aspects such as bringing socio-cultural activities to the city and acquiring a new center with a contemporary appearance, the relationship with the city center is provided through a single overpass and the northeast entrance opens to the collapse area of the city. There are statements regarding the transformation of the project environment but it has not detailed yet.

CONCLUSION

The city center of Balıkesir has changed over the years due to the changing population movements, development plans affecting the south Marmara region, in line with the new requirements of daily life and has reached today's city form. When it is considered in the frame of Altieylül and Karesi, the change of urban macro form does not show a holistic character. This is legible through the organization of urban space. Planning the construction activities in the city on a parcel basis, the destruction of the structures that contribute to the urban identity and the inability of changing urban space to the traditional urban pattern are the main problems of large-scale projects that effect the city. In this context, an architectural unity was not formed in the urban environment and the regions showing different morphological character were tried to be merged without transition zones.

In 2014, due to the pressure of being a metropolitan municipality, the municipality tried to transform the city into an attraction center for local tourists, resulting with projects such as Çamlık Hill and Çay Riverside Recreation Area. The large-scale investments made for modernization have weak relations with the traditional urban fabric and urban identity. A similar attitude is observed in the projects implemented to reorganize the city center. This situation anonymizes the city, eliminates the original values and creates a standardized urban space.

A city which is full of historical heritage and natural richness like Balıkesir, it is unacceptable for new sub-centers to realized through shopping complexes. Urban sub-centers do not coincidentally produce places, but contribute to the urban system and work in integrity. Existing policies should be newly regulated. In this sense, cooperation should be made with the citizens. Projects should be planned considering the functionality of the urban scale. Strategies for the development of the urban space should be formed through the reconciliation of the public and local governments. The demolitions (Kervansaray Hotel, Market Hall, etc.) and speculation that would harm the urban identity should be prevented.

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A DISCUSSION OF ALTERNATIVE AFFORDABLE HOUSING TYPES: A COMPARATIVE ANALYSIS OF URBAN INFORMALITIES

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ABSTRACT

The increase in population creates problems on finding equal housing options among different income levels of society for accommodating sufficient housing in the urban structure. When the demand for low-income housing units is not efficiently responded to, citizens develop their own way to create accommodation options at reasonable prices in the form of informal settlements, which might have different urban characteristics according to the development level of the country, climate, and culture. However, the main purpose of squatters all over the world is to find shelter to live in. This report investigates the emergence and the transformation of urban informalities in developed and developing countries according to comparative housing study approach. The theoretical background is consisted of collective action theory and the production of social space in the everyday life practices in housing areas. The study shows that in both developed and developing countries urban informalities occur as alternatives for affordable housing requirements. However, the local characteristics such as social structure, built environment typologies, policies and regulations have impacts on developing different urban informality modalities for dwelling requirements in reasonable prices. Urban informality types demonstrate the self-help of the citizens for their own housing problems.

Key Words: Affordable Housing; Urban Informalities; Squatter Movement; Squatter Settlements; Comparative Housing Studies.

INTRODUCTION

Finding a shelter to dwell in at a reasonable price is a problematic issue for urban areas all over the world due to high values of urban land, lack of regulations about housing, and income inequalities. The demand for affordable housing is increasing parallel to the rise in an urban population in both developed and developing countries. The demand for affordable housing is increasing parallel to the rise in urban population caused, as the Habitat III report declares, the expected number of populations in 2050 would be twice the number of the current situation, also it would result in more demand on economic and sustainable housing solutions [1]. Especially after industrialization, the accommodation requirements of different income groups in the global north were acknowledged by authorities in order to support development in terms of social structure, built environment and the economy. Consequently, there are studies of alternatives for housing policies in order to provide either owner-occupied houses or rental homes for reasonable prices. On the other hand, in the global south, the development of the economic systems results in migration to urban areas, creating more urban dwelling requirements. Therefore, the urbanization process of the contemporary era occurs mostly in developing countries [2]. Even though the major amount of expansion in urban areas happens in developing countries, the need for affordable housing is a universal issue and housing studies of western culture have an impact on developing new strategies all over the world. However, the intermediary comparative housing studies suggest that the housing systems of each country would have similarities according to similar economic, politic, social structure and differences according to the local processes [3].

The house is the most private place of the individual; however, it has also part of public life. The house has a dual meaning, one is the home the other is the commodity [4]. Regardless of their meaning people need a space to dwell and in the dense urban structure finding the proper dwelling becomes problematic in terms of economic, social and environmental situations. When the authorities ignore the problems of the citizens, the citizens figure out solutions for themselves, which include the urban informalities despite the legal preventing attempts in both developed and developing countries. Therefore, informal settlements create the medium to investigate the affordable housing need in developed and developing countries as an intermediary comparative study, due to the similarities of theoretical background and the differences according to the local characteristics. In this study, the discussion of urban informalities as affordable housing alternatives is developed according to the collective action theory in the everyday life practices of housing areas.

According to the discussions about intermediate approaches in comparative housing studies in terms of urban informalities, this report developed around these questions: How do self-help solutions of citizens for affordable housing requirements show alteration in developed and developing countries? How do urban informalities create affordable housing alternatives in developed and

developing countries? What are the differences and similarities of urban informalities in developed and developing countries?

METHODOLOGY

This report of the informal solution for affordable housing contains two major parts that include the explanation of the theoretical background and the comparative analysis of urban informalities in the developed/developing countries. Alternative ways of affordable informal housing opportunities are evaluated through examples from Netherlands (squatter movements), and Turkey (squatter settlements) in order to explain the relation among affordable housing, urban informalities, and urban transformation. The first part explains the concepts of comparative analysis in housing, collective action in everyday life practices of housing areas. The second part is consisted of comparative analysis in order to explain the differences and similarities of housing problems in developed and developing countries. The historical explanation of urban informalities in the Netherlands and Turkey provide information in order to develop the comparative analysis in terms of spatial configuration, property types, and social structure. The examples show the changes of urban structures due to affordable housing demand and the self-help of the citizens. The reason for choosing squatter movement from the Netherlands is their detailed affordable housing system, which shows that the informal solutions occur despite the housing regulations. On the other hand, the squatter settlements of Turkey show the informal solutions occur in developing countries when the regulations are not focused on affordability issues of low-income and migrated groups of the society. Both squatter movement and squatter settlements have the characteristics related to self-help of citizens, therefore they provide the medium in order to develop a comparative analysis to investigate the informal solutions for affordable housing requirements in developed and developing countries.

The comparative housing studies contain two opposite approaches, convergent and divergent. The convergent approach defines the housing systems according to the economical systems and accepts all the countries experience the same process according to their economic and political development. On the other hand, the divergent approach determines all the countries would have a unique housing system because the local process would change the housing systems completely different from each other for every country. However, another approach is defined as an intermediary approach, which recognizes both the similarities due to the global economic and political process and differences due to the local process of housing systems [5].

In this report, the discussion of urban informalities as affordable housing solutions developed according to squatter movement and squatter settlements by analyzing their history according to the policies, which allowed their emergence. Additionally, the spatial characteristics of squatter movement and

squatter settlements are categorized in terms of everyday life by identifying the urban use in the built environment – in the unit, building, and neighborhood scale. Figure 1 shows the urban use in the built environment according to the relationship between the public and private sphere. Newman [6] explains the locations of public, semipublic, semiprivate and private as street, the outer part of the entrance, the inner corridors of the building and the inside of the house. This categorization is suitable especially for apartment buildings with multiple users. Even though both the squatter movement and squatter settlements occur according to individual housing need, they are part of the communal behavior; therefore, these informal modalities are determined as multiple user typology.

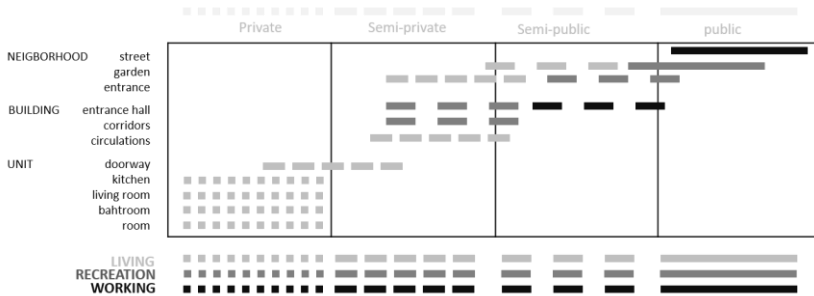


Figure 1. Spatial Configuration Of Multiple-User Housing Block – Urban Use.

In order to discuss the everyday life practices of squatter movement and squatter settlement, the three urban functions, living, working/education, recreation would also be defined with public-private sphere characteristics, in three built environment scale, unit, building, and neighborhood. The circulation function is acknowledged inherently in the other functions. The comparison between squatter movement and squatter settlement is provided according to these categories; spatial configuration, property types, the social structure.

Comparative Housing Analysis through the Everyday Life of Urban Informalities

This section provides information about the contextual background of the study. Firstly, the theoretical approaches of comparative housing studies are explained. Secondly, the everyday life of urban informalities is discussed according to collective action behavior.

Comparative Housing Studies

Housing studies contain architectural, and sociological context, since Kemeny [7] explain the impact of social sciences on housing would be beneficial for defining different aspects of housing, as a result, there would be more theoretical approaches combined to housing studies. For researchers, the house provides the medium to investigate the relationship between the built environment and social theories. Because the house is the most private place for the individuals but also it is part of the everyday life of society. Especially, the housing studies should focus on identifying the relationship among the individuals, the buildings and the regulations via conducting micro, macro and mezzo level analysis [8] in order to explain the critical interventions of politics, housing associations, the regulations and the daily life of the citizens [9]. The comparative housing studies contain the theoretical background even though the focus might seem on the regulation level analysis [10]. The definition and comparison of different social, political, and spatial characteristics of different housing systems inherently require theoretical inquiry because in order to understand the housing phenomenon of different societies the theoretical approach would be combined to qualitative and quantitative survey methods. Therefore, housing has multiple layers, which have reciprocal relationships among individual, society, policies, economic, daily life, and theoretical concepts. Culture, place, and temporality have an impact on housing systems of each country, therefore, the comparative housing studies reveal the similarities and differences of each countries housing systems operations, housing supply, household behaviors and everyday life practices [11].

The houses have a special meaning for individuals according to their long-term use and personal attachment to the place. Especially, the property modalities define the citizens' own positions in the housing systems about their dwelling requirements; owner-occupied, owner-occupied shared-use, rental, rental shared-use typologies [12] would result in different attitudes in terms of dwelling practices. The property modalities of housing systems explain the relationship between different stakeholders. The informal housing typologies define an unusual type of property modality; however, they are also part of the consumption behaviors of the society, due to the dual meaning of the house as a dwelling and commodity. In terms of commodity meaning, housing is different from other consumption goods with the characteristics of long-term use, place attachment, and personalization. The comparative housing studies have the potentials to explore the relationship between inhabitants, housing associations, and housing policies, especially for theoretically explaining the policy level studies [13]. In this report, a comparative housing study is developed according to identify the collective action of the squatter movement and squatter settlement communities. Additionally, their spatial practices provide information about the production of space in terms of the citizens' self-help solutions for their own affordable housing requirements. In order to determine the theoretical background of this report, everyday life concepts related to housing would be explained.

The Everyday Life of Urban Informalities

Everyday life is a phenomenon, which does not only have spatial characteristics but also have social and temporal dimensions. Traditions, habits, production, consumption patterns identify the interaction between individual and social structure; the individual's own understanding of the world and the individual's relation to society. Daily life occurs in a continuous repeated loop and misinterpreted as ordinary. Consequently, architects might underestimate the value of daily life activities in the design phase due to the so-called ordinary feature [14]. The everyday life practices in housing areas is important for defining the theoretical framework of comparative housing study according to the discussion about the meaning of the house for individual, society and built environment.

Everyday life habits have social, temporal and spatial characteristics. Lefebvre [15] highlights the social characteristics of the space and explains that space is not only created with abstract, mathematical definitions but also through the traces of everyday life activities, which identify the position of the individual among the society. The residential areas have the medium to explain the production of social space [16] due to the public-private sphere use hierarchy. The house is the most private place of the self where the individual dwells according to the perception of the world and develops its own understanding of the world through the house [17] which explains the reciprocal interaction of house and individual. However, this understanding of the house is developed for detached rural houses. In our era, the economic, politic and sociocultural changes cause an increase in demand for housing in urban areas. Since the cities become more crowded, alternative types of housing models such as informal settlements occur which lead a change in the meaning of house for an individual due to the new everyday life practices and affordability concerns. Mostly the main reason for developing informal settlements is to create dwelling option in reasonable prices, and the informal settlements have special community characteristics. Consequently, in the informal settlements housing units consisted of separate private units collected together sharing some common spaces. The users of the houses have similar spatial requirements in terms of everyday life habits, and in the dense urban environments, there might be opportunities to use the shared spaces commonly for the individuals own requirements. Semiprivate and semipublic spaces provide the medium for those common uses. Additionally, in the dense urban structure, the affordability concerns of the citizens increase. Some groups might gather around to find solutions for housing at reasonable prices via community life.

In the 20th century, modernist movements influenced housing according to decisions of CIAM and Athens Charter conferences in order to create a new urban structure for a changing society and neighborhoods. In this modernist movement, urban growth had four functions: living, working, recreation and transportation. In order to identify the spatial characteristics of daily life activities, it is necessary to explain the production of social space and the

dwelling act of the person. There is a reciprocal relationship among society, individual and space. Through daily life activities, the individual dwell [18] in the world and define themselves in the society, therefore daily life activities have a spatial characteristic. Housing is the fundamental space, which accommodates most of the daily activities. Even though the house is the most personal space, social structure and culture have effects on it due to the multidimensional meanings of private life, public life, and the influences of regulations, economy, politics, and culture [19].

De Certau explains that the modern lifestyle reproduces the everyday life activities, under the influence of new lifestyle habits and the changing economic system the production of everyday life activities occurs according to the consumption rituals [20]. The language they use, spatial configurations and preferences, practice experiences during the grocery shopping, dealing with errands, working habits are part of consumption patterns, which recreates everyday life activities. According to this point of view, the places where the daily life activities happen have the spatial characteristic of daily activities and those activities define architectural use [21] instead of functions. In order to design the places for daily life activities, the city must be taken into consideration in term of uses, not functions. However, the modern architecture movement defines everyday life through the urban functions separately [22]. Definitions of these functions with their public and private sphere characteristics would help to identify the use in daily life. In this point of view, according to daily life, the spatial characteristics of informal settlements accommodate both private and public use.

Collective Action in Everyday Life

The informal settlement has similar characteristics due to the individuals dwelling behavior among the community. Both in squatter movement and squatter settlements one unit is determined for private life practices however, they also contain common spaces where people socialize or deal with the daily errands. Additionally, community life helps to create dwelling options at reasonable prices. In order to create community life, there would be a harmony among the community; this harmony is identified via the collective action theory. The informal settlements and collective action theory have a reciprocal relation because they inherently contain each other. On the other hand, informal settlements provide the medium for the production of social space. In this chapter, the collective action theory is explained briefly in order to discuss the community life of informal settlements.

Collective action is a concept for explaining the behavior patterns of the individual in relations to the community according to individual and communal profits. Olson's freeloader theorem explains that collective action occurs only in a special situation when everybody in the community would be sure that everyone would get benefits after their action. However, people have the tendencies not to trust the other people in the community and consider their own benefits without involving the collective action. Bengtsson explains the collective action according to Swedish cooperative housing system through

this example: Assume an inhabitant, who cleans their doorway outside the dwelling unit, their act is beneficial for both themselves and the neighbors. However, their cleaning behavior becomes spoiled when the neighbors do not contribute to community life without cleaning their own doorway. When both the neighbors and inhabitant clean their own doorways, they would act as a community. In the situation, when the neighbors clean the doorways, but the inhabitant would not contribute, freeloader concept happens. However, generally, people have the tendency not to contribute the communal behavior at all; no one would clean the doorway due to prevent themselves against the situation when their behavior might be spoiled if the neighbors would not act according to communal decisions [23]. In order to create collective action behavior, all the inhabitants of the community would be persuaded the others would not spoil their act and it would be beneficial for everybody. Collective action is related to the concepts of solidarity, participation, and regulations of the housing. Especially for identifying the social behavior model, urban movements, collective action theory explain the characteristics of social structure. Informal settlements contain individual dwelling units; however, their existence relies on their communal act because they do not have the legal protection of their dwelling. Therefore, they develop the communal understanding of justifying their existence in the area. Additionally, the inhabitants create relations through their daily life practices in the social structure resulting in the production of social space via their everyday life practices in their neighborhood.

Analysis: Policy and Urban Informalities

This chapter provides brief information about the squatter movement of the Netherlands and the squatter settlements of Turkey in order to create the comparative housing study of urban informalities as affordable housing alternatives in developed and developing countries. Firstly, the historical background of the squatter settlement of the Netherlands is explained in the historical police level changes, which create the occurrence of the squatting units. Secondly, the squatter settlement characteristics of Turkey would be identified via the historical explanation of the changes in Başibüyük neighborhoods.

Squatter Movement

In the Netherlands, affordable housing options defined and controlled by the government and operated by the housing associations. There are almost three million rented homes in the Netherlands. About 75% of them are owned by housing associations. The government sets the rules for the allocation of social housing" [24]. The system is determined for providing affordable rental houses for low-income and controlled by the regulations for keeping the rent costs lower than the market. In addition, the government is providing bank

loans for housing associations to operate more efficiently. However, the citizens have searched their own ways to deal with dwelling options at reasonable prices. Squatter movement was part of urban informalities, which the students started for finding an affordable dwelling in the urban structure. Squatter movements would be considered a type of informal affordable housing solution; as the inhabitants occupy the buildings, develop their way of living by finding their own ways without paying for the land. Nowadays, squatting has no longer holds the legal status in the Netherlands; however, squatter movement and the evictions of the squats have an impact on the urban structure of the cities.

The squatter movement in the Netherlands started in the 1960s as a student's movement for occupying the abandoned buildings for affordable dwelling option in the city center. On the other hand, squatting had another meaning as reflecting the anarchist politic opinions. Because there was a housing shortage in terms of providing an affordable option for corresponding the demand among the low-income groups. The students' newspaper *Propria Cures* suggested settling in the unused properties as a solution for dwelling in the city center [25]. Even though police evicted the occupied properties after the first attempts for changing the use of vacant buildings into dwelling, the municipalities acknowledged the domestic rights of the occupiers provided by the 1914 legislation which would be the explained as when the property is not used by the owner, after locating a bed, a table and a chair the occupier would gain the domestic rights. In 1970s, anti-Squat Bill is developed and the squatters were evicted by using the police force; consequently, there were riots against the anti-squat operations. However, the squatter movement continued despite the Anti-Squat Bill they could still claim the domestic right. In the 1980's the establishment of Vacant property Act, which determines the occupation right according to time that the property remained unused more than one year, had provided the continuum of the squatter movement. In 2010, the government banned the squatting movement after the renewal of The Vacant Property Act and the squats were evicted [26].

Squatter Settlement

Turkey faced the industrialization process in the mid-20th century, later than in European countries. Uncontrolled urban structure problems also appeared in Turkey. The migration from rural areas to city centers was increased after the 1940s; according to economic and political developments. In this period, a governmental foundation, Emlak Kredi Bankası, started to lead the studies for low-income housing all over Turkey. However, the dwelling requirements of middle-income and high-income groups had more emphasis in terms of urban development decisions [27]. The people who migrated from rural areas to the city center were mostly part of the low-income group who had the problems about finding affordable dwelling units nearby the job opportunities of cities. As a result, they developed their own solutions, which were occupying the empty plots in the outskirts of city centers and building their own houses by

themselves. Since 1945, the Turkish government developed acts preventing the emergence of new squatter settlements and clearance of existing squatter settlements [28]. However, the development of squatter settlements continued due to the lack of detailed identification of the dwelling requirements of low-income groups in the cities. Nowadays TOKI, Housing Development Administration of Turkey manages the housing industry. However, the requirements of low-income groups were not acknowledged therefore the citizens developed their own solutions as squatter settlements. The urban transformation Act in 2005 has an impact on changing characteristic of Istanbul as the regulation contains the redevelopment of the squatter settlements by asserting the earthquake risk [29].

The transformation process of Başibüyük neighborhoods provides information about the occurrence, development and the changes of the squatter settlement characteristics in Turkey. The first development plans of Maltepe show that Başibüyük was a small village in the 1940s. The informal settlements emerged after the foundation of Süreyya Paşa Hospital in 1951, as the worker of the hospital constructed their own houses in Başibüyük. In the 1970s, the improvements of the hospital caused the rise in squatter settlements population. In 1980's the government provided the certificates of title allocations to the squatter settlers in Başibüyük consequently the formation of dwellings changed into multi-story apartment blocks instead of one or two-story houses. Therefore, the informal housing market emerged as an affordable housing solution for the workers of the nearby industries. In 1992, Maltepe Municipality was founded and the development plans for neighborhoods of Başibüyük was controlled under this local authority [30]. The municipality created lawsuit in order to develop the change the status of title allocations certificates into title deeds. The process took five years and the municipality took control of the ownership of the area for conducting the developments about title deeds. In 2004, the regulation was established for the urban transformation process, which includes the Başibüyük neighborhoods. However, the settlers were unaware of urban transformation regulations due to lack of announcements. In 2005, another development plan for the area was created and approved under the name of Maltepe Urban Transformation [31]. Despite the resistance of locals against the transformation, the constructions started in 2007 for TOKI blocks in the green areas of Başibüyük. The constructions of the first blocks completed in 2011 and the apartments distributed to the new inhabitants of Başibüyük [32]. The urban transformation regulations include the development of Başibüyük neighborhoods and in March 2017, the local municipality approved the master plans for the area [33].

Results: Everyday Life and Urban Informalities

The squatter movement of the Netherlands created new ways of living by occupying the vacant industrial building in the city center for dwelling purposes of the students and the low-income groups. The squatters

communicated through the newspapers and communal gatherings in order to continue their dwelling act together with the community. Even though they had the individual living unit, they shared the buildings and developed a communal life in the common spaces via dinner plans, parties, and social activities. The citizens who migrated from rural areas to the city center, where they cannot find the dwelling units at reasonable prices, developed the squatter settlements of Turkey. As a result, they constructed their own buildings into the vacant lands. They build their own houses with the help of their community; therefore, they had the communal act. Additionally, according to everyday life requirements, the neighbors develop a communal life to take care of the children, maintenance issues of the houses and the solidarity against the eviction risks of their dwellings.

Spatial configuration of dwelling unit in squatter movement and squatter settlements changes according to the different types of occupying existing urban structure. The squatter movement occupy the vacant building and provide the dwelling unit in the building with common indoor spaces. The squatter settlers occupy the empty plots and provide separate units for families but with common outdoor spaces. Property modalities of squatter movement and squatter settlements differ according to the change in the dwelling units. Squatter movements was identified through the possession rights after domestic use. Squatter settlements was justified via the title deeds which determine the legal status of houses. The social structure of squatter movement and squatter settlements had different demographic groups. The students started the squatter movements and mostly the artists, journalists and students preferred squats as dwellings. Squatter settlements were founded by the people who migrated from rural areas to city centers. Mostly the relatives from the same town would live together in the same neighborhood.

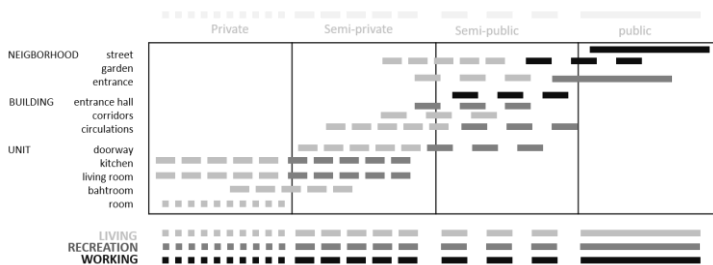


Figure 2. Spatial Configuration of Squatter Movement – Urban Use.

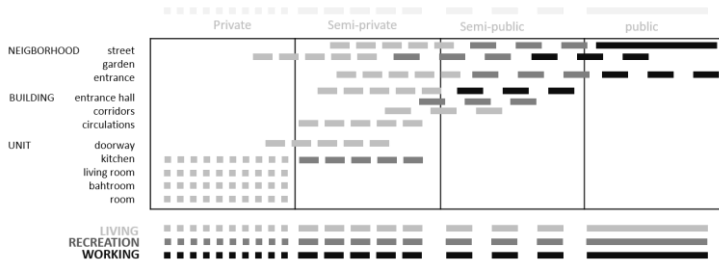


Figure 3. Spatial Configuration of Squatter Settlement – Urban Use.

DISCUSSION: The Transformation of Urban Informalities

Informal solutions are shown to discuss the need for affordable housing, the lack of response for the demand and the possibilities of emergent solutions of the citizens for their own problems. These emergent informal solutions have an impact on the formations of cities. On the policy levels, the authorities control the transformation of the urban tissue. Additionally, migration from rural areas to city centers have impacts on urban structure. The squatter housing units appeared outside the cities for industry workers. Consequently, there are informal interventions in the cities, which cannot be defined in the policy levels to create affordable alternatives such as squatter movement and squatter settlement. On the other hand, there is a relationship between housing decisions and the urban expansion, especially providing affordable housing alternatives is a problematic issue as the main goal for urban expansion is determined usually according to the economic profit rather than social improvements. However, as the urban informalities demonstrate that the cities also change by the interventions of the citizens.

The squatter settlements were on the target for determining the urban transformation policies throughout history. In fact, the first transformation attempts are developed for Paris Hausmann plans defined as urban clearance that is mainly used after the 1850s in Europe. Urban clearance means demolishing the existing urban structure and creating completely new urban characteristics. Nowadays, in global south urban clearance decisions still made by the dictatorship regimes with military force [34]. There is a major conflict in the relation between urban transformation and affordable housing. Because when the transformation process starts the development in the neighborhoods causes the increase in land values, as a result, the existing inhabitants face the danger to leave their neighborhood because they cannot afford to pay the rent, or they sell their property for more profit. As a result, the inhabitants start to search for their own solutions for the affordable housing need resulting in more focus on urban informalities. There are reciprocal relations among the housing regulations and built environment, society and daily life in terms of urban transformation and affordable housing. The

decisions against informal settlements have an impact on urban structure. The examples show that the governments determine the regulations for preventing the emergence of new informal settlements and demolishing the existed ones. However, the informal settlements were developed by the urge to find a shelter and to contribute the urban life. Focusing on the policy level interventions in order to find the solutions for informal settlements would not work properly in favor of low-income groups. Because the urban development regulations are determined for creating more benefit from the area. The interventions would create the increase in land value and the existed inhabitant- the urban poor would not afford to live in their settlements.

CONCLUSION

Affordable housing became one of the main concerns of citizens all over the world due to increasing number of populations in the city centers and insufficient dwelling options. In the Netherlands, finding dwellings at reasonable prices became a problematic issue among students and low-income groups; even though there were affordable housing regulations. On the other hand, in Turkey, there is not a focus on solving the accommodation need of low-income and middle-income groups. As a result, the urban poor had to find their own way for dwelling and the squatter settlements appear outskirts of the cities. Therefore, informal solutions emerged in both countries according to affordable dwelling requirements.

A clear definition of affordable housing is essential in order to determine concrete solutions because the wide meaning of affordability as the status for being able to buy something creates vague understanding. The general assumption for affordable housing is that the housing type that costs less than thirty percent of the total income of the households. In fact, this concept applies to all segment of society however; the problem mostly occurs in terms of low-income housing due to insufficient income levels, increasing land values, and property costs. The affordable housing regulations differ depends on the ownership types: owner-occupied houses or rental housing. In the Netherlands, the rental housing system is preferred on the other hand in Turkey there is a tendency on providing owner-occupied typology. However, the ownership status of affordable housing creates another discussion about the property regulations in housing systems. The informal solutions occur as rearranging the understanding of property. There is a need to define the in-between situation of formal and informal housing typologies in order to define the property regulations in favor to provide more affordable housing for low-income groups. In this report, the informal solution for affordable housing and the consequences in terms of the urban transformation process is examined in order to discuss the need for affordable housing and the lack of response for the demand, also the possibilities of the emergent solutions of the citizens for their own problems.

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DARAĞAÇ AS A HETEROTOPIA IN THE POST-INDUSTRIAL AREA OF İZMİR

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ABSTRACT

The effects of the global crisis in 1970 and the deindustrialisation process in urban economies affected the economy in İzmir, which consequently led to spatial changes in the Back Port Area (Liman Arkası) that is an important industrial settlement. By the nature of its identity, the Back Port Area attracts different segments with its socioeconomic and physical facilities and continues to possess diversity, differences and otherness [1]. Hence, the Back Port Area gains a meaning again and again with different readings on places and identities in every period.

Darağaç stands out with its scale, texture and daily life among large-scale structures in the Back Port Area. It was a Greek neighbourhood at the end of the 19th century, hosted worker housing during the industrial period in the second half of the 20th century and car repair workshops in the second half of the 20th century when the industry quit the area, and now, it is the place of those who engage in modern art. Each layer in Darağaç has overlapped to make it what it is today. It not only has adapted to several changes in the Back Port Area but also has continued to bear the marks of this process. By this means, it differs from its region with its physical, social and economic structure. At the same time he is gaining his identity with its surrounding region.

According to Foucault [2], heterotopia has the power of putting together many spaces, many places. Heterotopia is another place that produces another place, another time perception. Located in İzmir Back Port Area, Darağaç is a heterotopia that developed as an industrial zone but has transformed into a post-industrial urban area through neoliberal urbanisation policies and deindustrialisation processes.

Consequently, this study will explore how Darağaç has gained meaning as another space (heterotopia) amid global forces from the land, the surrounding large-scale projects, overseas forces from the port and cross-border population movements.

Key Words: Heterotopia; Neoliberal Urbanization; Darağaç; Post-Industrialization; Port of İzmir.

INTRODUCTION

Cities and places undergo radical changes in their development periods, define their identities again or continue to exist with small changes. Every period of development that emerges with the influence of economic structure manifests its social and spatial structure. The functions previously assumed by the city; its spatial, geographical structuring and socio-cultural relations have a significant impact on the next structuring [3]. Therefore, cities' economic, social and spatial structure is transformed in layers in the process.

İzmir has been an industrial and commercial city owing to its port. Political, economic and spatial structure of İzmir has changed under the influence of commercial capitalism in the 17th century, of industrial capitalism in the 19th century, of the statist policy in 1930s, of the liberal policy in 1950s, of the import-substitution industrialisation in 1960s, of the monopoly capitalism after 1980, and of neoliberal policies as of 2000s.

With the Industrial Revolution, the city of İzmir had spatial developments based on industrial production and capital accumulation until the 1970s. The effects of the global crisis in 1970 and the deindustrialisation process in urban economies affected the economy in İzmir back then, which consequently led to spatial changes in the Back Port Area (Liman Arkası Bölgesi) that is an important industrial settlement. By the nature of its identity, the Back Port Area attracts different segments with its socioeconomic and physical facilities and continues to possess diversity, differences and otherness [1]. Hence, the Back Port Area gains a meaning again and again with different readings on places and identities in every period.

According to Foucault [2], heterotopia has the power of putting together many spaces, many places. Heterotopia is another place that produces another place, another time perception. It is the body of isolated spaces that are closed to the outside, but have created their own opening and closing mechanism. This structure both isolates it and makes it penetrable. Heterotopia is where a number of incompatible settlements, of which times and functions are mixed together, reflects the difference and abnormality.

Because of its very meaningful structure, the concept of heterotopia will not be discussed as Foucault first described it in his study. In this study, the conceptual framework for heterotopia put forward as a result of the studies interpreted in the context of urban theories will be taken as a basis. In the light of these principles, which are reinterpreted in different ways, a reading will be made on the current situation of Darağaç. This evaluation is based on oral interviews with the residents of the region, observations in the field and a two-day workshop with a group of second year students at DEU Architecture Department.

Industrialization Process

In order to understand the changes and transformations experienced by Darağaç, it is necessary to look at the economic, social and spatial changes of the region called the İzmir Back Port Area. İzmir Back Port Area is defined as the area between Liman Street and Şehitler Street. The region includes both the highways connecting Karsiyaka and Bornova to the city centre and the railways that provide connection with the surrounding districts and provinces. As a part of the New City Center plan, the Back Port Area connects the old (Konak) and new (Bayraklı) city centres. With Port of İzmir, the region is an important transit centre providing connections at different scales nationally and internationally. In the region, there is a very sparse housing texture and some of the warehouse and factory buildings, some of which are used and some of which are idle. The region is rich in historical industrial buildings such as Gas Factory, Electricity Factory, Şark Industry and Sumerbank Factory.

Before the 19th century, the area where the gardens and fields were located was called Darağaç. At the end of the 19th century, the sports field called the Panionic stadium and the Jewish cemetery were located in the area [4]. Before Darağaç became an industrial area in the early 20th century, there was no significant construction in the region. Around the Alsancak station, there were gas factories, warehouses and olive oil mills, and there were few residential buildings on Şehitler Street [5].

The most important breaking point for Darağaç was the construction of the Alsancak Railway Station in 1856. The construction of İzmir Pasaport Port, which is another factor in the development of the region, began in 1867. Darağaç had undergone spatial changes and developed as a storage area and then as an industrial zone with the construction of Alsancak Railway Station and Pasaport Port. While hotels, inns, public and customs structures were built in the vicinity of the harbor, residential areas developed in the form of rings centering the harbor.

In 1925, a city plan was prepared by Danger Prost. According to this plan, the part of Darağaç extending from Alsancak Station to Mersinli was designated as an industrial zone and this area was started to be prepared for a new port construction called İzmir Port. It was also proposed to establish a new station in Halkapınar and connect this station directly to the new port [6]. In addition, it is planned to establish workers' quarters which were planned radially in the southern part of Darağaç. This plan could be implemented in 1935 due to financial problems.

Firstly, the swamp area between Alsancak and Halkapınar was prepared for the new port. In the same years (1924-1940) the housing texture in Alsancak began to take shape. Darağaç developed as an industrial zone, Tuzakoğlu Factory was purchased by the municipality and Alsancak Stadium was built. Şark Industry Factory was established in 1924 and an electric factory was established in 1928. It is known that three weaving factories, two flour

factories, a pasta factory and an oil factory were established in the region since the 1930s [7].

As a result of the plan studies carried out by the mayor Behçet Uz between 1931 and 1941, drying of the marshes around Alsancak Harbor and providing transportation connections to Bornova and Karşıyaka are among the important factors in the development of Darağaç. In 1939, except for Şehitler Street, Darağacı did not develop, but in the southern part of the region, in connection with the Kahramanlar district, the residential settlements, which were seen as the first structures of today's Ege Mahallesi, started to develop [8]. The construction of İzmir Port was completed in 1954, and was commissioned in 1959. With the new port, Darağaç region became a storage area for agricultural products such as tobacco, cotton, figs and grapes [9]. Tariş and Sümerbank Factory are among the important facilities established during this period.

Deindustrialization Process

As a result of the economic and political structure before 1980, the deindustrialization process started in the back parts of İzmir Port. The large-scale production concept of Fordist production was abandoned and the small-scale production concept of post-fordist production was adopted. With the emergence of flexible production, geographical imbalances have accelerated, which has led some services and industries to shift to different locations.

In the deindustrialized cities, the economy is transformed into a service-oriented structure such as information technologies, research and development activities, education, congresses, tourism, media, health, planning, arts and transportation. In the traditional industrial cities such as Chicago, New York, London, Manchester and Los Angeles, it has been observed that the share of industry in employment has decreased since the 1980s, but the share of these new sectors in employment has continuously increased and new sectors have been created [10]. With the deindustrialization, the economies in the city centres evolve into a structure that can be expressed as cultural industries.

The effects of the crisis that began in 1970 and the deindustrialization process in urban economies affected İzmir's economy in similar periods and consequently led to the monitoring of spatial changes in the back of the harbor, which was an important industrial area. In 1968, the Metropolitan Master Plan Bureau was established by the municipality under the supervision of foreign experts. According to the plan prepared by the institution in 1973, the port was proposed to be moved, the industrial area to be established outside the city [11]. As a result, educational and sports complexes were built in the region.

Renovation decisions were taken for the region in 1989 behind the port. As a continuation of the process of decontamination of the region from the industrial and coastal activities, which started in the early 1970s, the area was proposed as central business area. In 1990, administrative building of Hürriyet

and in the 2000s administrative building of Arkas was built. It has been suggested that industrial structures such as Sümerbank and Tariş will continue to function until their economic life is ended, and after their life, they should be re-functionalized as other existing factory buildings [11]. In addition to DEU Faculty of Architecture and Fine Arts, where education continued between 1972 and 2004, Yaşar University, which was opened in 2001, is one of the important educational structures in the region.

With these changes, rent value increased in the region since 1990 and became the investment focus of local governments and private sector. In 1998, 53 buildings consisting of factories, warehouses and residences were taken under protection in the region. Thus, the demolition of industrial heritage of İzmir was prevented. However, not all studies have been sufficient for the development of the region. For this reason, in 2001, an international idea and design competition was held for the area.

With the New City Center Plan, the rent pressure on the historical city center will be reduced and the industrial heritage will be protected and preserved. The opening of historical buildings to public uses such as the cultural center (Historical Gas Factory) and educational functions (Sümerbank Factory, Old Flour Factory) are positive examples of the transformation of the region. However, demolition of the Dokuz Eylül University Faculty Building and Alsancak Stadium attracted reaction.

Concerns about the construction of buildings such as shopping malls and residences that will provide rent are still continuing. Laws are used as instruments for the distribution of urban land over the rent value. The “public interest” discourse is abandoned and “rent-oriented” practices are paved on the urban land which is the object of neoliberal policies.

Darağaç Collective

All these developments and the uncertainties about how the region will transform have caused the buildings in Darağaç to be rented at more affordable prices than the city center. A group of artists who realized this situation started to open workshops in this field since 2013. The group, which gets crowded with the increasing number of workshops, has established an initiative called Darağaç Collective.

Darağaç is a non-profit art collective in İzmir's Umurbey region and an open space where new communication strategies are experienced. Darağaç is organized by Ali Kanal, Ayşegül Doğan, Cem Sonel, Cenkhan Aksoy, Fatih Altan, and Tuğçe Akay. The aim of the collective is to produce long-term or temporary projects and to prepare the ground for innovative art collaborations and partnerships. They are open to the works that try and direct new methods in the public sphere. Generally interdisciplinary works such as painting, photography, sculpture, installation, video, and performance are produced in Darağaç. At the same time, there is an effort to turn Darağaç into a formation like a kind of experimental city institute. Darağaç Collective defines itself as:

“Darağaç is the name of a group of exhibitions that have evolved and developed through an intensive dialogue and discussion environment between the artists who live and produce there. The main aim of Darağaç is to turn into an area or a common discourse where young artists can show their works due to the shortcomings of the galleries that have not yet matured in İzmir, the newly opened artist workshops and the shortcomings of the exhibits.” [12].

Darağaç Collective has organized three exhibitions since 2016. Along with the artists, the residents participated in the exhibitions as well. Exhibition spreading throughout the district both indoors and outdoors promises new rhetorics about arts, neighborhood, and dynamics of urban life [13]. Darağaç within the possibilities of the neighborhood, offers an experience that combines collective and individual art with production in public and private spaces. In addition to these, collective continues to question different perspectives under many headings and propose new forms with the dynamics of neighborhood life that it also tries to maintain. Collective is in direct contact with the community in Darağaç. Darağaç Collective was born out of their dialogue with the neighborhood. The basis of this dialogue is the idea to express Darağaç's story with the new forms of communication and transforming the entire neighborhood into a field of expression [14].

People living in the region wanted to see the works of the artists. In February-March 2015, the first step of the exhibition was taken with the question of ‘why don't we do something together’ from the craftsmen working there. Thereupon, the first exhibition was held in June 2015. In this exhibition, together with the group of 10-12 artists living in İzmir and craftsmen, it was thought about what can be done in the public sphere as site-specific in one-day period. This is the process of the first exhibition [15]. The artists and the neighborhood discuss how they can exhibit their works on the surface of a derelict building. In addition to artist's workshops, the repair shops, facades of buildings and streets are sometimes used as exhibition spaces. Thus, there is a chance to establish more dialogue. Sometimes, artists make suggestions to local people about the places they can turn into. The craftsmen share their production and material knowledge with the artists. There is a mutual relationship between the artists and the neighbourhood.

The exhibitions do not have a specific theme, concept or text. It has the potential as a public space for artists to be discussed more about the neighborhood. The most important factor in starting the project was to adapt the individual projects of the artists to the neighborhood, to show them to the people in the neighborhood, to share and to experience them. Artists wanted to experience their practices in the public sphere of a region they knew little. The whole process is shaped within the possibilities of the neighborhood [15].

Darağaç as a Heterotopia

Foucault describes the term heterotopia first in 1967 at a conference as follows:

“There are also, probably in every culture, in every civilization, real places—places that do exist and that are formed in the very founding of society—which are something like counter-sites, a kind of effectively enacted utopia in which the real sites, all the other real sites that can be found within the culture, are simultaneously represented, contested, and inverted. Places of this kind are outside of all places, even though it may be possible to indicate their location in reality. Because these places are absolutely different from all the sites that they reflect and speak about, I shall call them, by way of contrast to utopias, heterotopias.” [2]

Foucault [2] defines heterotopia with six principles:

1. Heterotopias are established in all cultures but in diverse forms fall into one of two main categories: heterotopias of crisis and heterotopias of deviation such as prisons, care homes and hospitals.
2. Heterotopias mutate and have specific operations at different points in history such as cemeteries.
3. Heterotopias can juxtapose in a single space several incompatible spatial elements such as theatres and cinemas.
4. Heterotopias encapsulate spatio-temporal discontinuities, related to a period of time, such as libraries and museums.
5. Heterotopias presuppose an ambivalent system of opening/closing, entry/exit, distance/penetration that both isolates them and make them accessible such as entering a barracks or a prison.
6. Heterotopias serve the illusion of a real space or create a space other than real space such as colonies.

Many professionals from different disciplines worked on heterotopias to find an accurate and appropriate definition for this open-ended term [16]. The concept of heterotopia produced by Foucault has been reinterpreted in many philosophical, sociological and geographical studies. All these studies have revealed new meanings and insights for the concept. Heterotopia is described in many interpretations as disruption of order.

Heterotopia has both interconnected but also independent meanings and sub-meanings. It can be referred with such concepts as being opposed, being different, being in crisis, liminality, being together, being temporary, being in the system of closing and opening, representing the illusion. Because of its very meaningful structure, the concept of heterotopia will not be discussed as Foucault first described it in his study. In this study, the conceptual framework for heterotopia put forward as a result of the studies interpreted in the context of urban theories will be taken as a basis. In the light of these principles, which are reinterpreted in different ways, a reading will be made on the current situation of Darağaç. This evaluation is based on oral interviews with the residents of the region, observations in the field and a two-day workshop with a group of second year students at DEU Architecture Department.

1. Heterotopias of crisis and heterotopias of deviation: Various thinkers and theorists have evaluated heterotopias of deviation under topics such as socio-spatial separation in urban space and gated communities, slum areas, urban crime and gentrification [17]. In the post-industrial period, the lack of resident population, abandoned large-scale industrial structures, and the presence of a large number of dogs on the streets have caused the region to become an uncanny place. In addition, it is stated by the local people that there was an increase in the crime rates in the region when Darağaç hosted night clubs. Students who visited the area also expressed their distrust. Darağaç is located in Alsancak, the most central area of İzmir. However, due to socio-spatial and economic reasons, it cannot relate to its environment. It is noteworthy that Darağaç is both so close and far away from the centre of İzmir.

2. Mutation of heterotopias: Over time, heterotopic spaces have been transformed into various functions in different sociological and social contexts. In Toprak's [17] PhD thesis on heterotopia, she interprets this situation as urban transformation and urban void. In the contemporary interpretations of heterotopia, the concept of urban void has found its place in urban theories, especially considering the change of the city in the post-industrial period. As an old industrial zone, Darağaç has become an urban void today and, this void is in danger of urban transformation. Due to the strategic importance of the area, many projects are being produced for this region. But the future of the region has not yet been clarified.

3. Juxtaposition of differences: A combination of different functions evokes mixed use when interpreted at the urban scale [17]. The existing structures in Darağaç are diversified into schools, dormitories, automobile workshops, art workshops, cultural centers, residences, sports fields, government institutions and old industrial buildings. It is observed that the region has mixed functions together in the same place. A combination of differences leads to potential consequences. The immigrant registration update center opened by the Governorship of İzmir in Darağaç brought a new dynamic to the neighborhood. Changing numbers of immigrants are waiting in the neighborhood to get an ID. This leads to a heterotopic space in the region.

4. Spatio-temporal discontinuities of Darağaç: This principle can be interpreted as urban spaces where many time zones can live together. The combination of different experiences and different places in different times creates a dynamic texture [17]. Darağaç was a Greek neighbourhood at the end of the 19th century, hosted worker housing during the industrial period in the second half of the 20th century and car repair workshops in the second half of the 20th century when the industry quit the area, and now, it is the place of those who engage in modern art. Darağaç has had different identities that have changed constantly over the years. Darağaç continues to keep all these changes in its urban memory. In addition to the traces in memory, physical traces from different time periods such as old industrial buildings are still observed.

5. Opening/closing system of heterotopia: Foucault [2] defines the first type of these heterotopia as heterotopia, where entry-exit is possible with limited or certain rituals. The second is a heterotopia where the input is only an illusion. In this type of heterotopia, even though the person enters, he does not feel belonging. In such cases, it may be included in a heterotopic space but may be excluded after some time. These spaces are a kind of interstitial and transition spaces. Darağaç does not have exact rituals for entry-exit. But it creates an input illusion. It tries to protect its neighborhood structure even though it loses its established population. Although it is owned by automobile workshops and immigrants, Darağaç tries to maintain its attitude as a neighborhood. The artists settling in the field also hold onto this concept and realize their production.

6. Heterotopias of illusion: Beyond elements such as detachment from reality and distancing from history, illusion heterotopia imposes different lifestyles and habits on space [17]. Illusion heterotopia is a kind of simulation. Sometimes, with the influence of media and popular culture, spaces are detached from their realities. With the establishment of art workshops, Darağaç faced such a situation.

CONCLUSION

In this study, firstly the transformations in Darağaç were examined. Then Foucault's concept of heterotopia and its different interpretations are used for a reading on Darağaç. Heterotopic spaces become meaningful when they are together with another space. While heterotopic space is shaped by the presence of the space it is in relation to, it also shapes the existing with its own existence. Darağaç stands out with its scale, texture and daily life among large-scale structures in the Back Port Area. Each layer in Darağaç has overlapped to make it what it is today. It not only has adapted to several changes in the Back Port Area but also has continued to bear the marks of this process. By this means, it differs from its region with its physical, social and economic structure. At the same time it is gaining his identity with its surrounding region.

Darağaç is a heterotopia that developed as an industrial zone but has transformed into a post-industrial urban area through neoliberal urbanisation policies and deindustrialisation processes. In an area of constant transformation, Darağaç with its own dynamics is looking for ways to be both together and separate from it. Indeed, such heterotopic spaces are meaningful when together with spaces outside their own. Consequently, this study explored how Darağaç has gained meaning as another space (heterotopia) amid global forces from the land, the surrounding large-scale projects, overseas forces from the port and cross-border population movements.

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A GENERATIVE METHOD FOR NEW DESIGN PROPOSALS IN TRADITIONAL CITIES

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ABSTRACT

Traditional cities are complex systems which have many forms and structures affecting each other spontaneously through time. Today, uncontrolled urbanization activities destroy the wholeness of these organic patterned structures. Their local characteristics are corrupted by rapid urbanization and designers' personal motives. In this context, this study aims to describe a generative method which can be one of the possible answers to the problem of new designs in the traditional cities. The proposed method consists of three consecutive phases. The first phase includes gathering information from the city and preparing the urban attribute table which is an urban database. In the second phase, one of the Data Mining techniques, which is DBSCAN Clustering, will be used to investigate patterns of spatial configurations in the cities. By application of Data Mining, we can understand the inner nature of traditional patterns and describe design rules for new buildings to prevent discontinuities in traditional urban patterns. In the last phase, we will apply Cellular Automata (CA) method as a generative design tool that parameterizes formation rules of spatial layouts for new building proposals. These basic rules can give clues about the essence of the spatial configurations of old buildings and guide designers and authorities for better integrated designs with the traditional patterns. Hence, the proposed method can contribute to protect identity of the traditional cities, carried by physical environment. As a traditional city, Amasya-Turkey has chosen for the application of the method. Ultimately, this study aims to extend the rules of the CA algorithm with real architectural data to embrace locality and interpret the formation of a traditional space through a generative design process.

Key Words: Traditional City; Locality; Identity; Data Mining; Generative Design.

INTRODUCTION

Cities, as conveyors of urban identity, are tools for transferring complex urban culture from one generation to the other with people and physical environments [15]. Climate, topography, geography, traditions and customs, daily routines of people, production and consumption habits and the physical environment which is the reflection of social and natural structure of the city are factors that form the identity of cities. As we witnessed in the traditional cities, construction, culture and history have been dependent with each other and the urban texture has enlarged coherently with existing social, economic and physical structures [16]. Nowadays, cities are rapidly changing based on cultural, social, economic and technological enhancements and transformations. While these transformations effect tangible and intangible parts of the city; the notion of the identity, which exhibits the distinctive character of the city, and locality become more and more important in the era of globalization. Especially the traditional cities are under the pressure of new constructions designed by subjective interpretations of designers without understanding the complex structure of traditional cities. Similarly, wars, migration, necessities for modern infrastructures, high demand for tourism can cause urban development with monotonous urban structures which are not harmonious with the existing environment and have no relationships with the context [19]. Hence, we need to find a balance between new and old in the design process to protect identity of cities while meeting modern demands of the city life [7]. According to Tanaç Zeren [20], identity of cities comes into being with buildings. The concept of style and proportion are basic design measures for new structures in the traditional environments. Thus, the expectation from designers is to provide connection with the surrounding environment when they design a new building [20] in the traditional cities. Likewise, analysis of physical environments and understanding its formation rules are very important steps to design coherently with existing structures. In this context, this paper explains a method to be used in new design proposals in the traditional cities. The ultimate aim of this study is to propose a generative design method which is nourished by real urban data and analysis of the surrounding environment. Hence, the proposed method comprises three consecutive phases. The first phase includes a collection of urban data from the traditional city. The second phase introduces the analysis and interpretation of urban data through Data Mining techniques in order to discover repetitive patterns in the traditional city structure. The last step comprises Cellular Automata (CA) technique as a generative design tool in order to create conceptual plan layouts of new buildings. In the end, this study offers a technique to analyze a vast amount of data with computational tools and a way to interpret analysis results as formation rules for new buildings' plan layouts. Hence, design proposals created at the end of this generative method are harmonious with their surrounding structures in terms of proportion and plan type and the proposed method can be offered as a computational tool for new design proposals in traditional environments.

Generative Design Approaches in Traditional Settlements

Traditional cities are shaped gradually through centuries. Without benefit of designers, local actions and intricate relationships of urban attributes create unique and context-based forms of these cities, which are compatible with topography, climate and geography. Self-organized behaviors and self-similarity can be seen in the multi-layered structure of traditional cities as a result of a long and complex evolution process. Therefore, traditional cities can be seen as complex systems which have many forms and structures affecting each other spontaneously through time with various forces. According to Kostof [13], traditional cities with organic patterns can be described as “unplanned, change-grown, generated against imposed or geomorphic”.

Understanding cities as complex entities ([12]; [17]; [2]) directs designers to search for appropriate tools in order to analyze urban data and evaluate the results for using this knowledge as a part of the design process. Fractal dimensions [3] can be used for analyzing geometrical and morphological features of complex urban forms. Shape grammars can be helped to understand formation rules of cities and constitute a design approach based on shape rules [6]. Coates [5], describes traditional settlements as a set of structures formed by a result of complex relations of urban elements. Coates [5], proposed various algorithms to reproduce patterns similar with traditional settlements by analysis of the urban formation rules. Wang et al. [23], produce an algorithmic process to create anonymous designs in rural settings. In this study, we are utilizing Data Mining techniques as a computational tool for exploring raw urban data and Cellular Automata to produce a context-based generative design method in the traditional cities.

Generative Design Method Based On Cellular Automata

The proposed method has three consecutive phases. The first phase consists of “the formation of urban data”. The second phase, called “the analysis of urban data”, which utilizes Data Mining techniques to evaluate raw urban data and constructs meaningful hypotheses according to designer’s interest. The third phase includes a generative design method which aims to use Cellular Automata technique to produce plan layouts for new building designs in the traditional city (Figure 1).

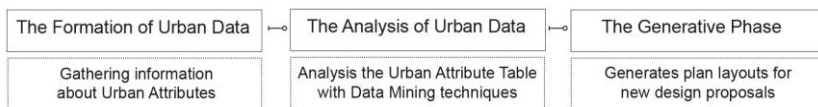


Figure 1. Consecutive Phases of the Proposed Generative Design Method.

The Formation of Urban Data

For harmonious designs in a complex traditional urban environment, designers must have strong ideas about architectural, social and economic dynamics of the city, in addition to history and local values. Therefore, the design area and its surroundings need to be deeply analyzed. In order to do this, first, we have to collect as much as information from cities. As such, “the data formation phase” aims to collect information about urban attributes from the area to constitute an Urban Attribute Table to be used as an urban database and create thematic maps to represent different urban components in the two-dimensional plane. Urban attributes hold data about quantitative and qualitative characteristics of urban elements, based on their architectural, topological, dimensional and land use features. Table 1 illustrates some of the example of urban attributes, their types and values. As shown in Table 1, attributes can be increased according to design requirements. The sources of information include official vectoral maps, drawings of existing buildings and spatial analysis results performed by using GIS software-ArcGIS/ESRI. If designers need more data about the area, other spatial analysis tools and information sources can be used or field trips can be organized to complete missing information. As a consequence, the main goal of this process is to build the Urban Attribute Table containing raw data about an urban area to be applied to Data Mining techniques.

	Attribute Type	Attribute Name	Attribute Values
Architectural Attributes	Nominal	Materials	Wooden, Stone...
	Nominal	Courtyard	Front, Back, Inner...
	Nominal	Hall (Sofa)	Corner, Inner, Middle, Outer, ...
	Nominal	Building Type	Single House/Double House (Selamlıklı/Selamlıksız)
Dimensional Attributes	Numeric	Parcel Area	100 m ² , ...
	Numeric	Courtyard Area	100 m ² , ...
	Numeric	Number of Floors	1,2,3, ...
	Numeric	Courtyard/ Parcel Ratio	0.5, 1.25, ...
Topographical Attributes	Nominal	Aspect	South, North-East, ...
	Nominal	Slope	%3, %20, ...
	Numeric	Distance to Square	100 m., ...
	Nominal	Position on the city lot	Corner, Middle, ...
Floor Use	Nominal	Ground Floor Use	Dwelling, religious, ...

Table 1. The Urban Attribute Table.

For the application of the Cellular Automata to the generative production on new building layouts, designers need to reduce different functional allocations in vectoral plan drawings and redefined them as binary values such as “room”

and “hall”. An example of this process can be seen in Figure 2. In the scope of this study, “WC” and “kitchen” functions are ignored.

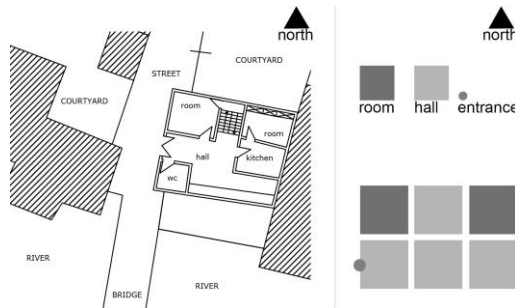


Figure 2. Abstraction of a Plan Layout for the Generative Phase.

The Analysis of Urban Data: Data Mining

The goal of the analysis phase is to perform Data Mining techniques on raw data hold in the urban attribute table and produce an urban knowledge about the formation of the traditional city from various aspects. Data Mining can detect subsets of buildings sharing similar spatial characteristics; anomalies in the urban form; recurring urban features and basic statistical data about ratios and proportions. Finally, the interpretation of urban data produces useful urban knowledge. Interpretation of Data Mining results can reveal formation rules or hidden relationships hidden under the traditional complex urban patterns.

Data Mining is an important part of the process called Knowledge Discovery in Databases (KDD). KDD process "makes sense of the data [8]" stored in digital Databases. Every day, heavy load of information is uploaded into Databases and this raw data cannot be analyzed with manual methods. KDD gives us computational techniques and tools to evaluate, interpret this data and construct meaningful hypotheses according to our interest. Data Mining is the main part of this process which used for extraction of patterns from data by using specific algorithms. Recent studies have applied Data Mining techniques in the context of architectural and urban design to analyze architectural or urban data. For instance, Gil et al. [10] applied Data Mining techniques to define urban morphologies (streets, blocks) and create rules for constituting a parametric urban design process. Reffat [18], proposed a method for classification typologies from Saudi Arabian contemporary architecture according to their architectural features with Data Mining techniques. These studies show that it is very important to choose appropriate algorithms for data type and data scale in order to gain meaningful and

reliable results which can help designers to build a rationale about their design problem and create an algorithmic process for the appropriate solution.

The ultimate aim of this study is to generate plan layouts for new design proposals in the traditional city. Hence, we need to cluster existing building layouts in order to find the class which every building belongs to. Clustering technique is one of the descriptive methods in Data Mining which analyzes data objects without consulting class labels. In other words, clustering is a process of grouping a set of data objects into multiple groups or clusters so that objects within a cluster have high similarity, but are very dissimilar to objects in other clusters. Different clustering algorithms can be applied numeric and nominal attributes and involve distance measures according to different attribute types. Based on the attribute type, database size and the measurement method, designers can choose different algorithms for clustering, such as, k-means, k-medoids, DBSCAN, Chameleon and so on. In this study, the urban attribute table which is our database, is relatively small and contains both numeric and nominal attributes. Therefore, DBSCAN clustering algorithm, which is a density-based spatial clustering algorithm, will be used in order to group attributes of existing buildings in the traditional setting. For better targeted clustering, various urban attributes are selected, which are related to the formation of plan layouts. For the Data Mining phase, RapidMiner software will be used on the ground that it is an open-source software and has an easy to use interface. DBSCAN algorithm in RapidMiner, have a mixed distance measurement tool for numeric and nominal attributes which can easily be applied to the urban attribute table. Epsilon and Minimum Points are two major parameters for DBSCAN clustering in RapidMiner. Epsilon is a value determining the size of the cluster neighborhood and the min-points parameter specifies the minimal number of data points forming the cluster. Designers can play with these parameters to refine resultant clusters. Figure 3 illustrates stages applied in the analysis of urban data phase of the proposed method.

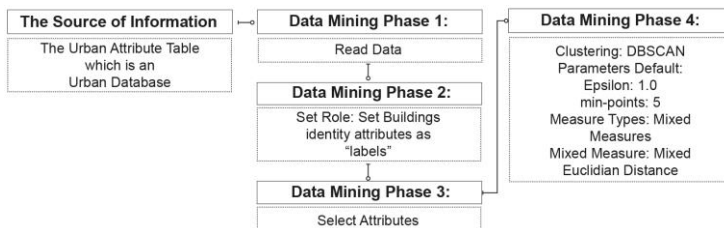


Figure 3. The Analysis of Urban Data.

The Generative Phase: Cellular Automata

The generative phase of the proposed method contains Cellular Automata (CA) technique to constitute a generative method with clustering results. CA is a mathematical method which produces self-similar and self-organized

patterns based on local rules relating to local neighborhood formation rules. CA theory was introduced by John von Neumann and Stanislaw Ulam in the 1940s [22]. Later, the theory has been worked by many others, such as John Conway [9] and Stephen Wolfram [24]. There are various examples of CA used by designers to produce architectural forms which have self-similar characteristics ([4]; [14]; [1]). In addition to form generator capabilities of CA, it can also be used as a tool for supporting the conceptual design process [11]. In urban studies, researchers utilize from CA to predict and simulate growth in urban areas [2]. In this study, CA may provide a simple rule system that helps us to understand the formation of the traditional city and produce new design proposals with local rules. Despite its simplicity, CA rules can produce highly complex urban patterns and structures coherent with the traditional city patterns.

For constituting the CA system, we need 5 components: a grid of cells, a neighborhood, cell states, discrete time and transition rules between time steps. The purpose of this study is to generate plan layouts with CA, hence, the footprint of the new building is determined as an area for the grid of cells which is divided through x and y directions. The time step is considered as a generation. Cell states contain binary values which are {1,0}. In this case, {1} can be counted as “room” and {0} can be counted as “hall” (illustrated before in Figure 2). Following the technique used by Araghi and Stouffs [1], two different neighborhood patterns are determined. The first one is the Moore neighborhood with the closest 8 neighbors, and the second one is 16 cells adjacent to the first-row neighbors (Figure 4). Two different neighborhood patterns help us to determine more detailed transition rules for boundary cells and decrease boundary cells’ effect to inside cells which are fully surrounded by first and second row neighbors. The first and the second row neighbors and the target cell will be indexed and put on a list for the application of transition rules to the cells. While the index $\{i=0\}$ represents the target cell, the index $\{i=1,2,3,4,5,6,7,8\}$ defines the first row and the index $\{i=9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24\}$ represents the second row neighbors. According to index numbers, we can find each cell’s position, state and its surrounding neighbors and detect their boundary conditions for transition rules.

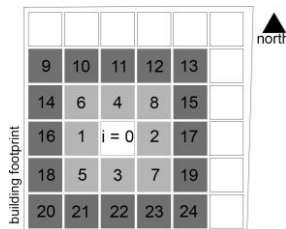


Figure 4. Illustration of the Grid of Cells (The Grid Includes All Cells Inside the Building Footprint), Target Cell (Middle White Cell; $i=0$), First-Row Neighbors (Soft Gray Cells), Second-Row Neighbors (Dark-Gray).

In the urban analysis phase, clustering gives us different groups of building layouts. In the generative phase, we need to find some transition rules to produce similar layouts for to construct better integrated designs with the existing pattern of the traditional city. Transition rules are functions determining states of cells between each generation. In a single time step or generation (t), the CA algorithm finds neighbors of cells one by one and applies transition rules to each cell dynamically to determine the pattern of the next generation ($t+1$). Hence, as we continue to produce new generations, the entire grid is updated to a different pattern as a result of the rules. The generative phase is performed in Rhino/Grasshopper and CA algorithm is written in Python language inside the GhPython component in Grasshopper. While the CA algorithm creates the layout patterns according to transition rules determined by designers, the rest of the Grasshopper model tries to prepare the building footprint for the CA algorithm and produce abstract shapes according to CA procedure. The whole generative process can be followed from Figure 5.

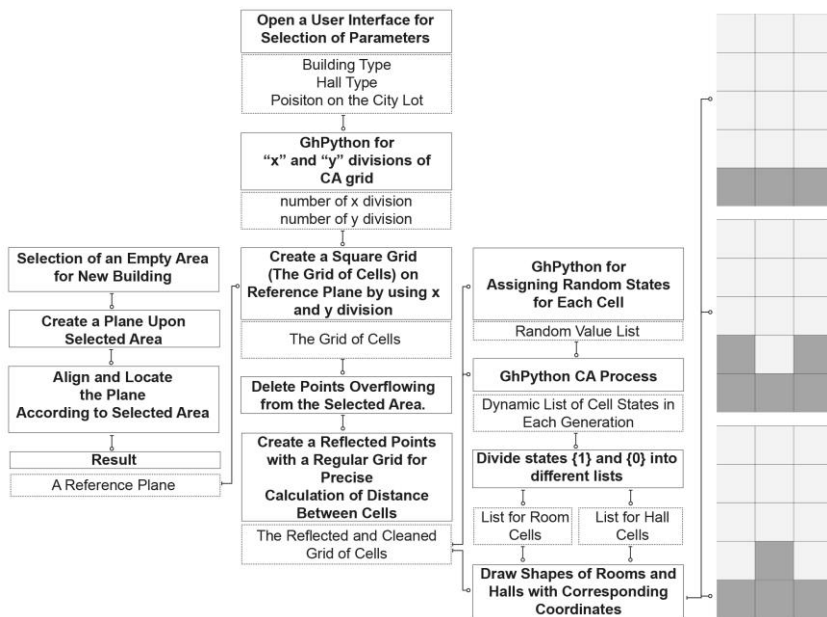


Figure 5. The Generative Phase of the Proposed Method and Resultant Layouts for an Arbitrary Area (Soft Gray Cells Represent "Hall"; Dark Gray Cells Represent "Room").

As illustrated in Figure 5, designers should choose the area for a new building. This area has either regular or irregular shape. Hence, we need to define a reference plane for the grid of cells, which is a collection of points representing room and hall geometries in the CA simulation. Meanwhile, designers should determine building and hall type of the new building as well as the position of the targeted area in the city block. We designed a panel for manual selection of these parameters in Grasshopper interface by using Human UI plug-in. Inside our Urban Attributes Table, we have a lot of data, whereas, building type, hall type and position of the area inside the lot are the most effective determinants for plan layouts of the existing buildings. Moreover, clustering algorithms are performed by choosing these attributes. When we decide these parameters, the generative method should automatically determine x and y divisions for the empty area. Regularity of cell division is very important while finding cell's neighbors, since we calculate point coordinates with vectors. According to our experience, irregularity of the area causes problems while finding neighbors, because of precision of distances between points which are decimal numbers. Thus, we need to create a reflection grid with a regular shape which has exactly the same point size and list with the actual area. If the grid of cells is bigger than our target area, we can clean outside points to work with only inside points. At the end of this cleaning process, we can use the reflected and cleaned grid of points as our grid of cells. In order to start the CA process, we need to assign initial cell states randomly for the calculation of the starting conditions of cells. Random cell states are held in the Random Value List.

Before the application of transition rules to the cells, we need to find neighbors for each cell. The first and the second row neighbors can be found with vectors. We can track target and surrounding points from the index list of points and create generic vectors to find each cell's neighbors. After this process we can apply transition rules. While designing the rules, we focus boundary conditions and contiguity of cells that should not be possible for existing plan layouts. Transition rules are constructed as follows: If a cell labeled {0/hall} is between two cells labeled {1/room} in current generation (t), it is converted into the cell {1/room} in the next generation (t+1). The generative process produces different solutions in each generation and stop calculating when there is no unexpected cell adjacency. Detailed version of transition rules will be explained further with the case study.

Application of the Proposed Method in Amasya/Turkey

For the application of the proposed design method, we chose Hatuniye Neighborhood in a traditional city, Amasya, which exists in a very narrow valley and takes shape linearly and parallel to the Iris river. Unlike the modern urban areas in the city, self-organized old settlements were built in sloping areas in order to give space for agricultural activities. Nowadays, all traditional neighborhoods of the city are under the pressure of the high demand for

tourism and construction activities. Thus, there is an urgent need for a design method to produce new spaces in the traditional city to protect the city's self-evolved structure.

In the case study, firstly we confined data collection with physical features such as architectural (plans, physical sizes and ratios, façade details, material details, orientation, additional structures, projections and etc.) and environmental data (slope, view, aspect, distances to important buildings and squares). We used official maps taken from Amasya Municipality and worked in the field by filling out Building Info Forms for reaching sufficient data. Environmental data reached from GIS Spatial Analysis Tools (Buffer, Slope, Aspect and Contour) in ArcGIS and added as an important data shaping the general structure of the traditional city. When collection of information was completed, we merged all data in ArcGIS and created the Urban Attribute Table to be used in Data Mining Phase. Meanwhile, building layouts of 79 registered buildings were taken from master thesis written by Türkoğlu [21]. Plan layouts were converted into abstract cell shapes as previously illustrated in Figure 2. These abstract visualizations of building layouts were matched with clusters at the end of the second phase to create transition rules for CA.

In the second phase, we selected four urban attributes according to our purpose and applied DBSCAN algorithm in RapidMiner to cluster all registered buildings in Hatuniye Neighborhood. Building Type, Hall Type, x/y Ratio of Building Footprints and the Position of Buildings inside the City Lot were chosen urban attributes which are highly effective upon generation of building's plan layouts. In the DBSCAN process, we tried different values for the epsilon and the minimum points parameters, however, the most refined clusters appeared when we set the epsilon as 1.0 and the minimum points as 2. At the end of the clustering process, we had 17 clusters of 79 existing buildings listed in Table 2. Cluster 0 contained 24 noise data representing 24 buildings with unique features.

Cluster	Number of Objects	Building Type	Hall Type	x/y Ratio Group	Position on the Lot
1	2	Single	Inner	G3	2-5-8
2	12	Single	Corner	G2	2-5-8
3	3	Single	Outer	G2	2-5-8
4	4	Single	Outer	G3	2-5-8
5	8	Single	Outer	G1	2-5-8
6	3	Double	Outer	G1	2-5-8
7	2	Single	Corner	G2	8
8	3	Single	Corner	G3	2-5-8
9	2	Double	Outer	G2	2-5-8
10	4	Single	Corner	G1	2-5-8
11	2	Double	Corner	G1	2-5-8
12	2	Double	Corner	G2	2-5-8
13	2	Single	Inner	G2	9
14	2	Single	Inner	G4	5-8

15	2	Single	Inner	G4	2-5-8
16	2	Single	Inner	G2	2-5-8
0	24 noise data				

Table 2. DBSCAN Clusters for Hatuniye Neighbors.

As seen in Table 4, we had 3 different hall types: inner, outer and corner. In addition, there was one building with middle hall in the noise data which is called Mansion of Hazeranlar. We built CA transition rules according to these 4 hall types (Figure 5).

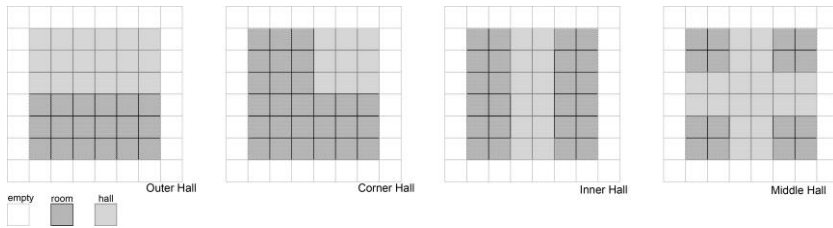


Figure 6. Hall Type Abstractions with Cell States.

Building types determined whether the building is Selamlıklı/Double House or Selamlıksız/Single House. Position on the lot determined entrances of houses, thus it was very important to arrange plan layouts. Various positions can be seen from Figure 7. Designers needed to specify positions before the CA process was applied. Because according to this parameter, corresponding transition rules were selected. We grouped x/y ratio of empty area for building footprints and according to this ratio, we aimed to define x and y divisions of the targeted area during the CA generation process. But, in the case study, we skipped x/y ratios to easily produce different results for various grid divisions. We created transition rules for position 2-5-8, single house building type and 4 different hall types.

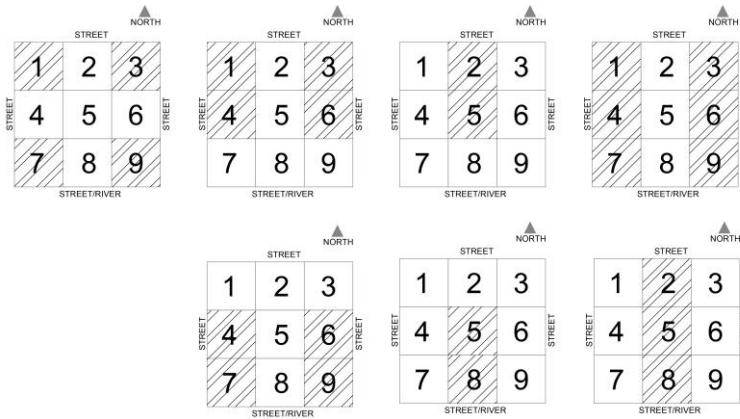


Figure 7. Positions on the Lot.

CA rules were determined by boundary conditions based on the first and the second row neighbors and cell adjacency possibilities that should not exist with inside cells. Hence, the algorithm worked with less restrictions and diversity of results increased. We indexed the target cell, the first and the second row neighbors as seen in the Figure 4. Hence, we easily detected each cell's boundary condition and applied rules by checking its neighbors with index numbers. Rules were constituted as described in Table 3.

Rule Name	Rule Description
Control Rule 1	If "a hall" cell has all its first and second row neighbors and it is between two "room" cells vertically or horizontally at generation $\{t\}$, it turns into "a room" at generation $\{t+1\}$
Control Rule 2	If "a room" cell has all its first and second row neighbors and it is between two "hall" cells vertically or horizontally at generation $\{t\}$, it turns into "a hall" at generation $\{t+1\}$
Outer Hall Rule 1	At generation $\{t\}$, if target cell's neighbors indexed as $\{6, 1, 5, 4, 8\}$ are empty, it turns into "a hall" at generation $\{t+1\}$
Corner Hall Rule 6	At generation $\{t\}$, if target cell's neighbors indexed as $\{20, 18, 16, 14, 9, 10, 11, 12, 13\}$ are empty, it turns into "a room" at generation $\{t+1\}$
Inner Hall Rule 7	At generation $\{t\}$, if target cell's neighbors indexed as $\{6, 4, 8\}$ are empty and a neighbor indexed as $\{3\}$ is "a hall", it turns into "a hall" at generation $\{t+1\}$
Middle Hall Rule 12	At generation $\{t\}$, if target cell's neighbors indexed as $\{8, 2, 7\}$ are empty and a neighbor indexed as $\{1\}$ is "a hall", it turns into "a hall" at generation $\{t+1\}$

Table 3. Examples of Transition Rules Used for Hatuniye Neighborhood.

In every generation, the algorithm checked each cell's neighbors depending on transition rules and arranged cell states for the new generation. During the CA process, designers can change the timer to generate new generations, stop playing with the timer when the resultant plan layout meets design requirements or rewind the timer and access previous solutions. Examples of different plan layouts can be seen in Figure 8.

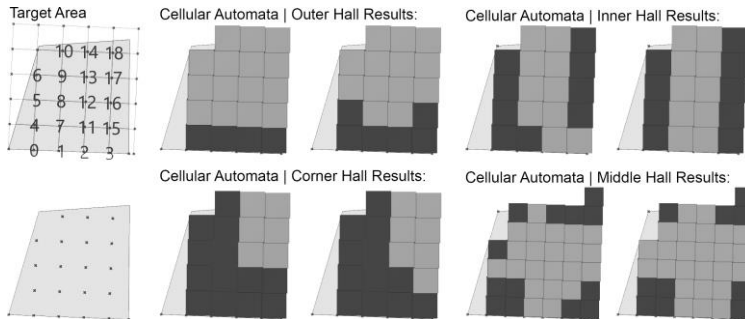


Figure 8. Cellular Automata Results with a Sample Area.

CONCLUSION

In the scope of this paper, transition rules were formed with "room" and "hall" cells, for four different types of plan layouts. In future studies, we will add "WC" and "kitchen" cells by analyzing their position in existing buildings. Also, as seen from resultant layouts in Figure 8, additional rule is needed in order to balance "hall" and "room" cells ratio. In traditional cities, ground floor layouts usually follow parcel boundaries. However, regular nature of Cellular Automata cells does not allow such configurations. In the next phase of this study, boundary of Cellular Automata cells can be stretched through parcel boundaries with additional tools in Grasshopper. Also, upper floors can be generated by Cellular Automata rules with vertical neighborhood definitions. This study only focused on Single House Type. Additional rules can be added to generate Double House type and different Data Mining techniques can help us to determine formation rules of Double Houses to be transformed into Cellular Automata rules.

This paper examines the potential of the Cellular Automata in traditional cities to generate a series of plan layouts coherent with existing buildings. The method depends on real urban data and its analysis with Data Mining techniques. Data Mining results and urban data help us to constitute Cellular Automata rules while generating new plan layouts in the context of traditional cities. Hence, this method tries to learn from precedents and make connections between new and old, since new plan layouts follow proportions and plan types of old buildings. Therefore, this method can be one of the possible answers to the problem of new designs in the traditional cities.

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PART 3

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AN EXAMINATION OF THE RELATION OF PLACE AND PLACE ATTACHMENT THROUGH EDUCATIONAL MIGRATION

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ABSTRACT

The educational migration, which occurs in our country and international area, has significant effects on built environment and social living place. Individuals, who move away from their familiar living place to a new environment, need sense of place attachment and adapting to physical environment. Place attachment is an affinity for a place or situation. It is the individual's place in society and also the feeling of belonging to the place. In general word, the identifications of the individual in terms of which social group and where they come from, who they are originally are directly related with the concept of place attachment. Besides the social identity of the new living place, the sufficiency of the physical living conditions is effective on developing place attachment sense of individuals. In this context, the relation between place and place attachment was evaluated through educational migration in the paper.

Key Words: Place Attachment; Educational Migration; Production of Space; Social Identity; Belongingness.

INTRODUCTION

People have an impact on their living places and in consequence of this impacts; the places, which is reproduced continuously, are changed. Physical and spiritual experiences and their relationship with the physical environment, which have a strong effect on the production of spaces and undergo change the space over time, should be well analyzed [1]. Human needs play an active role in shaping this various sized spaces where these experiences take places. In addition to humanitarian needs, the level of social and cultural sharings directs the production and transformation of the private and public spaces. Considering these factors, the results of any interventions in our living space on our environmental and socio-cultural conditions should be evaluated in detail.

The environmental conditions and cultural values of a place determine the identity of place. Uçar and Rifaioğlu [2] associate all the material and spiritual kind of values, which are the components of cultural identity, with the spirit of

the place. Our sense of belonging to the environment that we grow up to or the environment in which we spent part of our lives is directly related to spiritual values of that place. Accordingly, in the transformation process of the environmental conditions, the spiritual values and the identity of the place should be sustainable. From urban spaces to private living spaces, one of the strong phenomena that create this transformation is the movement of the migration. The environment of cultural diversity as a result of replacements, gives communities an opportunity to gain new social and cultural meanings. Educational migration is also a common form of replacement in developed or developing cities. It is possible to observe the effects of this continuous and dynamic replacement on social identity in a short time. On the other hand, the changes on the physical environment as a result of this dynamic process must be planned in terms of users and space.

Today, universities have a significant role on progress, regulation and transformation of the urban space and social characteristics. The physical and social opportunities of the cities, which universities are established in, determine the level of the life quality of local and foreign citizens. Consequently, the cultural sharing environment and social relations improve through the replacement of the young population. In the globalizing word, the issues of educational migration should be evaluated in terms of both social and individual aspects. This study considers the reproduction process of the spaces in the direction of the needs of the individuals who change their living environment, due to the educational migration and forming process of their own social identity.

Space/Place and Production of Space

Space is not a constant fact, therefore place identity can be described from many different points of view. Human necessities have a significant role on the transformation of the living space and the change of the natural environment of the space in the course of time. People give form their living places in accordance with their habits which come from past or acquired in time. Theory of "The production of space", which was revealed by Lefebvre, is one of the main resources about how space production is formed. Lefebvre has two viewpoints on this issue. One is social production of the space while the other one is intellectual production of space. As Lefebvre mentions in his book *The Production of Space*; 'the production of space' is always a social production. So, according to Lefebvre; every society is production of its space. In other words, social space is a social production [3]. People attribute value and sense to their living space with their social environment. Values and senses as an important part of culture make individuals belong to a community and consequently to a place. When individuals change their living place for reasons such as economic, social, cultural, etc. the way they relate themselves to the new environment is based on their habits in the past. On the other hand, this new environment shapes their life in time.

The production of space is the point that reaching the evacuated, isolated and reduced space in its historicity. In this regard, Lefebvre [3] describes the interpretation of space, which began in Heidegger's Being and Time and was later expounded in different forms, as a milestone in terms of the entire intellectual and historical discourse of the space [4]. The space, which is constantly reproduced in the direction of needs and transformations, changes in terms of form and quality. In this context, communal livings continue in different places and different places direct to communal livings [5], [6].

Social Identity and Place Attachment Concept

In the Hierarchy of Needs Pyramid, which is a theory about human psychology, Abraham Maslow placed the need for belonging to the third step after physiological and safety requirements [7]. In general terms, the definitions of where the individual is from and which group the individual belongs to are directly related to concept of belonging. Place attachment is a map that doesn't have geographical characteristics and doesn't reflect the environment exactly with the positioning of the society and the individuals. Even if the society, which individuals live in, imposes a definition to them if individuals don't have a feeling of place attachment in society, it cannot be said that individuals have that identity which society gives them. Place attachment and loyalty to the place have a significant role on defining the social identity with the formation of the individuality [8]. One's adoption of the environment, space and society, and the feeling of belonging to it, takes place by imposing meaning on them. The social identity of the individual carries with it the feeling of being familiar with the environment and feeling safe, thanks to its ability to adapt to the society and space [9], [10], [11].

Sense of belonging, attachment to place and space; it develops in relation to the components such as place, space, time, experience, memories, activities, social relations, psycho-social needs, identity, signs and symbols and the perception of the individual towards his / her environment. In short, these feelings develop as a result of the dynamic and mutual relationship and interaction between the individual and the environment [12]. The feeling of belonging to a place can be realized through an emotional, functional or conceptual connection. The user has an emotional connection with spaces that have meaning and value for themselves; it establishes a functional bond to follow a specific activity.

Relationship Between Place / Space and Place Attachment

When we give meaning to a space with our daily life routines and the way it makes us feel, that space turns into a space we belong to. Uysal [13], emphasizes that place attachment is generally expressed with identity and citizenship terms. Place attachment is two-dimensional concept according to Yuval Davis [14] who aims to draw an analytical frame for place attachment.

First dimension is about feelings, in other words where individuals feel belong themselves to. Second dimension is the one in which place attachment politics and socio-spatial is understood. Fenster's [15] approach to place attachment which is close to this one is separated in two as "personal and hypothetic dimension, official and public dimension". Place attachment is related to citizenship in parallel with belonging to a space. In other words, place attachment is a term that has a spatial dimension at the same time. Moreover, place attachment is directly related to the space and it is even in the center of the space. Therefore, it is essential to look at the term of the place attachment directly with a spatial perspective.

After all, it should be stated that when examining the relationship between place and place attachment, the subject should be considered under three headings. These are location, individual dimension and social dimension. The idea that all concepts related to these three titles are realized in a space is very important in terms of dealing with a relatively open-ended concept such as place attachment. When we say the individual dimension of place attachment, we mean the field about emotions. Based on the question "Where do you feel comfortable?", reflections of the sense of belonging are tried to be depicted under the light of the answers given to the questions in this parallel [13]. The social dimension of place attachment is handled through the dialectics of similar and different features. The social dimensions of the differences and similarities between the city / country departed and the city / country traveled and their discursive effects on the belongingness of the people are examined. In addition, over the concept of citizenship, it is evaluated the relationships between two country established by individual. On the other hand, the location dimension of belongingness examines all the relations of belonging by considering the places where the people on the move live. A subsequent intervention by a person who joins a place where life is lived will serve as a bridge connecting differences between users. Gürbilek [16] identifies this bridge which provides the unity of these differences with the concept of place attachment. In this case, "space was used as the catalyst of belonging". Particularly in the displacements that occur with migration, the formation process of the sense of belonging is directly related to the transformation of space.

Production of Space and Blongingness in Educational Migration

When Christian Norberg-Schulz talking about space, he mentions of two different, but at the same time, complementary forms of life: "settlement" and "migration". In the history of humanity, the permanence of knowledge and artistic development is associated with the settled life of societies. As accumulation increases, relocation becomes difficult and decreases. The displacements in these societies are more temporary and individual migrations. Such short-term displacements are useful for increasing the knowledge of settled societies. On the other hand, the transfer of experiences

is limited in societies where migration is essential. In such societies, there is a simple and fictional life in every aspect [17].

Migrations for educational purposes occur without obligation as a result of personal preferences. Therefore, the impact of educational migration on spatial transformation and sociocultural accumulation is expected to be positive in comparison with other causes of forced migration such as war and unemployment. Educational migrations, which are short-term displacements, should not adversely affect the environmental conditions of the migrated place. Today, it is observed that university campuses established especially in metropolitan cities rapidly change the environment in which they are located. Individuals who migrate from rural cities to the metropolis for educational purposes find it difficult to gain belonging to settlements that are detached from this newly created context. This is often the case in large cities where the number of universities has increased rapidly lately.

According to Tümtaş, rural repulsion and the attractiveness of the city and the difficulties in rural life are the interconnected causes of migration to big cities [18]. University campuses established in small cities contribute to the development of local people in many ways. Rather than creating a large number of unqualified university campuses in metropolitan centers, improving the possibilities of established universities in small settlements will yield more productive results.

CONCLUSION

Every migration experience is a process of intercultural interaction, not just a geographical displacement. With the effect of the historical process in Turkey, although the labor migration and forced migration movements comes to mind firstly, the concept of migration has differentiated features with different displacement movements such as educational migration in today's world. Universities are common sharing areas which do not only contribute to science but also contribute to the society with their social opportunities. It is also essential to pursue eligible and conscious education policies in other cities that are far from the areas qualified as 'student city' and intolerance against innovative approaches that come along with the young population.

The displacement of the young population at the university age, allows them to experience a different way of life on their own, both in terms of spatial use and sociocultural aspects. Because the dormitory capacity of the university campuses in our country is limited, students are spreading to the residential areas on the surrounding area of the university for accommodation needs. This physical usage area, which is enlarged for temporary accommodation, may cause settlements that are incompatible with the urban fabric. In such cases, both the identity of the city is damaged and it becomes difficult to develop a sense of belonging.

The city and the universities should be able to create sharing environments that are in interaction with each other. Even if the university campuses are built in the urban fringe they should not have a structural characteristic that is disconnected from the city context. Along with the big effect of social, cultural and economical qualifications of the city on university which is located in that city, university staff, academicians and students have also an effect at the same level on the city and citizens. University staff and the students uses the city for accommodating, entertaining, social and cultural activities and interact with the space. Not being able to meet these requirements, incompatibility between citizens' social and cultural qualifications and differences would cause individuals not to feel belong to the space/city.

Cultural interaction is limited in a place that is not open to development, alteration and innovation, and this largely damages the sense of belonging of the individual who experiences the educational migration in his/her early ages. Education migration creates an intercultural encounter process and has a positive impact on the socio-cultural atmosphere of the city. When the relation between space and belonging is also considered, the deviation from the aim of educational migration, also affects the space and the city in general. Educational migration should not be turned into a tool, It should aim to contribute to social identity of individuals and space.

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THE URBAN SPACE OF NETWORK SOCIETY: DIGITAL FLANEURS IN THE AGE OF SOCIAL MEDIA

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ABSTRACT

This paper stems from the idea that individuals in the network society have a new type of spatial perception and experience in the urban context. In this context, the paper distinguishes itself from the current discussions, such as virtual space and digitalization of architecture, which are frequently included in today's debates, and refers to changing urban space experiences and the practices of network society. In the age of mobile devices and social media, the social structure of society, forms of communication and experience of being in the urban space have been changed. This transformation creates its own perception and experience of urban space as well as new everyday life practices. The aim of this paper is to rethink how our presence in the urban space changes due to the influence of this transformation.

In order to understand the new forms of presence in the urban space of network society, this paper focuses particularly on the act of strolling in the city. It is aimed to make a reading through the figure of 19th century modern city's urban explorer "Flaneur" and his reflection on the digital era to examine how the act of strolling changes in terms of technological influence. The paper proposes a new identity for urban explorer, the concept of "digital flaneur", by focusing attention on the new urban experience that emerges with digital interfaces.

Key Words: Network Society; Urban Space; Flaneur; Digital Flaneur; Spatial Experience in Location Based Media.

INTRODUCTION

The information and telecommunication technology have been spread throughout the world in a short time and transformed all sections of everyday life. It is clear that the usage of the Internet and information technologies started to take place in our lives and changed the social structure. In the past, technological developments, which are the most important driving force of the social changes, transformed the industrial society into the information society [1]. Today with a similar path, technological developments is producing a new form of society, which is called network society.

Network society is where the digital networks become the basic units of the social structure [2]. In particular, developments on information and communication technologies, such as new media and mobile interfaces, determine network society's organization. We are living networked lives where the technology is an essential part of all the segments of the everyday life. Therefore, this new type of society, which is looking at the world through digital interfaces, living inseparable from its mobile devices and connecting the wireless network for vital habits, may also define new urban space experience. There is a growing field of discussion about the urban space of network society [3] [4]. This paper differentiates itself from today's popular discussions by focusing on the importance of understanding new ways of spatial experience and sense in urban place with the influence of digital tools. However, the concept of urban space is a wide and comprehensive subject area. To narrow the subject, this paper focuses on the act of strolling and spatial experience of exploring the city. For this purpose, it is proposed to re-examine the relationship of individual with urban space by chasing a modern time's urban explorer figure, Flaneur. It is aimed to understand which potential space practices and experiences may be produced when Flaneur travels with his smart phone.

This paper seeks to address the following questions: What are the distinctive features of urban space experience in network society? How does a modern city's urban explorer Flaneur become a digital flaneur with the usage of digital tools? What can be learned from digital flaneur's strolling in terms of urban space experience? The questions will be answered together with examinations of particular media usages. This paper attempt to show the digital network's emerging role in the spatial experience in the context of the act of strolling.

Defining the Network Society

The developments of information and communication technologies produce today's logic of social structure where the technology is an essential part of all the segments of the society. The new structure identifies itself with the digital networks that constantly exist in every stage of society. Castells [5] defines this structure as "Network Society". As Castells [5] argues, network society

emerges as a result of social reflection of the information age; it causes the digitalization of economic, cultural, political and social organizations.

As a definition, the late capitalist society, which uses high-level information technologies and networks in all activities and organizations and has become a part of global information exchange, is called network society [2]. According to the definition of communication scientist and sociologist Jan Van Dijk, network society is a modern type of society in which the infrastructure of social and media networks determines the social form at all levels of society. Castells [5] defines the transformation as “the rise of networks”. It means that digital communication has become the backbone of everyday human life. Therefore, as Castell [5] suggests, network society is experiencing a transition to a new way of living with the new communication infrastructures and digital devices. Since the world we experience in traditional sense undergoes a critical revolution, new discussions emerge about the use, design and perception of urban space in architectural theory.

The idea that the ways of communicating, the modes of production, the habits of consumption, the ways of accessing and gathering information would undergo dramatic changes within media influence, had been put forward by McLuhan in 1964 [6]. The most important point that McLuhan [6] emphasizes is that the media phenomenon would evolve into a technology that would affect the human body and senses. This prediction was realized by integration of media in the everyday life of network society.






PAST WEB 1.0			NOW WEB 2.0 + SOCIAL MEDIA (Today's Network Society)	FUTURE WEB 4.0
WEB OF CONTENT ATTENTION	WEB OF COMMUNICATION EMPOWERMENT	WEB OF CONTEXT IMMERSION	WEB OF THINGS CONNECTIVITY	WEB OF THOUGHTS EXTENSION
LEAN BACK	MOVE FORWARD	JUMP IN	ALWAYS ON	PLUG IN
				
TV / INTERNET	INTERNET + COMMUNICATION	INTERNET + VIRTUAL REALITY	INTERNET + LOCATION AWARE MOBILE SYSTEMS	BRAIN COMPUTER INTERFACE

Table 1. The Body and the New Technologies [7].

The existence of the change within technology networks in everyday life usage may be examined through Müller's study [7] of the body and technology interaction. The systematic progress of integration of digital technologies onto the body and mind can be clearly seen in Müller's work (Table 1). As Müller states in the first picture, during a passive TV and Internet usage, the body and the mind is in “lean back” position; as the interactive level increases, it shifts to the “move forward” stance. The position of the body is transformed with the introduction of virtual reality in “jump in” phase. In this stage, virtual reality separates the body from physical space by offering a virtual space,

while the body remains present in the physical space; virtual reality carries the mind to a virtual body in digital space. In this condition, the individual almost “jumps” in to the virtuality. The inclusion of new media in the system begins to create multi-layered spatial effect on individuals. In the fourth picture as Müller identifies as “always on” phase, the media forces the individual to the online life-style by mobile devices that almost become an extension of the body. At this stage, with the new media and human integration, virtual representation of reality is created and transferred to the virtual environment while the experience in the physical environment continues. The potentials of transforming the body, the emotions and the perceptions are critical features that distinguishes new media and digital technologies (such as location aware mobile media systems) from classical media (such as TV). It is anticipated by Müller [7] that, new prosthesis will emerge by integrating these digital media technologies to the body and mind, this phase, is called “the plug in” as described in the fifth picture. Although Müller’s table expresses a linear process, the coexistence of all these processes may be addressed in network society. Network society uses all of these types of media tool in different levels; therefore, varying experience of space may be appearing in each level of usage. In order to evaluate the relationship between network society and space, understanding the major distinctive media usages and their role on the experience of urban space, plays a key role.

Distinctive Features of Network Society's Urban Space Experience

In his book *City of Bits*, Mitchell [8] mentions that, global networks and information technologies do not reform the physical space in the first place. This new social structure starts transformation from the experience of urban life. In fact, in network society, even if everyday life still takes place in the physical urban spaces, as it was in traditional society, it is increasingly digitalized, mobile and networked. According to Anthony Townsend [9], this situation “leads to a dramatic increase in the size of the city, not necessarily in a physical sense, but in terms of activity, productivity and experience”. From that point of view, it can be suggested that, in the society where technology plays essential role in everyday life and creates new experiences, a new space concept may arise. Two major distinctive media usages help to identify the new space concept: firstly, location-based media usage and its effects on these spatial practices and, secondly, mobile device usage as a body attachment. As the result of these two features, a new form of space, which is conceptualized as hybrid space [14], is being experienced.

Location-based media (LBM) is one of the main networks that connect society to each other and to other networks. Therefore, LBM’s are important interfaces that define the society. Foursquare, Facebook places, Instagram geo-tags, Swarm and so on may be examples of such media applications. These location aware applications allow users to customize the varying types of information of space and tag them on the location. Two main issues appear

in the LBM usage: the production of new spatial practices and the personalized perception of the space.

First of all, LBM is interactive media, which allows many presentation and communication tools for users to share with others. LBM creates new acts such as writing reviews, using “hashtag”, sharing posts, different ways of visualizing the space etc. These acts create new spatial practices that take place in the urban space. For instance, the act of “check-in”, which means sharing the current location of user with other users, is a new spatial practice that gives way to social and spatial interactions. Another example is that, with the practice of reading the comments and posts, users have double sense of narrative: one created by other user, and the other created by moving through the city [10].

Another effect of LBM is that, as Tokgoz [11] emphasizes, this media becomes an interface between the space and individuals and restructures the way the urban space is perceived. In traditional experience, the body feels and perceives the physical environment and makes meaningful inferences with mental processes. However, LBM users traditionally sense the physical space while sensing the location-based information (such as texts, pictures, rates, tagges etc.). As De Souza e Silva and Frith [10] indicate, “With location-aware mobile interfaces and ability to attach information to locations, urban space is transformed into databases”. Therefore, the perception of the space cannot be equal to traditional perception. Users are able to experience the space in the ways that were not possible before, with the help of infinitive information through the media. De Souza e Silva and Frith [10] argue that, individuals now can use LBM to personalize and control their experiences of urban space in new ways, when they present and perceive this information of space from the media.

Our experiences, and therefore our memories of those experiences, are located in space. Ozkul and Gauntlett [12] points out that the mobile technologies clearly have the potential to affects this process memory, as they offer new ways of store and share information and reflections. With the help of GPS technology, mobile devices cause the mobility of virtual space. The fact that the mobile devices entered our pockets, the media can move around the city, confirms McLuhan’s [6] predictions that technology will become an extension of human body. The integration of mobile devices to the body and its presence in the urban space inevitably transforms the way we engage in dialogue with the city. In Tokgoz’s words, “The mobile devices function as a lens while individuals perceive the urban space” [11]. This means that mobile devices act as a bridge between the virtual space on screens and the physical space experienced.

As a result of the usages of LBM and mobile devices, “always on” phase (Table .1) appears in the urban space and causes a new concept of space. In this concept, while the physical spaces of the urban retain their existence,

digitalized practices and experience of everyday life appear within virtual environments. Sassen [13] defines this condition as “virtual cities that spread over physical cities”. Adriana de Souza e Silva and Frith [14] draw a new space model in order to conceptualize the fact that the digital technologies are creating new situations in urban space. “Because mobile devices create a more dynamic relationship to the Internet, embedding it in outdoor everyday activities, we can no longer address the disconnection between physical and digital space. I name this new space, hybrid space. Hybrid spaces are mobile spaces, created by the constant movement of users who carry portable devices continuously connected to the Internet, and to other users.” [14]. According to this definition, hybrid space arises when virtual space overlap on physical space due to the use of mobile technologies and it creates a dynamic spatial experience. By drawing the concept of hybrid space, De Souza e Silva and Frith [14] question how this space develops new actions, movements and perceptions in urban life. With a similar approach, the next chapter examines new act of strolling with the focus of Flaneur to reveal differentiating experiences.

The Act of Strolling: From Flaneur to Digital Flaneur

The act of strolling may be identified as walking in the city, chasing the paths, visiting places and exploring the city. The main characteristic of this action is that it allows individuals to observe as they are walking and to create their own experience. To contribute to the outgoing explorations of the relationship between network society and urban space, new dynamics of the act of strolling under the influence of LBM and mobile device usage are aimed to be defined and examined. To understand digitalized forms of strolling in the city, the contemporary version of city explorer, “Flaneur”, is chosen as symbol figure of urbanistic readings and observations.

Baudelaire’s [15] Flaneur figure who walks casually in the streets of Paris to observe and experience the space in 19th century, embodies the state of being in the urban space in Benjamin’s [16] work. Flaneur himself is a projection of the act of strolling in urban space because while he walks in the city, he thinks, observes and transfers data as well. The Flaneur is the poet of urban space. He transforms the urban environment to his landscape for poetic appreciation [17]. He observes the social and physical environment and creates meanings from places as he goes around the city. As Walter Benjamin [16] portrays him, he is idle, almost as “tracing a piece of paper in the breeze of the wind”. On the other hand, this does not prevent him from being a strong social and urban observer that conveys the social perspective and urban texture of his period. As an ordinary hero of the modern life, Flaneur visits the far corners of the city, strolls among the urban life. He observes everyday life and the crowd in it; he collects urban life data from his experience. By doing this, he creates an urban archive in his memory. As he walks, he narrates the urban space as a storyteller. In the description of

Harvey, Flaneur maps the city as he is strolling, and offers a different reading for us [18]. Flaneur is a collector of social knowledge; his subject of matter is the public space. In addition to that, he is also a producer of texts as well as reader and observer of social urban phenomena [17].

“Observed and the observer, the philosopher/traveller figure who constantly moves on the highway of images, phenomena and colors” [19], experiences the urban space of his era. These experiences, observations and transmissions of the traces of urban life are unique to that place and time period. Therefore, it offers an urban space-reading specific to his era. In fact, in Benjamin’s [16] narrative 19th century passages were examined exclusively in the context of the period and Paris city. Thus, Flaneur not only describes the urban route, the architecture and the mobility in the urban space but also transforms the space into “the illustrative seeing” [17].

Considering the technological infrastructure of the network society, a new flaneur figure, which can be considered as networked urban explorer, finds its way through GPS, makes “check-ins” on Foursquare, travels for Instagram posts and explores the city through mobile games. Murray Skees [17] calls this new explorer a “digital flaneur” in his article where he discusses digital culture through Flaneur figure. Although Skess [17] considers hacker culture as the digital version of flaneur, he opens a discussion about contemporary digital flaneur figure and his activities. By definition, it can be suggested that the digital flaneur is the urban explorer of the network society, which navigates the urban space with its mobile devices and incorporates digital media into its spatial practices.







PHYSICAL SPACE FLANEUR	VIRTUAL SPACE CYBERFLANEUR	HYBRID SPACE DIGITAL FLANEUR
		
HUMAN BODY	INTERNET + VIRTUAL REALITY	INTERNET + LOCATION AWARE SYSTEMS
		
LEAN BACK - REAL LIFE	JUMP IN -WEB	ALWAYS ON - WEB & REAL LIFE
URBAN SPACE TRAVELLER PHYSICAL MOVEMENT PHYSICAL SENSE ACTIVITIES: STROLLING & LOOKING	VIRTUAL SPACE TRAVELLER VIRTUAL MOVEMENT VIRTUAL SENSE ACTIVITIES: CYBER MOVEMENT	URBAN & VIRTUAL SPACE TRAVELLER PHYSICAL MOVEMENT REAL & VIRTUAL SENSE ACTIVITIES: MULTIPLE SPACE EXPERIENCE

Table 2. Types of Flaneur.

In the table above (Table 2.), Flaneur's act of strolling in the city is re-read by combining Müller's [7] technology phases. With reference to Müller's table, the first column represents observer/explorer Flaneur of modern era, who is in "lean back" phase. During this state, Flaneur, who makes urban inferences and produces thoughts, experiences real space in physical urban environment. The second column of the table refers to the cyberflaneur, who has been criticized for being a "screen-explorer", travelling the city through virtual portals [19]. Cyberflaneur does not actually walk in the urban space, but wanders around the city only within the possibilities of virtual world. For instance, with Google Maps Streets feature, cyberflaneur visits places he has never physically been, "goes without moving", "arrives without departs" [19]. Although this phase exists in network society, it is not evaluated on the axis of urban space discussion within the study. Because the cyberflaneur exists in a virtual environment where digital interfaces are not involved in physical space, and digital flaneur experiences urban space of everyday life combined with the virtual. Digital flaneur uses LBM and digital tools at every stage of his daily life; integrates technology into the perception and interpretation of space. Digital flaneur is in "always on" phase of 21st century, where digital technologies are in the center of life flow, mobile devices act as part of the body and the virtual and physical worlds are concurrently perceived. As Müller [7] highlights, technology leads to a transformation of the body variation in physical space. Therefore, unlike cyberflaneur, there is also physical activity in digital flaneur figure. Digital flaneur not only strolls and observes like Flaneur, but also performs the spatial practices, which arises with distinctive media usages.

Urban Space Experience and Practices of Digital Flaneur

It has been suggested that the digital device and media usages play role on the experience of urban space and cause hybrid spaces. To illustrate this concept, chosen samples from digital media services, which conduct to strolling in the city, have evaluated.

For instance, Geocaching, a location-based application that turns the city into a playground, reproduces the traditional treasure hunting game with digital tools and creates a multi-layered space experience. Geocaching is a media application that includes virtual chat, sharing, game and city content together. It aims to find and hide the boxes hidden by the urban player in certain corners of the physical city. Players search for the boxes, which are called "cache" with the help of their mobile devices. If players find the hidden box, they register their nicknames in the box, and then hide the box again. Each time, they follow the routes and urban tips to find the boxes. In the end, they also create their journal about the route by posting their own experience by texts and visual media. Selected examples from these journal records are given in Figure 1.



Figure 1. Geocaching Images from “Bordo Panda” Cache in Istanbul [20].

As players stroll in the city to find the boxes, they encounter new data about space. In addition, new venues are discovered by players and opinions are shared with others. In the selected samples below [20], it is seen that not only the cache boxes of the game, but also the playful experiences of everyday life, urban elements and images are the subjects of this game. For this reason, it may be claimed that behaviors of Flaneur, such as strolling, observing, experiencing, thinking and writing about urban life, are reproduced by the player with the contribution of digital tools. It is also clearly seen in the example that while the game stimulates the circulation in the urban space, it causes unexpected visits and unplanned routes during the urban walks.

“Saturday I had all day free for Geocaching. I started my walk in the morning and used ship to get to Asian side of Bosphorus. I took long walk there and had a good searching for geocaches, having tea and watching seagulls. I went back to other side and there I had again long walk to find some geocaches. I walked like 25 kilometers.” (15.12.2018)

“We had opportunity for not only visit some lovely places within this fancy city, but also at the end, we had lots of fun by solving a bunch of mysteries cache.” (16.05.2019)

“I want to step by while I was going to Eminönü direction. I saw that someone wrote that they could not find the box last time. So I want to give a try and found the box. I saw these mosaics almost every day while I am going to my job. But I didn’t know what was that before. Because of CO I learned about Istanbul mosaics and mystery solved. I have something new to search for in the cities I go, from now on.” (08.05.2018)

“We found this cache in this beautiful park, full of dogs playing around. I took a walk in the park and found that there were plenty of locals celebrating democracy. It was a discovery cache.” (16.12.2015)

LBM directs the body by transmitting many spatial data during roaming around the city. For instance, high rates, positive comments, playful targets etc. can create an extra layer that traditional space cannot provide, between the space and the visitor. Hereby, the body consumes more spatial data. As is clear from Geocaching examples, when other players attach their experiences on the location, this data creates impact on other users walk in the city. In addition to that, it can be inferred that the uses' practices in the space are transformed. New space practices such as, visualization, creating narrative texts, mapping, playing games, writing and telling stories, sharing the data and views, arise with LBM usage. For instance, Geocaching encourages users to share their own stories as text and create maps while they are on the field. All of these practice opportunities that LBM produce effects the mobility in urban space. As a result, urban elements have become a part of the game, urban mobility is increased and the experiences are shared by others, while physical and virtual space experienced together. In other words, the traditional city becomes a playground on the digital platforms where experience-oriented practices happen.

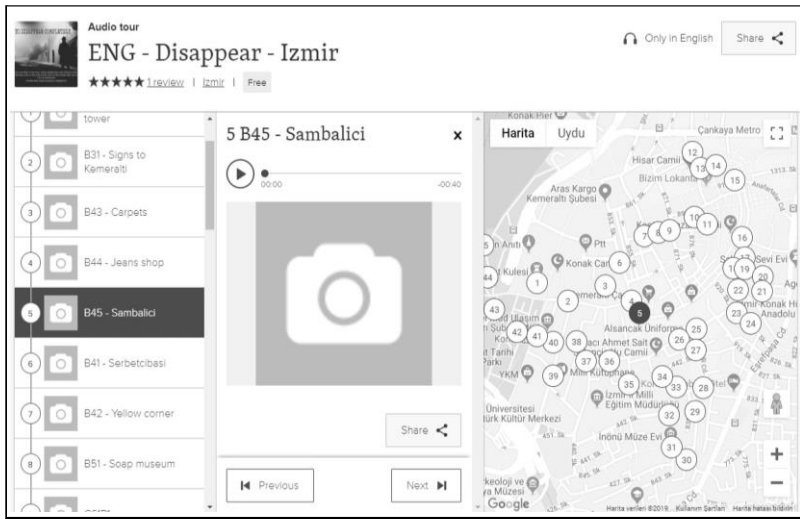


Figure 2. "Disappear" Project [21].

"Disappear" project which is made for izi.TRAVEL application, is another example for the applications that create new urban experiences with the help of digital tools [22]. The mobile application turns Izmir into an urban stage. Through a series of non-linear audio augmented narratives, the application tells stories through movement in public space. The audience observes the area episodically as they get lost in the past, present and in an emerging fictional future [23]. This digital interface that is designed by UrbanTank and MeetLab allows fictional characters and stories to combine with spatial

experience. Within the scope of the project, the city's architecture, urban life and fiction story are overlapped; therefore, application creates a new layer between physical space and the user.

The project aims to investigate what happens when daily life and personal experience come together with the help of digital tools. At this point, the user has become a silent observer, following the narrative of the city. In this perspective, the user is the reminiscent of the Flaneur figure. Even though the flaneur way of strolling is pre-designed in Disappear project, it is an example of how urban experience may be deepened through digital interface interaction during physical act of walking. The user as a flaneur is on his way to observe the city, just like Benjamin's Flaneur. Nevertheless, the project, gives to flaneur the opportunity to read the city from different angles and to increase the diversity of experience with the help of the LBM. It also demonstrates the potentials of the use of LBM, through narratives embedded in the virtual city, in terms of stratification in urban space.

CONCLUSION

Since the time that digital tools started to play a role in the body-space relationship by being involved in everyday life, the connection that established with urban space should be reopen to discussion. As Patrizia Toscano [24] points out, though ethnographic research has already defined its instruments in the field of visual anthropology and digital ethnography, urban and architectural studies are now discovering a new research field, fostered by the growing importance of a transdisciplinary approach. Starting from this idea, this paper focused on the act of strolling in the network society to understand the dynamic relationship between urban space and the individual. Flaneur figure, which is known as an observer and an explorer, helps to conceptualize the act of strolling in urban space. According to the focus of the study, these concepts have been examined through two digital urban application samples and new emerging spatial experience in network society is opened to discussion. Based on these examinations, four main statements may be made.

Firstly, digital media creates mobile virtual spaces in the physical space. Therefore, the hybrid space becomes the space of everyday life for network society. Secondly, digital tools become an extension of the body and acts like a lens to see the physical space. As a result, the body to be exposed to more data than it perceives physically. While body senses the physical space in a traditional sense, the data such as the images, rates, comments, maps, and interactive platforms creates an extra layer of sense. Another statement is that, with the usage of digital tools and media, new types of urban space practices, such as virtualization, sharing, commenting, playing, storytelling, articulate on urban space. The possible fields of practices are so wide that, it can unceasingly produce new types of spatial experiences. That is the reason

why network society's urban experience is multi-layered. Ultimately, LBM platforms have power to motivate individuals to explore urban space. It is possible for a digital flaneur to go to a new place by Instagram picture or explore a new district because of a mobile game score. In another words, LBM has enhancing effects on the mobility of the urban space.

As a result, both the examined applications produce hybrid spaces at different levels by blurring the boundaries between the physical and virtual space. Moreover, the experience of "strolling like a Flaneur" is encouraged. The practices such as perceiving, reading and presenting the space are produced and facilitated by digital media. In short, it is seen that with the help of LBSM, the digital flaneur, has potential to deepen the understanding of networks society's perception of space. The digital flaneur shows that how urban space becomes multi-layered when body strolls in the city with electronic devices. The everyday-life of network society will continue with the duality between real and virtual. Therefore, hybrid spaces progressively occur in urban life. This issue promises a wide perspective for architectural theory, which evaluates the relationship between body and space in the axis of social structures.

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TRAUMATIC SPACES IN THE CONTEXT OF PLACE

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ABSTRACT

"The memory needs space, and is inherently inclined to identify space",

(Assmann, 2015, p.47)[1]

This paper investigates the memory-place-space relationship with reference to the spaces dedicated to events which caused widespread indignation in the society, culminating in an analysis of the transposition of architecture against this background.

The relationship of the painful events which took place throughout the history, with memory, place and space is well-known. "Even though initially remembering looks like an abstract process, it is actually a tangible one entailing spaces and objects as well. Functioning as a significant element of memory, space gains an even more central position and meaning in the case of traumatic events in particular" [2, p.238]. The spaces such events actually took place are among the leading factors which carve them permanently into the minds of people. The spaces recalling and/or evoking the traumatic events which entail references to the collective mind address the emotions of individuals, and convey the traces of the event thus experienced, to the users. The literature uses the terms memory spaces, black tourism spots, sorrow tourism spots and so on to refer to these spaces, which are undoubtedly among the popular destinations to visit. Events which deeply affected the societies and which caused sorrow are, in subsequent years, exhibited in various forms so as to remind history to the society, invoking different emotions among different individuals, and serving as reminders and educational artifacts. Through such spaces which effectively serve as a piece of advice to future generations, the causes and effects of the traumas worldwide are conveyed, and the positive and negative aspects of the history of mankind are reflected.

During the development of spaces dedicated to such events, one of the two distinct approaches may prevail. The first one puts the "place" where the event took place at the center, and organizes the space "right there", while the second focuses rather on the "trauma" experienced, and organizes the space "at a different place" with a view to reaching out to wider audiences. Both approaches are basically concerned about somehow conveying the trauma to the visitors.

This paper investigates and discusses the relationship between memory, place and space in these two distinct approaches, with reference to certain leading traumatic spaces from different countries. The examples referred to are selected on the basis of these two approaches, and the discussion revolves around the positioning “there” or “somewhere else”.

The study attempts a method based on the emotional phrases experienced by the people in two different traumatic spaces, and interprets the results in the light of this duality: “There: Place” and “Somewhere else: Replace”.

Key Words: Space; Place; Replace; Memory; Traumatic Space.

INTRODUCTION

This study debates on the fact of replacing architecture over the “there” and “somewhere else” facts, depending on the relationship between memory-space. Therefore, the definitions related to the said concepts have to be mentioned.

There are many views encountered stating that the concepts of place and space complement and identify each other. For example: Seçer [3] who addressed the concepts of place and space with a Cartesian and phenomenological approach said: “...rationality deals with “space” and “place” as separate concepts as a result of its dualist structure whereas in phenomenology, “space” and “place” interpenetrate as concepts which generate each other”. In her study, compared with the understanding of space and place created by rational thought, Seçer questions how phenomenological approach creates the space-place understanding.

The significance of the human-space relationship on the concept of place requires examining the place concept with a phenomenological point of view in architecture. Because, “it is not possible to think that ‘place’ which is conceptualized as a form of existence, ‘the sense of place’ which addresses the human-space interaction, ‘meaning’, ‘perception’ and ‘experience’ are facts which may lose their validities” [4].

Specific to this study, the concept of place; has to be considered a phenomenon which directly creates a relationship with facts, human and space and leaves a mark in memory.

The concepts of memory are defined in the encyclopedia of philosophy in the simplest way as following [5]:

- Memory: mind, remembrance.
- The competence of storing and reforming the past. Placing the stored things properly is a matter of order, and order requires “thinking of himself/herself” for the person using the order. In this respect, mind is a competence which reflects the mental order in the most competent way. The mind is a matter of conscience and is human-specific. The

mind is a competency as well as a place of hosting for the results of interaction between the subject and the object.

It is observed that these concepts which are known to be significant in the place and space relationship context are used by substituting each other. Therefore, examining the comments made through these concepts is compulsory in this scope.

The concept of memory generates depending on the place being located and other beings located in this place. However, while collecting memories, the data collected in the memory vary from person to person. Experiencing the same event in the same place includes different meanings for every individual. If it will be requested to describe the experienced event, each person in the place will describe the experienced event in different ways. The reason for this is that a memory consists of moods related to such individual only. But in the descriptions of different witnesses of this event we observe that there are similarities as well. Among these moods; loyalty to the place, relationship status with the space, mutual feelings and other concrete realities which have impact constitute the collective memory [6].

According to Asman [7], only a small part of these memories taking place in our mind are active; the major part is in sleep mode inside us according to Proustian philosophy and are waiting to be activated by an external reaction. Any effectual factor from the environment increases the individual's awareness of the matter and emotional intensity [8]. These factors may be anything which evokes emotional intensity such as state of being situated in a place, taste, sound, vision, odor and texture. In the scope of this study, the place's role in memory and the feelings which it evokes in the person will be handled with mainly. These two concepts which belong to architecture influence the human's soul and prepare a base for new future memories by activating the sleeping memories in the mind. Pallasma [9] states that architecture and its belongings assist meanings and their interpreting. Pallasma also says that the environment which individual perceives by his/her senses and the images generated in the mind are among the basic subjects of architecture. Considering that every event experienced and all memories recorded in the mind have taking place in anyplace, the opposite is impossible to say.

Halbwachs [10] champions that how the interaction between space-human impacts the individual's memory and collective memory. He mentions this aspect by addressing cities such as Paris and Rome where, although these cities having encountered many rises and falls in history, all this dynamism takes place in a scene which is familiar and seems to be unaffected by such situations. However, Halbwachs also advocates that this state is not related with peoples' apathy but that if the general panorama of the city is protected, the impact of events which have deep influence on society weakens for the community which is committed more to stones than to people. Halbwachs presents examples for this state such as children's engagement to the corner

of the square where they play games, the beggar's engagement to the stone where he/she crouches down, and the seller's engagement to his/her workshop/market place. He also states that it is impossible for an individual to stay careless towards places which are in contact with his/her own life because the relationship which is the base is the individual's relationship with its immediate circle and perspective. Means, 'place' is a formation which includes, besides its concrete meaning, meaningful values which individual interaction is established with. It has also the meaning of being an element which hosts all events in the memory, values them and assists them for their meanings and supports in remembering them later on.

Norberg-Schulz advocates the interaction between human and space states that, in architecture, this interaction is enabled not only by functional usage but also the connection established with the place and any belonging of such place. He also mentions that while the human achieves his/her own identity, the places and the connection of such places with the human contribute to the development of the identity [11].

Going out from the ideas of philosophers related to the concepts of memory/mind/memoirs, it is important to comprehend the significance of the "place" phenomenon in order to keep alive the position of life experiences in public memory and to hand down to next generations. Also, with these concepts, it can be said that the relationship between place and space may generate positive feelings and sometimes negative emotions in persons. In the scope of this study, spaces which take place in collective memory and generate negative emotions in people are dealt with it is aimed to discuss on these emotions which such spaces generate on people through the concepts of "place" and "replace".

Visits to such places which have witnessed to life experiences in history and are represented in collective memory are defined as a type of tourism and are identified under different names. This concept which had been put forward by Folley and Lennon [12] under the name "dark tourism" for the first time in the world takes place in scientific researches under different names such as "morbid tourism", dark tourism, black tourism, grief tourism, death tourism, atrocity tourism, museums of shame and prison tourism, war/theater of war tourism" at national level [13]. Visiting and seeing such spaces and areas which have been created to hand down to next generations the events which have deeply influenced countries' and nations' history and rendered pain and sorrow brings peoples' emotions to life stimulates the collective memory awareness and makes individuals to question their personal emotions.

Within this course, we can talk about two different situations in terms of the concept of "place" in architecture. The first is fictionalizing the space "there" by centering the "place" element where the event has occurred and the second is fictionalizing the space "somewhere else" based on the encountered "trauma/event". Both cases have, in principle, the desire to transfer the trauma/event to the user in a certain way. The main goal is to make masses

feeling the emotions of this trauma/event beyond the time of the event and to driving them to think about this case.

Exactly at this very point, the phenomenon of “replacing architecture” steps in. Because there is a difference between building a space in the “place” where the event has occurred and building a space “somewhere else” other than the place where the event has occurred. In this study, the aim is to generate ideas whether such difference causes any changes of emotional senses on the user and on the influence of “there” and “somewhere else” on generating such emotion.

The main idea of this study has been visualized as shown in figure 1. The emotional situation of the persons experiencing the spaces is questioned by the main idea in this chart.



Figure 1. Relation of Trauma: Event/Case & Place & Replace.

“There: Place” and “Somewhere Else: Replace”

In the scope of this study; the “Jewish Holocaust” has been chosen to illustrate this case whereas and it has been aimed to question these two examples which have been built/arranged to remind this case, in terms of space and emotion states. The reason for selecting the Jewish Holocaust is that there are lots spaces all around the world as a tribute to this case. The first example is the “Auschwitz-Birkenau Concentration Camp” in Krakow-Poland which is the very place of the incident. The second example is the “Holocaust Memorial Museum” built in Washington-USA for the purpose of explaining and presenting the Jewish Holocaust.

There: PLACE: Auschwitz-Birkenau Memorial and Museum¹

Auschwitz-Birkenau takes place in the UNESCO world heritage list and it is known that it has been built as a labor and elimination camp. It s estimated

¹Information and photographs of the camp have been taken from Wikipedia (https://www.wikiyy.com/tr/Auschwitz-Birkenau?utm_source=chrome-extension&utm_medium=wikipedia.org).

For further details please go to the museum's web site (<http://auschwitz.org/en/>).

that about 1.3 million people from all across Europe have been deported to Auschwitz-Birkenau and that 1.1 million people have been killed, being 1 million of Jews. It is stated that the camp is built on an area of 5 km². The camp has different sections inside and has been surrounded with electrified barb wires.

The ruins of these two camps and the Jewish Cemetery which had been included in the UNESCO Humanity Cultural Heritage List in 1979 have been opened to public as the Auschwitz-Birkenau State Museum and Holocaust Memorial Venue.

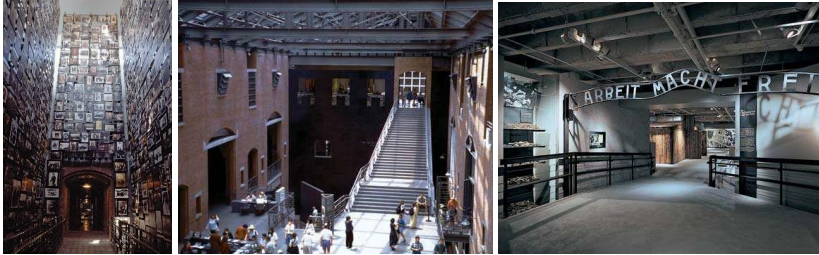


Photographs 1-2-3. Auschwitz-Birkenau Memorial and Museum

Somewhere Else: REPLACE: ABD Holocaust Memorial Museum ¹

The museum located in Washington has been established in 1993 to serve as a national Holocaust Museum. The permanent exhibition with the heading "Holocaust" has been divided into three sections being "Nazi Assault", "Final Solution" and "Last Chapter". At the entrance, visitors are given an identity card with a name of a real person having been exposed to holocaust. During the exhibition, it is expected that the visitors shall identify themselves with this person. It is observed that in the museum, a replica of the Auschwitz-Birkenau camp takes place. The museum gives trainings with the aid of various programs as well and, every year, presents special programs for the International Holocaust Memorial Day organized by the United Nations to celebrate the anniversary of freeing the Auschwitz camp since 2005.

¹Information and photographs of the museum have been excerpted from following web site: (<https://www.britannica.com/topic/United-States-Holocaust-Memorial-Museum>).



Photographs 4-5-6. ABD Holocaust Memorial Museum.

METHODS and FINDINGS

A certified travel web site which includes the impressions of the visitor persons about the visited places and spaces has been used for the purpose of understanding the people's emotions for the said event and space, who have visited the 2 museums selected to question replacing architecture in terms of the concepts of "there" and "somewhere else". The comments published in this website (www.tripadvisor.com) of 30 persons each having visited these two museums (total 60 persons) have been selected as the sampling group and have been analyzed. The sampling group has been created by selecting 1 comment out of 5.

In order to understand the emotion states and to investigate whether the concepts of "there" and "somewhere else" make any difference in peoples' emotions, the classification in Plutchik's studies with heading "Psychoevolutionary Theory of Basic Emotion" have been utilized. Before mentioning the emotions states which individuals have experienced and which is referred to in the study frequently; it should be briefly mentioned why and how the decision for this classification has been made. Human emotions have intensities and polarities. Some emotions are close whereas some are more distant. Sorrow and guilt are close emotions whereas joy and disgust are distant emotions. As a result, polarities emerge in emotions. Examples for these polar characters are love and hate, joy and sorrow. Upon long researches, Plutchik has taken certain senses as base and defined as primary sense and put forward a scheme proposal in which 8 emotions are principle and all other emotions are derived from the combination of them. The model is bidirectional, being vertical and horizontal. The form of the model influences the sensitivity of emotions because the more you get close to the lower levels the distinctive state between emotions decreases. Emotions which include semantic adversity take place in the wheel in 180 degree opposite directions. As in this study, emotion classifications are based on these principles and have been accepted so, Plutchik's wheel of emotion and 8 primary emotion levels have been referred to, (figure 2) [14], [15], [16].

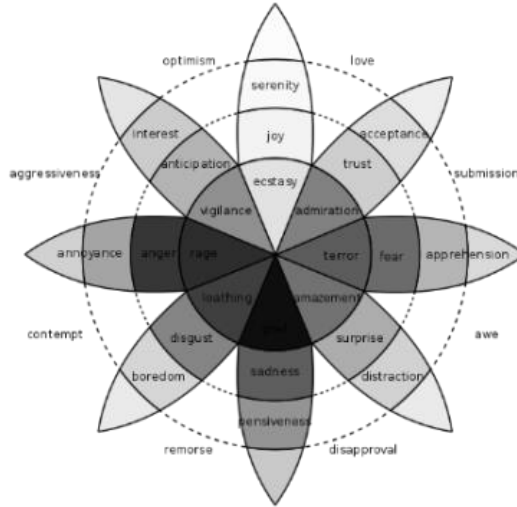


Figure 2. Robert Plutchik's Wheel of Emotions.

Plutchik's theory is significant in terms of the classification of human emotions and putting forward the adversities and similarities of emotions. According to Plutchik, we can talk about 8 main emotions which can be classified as: joy, trust, fear, surprise, sadness, anticipation, anger and disgust. Taking into consideration that peoples' reaction to any event, state etc. depend on the emotions which they feel, it seems to be possible to evaluate the space and its impact over such states of emotion. In this study, Plutchik's wheel of emotions has been utilized, the expressions about these two spaces of the selected persons have been investigated analysis has been made on to which emotion in the wheel they correspond to.

For example; the phrase "Horrific scenes through films and pictures all too real" written by a visitor in the web site from which sampling has been made, is said for the space of ABD Holocaust Memorial Museum and it is assumed that the words "horrific.... too real" represent "fear" and are classified under this heading. The findings having been achieved upon analysis for these two spaces are shown in figure 3. The graphic represents the frequency of the repeated emotions.

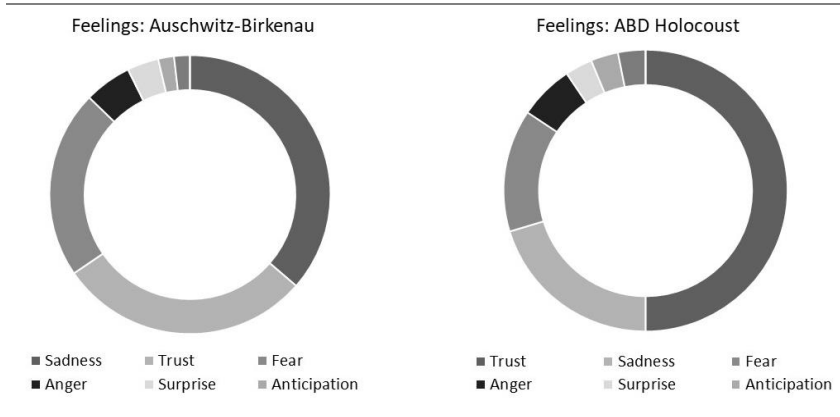


Figure 3. Distribution according to 8 Basic Emotions in the Auschwitz-Birkenau Memorial and Museum & USA Holocaust Memorial Museum.

Upon analysis of the comments obtained from the web sites which have been selected according to the 8 main emotions following findings are achieved;

- In the comments of 30 person of each group who have been selected randomly, it is observed that the emotion of “joy” does not take place in both spaces.
- When looking at the most mentioned emotions at the Auschwitz-Birkenau Memorial and Museum, the first emotion is sadness followed by trust, fear, anger, surprise, anticipation and disgust (figure 3).
- The most outstanding emotions at the ABD Holocaust Memorial Museum, the first emotion is trust followed by sadness, fear, anger, disgust, anticipation and surprise (figure 3).
- It is understood that, in both spaces, emotions of trust, sadness and fear are mentioned more intense compared with others.

Words or phrases which represent emotions are sampled in terms of selected expressions as shown in figure 4.



Figure 4. Examples for Expression of Emotions.

DISCUSSIONS and CONCLUSIONS

Discourses and discussions on the two concepts of space and place for architecture, where the relation of space and place is very important still continue today. Similar views such as that space is an integral part of the place, place and space complement each other and that a space independent from place or a place independent from space is out of question, are very common in explaining this bilateral relation.

It is explained in details in the introduction section that concepts such as memory, mind and memoirs are in direct relation with space and place and that any events in the collective memory cannot be set apart from space and place.

In this context; it has been aimed in this study to realize a query on spaces related to events which take place in social memory. It is desired to understand: the place-space relation where the events causing a trauma have taken place. However, another important question is that; if any space which has been created/designed to remember such events is independent from the place, will it have the same influence on people?

In this context, the influence created by the Jewish Holocaust is questioned by "place-space where the event has been experienced directly" and the "place-space arranged in memory of this event".

By these queries, it has been aimed to understand the difference of the impact of the traumatic event on people. By analyzing the views of the 30 persons each of the two groups selected for both spaces over words of emotions, it can be said that no distinctive difference between the two spaces has been observed. But still, the differentiation of the expression of emotions in the first ranking can be described as following; the outstanding emotion in the first

example of the traumatic event at the Auschwitz-Birkenau Memorial and Museum was “sadness” whereas the outstanding emotion at the USA Holocaust Memorial Museum was “trust”. The distinctive difference between both spaces is the difference of the emotion at the first ranking. The outstanding emotion of “sadness” at the Auschwitz-Birkenau Memorial and Museum, the place where the event has occurred may be related to the fact that people may have established empathy with the events having been experienced in that very space. The outstanding emotion of “trust” at the USA Holocaust Memorial Museum may have emerged from the perfection of the space which has made people feeling such emotions independent from place and space. Other emotion influences are ranked in similar and similar intensities as shown in figure 3.

In this study where the phenomenon of replacing architecture is reviewed by memory spaces, the significance of the space and place relationship should be emphasized again. In the selected two spaces; the difference of influences of the relationship between the place of event and space on human emotions seems not to be significant but it is considered that the difference between the emotions of “sadness” and “trust” is meaningful.

The emotion of sadness is directly related with the traumatic event. It is possible to understand this from the expressions and words which people use while describing their feelings. This state can be easily seen from expressions such as “..It is like you are in the camp. The place has been maintained with such dignity and solemnity that it is truly remarkable..”, “...So very sad...”, “...heart breaking...”, “...wounded my heart...”.

The emotion of trust includes some kind of adoration and acceptance. This may mean that the success of the space at the USA Holocaust Memorial Museum is emphasized. To give some examples; it is possible to read this adoration and acceptance from expressions such as “...extremely well done”, “...the museum does an incredible job of confronting you with these lesson” and “...the museum is fabulous”.

The expression of traumatic events in human memory is realized by space and we can say that, if people establish empathy with the place of event the influence of the space will generate more realistic emotions.

When looking from this perspective, the phenomenon of “Replacing Architecture” may push back the influence of the event taking place in the memory spaces. Of course, it is not absolutely judged by this study that memory spaces should be designed only in the place where the event has occurred. Because it is known that there are spaces which have been designed independently from the place where the event has occurred and have succeeded in being very influential on people. However, it is aimed to point out that there is a kind of difference between “there” or “somewhere else” in terms of the replacing of the space and in terms of the influence on people.



In conclusion; it can be said that when traumatic events having occurred on earth find their spatial equivalent in direct relation with “there” the emotional impact of the event steps forward whereas if the events find their spatial equivalent “somewhere else” the influences of the designed space supersede the influences of the event.

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SPATIAL RESEARCH ON PLACE/ IDENTITY CONSTRUCTION/ PRESERVATION: A CASE STUDY ON A VILLAGE OF POPULATION EXCHANGE IMMIGRANT OF BURSA

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ABSTRACT

Numbers of displacements, refugees, and immigrant are increasing every day in this age of exile and mass migration. Refugees, who had to leave their country, had not only been broken off from their homeland and history but have been left with the feeling of belonging to nowhere or with no place to return to.

In this context, population exchange between Greeks in Turkey and Turks in Greece is evaluated as an important example of 'creating place' in this article. The subject of this study is the spatial issues regarding immigrants of population exchange in Bursa, Turkey, and the study aims to unveil how these people construct and/or preserve their place and identity throughout spatial practices. Population Exchange agreement brought the exchange of Turks and Greeks, excluded Western Thracian Turks and Greeks in İstanbul, Gökçeada and Bozcaada. People had to leave their homeland where they were born, grown-up and struggled to create a 'place' in a different country.

This paper aims to reveal the relations between conserving the 'place', creating a new 'place', preserving and constructing identities with the sense of belonging through in-depth interviews with immigrants and archive research in Bursa. Görükle, an example of an immigrant village, is chosen in comparison to reveal changes made by immigrants in the public spaces and private houses in time.

The relation between the space and 'the sense of belonging' will be examined in this article. People who struggle to feel belonging to a 'place', to construct their 'place', to or not to forget their place after migration will be understood through different constructions of place and different definitions of identity. The study presumes the examination of space and place in relation to the dynamics of preservation and creation of space will be a tool to understand space, place and identity.

Key Words: Place; Displacement; Population Exchange; Creating Identity; Constructing Places.

INTRODUCTION

People migrate their region to live in better conditions and go to another region. Voluntarily migration is free migration, contrary if the living conditions in the region do not provide minimum conditions, people forced to migrate. Also, the other migration type is population exchange which obliges people to migrate from their homeland to another country which was an example in Türkiye after the War of Independence, 1923.

The defeat of the Ottoman-Russian War between 1877-1878 and the loss of land led to the emigration events during the Ottoman Empire. The migration of the Turkish population living in the lost lands to the Ottoman lands or the migration of the minorities living in the Ottoman lands to their own countries began.

After the independence and foundation the country of Greece in 1830, migration of Greek people from Anatolia to Greece started and after the War of Independence, the migration reached its peak. There were nationalism and the purpose to be a nation-state, clashes between the two nations during the War of Independence, after taking back Izmir by the Turkish army and in 1922 masses emigration of Greeks to Greece, so that important emptiness in Anatolia and stack of refugees in Greece, forced to Türks lived in Greece to migrate to Türkiye for providing shelter to Greeks refugees, cessation of economic activities in two countries. Thus 'population exchange' between Greece and Turkey had decided in Peace Conference Lausanne by the authorities to bring solutions to these problems. Dated January 30, 1923 'of the convention on the Exchange of Greek and Turkish Inhabitants, and after signing the protocol, the exchange took place between Türkiye and Greece [1]–[3]. During the population exchange, 500.000 Muslim Turks migrated from Greece to Turkey and 1.200.000 Orthodox Christian Greeks migrated from Anatolia to Greece. The selection of people was dependent on religion, instead of language and race. As a result of this forced migration, the immigrants were referred to as 'exchange' in Türkiye. Besides the benefits, there were some problems that would be subject to exchange and the valuation of the goods left by the immigrants. The lands left by the migrants in Anatolia and Greece could not be farm was an economic problem for both countries. Immigrants who came by population exchange were placed in previously abandoned places and lands and it was thought that economic activity would start in the agricultural season, so the exchange was realized in winter conditions.

With signing the Agreement and Protocol on the Exchange of the Turkish and Greek Citizens on 30 January 1923, the exchange started. There were some decisions in that agreement. For example, immigrants could not return their homeland and settle again without government permission and they lost the nationality of the country of departure and obtain the nationality of the country of arrival [3], [4].

Immigrants were tried to be settled in places similar to the living and working conditions in the regions they came from, the agricultural workers settled in

the regions where they could do their work, but this could not be possible for every immigrant. Some immigrants did not want to live in their lands were settled by the government, due to different conditions and working opportunities as they used to.

Immigrants placed in Bursa came from different villages which were by the sea, lake or on a mountain. Some came by ship, some came by road with their animals. To say, immigrants wanted to continue their life practices at similar places and refused to settle in the villages allocated to them by the Turkish government. Immigrants tried to find somewhere to live in accordingly and when they found a place like their villages back in Greece, they settled in. Most Turkish immigrants settled in the villages left by Greeks. Villages, where Ottoman and Greeks lived in, changed as settled and immigrant villages. Immigrants in former Greek villages didn't need to build new houses, shops or coffees, but they built a mosque, although there was a church as a prayer place. Doing this, they tried to construct their 'place' and therefore their 'identity'. Immigrants were born in Greece and most of them did not leave their villages when they were live in there, they were unable to return from their own villages during their lifetime after the population exchange; they struggled to establish a place in another country [5].

This paper aims to reveal the relations between conserving the 'place', creating a new 'place', preserving and constructing identities with the sense of belonging through in-depth interviews with immigrants and archive research in Bursa. Görükle, an example of an immigrant village, is chosen in comparison to reveal changes made by immigrants in the public spaces and private houses in time. For instance, Greeks were producing silkworm in Görükle, but Turkish immigrants didn't know it. They used to process tobacco in Kavala and Thessaloniki. Hence, they started to produce tobacco in Görükle, so they changed the Greeks' houses for their production and lifestyle. They also built a mosque and a new square, but they continued to use the same coffees as come together.

MATERIALS and METHODS

Archives of the period, theses, books, etc. are examined within the scope of the research. Oral history interviews, on-site observations, comparison of photographs and maps are the methods for this paper.

Limitations of the Paper

The archived documents examined, but there is a limitation of finding documents about the Greek's settlements in Bursa before, during and after the population exchange. Also, almost a century has passed after exchange so that negotiate with the first-generation immigrants is not possible. Oral history interviews were done with second-generation immigrants.

Immigrants in Görükle, Bursa

Görükle is located in Nilüfer district of Bursa, 18 km from the city center. It is connected to Uludağ University in the east, İrfaniye-Balabancık villages in the west and Bursa-Izmir Highway in the south, Nilüfer Stream and Yolçatı Villages in the north. Due to the neighborhood close to Uludağ University, the new settlements and immigrants village of Görükle are separated as a texture by creating housing and social spaces for university students.

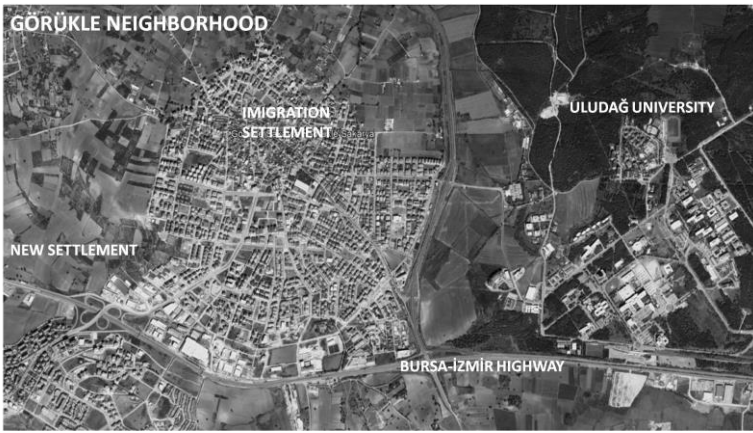


Figure 1. Location of Görükle [6].

History and Life in the Village of Kouvouklia (Görükle) Before the Population Exchange

According to the records of the Byzantine historian Georgios Pachymeres, dated 1308, the village of Görükle, Kouvouklia as referred to in the sources, was a fortress on the road to Uluabat towards Olympos (Uludağ) Mysia and was captured by the Turks in 1308. Researcher Hasluck, who visited the village in 1907-8, recorded that the remains of the Byzantine period, the Byzantine fortress, the 430 families were inhabited, the villagers spoke Greek and continued the traditions they brought from Greece [7].

Kouvouklia (Görükle) village teacher Vasileios Deligiannis, who had lived in the exchange, collected exchanged stories from the immigrants and his families until 1960 and he wrote a book [7]. The sketch of Kouvouklia (Görükle), drawn by Deligiannis, the map and the panorama of the region are given information about the period when Greeks lived in the village (Figure 2 and 12.). Greeks migrations named Nea Kouvouklia (New Görükle) to their new village where they were placed near Kavala in Greece after the population exchange.

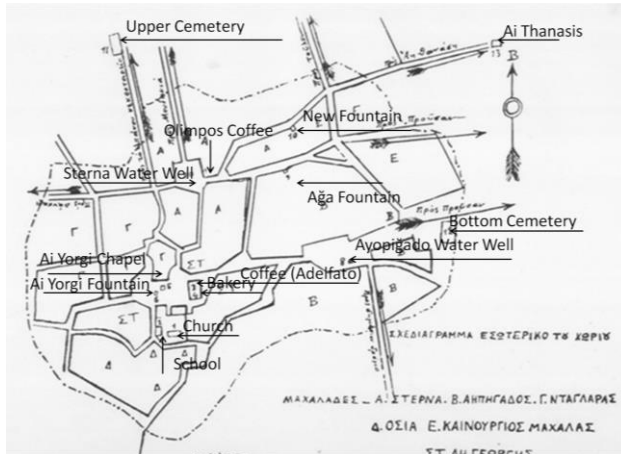


Figure 2. Public Spaces in the Village of Kouvouklia (Görükle) where Greek Teacher Vasileios Deligiannis Sketched [8].

According to Deligiannis, before 1922, Kouvouklia (Görükle) was a Greek village of Bursa, which consisted of around 420 households and was connected to the Gölyazı (Apolloniada) Church, which was religiously linked to the Metropolis of Izmit. The peasants were supported by cereal farming, animal husbandry, viticulture, and silkworm, which rose from 1880 to 1922.

In the main church square of Agios Georgios, there were a kindergarten and elementary school, the central coffee (Adelfato), a bakery, a chapel, a water well and a fountain. Mukhtar elections were held in the central coffee house of the charity association (Adelfato), and another square after the church square was Sterna [7].

In Kouvouklia (Görükle), worship took place in the holy springs. During the festive days dedicated to saints throughout the year, rituals and celebrations were held around the water wells. In the last two days of Easter, young girls gathered and danced in the village square. This dance was attended by little girls and young single, engaged and married women who married that year. Men watched them from afar. Usually, the engaged girls danced and the fiancés' mothers or close relatives spread the appropriate gifts on girls' shoulders during the dance [7].

In the village left by the Greeks in Görükle, immigrants from the Thessaloniki, Langaza District, Süfa Village (Figure 3), Serez Town, and Drama settled at the beginning of population exchange. Kavala District and from the villages of Breza and Raviga on the Bulgarian border were settled one year later [7], [9]. There was a distinction between the immigrants from Kavala and Thessaloniki. The two groups, who did not like each other's culture, were settled by the spatial distinction. Immigrants from Thessaloniki were settled in

Upper Görükle, immigrants from Kavala were settled in Bottom Görükle and they did not gather and contact with each other (Figure 4). Immigrants chose Görükle to settle so that they saw beautiful corns in the lands and thought they could do tobacco business in there.



Figure 3. Immigrants Came from Süha Village (left) and Langaza District (right) [10].

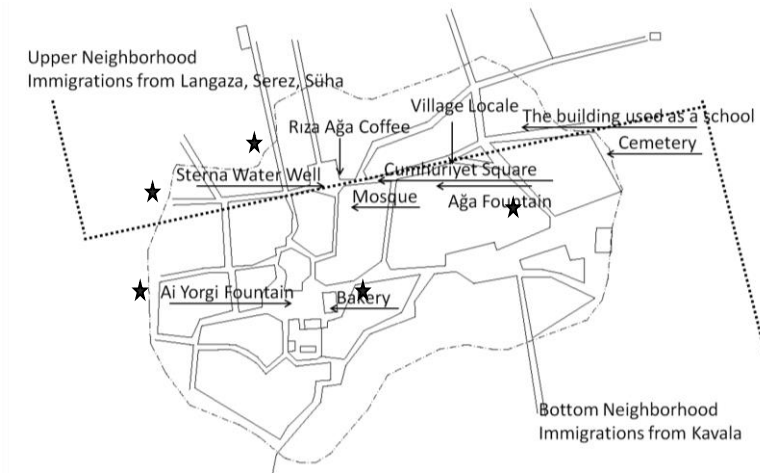


Figure 4. Immigrant's Settlement in Görükle.

Public Spaces in Görükle Village after Population Exchange

When the emigrants were placed in Görükle Village, the church and school were destroyed. The church fountain, coffee and houses are undamaged. The buildings that survived to date were the Serna Well, the coffee Olympos, bakery, the Ai Yorgi Fountain and the Ağa Fountain (these are with stars in Figure 4.) Immigrant Rıza Ağa started to run Olympos Coffee. The building is still used as 'Rıza Ağa Mübadil Kahvehanesi' today. The guests and merchants coming from the surrounding villages were entertained and stayed

overnight in this coffee after the exchange as in the period when the Greeks lived. In addition to the coffee, there were commercial houses such as tailor and shoemaker. The church and the square in front of the Ai Yorgi Fountain were not used by the immigrants. According to the interviews with the second generation of immigrants, there were two squares in the Süha Village of Thessaloniki, where some of the immigrants came from so that the houses around the Rıza Ağa Coffee have been demolished and Serna Square has been expanded and used as the main square. The mosque was built in 1936 behind this square. Today, this square's name is Cumhuriyet Square and the Greek house behind the Serna Well has been restored and used as the House of Population Exchange Museum (Figure 5.). The square in front of the Ai Yorgi Fountain had lost its character (Figure 8.).

Weddings, military farewells, celebrations and national holidays took place in the public spaces. Soldier farewells were made under the huge oak tree next to the cemetery. Weddings continued for three days and three nights started on Thursday night and ended on Monday morning. The groom's shaving and the wedding party took place in front of the owner of the wedding house. Circumcision celebrations were held for three days and three nights as weddings. The circumcision bed is installed in the house. Hıdırellez celebrated by youngsters from morning to evening, young boys and girls had chosen someone to marry. Engaged girls were sent adorned rams to the recreation area by the fiancés' family. In the evening, the fire was lit and all villagers jumped over the fire with hoping a good new year. The celebration of bairams takes place with congratulate each other's bairam at Cumhuriyet Square, which is opposite the mosque, after the bairam prayer. Celebration of the national holidays is followed by a march in the whole village after the ceremony on Cumhuriyet Square and displays take place outside the village (Figure 10, 11, 12.).

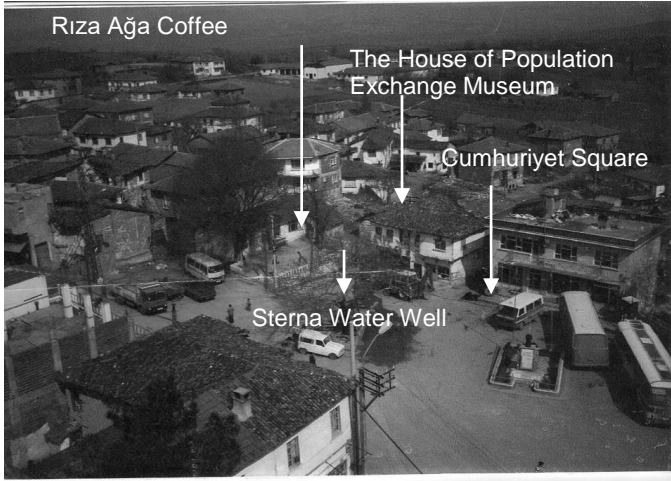


Figure 5. Cumhuriyet Sqaure and its Surroundings (Photograph was Taken at the Minaret of Mosque, 1960s) [11].



Figure 6. Sterna Water Well, Rıza Ağa Coffee House, Population Exchange House and Cumhuriyet Square, Visit of Vasili Deliyanni in 1953, Village Teacher from Serres Dimitriçi Village (left), [12], Sterna Water Well, Rıza Ağa Coffee House, Population Exchange House, 2019 (right).



Figure 7. Tobacco Drying on Walls of the Agricultural and Cooperative Building, 1950s [13] (left), 2019 (the building is not use) (right).



Figure 8. Ayiopiğado (Azizkuyu) Square 1955 (left), Ai Yorgi Fountain, 1950s (right) [12].



Figure 9. Ağa Foundation 1950s (left) [12], Ağa Fountain, 1990s (right) [13].



Figure 10. Groom Shave, 1950s (left) Circumcision Child Sit at the Table, 1950s (there were tobacco hanging to be dried in the back) (right) [11].



Figure 11. Wedding, 1950s (left), Wedding Dinner (right) [11].



Figure 12. Official Holiday Celebration, 1950s (left, right) (there were tobacco hanging to be dried in the back) (right) [11].

Houses of Greeks and Immigrants in Görükle

Greeks lived on silkworm when they lived in Görükle, Bursa so that their houses built for their job. WC, the oven was located in the garden, a stable was on the ground floor and the most important rooms of the house were on the first floor. Rooms were leading up to a sofa with a staircase starting from the garden or stony. The roof carcass of the sofa was open so, creating high volume airy spaces, the maximum height required for silkworm cocoon knitting

was achieved. When silkworm production was made, oak tree branches were connected to the rafters by wires and silkworm cocoon knitting environment was provided. In the houses where 7-8 packages of silkworm seeds were examined, the crayfish with the dimensions of 150x300 cm was attached to the ceiling and installed in the rooms in 2-3 layers, sometimes the houses were emptied of the haystack and the silk beetle was observed here. One of the rooms that open to the sofas had a bathroom in a wardrobe and a stove in the other room. The kitchen was in the form of a stand on the sofa. There were no rooms on the second floor of these buildings and the space had been created as a cocoon knitting area for silkworms. According to Deligiannis' sketch, there were lots of two-storey houses in Görükle (Figure 12).

The wooden carcass was filled with rubble stone. There were also some houses the ground floor was masonry and the first floor was wooden carcass stone fill. The buildings constructed by the immigrants are the rubble stone wall with wooden beams on the ground floor and the wooden carcass structures with brick filling on the first floors.

When the immigrants were settled in the Greek houses, they used the ground and first floors without changing. In the first years, immigrants lived on silkworm and tobacco, but they stopped silkworm after a while and the second-storey Greek houses were reduced due to the discontinuation of silk production. In the houses where crowded families or two brothers lived with their families, they used the 2nd floor, but they build sofa and some rooms as 1st floor. The immigrants who called (H)anay to the sofa, hung tobacco on the roof structure and did not cover it with a ceiling. There were usually two rooms that open to the main (H)anay (sofa). Parents room had the bathroom and the second room was used for living, eating and all other members of the family slept in there. Family elders (grandparents) also used that room with their children and grandchildren. When the boy got married, the room, which was used as a living, eating and sleeping, was his bedroom and the functions of the room were realized on the sofa. With the end of animal husbandry, families with older individuals turned the stable on the ground floor into a room for the elders. This room was called a flat-footed room. There was a well where the tobacco was kept to keep it soft while climbing tobacco in the garden or the stony ground. The hanging of the tobacco for outdoor drying took place in the garden or the facade of the house. With the expansion of the roads, the buildings have no front gardens.

Today, there are some houses built by Greeks and immigrants in Görükle (Figure 13 and 14). There are examples of plans and photographs of the Greeks' houses in Table 1, the immigrants' houses in Table 2 and some houses built after 1940 in Table 3.



Figure 12. Sketch of Kouvouklia (Görükle) Village [14].



Figure 13. Main Road to Sterna Square, Atatürk Street [13] (left) Atatürk Street, 2019 (right).



Figure 14. Fevzi Çakmak Street [11] (left) The stone filling section on the lower floor is a Greek's building and the brick filling section on it has been renovated by the immigrants, 2019 (right).

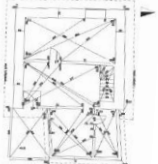
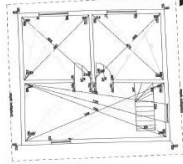

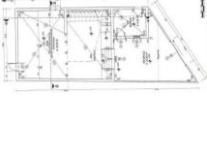
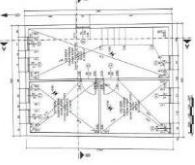

	Ground floor	1 st floor	Photograph
Block 12026, Plot 83			
Block 5369, Plot 22			

Table 1. Greeks' houses which had been changed with immigrants [15]

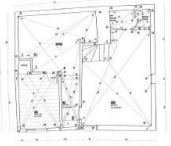
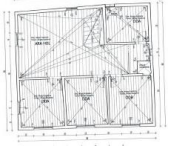

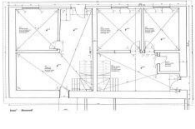
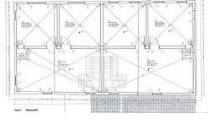

	Ground floor	1 st floor	Photograph
Block 5370, Plot 10			
Block 5283, Plot 11			

Table 2. Immigrants' houses after population exchange [15]

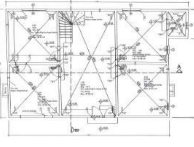
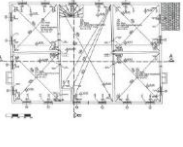


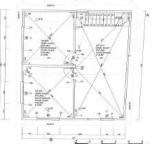

	Ground floor	1 st floor	Photograph
1940s, Block 5253, Plot 17			
1970s, Block 5341, Plot 14			

Table 3. Immigrants' Houses after 1940s [15].

CONCLUSION

This paper aims to reveal the relations between conserving the 'place', creating a new 'place', preserving and constructing identities with the sense of belonging through in-depth interviews with immigrants and archive research in Bursa. Görükle, an example of an immigrant village, is chosen in comparison to reveal changes made by immigrants in the public spaces and private houses in time. For this purpose Görükle's history and situation before the population exchange was searched. There were some public spaces such as church which is the centre of the public spaces and around the church square of Agios Georgios, Ai Yorgi Chapel, kindergarten, elementary school, central coffee (Adelfato), a bakery, a chapel, a water well and a fountain at Greeks' period of Kouvouklia (Görükle). The main public activities, for example, worship, elections, rituals, celebrations, weddings, etc., were placed in there. Also, there were second coffee (Olimpos), water well (Sterna) and square (Sterna Square). The houses were 2 storeys. Those buildings' ground floor was for service area, 1st floor for living and 2nd floor for working which was silkworm. The partitions were for those functions.

After Greeks' left the village, when immigrants came and settled in there, they found the church, kindergarten, school, Ai Yorgi Chapel and coffee (Adelfato) were demolished. But the second coffee (Olimpos), sterna Water Well was still safe. Immigrant Rıza Ağa started to run Olympos Coffee, as he did in Greece. So, Rıza Ağa Coffee, Sterna Water Well, and the square was the main public area in the immigrant village of Görükle. The square name was changed to Cumhuriyet Square and some houses demolished for expanding the square as they used to in Greece. Immigrants built a mosque firstly in front of the square, and children used a building near the square as a school. The school building built later. Immigrants also used the church square, they had two squares in their homeland in Greece, but in time, Cumhuriyet Square is the only public open space for immigrants. The public activities came to place in that square, for example, bairam celebrations, weddings, military farewells, celebrations and national holidays, as in their homeland in Greece. The changes Kouvouklia to Görükle was the prayer places as the centre place of the public spaces and the traditions type which happened in those places.

There were some changes in living places. Greeks were producing silkworm in Görükle, but Turkish immigrants didn't know it. They used to process tobacco in Kavala and Thessaloniki. Hence, they started to produce tobacco in Görükle, so they changed the Greeks' houses for their production and lifestyle. They did not need to use the 2nd floor and they demolished that floor. Just a few families used the 2nd floor as living area. They had lived similar plan houses in Greece, so they did not need to change the plan of the house. But in time, they need some changes with changing their lifestyle.

This paper reveals that immigrants changed the public spaces with started to build a prayer building firstly, so they created a new 'place' with adaptation public spaces for continuing their traditions and lifestyles but in years they changed their new houses for their need. The most important need was



continuing their prays and traditions. They constructed their identities and sense of belonging with public spaces firstly, then with houses.

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THE REPLACEMENT OF URBAN SPACE IN SOCIAL MEMORY: THE CASE OF HACIKASIM *

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ABSTRACT

Memory is the ability to keep objects, happenings and moments live, in other words, to re-envision them in mind with the help of concepts such as experience, sensation and perception. It occurs not via not only the data from the past, but also the superimposition of the data in the past with the data in the present and future, because the psychological state called "present" is both a past-related perception and a future-related effect. Beside this information, it can be said that memory is determined by the social conditions in which it lives rather than being an individual ability. This constitutes social memory.

Memory is also examined by the architectural field of knowledge as well as various fields of knowledge, because memory gains significance with spaces individuals experience/live in. The data contained in the space affect the social, cultural, historical, etc. data in the minds of individuals. In other words, the space that produces its own memory over time has a close interaction with the society and affects the social memory. In this context, it is expected that the change of spaces may cause a change in the memories of individuals/societies as well.

Hacıkasım Region, one of the regions that have changed in Trabzon, has been examined through an oral history study to determine how the change is reflected on individual and social memory. Trabzon Hacıkasım Region, which was selected as the study area, now points at the inside of the boundaries of Cumhuriyet Quarter. Hacıkasım Region, which is not included in the official sources but exists on memories, has been transformed especially after the 20th century with both settlements and the construction of the Yavuz Selim Boulevard. The main problem area of the study is the determination of the displacement at the boundaries of the region which does not exist officially. The non-existence of any registry indicating the region's location in Cumhuriyet Quarter in official records but the reference of Hacıkasım Region

* The study was carried out over Gizem SEYMEN's thesis titled "Bir Kentsel Mekanın Bellek Üzerinden Var Edilme Biçimi: Trabzon Hacıkasım Örneği" [The Formation of An Urban Space Through Memory: Trabzon Hacıkasım Sample].

to Cumhuriyet Quarter in memories causes the study to gain importance. In addition to this information, the region has changed completely in physical sense when the Yavuz Selim Boulevard was constructed in the quarter or region. However, in the memory of individuals/society, Hacıkasım Region still refers to an urban space. The main problem of the study is that Hacıkasım Region has undergone a change with both demolitions and constructions over the years and a change has been observed in the place/borders of the region in social memory with the effects of the aforementioned factors.

Key Words: Memory; Replacement; Neighborhood; Hacıkasım; Trabzon.

INTRODUCTION

Spaces such as courtyards, gardens, squares and streets, which are parts of the city, where social relations develop and neighborhood relations are strengthened, can be described as the tools of both individual and social memory. These spaces come to the fore in the design of regional, climatic and cultural differences. Together with these spaces, the existing values of the traditional way of living are transferred to future generations. In the context of city/space/memory relationship, courtyard, garden, street and the quarters that make up all of these are the most important carriers of urban memory [1].

In this respect, in the first section of the study, the subject of memory and social memory will be explained; in the second section, the relationship between the architectural field of knowledge and memory will be emphasized. In the third section of the study, information about Hacıkasım Region will be given. In the fourth section, the displacement situation of Hacıkasım Region will be explained through the data of the oral history study. Finally, in the fifth conclusion section, the displacement of Hacıkasım Region will be associated with memory. In this scope, oral history and printed texts, maps and photographs were used in the study.

Memory

Defined as "the power of keeping the experiences, the subjects learnt and their relation with the past in mind consciously, repertoire, recollection, mind " in the dictionary of the Turkish Language Association, "memory" is a concept approached from different perspectives by various disciplines [2]. Within the scope of the study, the concept of memory will be associated with the architectural field of study.

In general, memory studies examine the individuals' and societies' processes of recall, thus, forgetting [3]. Recalling envisages not the happenings in the past but mainly the representation of those happenings in mind. Huyssen (1999) states that the past is not present in the memory in a simple way and it must be expressed in order to become a memory [4]. According to Huyssen, memory is based on a representation rather than leading to a true beginning or truth. Occurrence of a difference between experiencing and recalling an

event is inevitable. Although recalling depends on the past and experience, it happens now. The difference or the split, as Huyssen stated, between the past and the present constitutes memory. This difference/split makes the memory powerful and distinguishes memory from storage and recall systems. Stating "Past is rebuilt by recalling it.", Assmann (2018) expresses that past emerges when there is an interaction with it [5, 6].

No matter how much individuals perform their actions of recalling alone, this ability or action cannot be considered independent of what individuals learned in the past and their environment. Halbwachs (2017: 10) describes this situation as follows: "...generally, our recollections often remain collective and are reminded by others, even when it comes only to the things we are involved in and the objects we see only. That's because we're never alone. Other people who are physically separate from us do not have to be there: because we always carry some people who do not mix with each other, with us, inside us." [7].

Individual memory alone is not enough in the recall process; the act of recall cannot be considered independent of the people around him or the society. However, it is not enough for the memory of the people around the individual to help the individual during the act of recall. The memory of the individual needs to keep up with the memory of other individuals and find common points, concepts and images. Similarly, another environment-related issue is that recent events or situations are better remembered than those in the distant past. Still having common points, concepts and images with the environment in which the memory of the recent past took place makes the recent past more remembered than the distant past [7].

Memory and Architecture

A majority of the information stored in our memory systems is inherently spatial. It is a fact that the act of recall and the envisagement of images in memories is related to the relationship between space and memory, because memory cannot be regarded as separate from space when performing the act of recall [8].

Robert Muller and John Kumbie [9], who conducted studies in New York, observed through their experiment that visual signs affected the locations/spaces in memories. Researchers have found that the elimination of these visual signs does not destroy the effects of locations, spaces or signs in memories [8]. Based on this information, it can be understood that disappearance of the signs or spaces does not cause people to change the way they recall the features of the space such as its smell and color and exhibit behaviors according to these effects even when they repeat only the name of that location. It is a fact that the disappearance of a space does not eliminate the memory created by that space in people and it goes on existing, and this is important for the study [6].

Nora (2006) states that memory emerges in spaces and that the most impressive symbols are also seen in spaces according to people's will or centuries [10]. He shows not only the build environment but also some actions in spaces as an example: "...festivals, emblems, monuments and memorials, also praises, words and museums." Nora (2006: 12) also explains memory spaces expressing "...memory spaces are not what we recall, but the places where memory is fermented; not the tradition itself, but its laboratory..." and states that memory is essentially more sophisticated than what is recalled and it is comprised by people and societies [10].

"The relationship between memory and space", which can be named as spatial memory, is realized by storing the interactions of individuals and societies with space in memories. Spatial memory that occurs in the mind through situations or events experienced in spaces is formed as a result of sensory, semantic and emotional interaction established with space. During the recall of information, which will take place in the long-term memory, the images invoked are first visualized in the mind with spaces [11].

Hacıkasım Region

Today's Hacıkasım Region points at Cumhuriyet Quarter (Figure 1). When historical sources are examined, it is seen that the name "Hacı Kasım" was first mentioned in the Cadastral Record Book dated 1520 as "Cemaat-ı Mescid-i Hoca Kasım" [12]. However, the mentioned quarter refers to Çarşı Quarter which is located in the north of Cumhuriyet Quarter today and should not be mistaken. Today, Hacıkasım Region, which is not included in official records, is encountered as a region only remembered through memories.

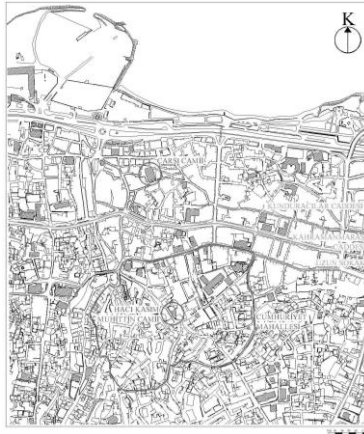


Figure 1. The Boundaries of Trabzon Cumhuriyet Quarter and the Roads, Streets and Mosques which are Considered Important in the Context of the Study (Marked on 2001 Town Map) [6].

With the Yavuz Selim Boulevard (Tangent Road) passing from the central point (main arterial road) and surrounding area of Hacıkasım Region or the Cumhuriyet Quarter, as the quarter is called in official sources, and the increase in the settlements over time, the region underwent a major change especially in the second half of the 20th century and afterwards. The educational buildings such as Cudibey Secondary School and Kurtuluş Primary School, which are specifically important for the region and the city, İdmanocağı Facility (Ziyabey Field), Zeytinlik Mosque, Hacıkasım Bakery and lots of houses have been demolished. In addition, the main artery of the region disappeared with the destruction of the small square in front of the mosque and the road connecting Uzun Street to the region (Figure 2).



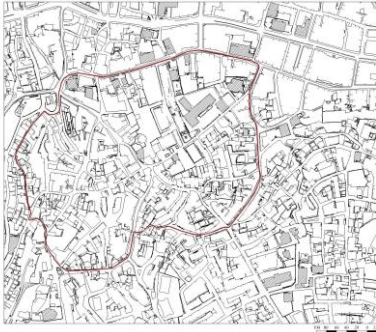
Figure 2. Satellite View of the Region after Construction of Yavuz Selim Boulevard (Tangent Road) (Dated 2010).

These changes have been effective in the change, in other words, the displacement of the boundaries of Hacıkasım Region, which exists in the memory of individuals and society and remembered through memories.

Boundaries of Hacıkasım Region in Memories

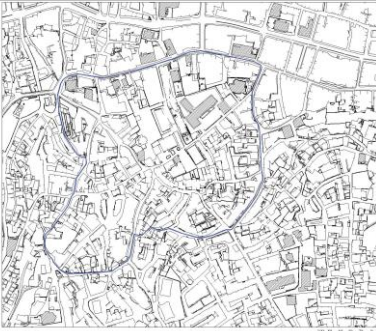
Within the scope of the study, oral history studies were conducted with 12 people. During the interviews, a total of 40 questions were asked to the participants. Some of the questions were directed to determine the boundaries of Hacıkasım Region. In addition to these questions, in the question asking the boundaries of Hacıkasım Region, zoning and town maps dated 1989 and 2001 and satellite images from various regions were presented to the individuals and they were asked to draw the boundaries of Hacıkasım Region over the map or image which they perceived better. As a result of the responses given to the questions in the interview via both drawing and oral expression, the boundaries of Hacıkasım Region in the memories of the interviewed individuals were formed in the computer environment as seen in

Table 1. In this context, summarized information about individuals, boundaries in the memories of the individuals and explanations about these boundaries are stated in Table 1.



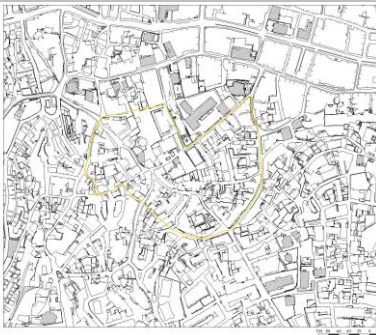
Y. KAYIKÇI

- He had a small grocery opposite Hacı Kasım Muhittin Mosque for a long time. He was encountered very often in pre-interviews.
- Although he stated that the boundaries of Hacıkasım Region were different from those of Cumhuriyet Quarter, he indicated/referred to the boundaries of Cumhuriyet Quarter as its boundaries.



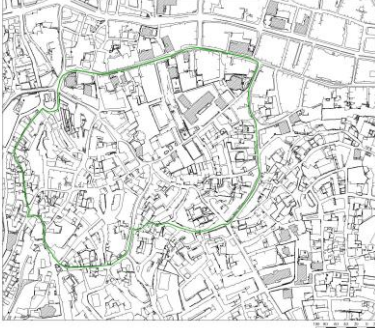
O. AKPINAR

- He is the old representative of Cumhuriyet Quarter. He had a butchery opposite Hacı Kasım Muhittin Mosque for a long time. He was encountered very often in pre-interviews.
- He said that the boundaries were the same as the boundaries of Cumhuriyet Quarter.



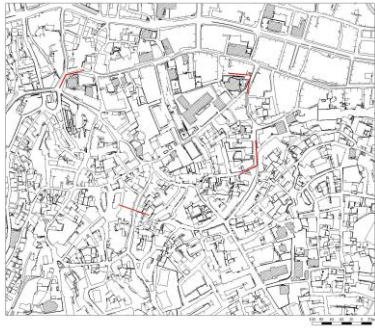
N. KARAALI

- He and his family were encountered frequently in pre-interviews because they have been living in Hacıkasım Region for long years due to their bookstore.
- They indicated/referred to the boundaries of Hacıkasım Region within Cumhuriyet Quarter, placing Hacı Kasım Muhittin Mosque in the center.



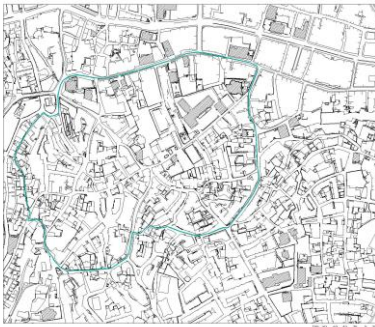
A. Y. DEDEOĞLU

- He has had a stationary on Tangent Road for a long time. He is the individual of a family important for the region.
- He indicated/referred to the boundaries of Cumhuriyet Quarter.



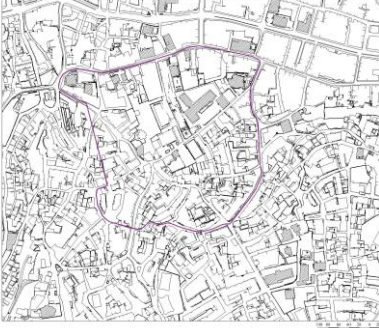
V. DİYADIN

- Because their house is still located opposite Hacı Kasım Muhittin Mosque, the house is a reference point. He and his family were encountered very often in pre-interviews.
- He stated that the name of the region was used by users as "Hacıkasım" rather than "Cumhuriyet Quarter". Within the scope of the study, he stated that the corner points of the region were close to the boundaries of Cumhuriyet Quarter.



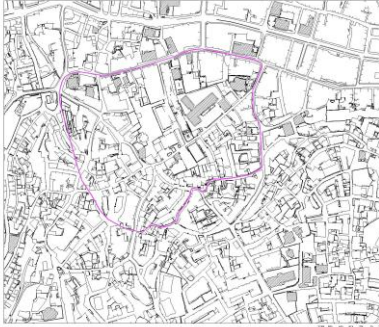
N. DİHKAN

- In the 2019 local elections, he was nominated as the representative of Cumhuriyet Quarter. He also founded and directs the group "Hacıkasımlılar" (Those from Hacıkasım) on a social networking site.
- He indicated/referred to the boundaries of Cumhuriyet Quarter.



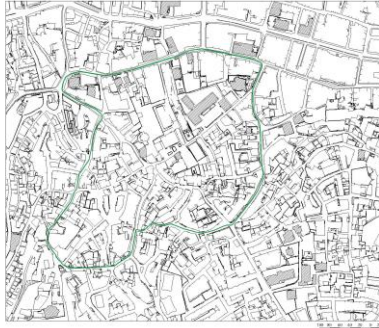
S. OLGUN

- In the preliminary studies, he and his family were encountered frequently. He lived in the region during his childhood and youth and then moved out of the city.
- He draws the boundaries of Hacıkasım Region over the space and streets where he can walk around comfortably and experience frequently.



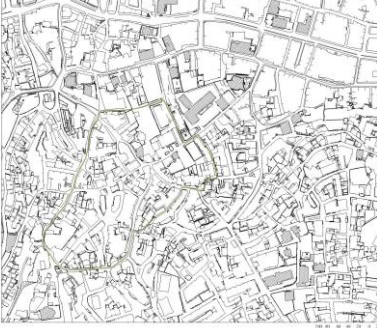
G. ÇAĞDAŞ

- He is the individual of a family important for the region. He lived in the western part of Hacıkasım Region and his family was encountered in the pre-interviews.
- He drew the boundaries of Hacıkasım Region close to the boundaries of Cumhuriyet Quarter.



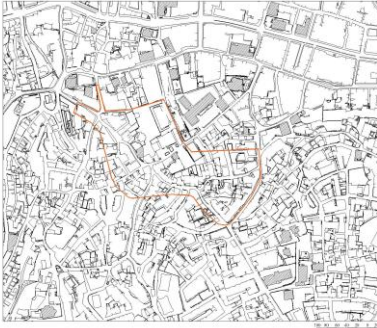
Ş. SEYMEN

- He lived in the west of the region and then moved away.
- He pointed at the boundaries of Cumhuriyet Quarter for Hacıkasım Region; however, he was not sure of a region while drawing and he drew a different boundary from Cumhuriyet Quarter.



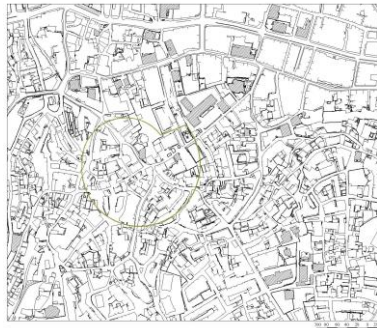
Ç. SEZER

- He lived in the region during his childhood and youth, then moved away. The important part of the study is that he has written books about the region, where he uses the space of the region.
- He drew the boundaries of the Hacıkasım Region according to his experience, placing Hacı Kasım Muhittin Mosque in the center.



B. GERÇEK

- He was the president of Trabzon Chamber of Architects during the construction of Tangent Road. He conducted studies on the city, city history and city architecture and he is one of the important architects of Trabzon.
- He stated that the names of the regions were referred to with the important structures there. He drew the boundaries of Hacıkasım Region placing Hacı Kasım Muhittin Mosque and the small square in front of the mosque in the center.



M. R. SÜMERKAN

- Besides being an academician, architect and photographer, he is one of the important names of Trabzon regarding the city history. He took the last photographs of Hacıkasım Region before the construction of Tangent Road.
- He stated that the names of the regions were mentioned with the important structures there and drew the boundaries of Hacıkasım Region placing Hacı Kasım Muhittin Mosque in the center.

Table 1. Boundaries of Hacıkasım Region in Memories.

CONCLUSION

The displacement of the mentioned urban space in the memories can be observed in the change in the boundaries of Hacıkasım Region. As a result of 12 interviews conducted with oral history study method, the boundaries of 12 Hacıkasım regions were overlapped and the map in Figure 3 was obtained.

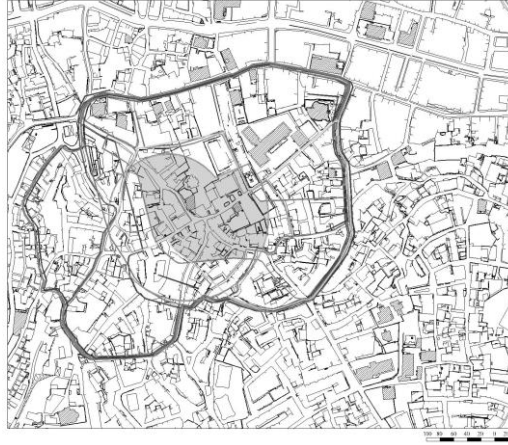


Figure 3. The Map Formed By Overlapping the Boundaries of Hacıkasım Region Obtained Within the Scope of the Study.

With the map shown in Figure 3, it can be said that the boundaries of Hacıkasım Region exist with a definite center, placing Hacı Kasım Muhittin Mosque in the center, but the boundaries are indistinct today. Because there are no certain boundaries in the memories of the individuals or the society, boundaries vary from individual to individual, and when they are overlapped, it is seen that the center is Hacı Kasım Muhittin Mosque. Within the scope of the study, when the factors according to which the interviewed individuals determined the boundaries of the Hacıkasım Region in their memories were examined, it was observed that they drew considering 4 different situations in general. These are:

1. Drawing the boundaries of Cumhuriyet Quarter due to the idea that the quarter changed its name from Hacıkasım Quarter to Cumhuriyet Quarter;
2. Drawing different boundaries by expressing they are the boundaries of Cumhuriyet Quarter;
3. Drawing the boundaries around Hacı Kasım Muhittin Mosque, where individuals can easily walk around when they interact with Hacıkasım Region;
4. Drawing the surrounding area of Hacı Kasım Muhittin Mosque thinking that the important points of the city named the regions and define their own boundaries [6].



The name "Hacıkasım", which is not included in official records in Trabzon today, continues to exist in social memory. Hacıkasım Region, which has undergone a major change as a result of construction/destructions over the years, does not point at the same places/boundaries in individuals' memories. This coincides with Nora's expression of memory spaces. When memory spaces do not exist, they continue to exist in memories. However, it can change its form/place, and after a while, it may start to fade. Then, methods such as documentation and protection can be used to ensure the continuity of the spaces that will begin to disappear.

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THE QUEST FOR IDENTITY OF PLACE IN THE CHANGING NEIGHBOURHOOD IN TALAS

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ABSTRACT

The changing lifestyles, population growth, migration, political issues, economic conditions and natural phenomena have caused spatial and social differentiation of cities. The effects of the process of formation and change of cities are more observed especially in historical areas. The fabric of city is not able to survive under these conditions and begins to be affected by the change by entering the process of aging-destruction-abandonment rapidly, hence, the city cannot protect its own identity by losing its environmental images and spatial character. Talas, which was known its multicultural context in the 19th century, has changed with these conditions in the course of time. Harman Neighbourhood in Old Talas, detected as the study area, is a district where the city square and the streets connected to this square. Today, Harman Square is surrounded by mosque, the coffee house and the buildings with public functions. Some of the traditional dwellings on the axis which is connected to this square were abandoned or destroyed due to flood, earthquake, migration and property problems, and the new residential areas have been built on the axis. This research is a reading the spatial section of Old Talas identity based on the traditional housing, Mansion of Atasoy which has been in existence and built in the 19th century, and its surrounding within the boundaries of the neighbourhood, evaluating in the context of changing and identity. The mansion has been chosen since it is the oldest housing and its owner witnessed the change of this neighbourhood. The scope of this paper includes analysis of the Mansion of Atasoy and (re) mapping urban images of its around in past and present in order to contribute spatial character and identity of old Talas that has been changed and damaged by the time. In this study, the spatial features of the mansion, everyday life in the past and the changing urban images in the neighbourhood are examined in consideration of historical researches and the memories of the owner of the mansion. The study aims to determine identity of place on the traditional housing and character of the neighbourhood according to in-depth interviews with İsmet Atasoy in addition to researches and observations. The information obtained from narratives of the interviewee are compared with historical facts. This study searches for spatial identity through focusing on the mansion and its around in the neighbourhood where transformations have taken place, and it questions how the identity of the housing, daily life and the neighbourhood have been affected by these changes.

Key Words: Identity of Place; Traditional Housing; Neighbourhood; Re-Mapping; Old Talas.

INTRODUCTION

Identity, which is defined as “the distinguishing character or condition of a person or a thing” in the dictionary, has been one of the significant research fields of architectural theory as in other disciplines. The identity of the place can be explained as a sub-part of the identity of the individual, which constitutes the perception and awareness of the spatial environment in which the individual lives [1]. The content of this spatial environment includes the environmental past of the individual, in other words, the past of places, spaces with their meaning and characteristics. The character and meaning of spaces where perceptions and experiences turn into consciousness and memories are formed by the influence of intellectual, geographical, cultural, sociological and physical conditions. Since the interaction with the place is individual, the physical environment, which is the stage of social relations networks, intellectual and cultural images, has many meanings depending on time, situation and individual. According to Rapoport, the formal characteristics of a space or settlement are indicative of its social structure and identity [2].

Places are the warehouses of memory, haunted with a myriad of possibilities for meaning and behaviour [3]. The physical and tangible elements of the place are interpreted and identified in the cognitive map of the individual, therefore, the meaning of place occurs in the collective memory of both individuals and cities. These cognitive maps, which Lynch calls the environmental image, are the product of a two-way process of interaction between the environment and the individual [4]. In the process, while the environment presents differences and relationships, the individual chooses, regulates and gives the meaning them of what they perceive. The meaning and the regulation of the place emerge as the product of social translation, transformation, experience, and social spatialization [5]. Therefore, depending on the meaning that the individuals give to the place, and the relation that they establish with the place, they attach to the place and feels themselves belonging to that place. Place attachment and sense of belonging are considered part of place-identity in the formation of self, individual and social identity. The sense of belonging as an important need of the individual depends on the character of the area formed by the unique, geographical, historical, cultural, social and aesthetic features of that place [6]. These concepts develop as a result of dynamic and mutual interaction and social experiences between the individual and the environment. The state of integration with the place, also defined by Schulz as the term “*genius loci*” [7], is the determinant of the identity of place and the city.

Urban spaces that provide the basis for communication and activities reflect local culture, experiences and time, as well as clues about the social situation of the residents. Thus, urban identity is formed not only by distinguishable formal characteristics, but also by the meaning that individuals give on the

city. The fact of integration with the place that requires a process depends on the social environment and its components as well as physical dimensions. Establishing a connection with the past in urban spaces is essential for increasing the sense of place and identity, and strengthening social memory [8]. However, the formation of the image of a place in the minds is not only by walking in the public spaces and streets of the city, but also by entering to the buildings that constitute the urban spaces, and establishing communication with the people living in the city. Therefore, when the identity of a city is examined, it is necessary to examine the private spaces and public-private intersection [9].

The changing lifestyles, population growth, migration, political issues, economic conditions and natural phenomena have caused spatial and social differentiation of cities. These confusions or differences cause de-linking of city culture and history, and disidentification. Talas witnessed several political interferences, social traumas and natural phenomena for ages like the rest of Anatolia, and these caused some changing and deformation of the identity of place in the local context. The scope of this study includes investigation and re-mapping the urban and housing life in the Harman Neighborhood, one of the most important neighborhoods of Talas, revealing the urban images of the neighborhood in the urban memory in order to the prevention of characteristic and identity in Talas.

Harman Neighborhood in Talas where narrow streets are attached to the public areas and traditional Turkish houses are located has been exposed to some changes due to migration, financial problems, inheritance problems and natural disasters for centuries. Recently, this neighborhood, which carries traces of Talas in the local context and contributes to the collective memory of the residents, has started to lose its character with the effect of globalization. In the neighborhood, which is a part of Talas' daily life with its public spaces and residential areas, landowners have built their own new buildings on the land of traditional houses, on the other hand, there are abandoned housing, idle area and ruins. The Mansion of Atasoy, one of the traditional housing that has survived for many years in the Harman Neighborhood, built in the 19th century. This housing was chosen in the neighborhood because it has reflected the characteristics of traditional residential architecture and is the witness of the change of this neighborhood for centuries. Eyüce indicates that settlement features, formal features of the buildings and spatial arrangement principles are formed by cultures in the course of time in traditional architectures, and defines traditional housing areas as residential areas which are formed by the environment of them and gain character with the way of the buildings come together [10]. This paper aims to define the identity of the Talas in Kayseri through the Mansion of Atasoy and Harman Neighborhood at the housing and urban scale and to contribute the continuity of the identity despite of the confusions, changes and losses. The effects of culture, environment and behavior on individual and all of these reflections on the space are evaluated as a whole.

In this study, the urban images in the neighborhood and the traditional housing, which were a part of everyday life, are analyzed and mapped through the obtained data, photos, experience of the user of the city and housing. The in-depth interview method with İsmet Atasoy who has grown in the Mansion of Atasoy provided information on the daily life of traditional housing and its environment, as well as demographic, social, physical features of the Harman Neighborhood. The first part of this paper includes the historical context of Talas and Harman Neighborhood. The other parts determine spatial quality of Mansion of Atasoy and urban images in its environment through mapping, and examine the changes in the Harman Neighborhood in order to understand and remind the identity of Talas in spite of the changes.

Historical Context of Talas

Talas; it is in the Anatolia Region, south of Kayseri and 6 km away from the city center. The city, which has hosted communities with ethnic differences for centuries, has a rich cultural background. Though it is claimed that its history dates back to 1500s, it is considered that Talas was formed by settling a Central Asian tribe to increase the Turkish and Muslim population in Anatolia [11]. The most important milestones in the history of Talas was the migration of Armenian families. According to the land registry records, non-Muslims settled in upper neighborhoods and lived on arts, crafts and trade, whereas Muslims settled in lower neighborhoods and lived on agriculture and husbandry (Figure. 1).

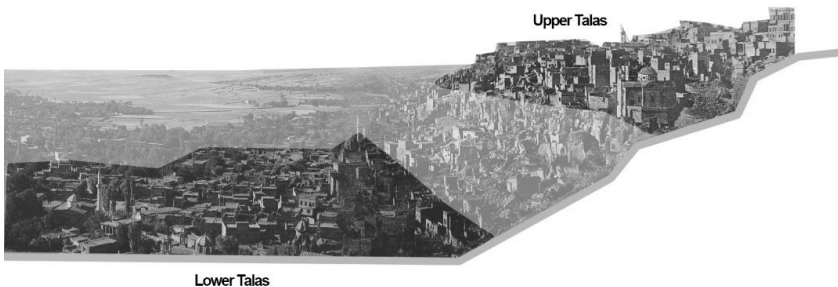


Figure 1. Section of Talas.

The process that started with the abandonment of non-Muslim population affected the change of social structure. According to the 1831 census, there are 7000 non-Muslims in Talas and 1600 Turks in total 8600 people. There were 2303 households and 5308 male population, including 2240 Armenians, 2395 Greeks and 1173 Turks. The number of households in the 1875 census was 2200 Armenian, 2395 Greek, 1173 Muslim, total 5808 male population

living in Talas at that time. The total population of Talas in 1911, of which 5395 are women and 4523 are men, is 9918 people. As in all the Anatolian cities, Talas has more female population than male population due to the prolonged wars. This multicultural and demographic structure exposed to the significant changes during the First World War, the Independence War, the collapse of the Ottoman Empire and the establishment of the Republic of Turkey. Armenians with the Forced Immigration Law in the 1915 and Greeks with the Population Exchange in the 1923 became leaving Talas, therefore the population in the 1965 was only 4297 [12]. Between 1940 and 1970, the population seems to have a static character since the population that existed in the beginning of the 19th century decreased by the migration of minorities through exchange and the rest of the Turkish population started to grow with the rate of natural increase (Figure. 2). After 1970, the population of Kayseri, with its great development, lost its stable status [13].

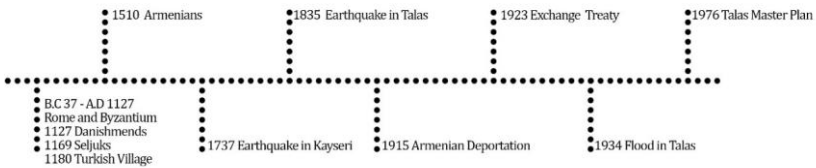


Figure 2. Chronological History of Talas.

The Harman Neighborhood, where the Muslims settled in Lower Talas at that time, was defined as the study area (Figure. 3). The changing lifestyles, population growth, migration, political issues, economic conditions, inheritance problems, natural phenomena and new constructions have significantly affected the neighborhood in terms of spatial and social. In the next section, the character and identity of the neighborhood in the process of change are revealed thanks to the information obtained and the memories at the urban scale before housing scale.

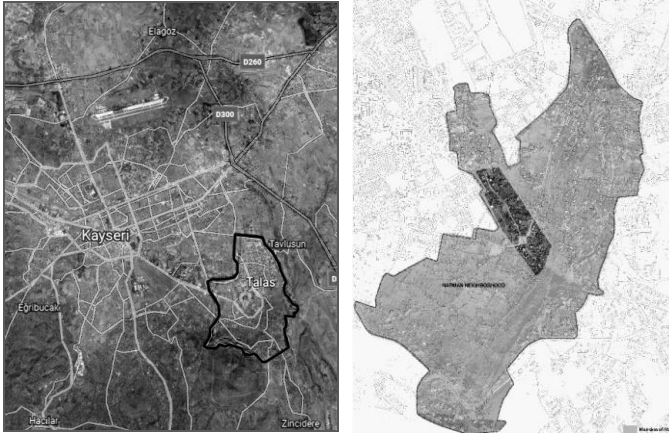


Figure 3. Talas and Harman Neighborhood in Kayseri.

Re (Mapping) the Urban Images of Harman Neighborhood

One of the most important component that plays a symbolic role in the case of urban identity is the neighborhood which is the different parts of the city. Streets, defined by characteristic residences and combined with place and user, strengthen the identity of both the neighborhood and the city. According to Lynch's description (1961) about neighborhoods, they are recognizable as having some common identifying character which the observer mentally enters inside of. Therefore, the neighborhood with its urban images is considered as a means for supporting to the bonds between residents and their environment. Establishing connections with the past through urban images increases the sense of place and belonging and is clarified the character of the place since it reflects the common memory in a city. Urban image, the sensory and intellectual traces of urban life in inhabitants and these are the important components in the recognition of the identity. As Oktay (2001) indicates, the image of the place in the minds is strengthened by more details as a result of changes and adaptations, and the character emerges in time.

Harman Neighborhood, which is a study area, has a city square connecting the streets each other, the public spaces and housing areas on these streets. As seen in the organic local fabric, which includes spatial definition and social meaning in traditional settlements, public spaces are an important part of daily life with their using in past. Public space is the common ground where people carry out the activities that bind a community in the routines of everyday life [14]. These activities which is the collective experience of places, in particular streets and squares, have a significant effect in making the identity of a neighborhood or city. The streets as the main exterior space of the city and an

intrinsic component of the urban pattern provide the residents with open space outside their housing, on the other hand, the squares as a multi-functional space is the center of urban life. The Harman Square is a typical Ottoman neighborhood with a majority of Muslims. In the Ottoman period, the division of cities into neighborhoods is seen as a practical measure to protect religious integrity rather than an administrative necessity. There are 3 basic founding elements of the traditional Ottoman neighborhood as a living area of everyday life: mosque, bazaar and housing [15]. According to the information gathered from the researches, municipality and interviews, it is seen that Harman Square was surrounded by mosque, coffeehouse which was across the Harman Mosque, and housing in the early 20th century. As İsmet Atasoy claims, the bazaar was established every week in this square, in addition, there was a small school of the mosque which is now used as a library, and there were two churches which were then demolished in the neighborhood (Figure. 4). As Işın (1995) indicates, the cultural base content of the community in the Ottoman Square can be explained with the mosques and its public space. The mosque was not only a place of worship because the Islamic values system and the human relations created by it had a spiritual integrity, and its courtyard was a effective public space in emerging the physical structure of the neighborhood.

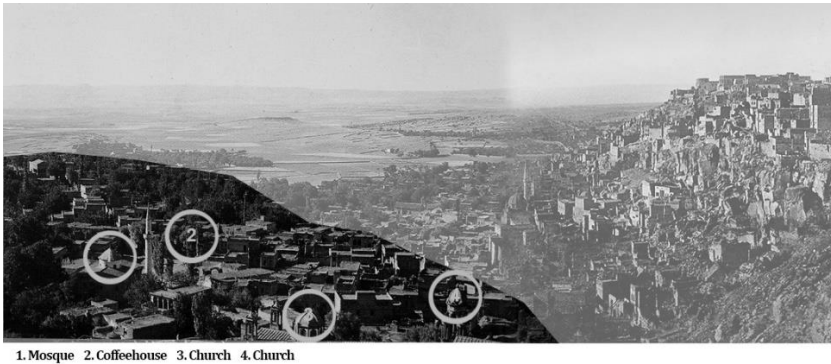


Figure 4. Public Spaces of the Old Harman Neighborhood.

The narrow streets defined by cumba houses and courtyard walls, the cul-de-sacs and the organic open public space at the intersection of streets in Harman Neighborhood, the conventional Turkish settlement, contribute to the image of the cities. The urban spatial pattern presents a variety both in terms of functional and physical. While walking in the neighborhood, the one is confronted with dynamic pattern due to variability of street width. However, the current state of the urban and housing fabric is highly questionable with some changes in terms of the identity and quality of the local context. According to İsmet Atasoy, after the 1934, leaving the housing of residents with the flooding

of stream on the main axis of the neighborhood, the problems of inheritance and property were also effective in this situation (Figure. 5). Even though Harman Square is still a public place with public buildings such as a mosque, coffeehouse and health center, it has begun to lose its function and character. The desired strong effect of a square is not only dependent on the qualities within itself, but also its relation with the streets, buildings and housing within the urban context.



Figure 5. Photos from the Stream in Harman Neighborhood (İsmet Atasoy Archive).

As in all the Anatolian cities, until the deterioration of traditional life, the concept of neighbourhood, was important in terms of relation between places and residents in Talas. In Harman Neighborhood, the streets, connecting a group of housing with each other, were the intersections between the private and public areas. Recently, the most of the houses in the neighborhood are derelict, and there is no one living in the remaining of them or their owners have changed due to inheritance problems (Figure. 6). In this context, the daily life no longer exist in the local context. In the next section, the effect of traditional housing life on the identity of the urban space is questioned on Mansion of Atasoy. This housing was choosen in the neighborhood because it has reflected the characteristics of traditional residential architecture and is still the only housing used by its residents for centuries. In this paper, the effect of daily life and physical arrangements on the identity of the residence is discussed by analyzing the traditional house through Mansion of Atasoy.

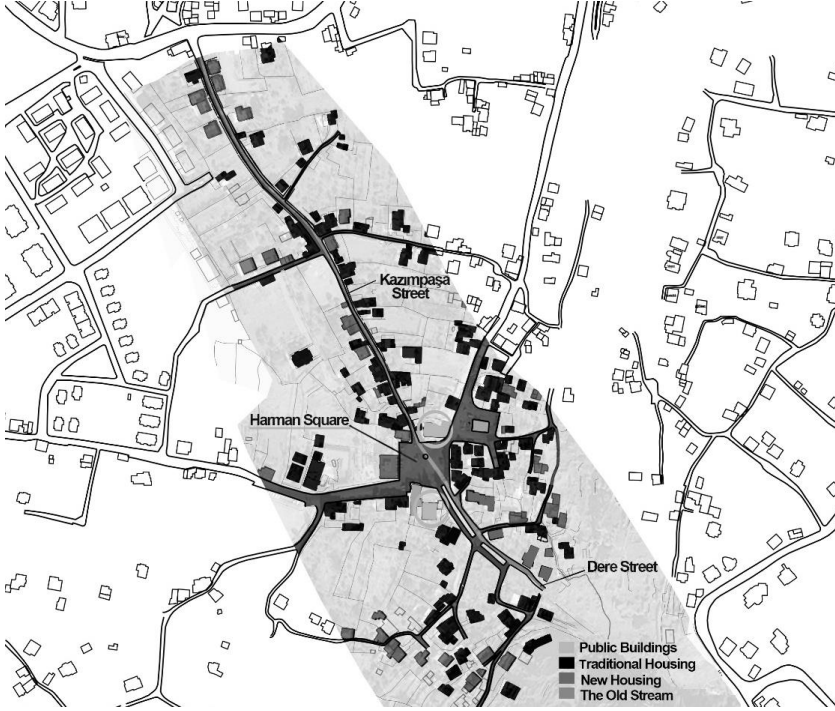


Figure 6. The Map of Images in the Harman Neighborhood.

A Traditional Housing in Talas: Mansion of Atasoy

The dwelling as a determinant of culture is an environmental component in which an individuals demonstrate their personal identity; in this regard, it is formed by communities and cultures occurs with accumulation of personal experiences in the course of time [16]. Considering that the housing is composed of functional areas, it is common for a community of the same culture to have similar, same characteristics within a certain region. However, the spaces, functions and the form of the housing cannot only be evaluated within the scope of 'need'. The space represents the relationship between function and social meaning, therefore, the arrangement of space is the arrangement of relations between residents in housing. Eyüce (2005) indicates that traditional settlements were created by traditional cultures with their environment in time, indeed, as a façade material can be seen as an environmental choice, it can also be a culture-dependent preference. The housing areas where everyday life is experienced contribute to the identity of

the city at the private-public intersection. Although some of the traditional houses built in Harman Neighborhood do not have exact dates of construction, there are also mansions that have existed for centuries. The most of them have been abandoned and destroyed, whereas some are used as summer houses by different users.

The Turkish house, which became widespread with the establishment and rise of the Ottoman State, reflects the life culture of the inhabitants. After XV. century, Turkish traditional housing were built in accordance with contemporary architectural approach composed of the main elements of *sofa*, *eyvan* and rooms with architectural compenents such as toilet, *gusûlhane* and Turkish bath, as well as *sedir*, *yüklük* and niche etc. elements [17]. The traditional Kayseri housing, which are a part of this tradition in Anatolia, also have a unique architecture. Basically, these housing consist of three main sections: *sofa-tokana-harem*. The houses, implemented an introverted plan, are formed around a courtyard or a small garden. In this houses constructed as single or double storey so as not to affect each other's field of view, stone material which is abundant in the region was used [18]. The cumba houses or courtyard walls of them are important components that strengthen the street texture and identity.

The Mansion of Atasoy, one of the traditional housing that has survived for many years in the Harman Neighborhood, built in the 19th century (Figure.7). It is important is still the only housing used by its own residents for centuries in the neighborhood. The construction of the mansion was started by Osman Efendi, the great grandfather of Ismet Atasoy, at the beginning of 1800, and was completed by Hacı Ahmet Efendi, the grandfather of Ismet Atasoy, in the middle of the 1800. The mansion reflects the tradition nourished by the accumulation of centuries with its space layout, stone façade, windows facing the street, and recessed shelves (*yüklük*) and niches. The site plan, consisted of *harem*, *selamlık*, toilet, courtyard and water well is a whole. The mansion with these features has the character of the traditional Kayseri housing. However, in this section, just the spatial analysis of *selamlık* was carried out, as it was not possible to enter the *harem* of the building. *Selamlık* has four stories: basement, ground, mezzanine, first floor (Figure. 8 and 9). There is a cooling room, called *zerzemi*, in the basement floor of the mansion. The arches of the first floor consisting of the *taşlık*, fireplace (*tandır*), storerooms carry the first floor. In the 1964, the kitchen and bathroom were added to the one of the winter rooms in the mezzanine floor. *Sofa* in the first level, which provides contact between the rooms, is used as a reception space (*divanhâne*). There are stone *sedir* and niches extending along the window (Figure. 10, 11 and 12).



Figure 7. The Location and Site Plan of Mansion of Atasoy.



Figure 8. The plans of Mansion of Atasoy.

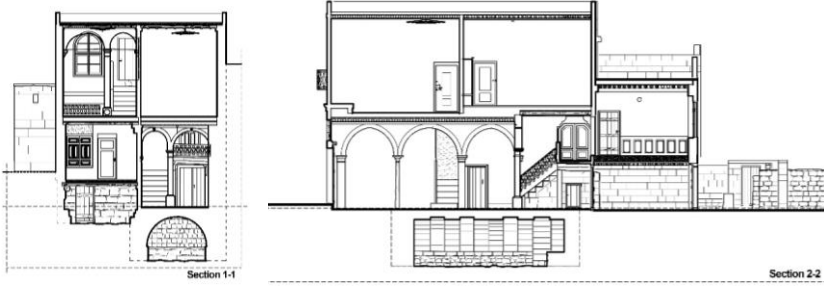


Figure 9. The Sections of Mansion of Atasoy.



Figure 10. Photos from *Taşlık* in Mansion of Atasoy.



Figure 11. Photos from *Sofa* in Mansion of Atasoy.



Figure 12. Photo from Mansion of Atasoy (Mehmet Aslan Archieve).

The role of a building in creating an image in the city is as important as its function. Oktay (2001) indicates that the streets defined by characteristic housing within the scope of housing areas also strengthen the identity of the neighborhood and the city. Therefore, in order to understand the identity of the Harman Neighborhood, which consisted of traditional houses on the streets such as Mansion of Atasoy in the past, it is necessary to examine the spatial contribution of the housing to the city. In the next section, the change in the character and identity of the city, which was determined thanks to the housing and urban life in the past, was questioned through the new images of the city.

The Change of the City in Talas

Harman Neighborhood, which includes traditional housing areas and the Muslims settled in, is a significant settlement for the development of distinctive character in Talas. The physical and functional opportunities offered by the organic urban pattern, as well as its limitations, increase the relation of the inhabitant with the city and bring vital life to the city. The old neighborhood is an identifiable unit, separated from the other districts with its character in city. However, the changing lifestyles, population growth, migration, political issues, economic conditions, inheritance problems, natural phenomena and new constructions have significantly affected the neighborhood in terms of spatial and social. The bond of city between culture and history, in deed identity of place begins to disappear with these changes. Therefore, the

current urban pattern and housing areas are perturbative to sustain local qualities and identity of neighborhood.

As mentioned in the above sections, the one of the most important factors that determine the character of a area is usage of urban areas. Even though recently, the use of the city square, which has been used for many public functions such as mosque, coffeehouse, small library and markets, has decreased on account the decline in the population of the city, but it is still a significant urban image as a gathering area. Basically, the neighbourhood as a social unit providing social collaboration among residents, hides its main character between the private and public areas. In many settlements in Anatolia, the entrance floors of traditional houses were separated from the street with thick solid walls, yet a visual connection was established with the outside on the upper floors. These connection is provided that upper rooms are designed with plenty of windows or *cumbas* which are a characteristic building element. In the Harman Neighborhood, most of the housing, as in Mansion of Atasoy, were directly linked to the street, which became the semi-private public place extending from the house at ground floor level. As İsmet Atasoy states that local neighbours used the streets for social interaction and as an extension of their home sitting outside together, but today, the streets are not as popular as they used to be in the past. Besides, the narrow streets defined by cumba houses and continuous courtyard walls along the street, the cul-de-sacs and the organic public space at the intersection of streets in Harman Neighborhood, contributed to the image of the cities (Figure.13 and 14).



Figure 13. *Cumba* Houses in Harman Neighborhood.



Figure 14. Courtyard Walls in Harman Neighborhood.

Recently, the most of the houses in the neighborhood are derelict, and there is no one living in the remaining of them or their owners have changed due to inheritance problems. The ruins and vacant areas, which are not maintained, affect to the quality of the environment (Figure. 15 and 16) In addition to these neglects, the city faces a serious problem created by the incompatible detached houses placed in the the vacant domains (Figure. 17). Obviously, the meaning and use of these apartment flats and individual houses are different from the traditional housing in the neighborhood. This new settlement is a big threat to the city rejecting the sense of place and identity.



Figure 15. Ruins in Harman Neighborhood.



Figure 16. Vacant Domains in Harman Neighborhood.



Figure 17. New Settlements in Harman Neighborhood.

CONCLUSION

Identity and character of place is formed not only by formal dimensions, but also by the meaning that individuals give on the buildings and urban spaces.. The character of spaces where experiences turn into collective memories are emerged by the influence of intellectual, physical, geographical, cultural conditions. The spatial environment includes the past of places with their meaning. Since the identity of the neighbourhood grows from the continuous relationship between the place and its users, the neighbourhood is a means for the preservation and sustainability of the cultural continuity of the city. The urban spaces are major functional and visual factors in determining the urban quality and they reflect inhabitants' culture and time in a neighbourhood. However, the public space is not only used to the voids between buildings, but also for the buildings, intersections between the private and public areas, residents in an urban environment and relationships with each other.

The changing values and images are the result of changing life style, accordingly, the expectations, desires and needs of the user from the structural environment vary and change. As observed in Harman

Neighborhood, in developing cities, the urban dynamics have changed the social, cultural and morphological formation of spatial organization, and it becomes extremely difficult to maintain the traditional fabric because of rising unearned income. This paper aims to define the identity of the Talas in Kayseri through the Mansion of Atasoy and Harman Neighborhood at the housing and urban scale and to contribute the continuity of the identity despite of the confusions, changes and losses. In the neighborhood, the abandoned housing, idle area and ruins are considered as the region where the city and the residents were disconnected. They completely changed street perception and meaning in the city, however, it can be said that they have the new meaning to new inhabitants of the neighborhood. The housing with courtyard of the past was today replaced by a scattered distribution of new unidentified housing. As the images and characteristics of the city disappeared, the boundaries of the neighborhood became the uncertain. In such a local context, designers should give prominence to the perceptual richness and genuineness without making it an object of consumption and use of the spatial environment paying attention on local characteristics.

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WALKABILITY: MEASURING THE PEDESTRIAN EXPERIENCE

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ABSTRACT

Making a city more walkable has been one of the most challenging goals for urban designers recently. Many studies have been conducted to investigate the relation between the pedestrian experience and pedestrian density on streets. Most of these studies used surveys to gain information on pedestrian experience and global position system (GPS) to track pedestrian's paths. As an alternative to these methods, a new approach has been developed. This study describes an unobtrusive observation method to track pedestrian's paths and to understand their experience during this walk trip. It offers a guide on the methodology of how the on-site observations should be conducted and what kind of data should be collected as an indicator of pedestrian experience.

Analyzing and comparing the existent studies and approaches served as an initial point. Then, two pilot studies were conducted in the city of Izmir. The first one leads to an understanding of the methodology about how to specify the initial point of observation, how to trace participants paths and for how long etc. In the second pilot study 10 pedestrians were followed during a 10 minutes walking trip. Data on the origin/ destination points, walking distance, route choice, the purpose of walking, speed, gender, attitudes and other details were collected. Finally, a final model was developed and tested in high and low dense areas. The strengths and limitations of this methodology is discussed.

The described approach can potentially be applied to many cities in terms of improving the pedestrian experience and promoting walkability

Key Words: Walking; Pedestrian Experience; Following Pedestrian; On-Site Observation; Pilot Study.

INTRODUCTION

In recent years, there has been much debate on how to make cities more walkable. In an attempt to promote, *a healthier, environmental friendly and socially active communities* [1], many studies have been carried out in order to encourage walkability. Most of these studies have been conducted by scientist from various science fields, namely architecture, urban planning, urban design, transportation and public health. They tried to understand the relation between walkability maps and health index (obesity index, blood pressure index and hypertension index) or the factors of the physical environment that encourage people to walk. Yet, a better understanding of why people walk or what it means to walk from point A to point B on a daily basis is needed.

Walking is much more than moving from one point to another. Pedestrians walk, stop by a café, look back and at, cross the street, talk, stand, sit, run, dance, climb or lie down. Allan B. Jacobs, in his book *Great Streets* (Jacobs 1993) described the pedestrian experience.

It's on foot that you see people's faces and that you meet and experience them. That is how public socializing and community enjoyment in daily life can most easily occur. And it's on foot that one can be most intimately involved with the urban environment: with stores, houses, the natural environment, and with people [2].

Walking is in fact another kind of socializing. While walking on the street or in the city, pedestrian interact with the urban environment and make connection with the community. This is called pedestrian experience. Most of researchers like Jan Gehl (2010) [3] grouped the purpose of walking activities into three purposes: walking for transport, walking for recreation and walking for exercise.

Many studies have been conducted to investigate the relation between the pedestrian experience and pedestrian density on streets. Most of these studies used surveys to gain information on pedestrian experience and global position system (GPS) to track pedestrian's paths. As an alternative to these methods, a new approach has been developed. This study describes an unobtrusive observation method to track pedestrian's paths and to understand their experience during this walk trip. It offers a guide on the methodology of how the on-site observations should be conducted and what kind of data should be collected as an indicator of pedestrian experience.

This paper starts with an overview on the existing studies and approaches about measuring the pedestrian experience while walking. Secondly, two pilot studies will be presented in which the pedestrian experience were investigated. The first one leads to an understanding of the methodology about how to specify the initial point of observation, how to trace participants paths and for how long etc. In the second pilot study, 10 pedestrians were followed during 10 minutes walking trip. Data on the origin/ destination points, walking distance, route choice, the purpose of walking, speed, gender, attitudes and other details were collected. Thirdly, a final model was

developed with a detailed description of how the study will be conducted on site and how the results will be documented. Finally, the strengths and limitations of this methodology will be discussed.

Literature Review on Pedestrian's Path and Experience

Empirical studies aim to understand the pedestrian experience via various types of methods, majority of which relies on surveying pedestrians or residents. However, few other studies have used expert panel survey or publicly available secondary data.

In the last years, a growing body of literature have used global positioning system data (GPS) to understand where the pedestrians walk and use travel diaries to understand the environmental experience during the walk trip. Such method has been used for various purpose. For example, Wolf et al (2001) [4], Shoval and Isaacson (2006) [5] and Cho et al (2011) [6] used GPS and developed algorithms to study travel behavior. While others used GPS tracking method to examine travel behavior of tourist [7], children and adolescents [8, 9], and retail consumers in shopping malls [10].

Some other studies attempted to understand pedestrian's walking experience via on-site observations. Observation method was first used to study pedestrian movement by Weiss and Boutourline (1962) [11], who accompanied visitors to world's fair. They proposed that an obtrusive observer does not affect the behavior of the subject (pedestrian). Mainly, the observer should follow the pedestrian on foot to track her/his route through an urban area [12]. Alternatively, technologically sophisticated observation methods are also used. Lautso and Murole (1974) [13] and Pushkarev and Zupan (1975) [14] used aerial photography to estimate pedestrian volumes on streets but failed to draw the walked routes taken by pedestrians. Sisiopiku and Akin (2003) [15] observed pedestrian activities through video cameras. Hess et al (1999) [16], Suminski et al (2006) [17], and Alfonzo et al (2008) [18] counted the number of people walking to study pedestrian volume and route choice.

GPS and on-site observation methods both have advantages and limitations. Given that, most studies opted for surveys, or travel diaries rather than other methods of data collection. For example, both Hartenstein and Iblher (1967) [19] and Marchand (1974) [20] used surveys to collect detailed data on individual route choices. Blivice (1974) [21] collected data on pedestrian route choices. Surveys are simple and effective in data collection and data assesment. However, it may have an essential shortcoming that generates from the bias of researcher or subjectivity and accuracy of acquired information [22] [23] [24].

The use of GPS tracking and survey methods simultaneously enables the researchers to track the pedestrian movements over a certain period of time, and also provide a high level of accuracy in the acquired data [25] [24]. Yet, subjects in studies that adopt this method may well be conscious that their traveling information is being recorded, which might lead to an unusual or

unnatural travel behavior [24]. It also requires substantial cost and precise monitoring. Moreover, it only provides information on the paths taken in each travel log, but no information on pedestrian travel behavior and experience [24].

On-site observations have a considerable validity where information on pedestrian experience are collected by directly following the pedestrian on foot, findings can be manipulated by the observer's expectation and intention. It is also time consuming and requires physical effort of observer. Contrary to survey methods, the socio-demographic characteristics cannot be collected precisely. Yet, it is the only way to record pedestrians actual travel behavior and experience, descriptive information about their activities and behavior.

This paper, accordingly aims to develop an unobtrusive observation method to track pedestrian's paths and to understand their experience during this walk.

RESEARCH METHOD

Two pilot studies were conducted in Sirinyer, Buca / Izmir. With the presence of public transit, residential and commercial buildings the case study area represents a mixed-use neighborhood.

The purpose of the first pilot study, was to get an understanding of the following questions:

- Where should be the initial point of observation?
- How to record the pedestrian behavior and paths?
- For how long the observation would be done?

Photographing or filming was avoided during the observation in order not to offend the observed pedestrian.

The literature offered the initial point of observation to be a public transport stop, residential building or commercial building. Given that, the first person encountered in these areas in the selected neighborhood (Sirinyer) was tracked. This is repeated for four pedestrians. The origin and destination of each walk trips was as follows:

- 1- From Metro station to Bus Station
- 2- From Bus Station to another Bus Station
- 3- From a Barber to Apartment Building (Home address)
- 4- From Apartment Building (Home address) to a grocery shop to Apartment Building.

The routes walked were collected and recorded using the application "My Itinerary". The application is connected to GPS. The notes on the observed walking behavior (details about the speed, dress code, estimated age, gender, time spent, looking at something, interaction with the built environment and

presence of other pedestrians, individuals or groups...) were noted during the observation.

Friday, 01 March 2019



Figure 1. Pilot 1: Walk Trip and Route Choice.

Id	Time	Time spent	Distance	Gender	Estimated age
01	10:43:37	02min 55sec	196 m	Female	20-25 years old
Wearing casual clothes and high heels, she was walking most of the time on the sidewalk. The street wasn't crowded. She was looking at boutique and photography studio (stopped for some seconds) and continued to the bus station.					
02	10:47:26	04 min 46 sec	179 m	Female	50 - 65 years old
Walking so slowly, she was looking at shops (tea). While walking she received a call (maintained same speed).					
03	10:58:42	12 Min 09 Sec	664 M	Male	> 60 Years Old
Holding a plastic bag. Walking in a moderate speed, stopped by a journal place, bought one and continued his path. He was giving priority for pedestrian coming from opposite side and for cars at crossing point. He looked left/ right while crossing. He stopped by a bakery and went to the bank but it was crowded so he did not spend too much time inside and he got out and reached to his final destination (residential building).					
04	11:25:52	07 Min 13 Sec	223 M	Male	20-30 Years Old
He was wearing casual clothes. He seems that he knows the place. Moderate speed.					

Table 1. Pilot 1: Walk Trip and Pedestrian Behavior.

Observation of four people showed that the pedestrian did not notice the observer, it was easy to record the dress code, speed, behavior. However, pedestrian's behavior was not coded systematically. This shortcoming will be acknowledged in the next pilot study. Moreover, the duration differed significantly (from 2 to 12 minutes) and pedestrians stop by various destinations for a short period of time. This first pilot study produced new questions. What should be minimum duration of trip and when should a stop be considered as final destination (for how long should the observer wait the participant to get out). Similar studies were reviewed to understand for who, how, where and when should the observations would be done (Table 2).

Paper	Choi (2012) [26]	Kim (2015) [24]	Hill (1984) [12]	Zacharias et al. (2018) [27]
Area of study	Residential area	Mixed use area	Not residential area	Mixed use area
Observation point	Home address	Station exit / Park	N/A*	Metro stations
Destination/ time spent	Home most of the time/ no time restriction	Entering a residence, a café and sit down, waiting 20 minutes	Pedestrian remains in the location for a period of 10 minutes	Entering a first destination
Period	From 7:00 am to 8:00 pm	From 2:00 pm to 6:00 pm	N/A*	In off peak hours: 10:00 am, 12:30 pm and 7:00 pm
Excluded walkers	Elderly persons and children	Those who are under 18 years old and who transferred to another travel mode	Those who appeared to have a regular route to follow as part of a job	N/A*

N/A* Not available

Table 2. Comparing Studies on On-Site Observation.

Given that literature, the following rules were set for the second pilot study:

- Study a mixed-use area (presence of public transit, residential and commercial buildings), and avoid residential areas. Because, waiting people to go out from their houses is time consuming,
- Initial observation points should be the road intersections; major roads intersection in high density area and secondary roads intersection in low density area,
- The trip is considered to be completed if pedestrian enters a house or a café and do not come back for 2 minutes, otherwise observe for at least 10 minutes
- The observation should be done in peak hours to capture as much pedestrian as possible,
- Exclude people who follow a regular route as part of their job (policeman, cargo deliver ...),
- Record data about: route, gender (male, female), estimated age (child, young, adult, elderly), time spent, distance, purpose of walking activity (transport, recreation or exercise), speed (slow, moderate, speed), interaction with environment, crossing attitude, weather conditions, difficulties and sidewalk conditions are collected.

Three initial observation points were specified:

- Intersection of main roads: Intersection of Menderes street and 302 street,

- Intersection of main roads: Intersection of Menderes street and 366 street,
- Intersection of two secondary roads: Intersection of 336 street and 317 street.

10 pedestrians were randomly selected (the fifth person passing by an observation point) and observed for 10 min (if nonstop, about 1000 meters walking distance).

Thursday, 07 March 2019

Id	Time	Gender	Estimated age	Distance	Time spent	Purpose
01	13:14:57	Male	Adult	459m	07 min 28sec	Recreation
Moderate speed. Holding in one hand his coat and a plastic bag and his phone in the other. He checked his phone 3 times, he almost stopped. He was giving priority to other pedestrians.						
02	13:28:34	Female	Young	217 m	04 min 20 sec	Transport
Wearing high heels. Crossed the street, bought something from a small shop (stayed for 45 secs). While crossing, she was almost running, didn't wait for the bus, and crossed the street once again running to catch the bus.						
03	13:34:59	Female (group of 2)	Young	389m	10 min	Recreation
They are carrying two small bags/ back bags. Entered a boutique for 3mins. Crossed the street. They didn't use the crossing signs, they run, it was dangerous but they managed to cross. I think they recognized me, they stopped by a shop.						
04	13:52:30	Male	Elderly	785m	09min 26sec	Transport
He was almost running, no stop. Sometimes he looks at his right (presence of shops). He entered a bank before the 10min and did not get out.						
05	14:21:16	Female (group of 2)	Adult	318 m	08min 39sec	Recreation
They were talking to each other and walking in a high speed on the street (not the side walk) at the beginning for a long time then one of them stepped on the sidewalk and the other followed her. Entered a Boutique (Tuhafiye) and spent one minute. They went out and crossed the street, checked the flowers outside the market and entered the market.						
06	N/A*	Male	Adult	N/A*	N/A*	N/A*
I couldn't record any information on my application. The trip was less than 1 min.						

07	14:38:44	Female	Adult	345 m	10 min	
She was walking so slowly, looking at boutiques. She stopped in the middle of the street, made a phone call. She noticed a street vendor, changed her direction got and got some snacks then returned back to the main street. Walking, eating and window shopping. She crossed the street (probably for shadow). She stopped; as if she was waiting for someone.						
08	14:56:54	Female	Young	87 m	01 min 34sec	Transport
She was walking in a moderate speed, crossed the street (waited for the light) entered a tailor store, spent the remaining time inside the store.						
09	15:18:05	Female	Adult	430 m	07 min 02sec	Transport
Moderate speed. She was pushing a stroller and carrying a shopping bag. She was walking on the street and didn't use the sidewalk. She reached a residential building before the 10 min.						
10	15:30:17	Male	Adult	611 m	09min 22sec	Transport
He had a paper and a lot of keys on his hand. He crossed the street (green light), stopped by a pharmacy for a short period of time and continued walking. First, he used the sidewalk then walked on the street, at a certain moment he stopped and he was looking for something, she come back to a building behind the pharmacy, checked the door and he returned and continued walking, he was almost running. He entered an apartment building.						
N/A* Not available						

Table 3. Pilot 2: Walk Trip and Pedestrian Behavior.

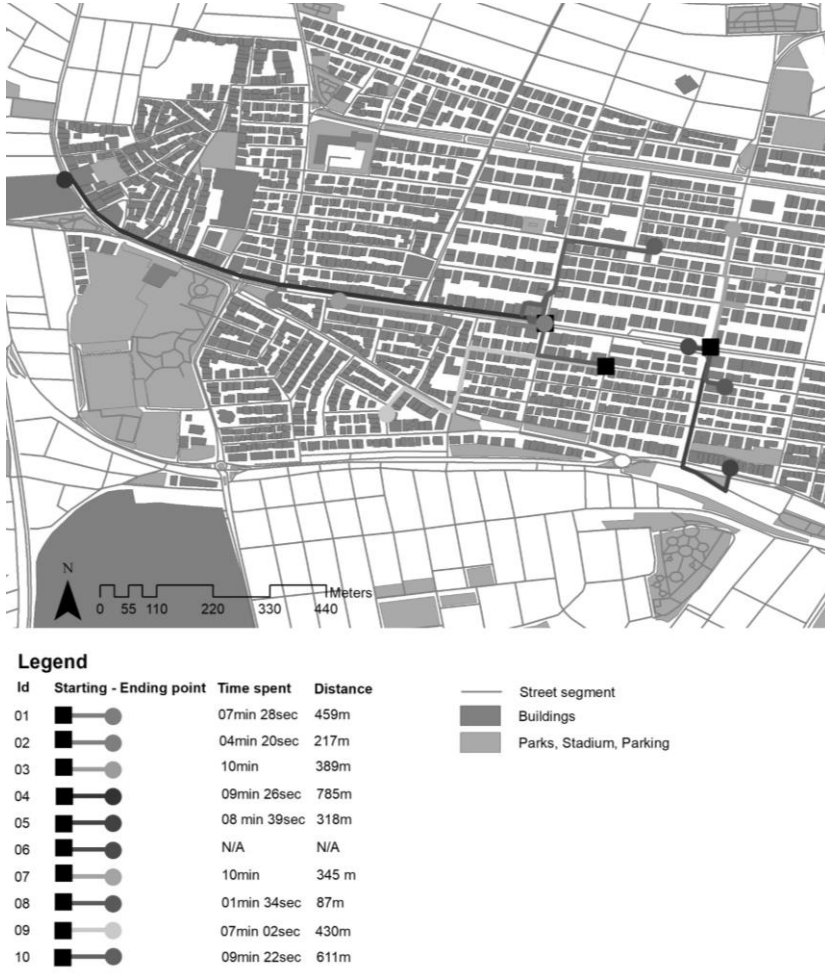


Figure 2. Pilot 2: Walk Trip and Route Choice.

Lessons Learned from Unobtrusive Observations of Pedestrians

The main purpose of this paper was to study the pedestrian experience and develop a guide on the methodology of how the on-site observations should be conducted and what kind of data should be collected systematically as an indicator of pedestrian experience. Descriptive information about pedestrian activities and behavior was collected in order to understand the pedestrian experience. With this methodology, researchers should spend time and show some physical effort to collect data. Moreover, some of the pedestrians who are followed for some time should be dropped from the sample as they stop by at several locations and spend most of their observation period in indoors and fail to walk for full 10 minutes. In other words, these pilot studies showed that in order to observe a pedestrian 10-minute walk behavior more than 10 minutes should be observed. In ten minute of observation period; participants' walk time varies from 1 minute to 10 minutes.

For observing pedestrian paths and behavior this pilot study experience leads to following conclusions for the upcoming comprehensive study:

1. The weather conditions should be stable during the observation. Sunny days with a temperature between 20° C and 30° C are preferable.
2. The on-site observation could be conducted during week days from 10:00 am to 18:00 pm in order to capture as much pedestrians as possible
3. The intersection of the major roads might constitute the initial observation points.
4. Walk trip and route choices could be recorded using "The Itinerary" application.
5. A randomly selected pedestrian could be followed (the fifth person passing by an observation point).
6. For the duration of observation following protocol could be used:
 - A: If he/ she entered indoors and walked less than 5 minutes, wait 5 minutes
 - a. If he/ she doesn't come back, drop him/ her from the sample;
 - b. If he/ she comes back, observe him/ her for the remaining time (10 minutes).
 - B: If he/ she walked more than 5 minutes, wait him/ her for the remaining time (10 minutes):
 - a. If he/ she comes back observe him/ her for the remaining time;
 - b. If he/ she doesn't come back, start observing next pedestrian.
7. Information on time, distance, origin, destination and stops and barriers, crossings should be recorded. The other information related to the pleasure and difficulties in walking through and crossing the street and interaction with the built environment and other people can be noted and short notes could be taken when it's possible. This field data could be analyzed via Geographic Information Systems.

The notes on the observed pedestrian behavior are:

- Id: a number for each pedestrian,
- Gender: Specify the gender of the pedestrian (male, female),
- Age: child, young, adult, elderly,
- Group: specify if the subject is walking alone or in group,
- Speed: Slow, Moderate, speed, very speed.
- Dress code: casual, sport, chic ...,
- Purpose of walking: transport, recreation and exercise.

It is also important to note that:

- Photographing or filming should be avoided during the observation in order to not offend the observed pedestrian,
- Those who follow a regular route as part of a job (policeman, cargo deliver ...) should be excluded from the study,
- The pedestrian who noticed that his/ her walk trip is observed, should be dropped from the sample,
- Collected information should be anonymous and any disclosure of such information does not place them at any risk or damage their reputation.

CONCLUSION

This study is a preliminary study of a more comprehensive study. The next step is to apply this updated methodology (on-site observation) in Karsiyaka, a mixed-use district in the city of Izmir, Turkey in order to investigate the relation between Pedestrian Experience and Walkability Maps. In other words, this observation will let us to compare the street quality where people choose to walk (walkability of streets will be evaluated based on walkability maps as described in research projects lead by Cubukcu in 2014 [28] and Cubukcu 2019 [29]) and where people does not walk (the alternative path between origin and destination).

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THE IMPACT OF TRANSPORTATION DEVELOPMENT IN LANDSCAPE MORPHOLOGY OF TRADITIONAL AND NEW SETTLEMENT CASE OF ADRAR ALGERIA

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ABSTRACT

Transportation has a strong impact on the spatial structure at deferent levels. Furthermore, transportation systems are composed of a complex set of relationships between demand, locations they service and systems that support movements.

This study will try to investigate the interaction between under developing transportation infrastructures, urban dynamics and patterns, especially focusing around traditional and new settlements in Southwest Algeria. The mobility structures in the Southwest Algeria have a strong relation with the urban dynamics which permits the development of a new system of regional space revolving around certain agglomeration in states.

In this study, we aim to analyse the effects of these inter-relations on the development of urban network, mobility infrastructures and traditional agro-ecosystems which represents the cultural roots of Algeria. Our first investigations show that the addition of the new transportation infrastructures in the Southwest region of Algeria causes re-placements in-between new and old agglomerations.

The paper consists of three parts:

- (1) The effects of transportation routes to the transformation of cities,
- (2) The transportation planning and implementation process in Algeria general and Southwest particularly,
- (3) The analysis of the effects of transportation services and mobility of people in Southwest Algeria on landscape and settlement patterns,
- (4) The Case Study analysis in a cultural heritage site; Adrar¹ Ksourien² Settlement Tamentit.

In the first part the effects of transportation systems on urban sprawl mechanisms will be discussed in general. In the second part, the operation of

¹ Adrar is the administrative capital of Adrar Province, the second largest province in Algeria. The commune is sited around an oasis in the Tuat region.

² Ksourien Male singular name. Inhabitant of a ksar, fortified locality in North Africa.

urban network in the Algerian Southwest and its relations with the logic of mobility and interchanging process with the natural and urban landscape will be explained with a chronological approach. In the third part, historical importance and transformative effects of carrying goods and people between north and south in this desert environment will be introduced which has been a part of social and economic life in the region for centuries. Especially in the last decades, the gradual change in general transportation characteristics of the region change the intermediate urban centres, promote co-existence of new poles and reorientation of flows. These changes have influenced the traditional settlements, their cyclical relations with the surrounding landscapes and the reactions of inhabitants to their environment.

In the fourth part of study, this transformation process will be revealed by reading the spatial change on selected case study which is a typical old-Saharan settlement representing the combination of know-how and space regulation.

Our case area Tamentit¹ is a deep-rooted historical settlement which surrounded by palm-groves, supported by the ancient underground water supply system and characterized by traditional agricultural lifestyle in the desert landscape. In the last decades, the construction of the new national way and new settlement areas beyond the road has created a transformation around the region in terms of landscape, urban pattern and social structure. The effects of this changing process severely influence the old historic town of local people (*Ksouriens*). In order to understand the impact of the new road, we will analyse land-use change between the years 1962-2018 on aerial photos; historical maps; ECT. We pursue a process oriented analysis with the aerial maps, site demographics and site observations which reveal the change before and after the construction of the new road. In order to understand this complex phenomenological transformation process, we will investigate change in land use and effects of this change on the agro-ecology and cultural life style in Tamentit.

Our initial findings show that interchanging character of urbanization process in Southwest region of Algeria is the result of interactions between political development actions of the government which effect both the formation of new settlements and modification of the traditional villages. Moreover, this modification effects interchanging relations among the spatial organizations and the socio-ecological bonds of the people.

Key Words: Transportation Systems; Transformation of Urban Patterns; Desert Landscape; Traditional Settlements; Algeria.

¹Tamentit (تامنطيت) (sometimes spelled Tamantit) is a town and commune or municipality in Fenoughil District of Adrar Province, in south-central Algeria.

INTRODUCTION

Urbanization has been one of the dominant trends of economic and social change of the 20th century, especially in the developing world.

Urbanization reflects an increasing proportion of the population living in settlements defined as urban, primarily through rural to urban migration. The level of urbanization is the percentage of the total population living in towns and cities while the rate of urbanization is the rate at which it grows (UNFPA, 2007)¹.

Although cities played a significant role throughout human history, it is not until the industrial revolution that a network of large cities started to emerge in the most economically advanced parts of the world. Since 1950, the world's urban population has more than doubled, to reach nearly 3.8 billion in 2014, about 54% of the global population. This transition is expected to go on well into the second half of the 21st century, a trend reflected in the growing size of cities and in the increasing proportion of the urbanized population. Cities also dominate the national economic output as they account for the bulk of the production, distribution and consumption. Urban mobility problems have increased proportionally, and in some cases exponentially, with urbanization since mobility demands are concentrated over a specific area.

Transportation and Urban Structure

Urbanization involves an increased number of movements in urban areas. Cities have traditionally responded to growth in mobility by expanding the transportation supply, by building new highways and transit lines. In the developed world, that has mainly meant building more roads to accommodate an ever-growing number of vehicles. Several urban spatial structures have accordingly emerged, with the reliance on the automobile being the most important discriminatory factor. Four major types can be identified at the metropolitan scale (Dr Jean-Paul Rodrigue) *The Geography of Transport Systems*.

Type I – Completely Motorized Network: Representing an automobile-dependent city with a limited centrality and dispersed activities.

Type II – Weak Centre: Representing the spatial structure of many American cities where many activities are located in the periphery

Type III – Strong Centre: Representing high density urban centres with well-developed public transit systems, particularly in Europe and Asia

Type IV – Traffic Limitation. Representing urban areas that have implemented traffic control and modal preference in their spatial structure. Commonly, the

¹ UNFPA. United Nations Population Fund (formerly United Nations Fund for Population Activities) UNFPA

central area is dominated by public transit.

There are different scales where transportation systems influence the structure of communities, districts and the whole metropolitan area. For instance, one of the most significant impacts of transportation on the urban structure has been the clustering of activities near areas of high accessibility. (Dr Jean-Paul Rodrigue)

The impact of transport on the spatial structure is particularly evident in the emergence of suburbia. Although many other factors are important in the development of suburbia, including low land costs, available land (large lots), the environment (clean and quiet), safety, and car-oriented services (shopping malls), the spatial imprint of the automobile is dominant. Even if it could be argued that roads and the automobile have limited impacts on the extent of urban sprawl, they are a required condition for sprawl to take place. While it is difficult to assess in which specific circumstances the first suburbs emerged, suburban developments have occurred in many cities worldwide, although no other places have achieved such a low density and automobile dependency than in the North America. The automobile is also linked with changes in street layouts. While older parts of cities tend to have a conventional grid layout, from the 1930s new suburbs started to be designed in a curvilinear fashion, which included some cul-de-sacs (dead ends). By the 1950s, the prevailing design for new suburbs was privileging cul-de-sacs. Although the aim was to create a more private and safer environment, particularly in cul-de-sac sections, the outcome was also a growing sense of isolation and car use.

Facing the expansion of urban areas, congestion problems and the increasing importance of inter-urban movements the existing structure of urban roads was judged to be inadequate. Several ring roads have been built around major cities and became an important attribute of the spatial structures of cities, notably in North America. Highway interchanges in suburban areas are notable examples of clusters of urban development that have shaped the multi-centric character of many cities. The extension (and the over-extension) of urban areas have created what may be called peri-urban areas. They are located well outside the urban core and the suburbs, but are within reasonable commuting distances; the term "edge cities" has been used to label a cluster of urban development taking place in a suburban setting.

Algerian Situation

The huge urbanization in the Algerian towns, and the increase of the population's standards of life style, has a direct impact on the explosion of the urban mobility, the number of 878 revellers and transport of goods. It must be mentioned that many Algerian towns expressed an urban sprawl and some others are characterized by their metropolitan form. In fact, the decrease in suburbs' land prices has encouraged building and explosion of the towns with the tendency to form metropolitan areas (as in Algiers). In this context, the

private car has become the most used means of transportation that responds to urban mobility problems, which lead to a fast growing in the national fleet of vehicles. Today, the rate of motorization is one car for five people (1 for 5), while it was one car for ten (1 for 10) people in 1996¹. Many observations confirmed that car owners use their cars for most of their transportations. It is also true that personal cars remain very competitive versus other means of transportation due to the low price of fuel. In fact, on the one hand, the price of a liter of diesel is 13 Euro cents and unleaded gasoline is 23 Euro cents. In the other hand there are socio-cultural and historical reasons that make Algerians having a passion towards car. The urban transports of goods are insured exclusively by the roads which contribute to congestion and other problems that are related to pollution, road safety, deterioration the quality of city life, etc.). Here there are real issues:

The economic issue: One of the major challenges is the ability to provide local and regional economic development in the Algerian cities. This can be achieved by promoting growth and employment, avoiding the explosion of traffic and congestion and minimizing the negative social and environmental impacts. The other issue is succeeding to control the road insecurity which remains very high in Algeria.

The social issue: it is about to give a particular attention to the inclusion of disadvantaged people and those with reduced mobility in public transport networks through special territorial coverage and subsidized transportation prices.

The environmental issue: ensuring the preservation of the environment while guaranteeing the necessary mobility generated from the economic and social development. Besides the global pollution, it is necessary to reduce the impact of environmental pollution on health.

In front of these challenges, the Algerian authorities pursued an aggressive policy based on the development and amelioration of high-quality public transportations. In addition to public companies of urban and suburban transportation that were created in all cities of the country, besides Algiers' subway, all large urban canters in Algeria have benefited from a tramway project. Among these projects only few are in various stages of realization. the transportation market is still fragmented and there is a proliferation of artisanal operators, direct consequence of the 1990s deregulation (hundreds of operators per city); network and fare integration still require many years; urban and suburban organizing transportation authorities are slow to emerge; difficulty of controlling transportations planning processes and mobility management in articulation with the process of urbanization and land-use planning practices of sustainable mobility are not forthcoming .(carpooling or cycling for example). What objectives have to be set in order to mitigate the

¹ ONR National office of reconstent

major trend which risks to be settled in terms of unsustainable urban mobility, direct consequence of the increasing use of transportation? What solutions could be applied in short and medium term? What are the best practices which can be utilized?

The Development of Mobility in the Algerian Sahara

In the past two decades is remarkable. If the movement of people and goods was once mainly the fact of the caravan trade across the Sahara, it is now the result of a complex spatial dynamics initially driven by the realization of land transport infrastructure and the development of the engine and through the promotion of small urban centres providing new territorial functions, and finally, more recently, by the dynamics of rural areas (agricultural development outside the oasis zones, expansion of rural housing, etc.). Included in this new socio-economic and the new geographical configurations, mobility and interchanges intensified, particularly between the city and the Ksour¹ Thereby changing the organization of the Saharan area. The Sahara is now opened up a space, dynamic and urbanized, where travel is intense and steady growth.

The opening up of the Sahara should be analysed by including it in three dimensions - economic dimension, the opening of the first roads being engaged when oil exploitation started, that is to say, in the 1950s and 1960. Thus asphaltting of roads in southern Algeria has helped open several Ksour forgotten in the desert and to integrate them into the trading systems that operate at different levels (national, regional, and local). In the south-western Algeria, RN 6, which connects the north and south, from the Mediterranean to the border with Mali, in this case Oran² Gao³, played a key role in this process. It is the backbone of the road network, which is attached a series of secondary roads (wilaya and commune).

In fact, the Saharan town became in a short time more and more accessible to Ksouriens. Administrative promotion number of small towns has helped make real cities; so they are now able to generate or attract new flows that modify the dimensions in which the urban-rural relations are played through the bulking and diversification of transport supply (Fig. 1). The birth and the development of these new urban canthers, have been accompanied by the creation of public facilities fairly large, such as hospitals and universities, as well as the proliferation of commercial activities and private services, which was not without contributing to the increased movement of people, users or clients. These small towns were as follows gradually as poles that structure and prioritize the catchment areas extending over varying distances (one centre), but often significant. They therefore contribute to reconfigure the

¹ In the classic sense, the Ksar is a form of clustered traditional habitat, fortified, installation

² Oran (Arabic: وهران , Wahrān) is a major coastal city located in the north-west of Algeria

³ Gao /gau/ is a city in Mali and the capital of the Gao Region. The city is located on the River Niger, 320 km (200 mi) east-southeast of Timbuktu

system of relations between cities and Ksour, especially in the south-western Sahara.

Despite the benefits the city, a majority of Ksouriens continues to reside in the Ksar, especially as they can now easily access the city centre to work, make purchases, and take advantage of the services offered there or playing leisure activities. The proximity of the city and its increased attendance affect lifestyle Ksouriens¹ by broadcasting another habitat model and live, as well as consumer or cultural practices methods significantly different from those prevailing in the Ksour. These changes have affected mobility and favoured greater cultural interpenetration between the city and the Ksour. Social changes in the population of these are not unrelated to the confrontation of these cultures, that this results in a relative adoption of values and practices that door, or sometimes a refusal (opposition or withdrawal). This interference, which can sometimes lead to confrontations of varying magnitude, which we postulate that they are a consequence of the increased mobility will be the subject of the following developments.

Definition and hypotheses

Problematic:

Developed since the medieval period, the distasteful roads crossed the Sahara in Meridian traces and played the role of connection between the country of Sudan (West Africa and Central Africa) and the Mediterranean countries. These roads contributed substantially, to the birth and development of a set of settlements in the Southwest Algerian region, incorporating them in a commercial and cultural process of Interchange on a regional, or even international scale. Once, the Sahara caravan trade routes provided a Saharan space structure and organized its operation, currently it is mainly thanks to the evolution of the means of transport this space integrates with other territories national and international.

At the centre of strategic and geopolitical issues, the Algerian Sahara has never attracted as much political and economic interest. Colonization has long turned his back to the Saharans spaces except for the end of the 1950s (period of discovery of hydrocarbon resources), the Algerian State regained him and landscape it to better control but also to promote it. That means, provide it with adequate basic infrastructure and setting up a series of administrative and socio-economic facilities. It does this, by creating a hierarchical administrative network that relies on a tighter administrative network (administrative cut-outs of 1975 and 1985).

Structured around a fast push of urbanization, a network of cities is developed by a new urban function that organize and prioritize areas of attraction. As a

¹ Ksourien. Male singular name. inhabitant of a ksar, fortified locality in North Africa

result, the new role of the city in the Southwest causes of functional mobility generated by these new features. Two phenomena result; the first is the advent of the migratory flows in the direction of Algerian South west cities at a multidimensional level (local, regional, national, or international); the second is the training of mechanical mobility generated by the temporary movement. Thus, to better understand this mutation, the Algerian Southwest presents a good example of these dynamics and their effects for these past three decades. This space has been rapid and profound changes affecting its functioning and its human component.

Staffed facilities considered essential for their administrative operation and socio economic, the different settlements of the Algerian Southwest exercise attractive powers manifested by the formation of new flow of movement. These flows are generated by employment and the use of the facilities, but also by a transit traffic. Knowing that some public facilities of higher rank, such as hospitals and universities, can be real generators of mobility, the question of the attractiveness of the public services of these cities will be essential in the understanding of this phenomenon. In addition, new economic dynamics of the Algerian Southwest are marked as well by the emergence urban economic activities in some centres by the development of modern agriculture in several rural communities. In the urban space, this dynamic is revealed by the development of new business and services, contributing to the mobility process. In the rural area, she is characterized by new warnings highlight agricultural, thus attracting agricultural promoters and constitute the rural-oriented workflow engine. This dynamic intensifies and more complex movement of mobility, and stimulates a process of Interchange that contributes not only to insert the south-western cities in the national economic field but also changing social relations within the population local. What are the interactions between the economic dynamics of the region and mobility? Culturally, favoured by the presence of a strong Muslim community in the Sahara and the Sahel, is striking in the area of the Algerian Southwest. Places of worship and of the question of the process of interchanges and mobility caused by these ancient religious institutions (Zaouias), challenges us to understand how cross the sociocultural process with mobility in the Southwest Algerian confraternal networks dominated social and economic practices.

In socio-spatial terms, the cities of higher rank such as the capitals of wilaya (Bechar and Adrar), were forced to appeal to senior and middle managers (doctors, lawyers, teachers, academics, teachers from the national education, nurses, administrative staff...) from other regions, sometimes not available locally. This led thereafter a great residential mobility. But we must remember that this type of mobility is also the result of individual or collective choices (households) whose patterns vary (access to services, access to housing, and access to property, family breakdown and social status...) what are the reasons of residential mobility of executives? What are their logic? How this mobility helps t - it to the new spatial recomposing in the new extensions of the Algerian Southwest cities?

Hypotheses:

We're trying through this research to understand: urbanization and the operation of the urban network in the Algerian Southwest. The logic of mobility and Interchange process; Residential strategies of integration in the cities of the Southwest and the spatial recomposing process. We believe that the issue of mobility in this space is complex and, in order to read, it is interesting to address it in its geographical context that allows not only to highlight the urban dynamics, but also to check the process of Interchange in this space, in other words, economic, social, technical, and political networks.

We can move forward the following hypothesis: the political and economic importance of southern cities of Algeria is marked by a massive intervention in the development of the basic and infrastructure facilities leading to the mutations that have affected not only the spatial organization of the region but have upset deeply traditional social functioning. The new spatial organization is structured via RN 6 Road and by a network of cities recently promoted, contributing to the opening of these spaces. This opening can be seen by a mobility of executives, traders and skilled employees, called the north Algeria to support this development, the development of the urban-rural Interchange. The mobility of executives allowed training of a new elite and the weakening of the old religious notability, inducing new social reports and new consumer behaviour's in these cities. It's as well as equipment and infrastructure, services and commercial activities, housing, are key to the understanding of these mutations.

The General Transportation Characteristic of the Region

The intermediate canters, poles emerging promoting the reorientation of flows:

With independence, the Algerian Sahara is committed to rapid urbanization movement, the proactive and powerful action of the State which initially favoured the capitals of wilaya, then being dropped along the urban hierarchy to reach many rural canters, especially those administratively promoted. That the state has wanted to rebalance the urban structure inherited from the colonial period or its authority for the purpose of better control of the Saharan territories (Yousfi, 2014).

The importance of local traffic circulation in the Sahara Southwest:

In the absence of official statistics type O / D (origin / destination), we can get an idea of traffic in the area under consideration, only by counts made by us to the inputs and outputs cities, with the only means more modest, which may have an individual researcher.

Observations and counts still to verify that, on the same road, mingle

trafficking of various kinds, on the one hand, and that fall on different scales, on the other (transit, long-distance, middle distance, short distance). This, it goes without saying, is not unique in the Algerian Sahara, but the distribution between these types deserves no less attention given to the subject of our article.

These interchanges are made, of course, flows between cities (intercity), but above all, they express the intensity of relations between these cities and Ksour that surround them, often within a radius of fifty kilometres. This intensity holds, in turn, to the frequency of travel of the persons concerned, particularly those who conduct daily migration to urban canters.

Tertiary and capacity intermediate level functions:

In 2008, the urban structure of the south-western part of the Algerian Sahara can distinguish four levels of canters: a large town, Bechar, with over 160 000 inhabitants; a small town 60 000 (Adrar); a series of small towns constituting the upper level of this layer (small town), the population is between 10 and 30 000 (Timimoun Aoulef, Kenadsa, Beni Abbes Abadla, Beni Unif, Bordj Badji Mokhtar and Reggane). Finally found at the base of the frame, a set of small canters of less than 10 000 (Fig. 2).

Urbanization has progressed rapidly in the region, due to both population growth in existing cities and the integration of new canters in the "urban" category. The urbanization rate rose from 26% in 1966 to 47% in 2008¹.

The hierarchy into size classes quite extensively guide that established by function. Bechar and Adrar, the two leader's towns of wilaya, monopolize the higher level of services, focusing on wholesale and offer a diversified appliance retail and private services. However, small towns with populations of between 10 000 and 30 000 qualified intermediaries² because their functions and radiation beyond the level of the canters located at the base of the frame. Heads-dairas places, they have, even if with some delay compared to previous, enjoyed a notable effort equipment and expanded their business devices and services, which now cover the basic needs of their own population, but also, increasingly, their casual needs. Moreover, the increase and diversification of the offer in terms of services³ and businesses enabled them to significantly extend their reach and attract and number growing regional customers. The improvement of the road network and its links with public transport has meant that the centrality of these small towns is predicated on the Ksour and agricultural areas of their immediate

¹ For a more detailed analysis of the urbanization process in the Algerian Sahara, see them

² These intermediary function of cities have on average at least 20 facilities and more than 100

³ Many of these so-called intermediate centers now have a range of facilities

environment.

Ultimately, the affirmation of these intermediate canter helps to strengthen the regional urban system and limit the excessive polarization has ADRAR exercised for decades in this vast part of the Sahara, which stretches almost 800 km south of the main city.

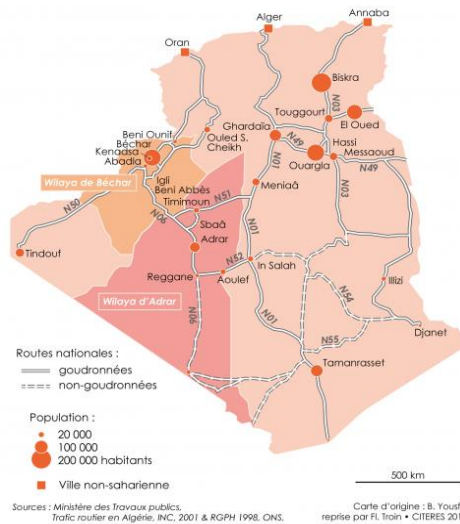


Figure 1 Cities and Networks of National Roads in the Sahara Sources: Department of Public Works, Urban Traffic in Algeria, INC 2001 & ONS RGP1998.

In the south-western part of the Algerian Sahara, the urban economy is essentially based - as was noted in his time Blin L. (1990) - on public services and the jobs they create directly or indirectly, one due to the scale of construction sites that attract labour unskilled, others because much of the payroll paid to civil servants or equivalent is used on site and boosts economic activity. The situation is quite different in this region than it is in the eastern Sahara, whose economy depends almost exclusively on the extraction of hydrocarbons. The other sectors are either embryonic, such as manufacturing or in crisis, such as agriculture, the crisis affecting the oasis being severe.

State intervention in the oasis space has brought about many changes. From a township of almost 5000 inhabitants, Adrar the County (Wilaya)¹

¹ A wilayah is an administrative division, usually translated as "state", "province", or occasionally as "governorate". The word comes from the Arabic "w-l-y",

administrative centre, has become a real town, somewhat artificial, by concentrating the majority of its population and tertiary activities both authority and management. The town which counted 42 735 inhabitants in 1998 and 63 039 in 2008, by centralizing the main public facilities, and attracting a more and more qualified population ,has spread out spatially due to an important habitat production.

The setting up of collective equipment and new administrative organization for the local population required additional selective recruitment among the immigrant population .Both the executive staff and the technical personnel not available on site, come mainly from the north of Algeria and secondly from the southern counties. Growing needs becoming more and more important, thanks to this new immigration, have allowed a variety of commercial activities and services, particularly in the county head seat, Adrar. Furthermore, these same activities have mainly drawn commercial populations from the Tell area. However this new rapid urbanization seems fragile, because it is upheld by a mainly external population coming from elsewhere, whose only concern is a fast enrichment and a return to their hometown.

These regional development perspectives have they not already been compromised from the beginning? A fragile space, limited resources, an important temporary short stay population, local youth exodus to the more attractive north....are the main characteristics of Adrar to which one must add a marked central consumption space for the county head town, leaving little chance for the other regional "towns" to develop.

In the other hand there are socio-cultural and historical reasons that make Algerians having a passion towards car. The urban transports of goods are insured exclusively by the roads which contribute to congestion and other problems that are related to pollution, road safety, deterioration the quality of city life, etc.

Impact of transportation development on Adrar cites

Brief historic road

If the road rectifies the tracks, the street, it, channels the paths by multiplying them at the option of an opening of tracks which owes its logic to the implantation of the equipment's and to the construction of a cityscape where the public architectures are monuments. This is what we will see now with the first traces and alignments of the initial military settlements of French colonization in this region.

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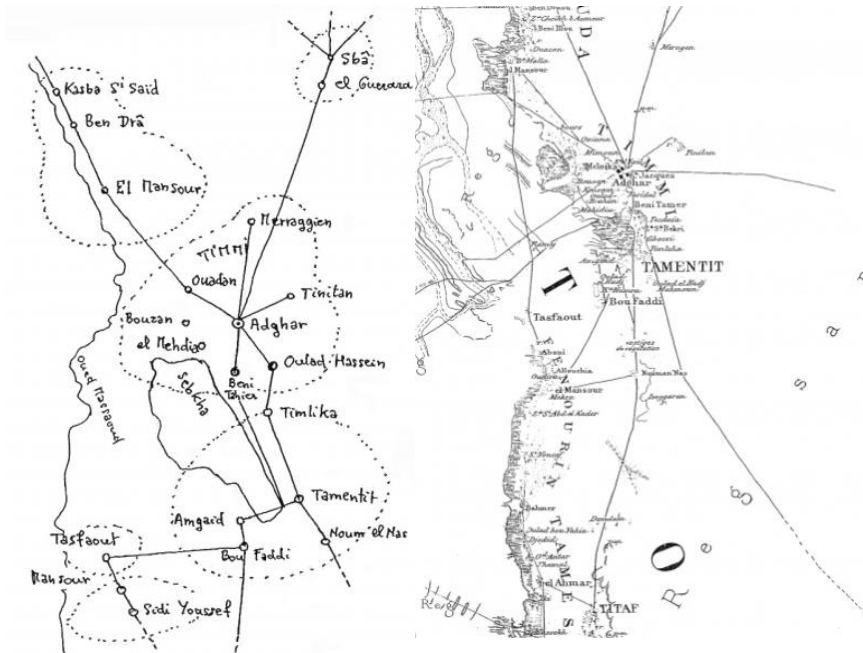


Figure 2. Jean-Pierre Frey's Decal of the General Map of the Oasis Group of Gourara, Touat and Tidikelt and the Routes Followed by the Caravans to Get There [BN.CPL: Ge.C.1955].

Figure 3. Map of the Saharan Oases, Published under the Auspices of the Geographical Society of Paris [Vincennes: T.20.6.B.249].

The most basic maps of the region, such as the one produced by Devors in 1947, represent only the proper roads. Adrar appears at the intersection of the trans-Saharan Colomb-Bechar GAO and the track that, beyond Tililane¹ leads to Timimoun. There are therefore three accesses to the city and we can note right now that the main paved road which allows to circumvent the track serving the comb oases by the East by taking advantage of the plateau appears at the end of the years 1920. What the geographical services of the army will call the "automobile track of Adrar to Reggane" bypasses not only

¹ Cité in Adrar

Tamentit¹, but passes resolutely in the desert, away from all *Ksour*



Figure 4. Referents Extension of ADRAR Cites in Referents Period.

The Transformations of Space Ksourien Related Road: Sprawl, Bursting, Slip Morphological analysis of landscape Adrar City:

The city of Adrar experienced its first real spatial development in the late 1970s. Its administrative promotion to wilaya activates this extension more by the massive implantation of public facilities and new structures of supervision local populations. We then witness a spatial boom where the city extends indefinitely and multiplies its surface by more than ten in twenty years, Adrar out Ksour to a new city, created from scratch .The bulk of this expansion is done from the 1980s. This accelerated urbanization, very spread out and specific to the city of Adrar, is intimately linked to its new functions of command and management of a wilaya area which itself same, is very extensive.

¹ Tamentit (تامنطيت) (sometimes spelled Tamantit) is a town and commune or municipality in Fenoughil District of Adrar Province, in south-central Algeria

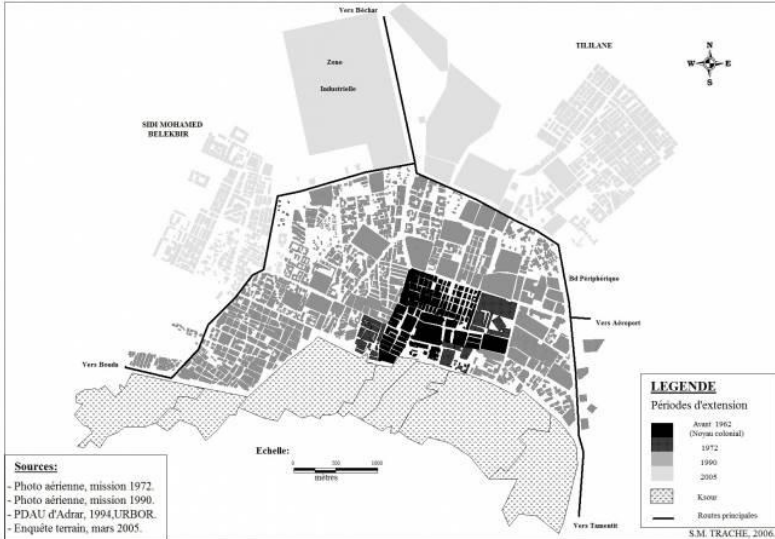


Figure 5. The Extension of the city of Adrar.

Spatially, the urbanization of Adrar is made from the first colonial settlements (present-day city centre) at first and then develops conventionally around this ancient fabric to the north, north-west and north -is. The colonial establishment since 1900 has allowed some public achievements that gave a structure to the development of the city with school groups, high school, and hotel in the main square, market, church and hospital...

Adrar is moving away from the traditional Ksourian system and is now moving towards a modern urban model, benefiting from a special Wilaya Development Program from its promotion to the wilaya in 1975. It allows him to realize his management structures, to set up its administrative and financial structures, which will be followed by large local community facilities and important accompanying housing programs. The building policies and land especially eighties are the source of sustained urbanization but also the result of a major urban dysfunction of the city of Adrar. In fact, the housing developments planned during this period by the local authorities have not all been realized thus leaving huge empty spaces; they have constituted a real obstacle to urban harmony, a concept that is absent from urbanization plans. Parallel with the planned urban, an intramural neighbourhood is created in the most total illegality (Bni ousket) sheltering migrant populations from various Saharan regions and in particular from Mali and Niger. Therefore, and in this state of affairs, Adrar expands its space on two sites. At first, the city extends towards the west ("New City" Sidi Mohamed Belekhir) to change then and

take, by breaking with the previous urbanization, the direction of the agglomeration of Tililane north-west. Is from the city of Adrar ("New Town" of Tililane). These two spaces are at the limit of the ring road that surrounds the city from west to east. They can be assimilated to urban areas to the extent that they are eccentric compared to the city centre of Adrar. They developed, the first on a virgin site,

This urban sprawl imposed itself as a choice of urbanization with regard to subdivisions encircling the city which posed significant urban problems insofar as they generated significant interstices between the new urbanizations and the old city. On the other hand, this new urbanization towards the east of the city seems to be a will of the local authorities for a better control of the management of the city and to give it a more harmonious urban landscape than that of Mohamed Belekbir. But in reality, the observation and the field survey show that the local public power had decided the rupture of the unique urbanization and especially to heal the image of the city by creating a better equipped near-urban area. Having a habitat of better quality than that realized in the first site,

Policy support for local populations and / or strategy to fix them, they have been accompanied by large real estate investments to meet, and especially attract, a qualified job in a space where prevails very hot for nearly half of the year.

Once paved roads, not only many Ksour was opened up, but those who found themselves in this case showed a relatively rapid transformation of the traditional organization of their built environment. This is along the road that crosses that have pushed new buildings that were built and the main developments at the expense of agricultural land. In this spatial spreading is added a sliding direction of the highway when the latter passes the margins of the agglomeration. In a way, the road was used to trigger the expansion of urban space, the potential demand, especially high population pressure was big, having remained blocked until that time by the lack of urbanized land. now through the road and quick connections to the centre of the rural town it allows, thanks also to a motorisation rate steadily rising, living on the outskirts of the Ksour is possible, and indeed is even more sought what are offered more modern housing, more comfortable, better equipped (connections to the electricity, water and sanitation). In a way, this here is a new way of living, attractive, are offered Ksouriens. And it is all the more accepted and even desired, that the opening of oasis areas that their people suffer more the influence of the cities, the small who are the closest, but also the largest although more remote: and diffuse urban lifestyles and urban cultures.



Figure 6. Schematic Road in South West of Algeria.

The influence that the city has on the oasis space and Ksouriens, more and more sensitive with the development of transport and increasing mobility, therefore takes not just an economic dimension. It activates the sense of belonging to a larger entity than the Ksar, for now, its inhabitants consider themselves to be increasingly involved in the urban space and urban society, a fact that in his time O. Fold (2003).

The city is also for them, especially for young people, a place where they can get rid of a strong social control. In the oasis, in effect, banned, religious and / or customary, are difficult to overcome or circumvented only. At the city by cons, including Adrar¹.

In the Touat, for example, the area south of Adrar, RN 6 along the Touat valley and serves virtually all Ksour, which are concentrated - it is also referred to as the road name of the palm groves. This road has allowed increased trade with Adrar, where villagers go for various reasons: use of public services and the use of private services, sale of agricultural products, purchase of consumer goods or rarer, jobs on construction sites built in administrations or services. The ease of relationships, their frequency, low cost mean that the Ksouriens no longer have to leave their place of origin to take advantage of the city; final departures are therefore replaced by commuting.

¹ These places generally correspond to hotels or tourist complexes, where the possibility

The location of these oases compared to Adrar explains that this is the part of the road that opens palm groves south which offers the most consistent transport service (270 vehicles in 2008) and know the most intense traffic. When asked about the reasons for their trips (daily), respondents' users¹ say, 40% of them, they correspond to commuting and for 30%, they are due to the need to travel to Adrar to make purchases or have recourse to various types' services, administrative, banking, health, etc.

The road and the bursting of the built space:

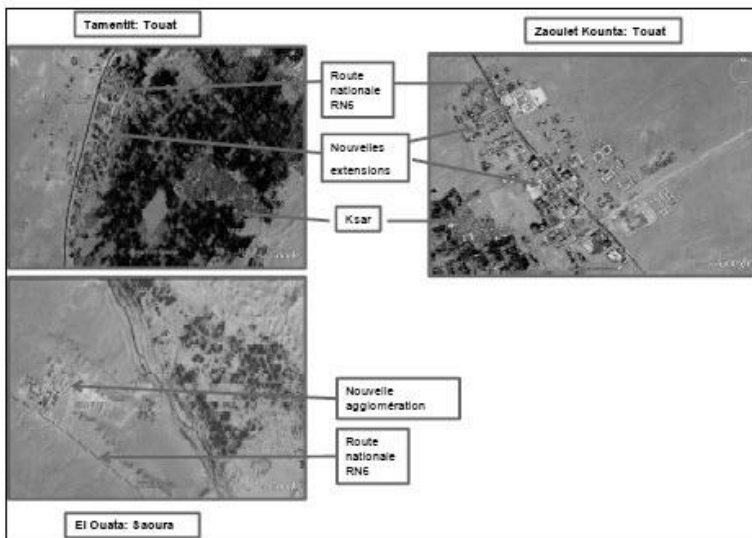


Figure 7. Impact of the Road in Ksour Agglomeration.

Source: Google Earth, 2012 & 2016. Cartography: B. Yousfi & FI Troin
CITERES 2018

The realization of the new road was an important element not only in the opening up of the Ksour but it also prevailed in their extensions. Planned or spontaneous, the population pours more into new peripheral buildings locating roadside where subdivisions have been made in order to address the needs of housing caused by demographic change. Offering a new mode of Saharan

¹ Which, mostly, are aged between 30 and 50 years

habitat and offering more comfort, a possibility of motorized mobility, provided to various networks (water, sanitation and electricity), the new mode of habitat puts deteriorating Ksour.

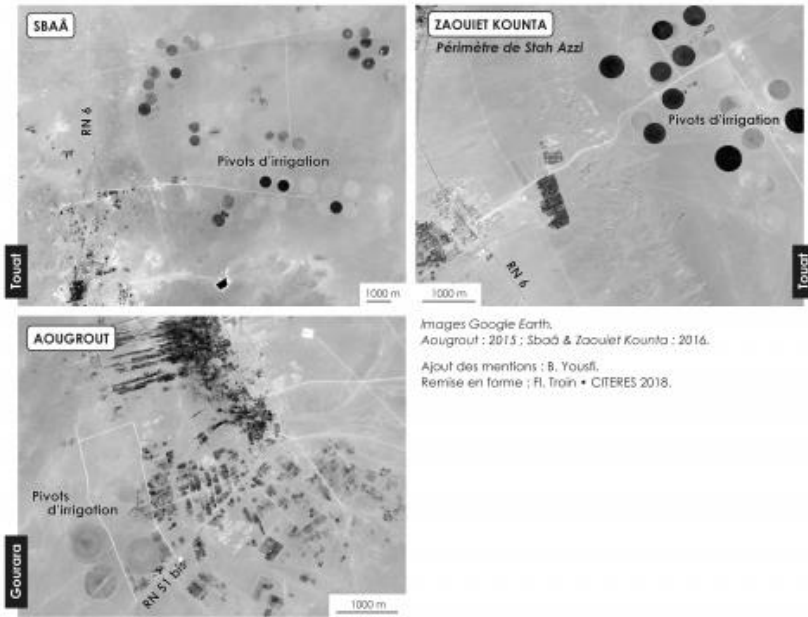


Figure 3. Agricultural Areas is Located 1 Km from the National Road the Road Becomes Essential for the Modern Mechanized Farming that Relies on Marketing Networks and Consequently on Transport Networks. Cartography: B. Yousfi & FI Troin CITERES 2018.

In addition to financing of households in these new buildings, the State intervenes in rural habitat. This trend intensified with the creation of facilities (schools, polyclinic's...) roadside to benefit from direct services to road transport. The new villages built on the road, develop outdoor spaces to be space aliens. Shops and services. The sliding of the Ksour to the roads is dictated by a logic of mobility where the Ksouriens become more and more dependent on the towns of the region, using a common way transit. Borrowed by the main lines connecting the most important cities (Adrar), the agglomerations located on national roads benefit from these services.

The road and the bursting of the oasis area

Moreover, the implementation of the agricultural areas enrolled in the same logic. Since the appearance of the APFA Act in 1983, several agricultural areas have emerged, parallel to the national road RN6. In the Touat,

The new organization of rural municipalities with Ksour on their territory can be represented. The road course allows those who work the farms to visit them, to carry them labour when necessary (maintenance of boreholes and irrigation equipment, farm workers for seasonal work), to bring them inputs and modern agricultural equipment - since the operations in question are highly mechanized - and market crops.

Change of economic life in the ksar and strong economic relation between an Adrar and surrounding secondary groupings generation make of road and transport system a key factor have directly affect in urban planning for the city and secondary cities like TAMENTIT.

In the past it was more link between the palm grove and ksar. In the previous picture. Urban expansion in recent years has been towards the road link between ADRAR and Tamentit . That's what Due to the changing in urban style and directly impact on the daily life of secondary groupings. The above figure depicts the spatial structure commonly found in contemporary extension developments in Tamentit. The highway is the leading structural influence on land uses with a gradient-like effect. Next to the transportation road retailing activities, like restaurants, and commerce activities can be found. A little bit further are offices, manufacturing and ware housing activities and, finally, residential areas. This land use pattern is dependent on road transportation.

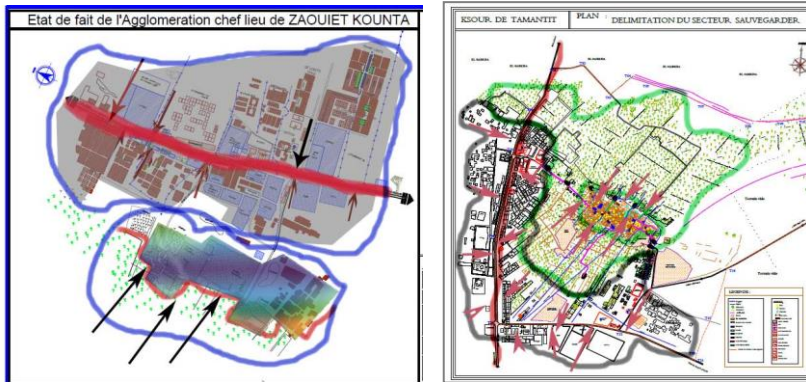


Figure 9. Tamentit Impact of Road in Land Use.

Figure 10. Deferant Logic between the Traditional Ksar and New Construction.

Environmental impacts:

Direct impacts. The immediate consequence of transport activities on the environment where the cause and effect relationship is generally clear and well understood. For instance, noise and carbon monoxide emissions are known to have direct harmful effects.

Indirect impacts. The secondary (or tertiary) effects of transport activities on environmental systems. They are often of higher consequence than direct impacts, but the involved relationships are often misunderstood and more difficult to establish. For instance, particulates which are mostly the outcome of incomplete combustion in an internal combustion engine are indirectly linked with respiratory and cardiovascular problems since they contribute among other factors to such conditions.

Cumulative impacts. The additive, multiplicative or synergetic consequences of transport activities. They take into account of the varied effects of direct and indirect impacts on an ecosystem, which are often unpredictable. Climate change, with complex causes and consequences, is the cumulative impact of several natural and anthropogenic factors, in which transportation plays a role. 15% of global CO₂ emissions are attributed to the transport sector.

Social impacts:

Mobility is one of the most fundamental and important characteristics of human activities as it satisfies the basic need of going from one location to the other, a need shared by passengers and freight. Irrespective of its aim, mobility enables social, cultural, political and economic activities to take place. Throughout history, changes in mobility have been the outcome of technological developments that improved operational characteristics such as speed, range, price, affordability and comfort. For instance, the diffusion of highways and the automobile had profound impacts on the mobility of contemporary societies and continue to do so.

The traditional social composition of ksar is very strong and organized between ksar agriculture habitant and nomads. The role of nomads was once essential in Saharan economy. Indeed, they were involved in the development of Saharan trade that have helped many oasis to integrate into a regional area. At the same time, these nomads provided Ksour products of livestock such as wool and meat in Exchange agricultural products of the oasis. Moreover, some of these nomads had agricultural land in some oasis, either highlighting of agricultural land or by buying them. Gardeners, often the Harratine, with expertise, cultivated these lands in association with nomadic basis Khames (1/5) or as Ghares. While the first contributes in the production by his physical strength against a share of one fifth of the production, the second rents water and Earth, and cultivates its products choice. This system, in line with natural conditions, helped to maintain a balance as well environmental and economic in the Saharan area for several centuries... With

the modernization of the new life style this social structure despaired for many raisons.

Fixing of nomads: The fixing of the nomads had not only resulted in the overcrowding of the oasis and upset the environmental balance, but she had anticipated the deterioration of the Saharan economy. The disappearance of nomadism and, consequently, that of regional trade had impoverished subsequently oases population

The introduction of the salary system in the OASIS areas has imposed a new era of emancipation of the Harradine allowing them to diversify their financial resources. Away from the debate on agriculture that can generate such a question, a new form of work emerged in the Sahara, breaking the economic and social organization age-old local society. The influence of some classes within the OASIS company becomes obsolete.

OASIS society is unstructured with sedentarisation of nomads and the emancipation of the harratine, generating a destabilization of agricultural production within the OASIS space (Bisson, J., 1986). This production system was based on relationships of domination governed by a hydro-feodal social order determined by a stratification of OASIS society. Indeed, the OASIS social system is the product of the influence of nobility, acquiring a form of power political and religious, including the harratine, usually Métis or black, former slaves, provided farm labour and constituting the class of the proletariat

Economic impacts:



Figure 11. Commercial Activity in Principal Road.

Figure 12. Abandoned Garden in the Palm Grove.

The sliding of the Ksour to the roads is dictated by a logic of mobility where the Ksouriens become more and more dependent on the towns of the region, using public transport (see figure 7-0). Borrowed by the main lines connecting the most important cities, the agglomerations located on national roads benefit from these services.

In the face of demographic development and the rise of the food bill, due to

the population growth of the country and the improvement of the standard of living the Algerian State had opted for the agricultural rehabilitation of Saharan areas considered a huge land bank. As a result, he takes a populist approach and developed alarming political speech on food security of the country and the threats of such dependence from abroad. This is justified according to Dubost D. (1986) the use of the Algeria at the farm, and this highlighted, through the Act of 1^{er} APF 1983 A and development of several agricultural areas in Southwest. Through agricultural employment and especially through access to property, agricultural value labels will stabilize the population, including young, and energize these territories. Abundance water in the Southwest was allowed to implement plans for development of the agricultural sector in these Saharan areas. This new politics caused the lot of problems for the original traditional economic system of ksar.

CASE OF STUDY

Adrar geography: (Berber: Adrar, ⵎⴰⵔⵓⵔ; Arabic: أدرار) is the administrative capital of Adrar Province, the second largest province in Algeria. The commune is sited around an oasis in the Touat region of the Sahara Desert. According to a 2008 census it has a population of 64,781, up from 43,903 in 1998, [2] with an annual growth rate of 4.0%.[1] Adrar is mainly an agricultural town, characterized by its traditional irrigation system, the Foggara.

Climate

Adrar has a hot desert climate (Köppen climate classification BWh), with long, hot summers and short, warm winters, and averages just 15 millimetres (0.59 in) of rainfall per year. Summer temperatures are consistently high as they commonly approach 40 °C (106 °F). Temperatures at night are still hot at around 27 °C (81 °F). Even in early May or in late September, daytime temperatures can to 45 °C (113 °F). Adrar experiences the same kind of desert heat as Death Valley, California during summertime. Winter nights can be chilly and frost is by no means unknown but the days are pleasantly warm, sunny and dry.[3] During the summer, the Sahara region of Algeria is the source of a scorching, sometimes dusty and southerly wind called the Sirocco. These winds parch the plateaus of northern Algeria up to 40 days and reach the Tell coastal region for as many as 20 days.[4]

Culture

The settlement in the region (formerly known as Touat) is quite ancient and the area provides for several different cultures and includes several historic monuments. This intermingling gave birth to a body of traditions and of cultural and hand-crafted practices that are still present today in the life of its inhabitants translating into a wealth of the folklore and cultural heritage. [Vague]

Education

9.2% of the population has a tertiary education, and another 19.8% has completed secondary education.[9] The overall literacy rate is 84.1%, and is

89.9% among males and 78.1% among females (the second highest among all the communes in the province).[10]

RESULTS of ANALYSIS

The first signs of mutations Saharan areas back to the colonial period when the army officers were acting freely for almost fifty years. Only, their intervention schemes for the development of oases were confronted with financial constraints because this space is not helpful to the metropolis after the failure of the project of trans-Saharan railway that was to reactivate the economic trade with black Africa. They just so to achieve some social character equipment, and ensure the colonial sovereignty over these territories. So, they relied traditional social structures and foiled the nomads of their traditional role. The discovery of oil was a major turning point in the recent history of the Sahara because it is immediately placed in the centre of interest of the city that opted for its development by a centralized approach through the departmentalization. After independence, the intervention of the Algerian state in these areas was part of the continuity of centralizing logic rather revealing geostrategic logic to their territorial integration that proper development logic. This has introduced both through administrative divisions and development of public services through the development of transport infrastructure that formed probably the pivot of the dynamics of these territories then. Thus, a new form of the institutionalization of transport is the important element in the transformation of the Saharan region and the promotion of mobility in the South West Sahara. The new transport infrastructure including roads and airports have not only opened up the spaces, but also triggered a local dynamic that prevailed in the development of space. On the urban level, these had accelerated the development of a series of cities like Adrar, Timimoun and Reggane, as she had helped redress the failure of the regional urban network established since the colonial period. A malfunction indicated by a concentration of cities in the northern part around the coal deposits; in rural areas, there has been a burst of oases into several fragments, questioning the three dimensions of the manufacture of the oasis (foggaras, Ksar and gardens). This is manifested by the abandonment of the Ksar and creating.

New entities extramural habitat along the road where the state implements its equipment and develops new agricultural areas.

Supported by a new road transport network, new urban areas have helped to revitalize intra-Saharan mobility and redefining new spatial relationships between the city and its hinterland. Indeed, the transport network is combined well with the urban structure where small towns act as relays and provide the rural-urban relationships. The cities of the upper strata (Bechar, Adrar Timimoun) provide intercity relations within the area itself and with other major domestic cities. The air services enhance the role of these cities and put them in direct contact with the great metropolises of the North. On the regional and

local level, passenger transport trolleys reflects to road Bechar, Adrar Timimoun.

If the current urban dynamics reverses the conventional operation of the Ksour, historical accumulations, instead, give them resistance. The insertion of these canter in the national urban network is supported by traditional worship functions of brotherhood networks. By exploiting the historical heritage and collective memory and relying on the presence of a marabout or Zawiya, smaller canter are part of a logic of mobility and interchanges that assigns weight of social and religious through Ziaras or motilities of Talabat (Religious students). Thus the urban hierarchy is not at the hierarchy of worship; a function that the most important urban canter are trying to get at through the creation of new Zaouïas as in Adrar from the last three decades.

Socially, the new features and modern structures based on public services in the South-west cities have contributed at re composition of the local society. The advent of a new elite class made up of executives who have been called to operate this equipment challenges the old social organization. The arrival of new traders Algerian North allowed the cities of Algeria Southwest reactivate local and regional trade. However, new specialized or rather segmented commercial relations are woven by these traders with those of major cities and northern cities of the country (Setif, Oran, Algiers and Ghardaia) thus, developing interconnection interchange networks with trans-Saharan part, in particular on both axes, Bordj Badji Mokhtar and Tamanrasset.

CONCLUSION

Transportation has a strong influence on the spatial structure at the local, regional and global levels. Contemporary economic processes have been accompanied by a significant increase in mobility and higher levels of accessibility. Such conditions are closely related to the development of transportation networks, both in capacity and in spatial extent. It also underlines the importance of specific dimensions such as nodes, locations, networks and interactions. The impacts of transport on the spatial structure became multi scalar. Transportation systems are composed of a complex set of relationships between the demand, the locations they service and the networks that support movements. The introduction of information technologies is changing mobility and its relations with geography since they can support, modify, substitute or expand transportation activities.

Referents aspects of transportation:

Environmental aspects:

With the new life style in Sahara settlement the Transport has significant detrimental effects on the built and natural environment, and hence on individuals' lives. It also contributes significantly to global warming. On both these counts, transport will be unsustainable in the medium to long term

without mitigation measures. The environmental aspects of transport sustainability are concerned with atmospheric and noise pollution, land take, resource use, the effects of waste disposal on the natural environment, and the effects of the above on humans, flora and fauna. These environmental aspects of transport cover the full life-cycle of transport. The largest impacts come from transport use, but the effects from development and construction of infrastructure and vehicles, as well as the waste from their disposal, add to the environmental costs of transport.

Deferent Environmental impacts:

Resource use, Large amounts of oil-based resources used for transport and the impact in ksar ecosystem., Extraction of infrastructure construction materials, Climate change, Emissions of CO₂ and other global warming gases, Waste, Vehicles, fluids, tyres, Air pollution, Local emissions of CO, PM, lead, VOCs, hydrocarbons and NO_x, Noise and related vibration, Quality of life for those living nearby roads, airports, stations, Land take, Land used for infrastructure, Habitat fragmentation, Water impacts, Pollution from spillage, Pollution from runoff, Changes to water systems by infrastructure.

Social aspects:

Transportation cannot be seen as a homogeneous system, but as a set of diverse elements at times in competition. Access and services are not uniform. While many of the social and economic impacts of transportation are positive, there are also significant societal challenges. Following the introduction of new facilities such as hospitals and universities, and the development of new commercial activities and services, South-western cities develop new processes for Exchange at the local level. National, and international. Acquiring new economic and administrative functions, these cities have attractive authority in the region, producing a mobility that flows beyond the municipal limits. This dynamic has intensified and complicated movement of mobility, stimulating a process of Exchange that not only inserted the south-western cities in the national economic field but that also changed the social relationships within the population local. This dynamic has created new canters that are formed around a new professional class consisting of executives and traders. All these issues underline the social implications of transportation in terms of opportunities, but as well in terms of social exclusion. Significant factors of social exclusion have a transportation component such as difficult to afford transportation (public or private), transportation services that do not cover well demand, and lack of appropriate infrastructure such as sidewalks and waiting areas. Land use and housing policies tend to undermine access to employment, education, healthcare and other social activities. If this separation is not mitigated by efficient transportation, it becomes a factor of segregation. Under such circumstances, the high level of subsidies that public transit systems are receiving is made socially acceptable as a form of support to the mobility of those less advantaged. A similar observation applies to congestion and pricing schemes as the poorer segments of the population are less able to afford financial

restrictions on mobility, even if undertaken with the rationale of managing scarce assets. The road remains perceived as a public good and impairing its free use becomes a social justice issue.

Economic aspects:

The relationship between transportation and economic development is difficult to formally establish and has been debated for many years. In some circumstances transport investments appear to be a catalyst for economic growth while in others, economic growth puts pressures on existing transport infrastructures and incite additional investments. Transport markets and related transport infrastructure networks are seen as key drivers in the promotion of a more balanced and sustainable development, particularly by improving accessibility and the opportunities of less developed regions or disadvantaged social groups. At start there are different impacts on the transport providers (transport companies) and the transport users. There are several layers of activity that transportation can valorise, from a suitable location that experiences the development of its accessibility through infrastructure investment to a better usage of existing transport assets through more efficient management.

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PART 4



POLICIES



LAWS



REGULATIONS





SETTLING ON THE TEMPORARY

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ABSTRACT

Temporality appears as a subject matter which architecture has been recently dealing with while designing spaces in which social and humane needs are to be met. Designing spaces which people may call 'place' after changing places because of migration designates the limits of that subject. Several designers look for new and creative ways to solve the problem. For instance, Shigeru Ban is known for his work with recycled cardboard tubes built in areas where disasters took place and Alejandro Aravena won the Pritzker Architecture Prize thanks to his participatory housing projects. An investigation into projects which have been realized so far show that fast and easily built modular systems, productions carried out with already made tools, conversion of desolated urban spaces, using alternative places for settlement and creating the sense of belonging by user participation have been examples of various approaches.

Under the light of abovementioned information, this paper aims to investigate the approaches towards designs of temporary/permanent places for people who change places due to migration. Applied examples are analysed and evaluated within the scope of this study. The findings gained through the analysis and evaluation are considered to be as possible data which can be used for designing temporary/permanent places in Turkey.

Key Words: Temporality; Migration; Place; Placelessness; Belonging.

INTRODUCTION

“A homeland should welcome each newborn with the same gift: she should offer herself without any limits, as a whole. What makes a homeland great is not only the dignity of her material or spiritual opportunities but also the comfort and well being surrounding them. Her treasures are owned by everyone only under these circumstances and only then she could survive the daily life with her security opportunities and move towards the future with her adventures”,

Jean Giraudoux.

Building structures, which is the fundamental occupation of architecture, emerged as a result of humans' need for sheltering and further needs caused the architectural space to vary in time. Apart from being protected against external factors, producing spaces could be considered as one's urge to express himself, which Alain de Botton puts as follows:

“Instead, at its most genuine, the architectural impulse seems connected to a longing for communication and commemoration, a longing to declare ourselves to the world through a register other than words, through the language of objects, colours and bricks: an ambition to let others know who we are – and, in the process, to remind ourselves” [1].

It is a fact that shaping our environment has become complicated recently and accordingly, the variety of practices increased. Acquiring an insight into a space, which meets not only physical but also psychological and social needs, requires developing new perspectives. Consequently, it is inevitable to accept that architecture designs lives as well as forms. As a designer, an architect has more than one parameter in mind when political, ecological and sociological factors complicating people's lives are concerned. As a result, developing new concepts and approaches is necessary.

The most common problems among architectures in the last decade have been spacial ones caused by people migrating. In today's world, people are migrating and leaving their homes. Migration is an act changing places, either voluntarily or compulsorily, due to economics, war, natural disasters. While moving from one place to another could be an ominous issue both for the individual and for the society, designers keep working on finding solutions. People who leave the places they once inhabited are offered new temporary models of sheltering such as refugee camps or disaster relief housing; however, a very low number of such structures are works by designers. A lot of them are produced as a result of protection practices of states or individual efforts to provide spaces. Although such efforts aim to come up with “temporary” architectural objects, people want to feel “permanent” in spaces. Belonging, being present and attachment affects the change from ephemerality to permanence because people who move from one place to another wish to feel that they ‘belong’ to their new physical and social environment. The application of space designs which make integration to a

new space possible is significant. Thus, temporality - as a term for things lasting or used for only a short period of time as opposed to the permanent, or for things that are palliative- has long been a concept interpreted investigated in various studies.

Erman defines temporality as the state of being mortal (ephemeral, transitory) and he adds that it is a kind of subject matter on which lots of things have been said and written in every culture, community, art, philosophy and beliefs as an issue from the very core of life [2]. One often comes across the concept of temporality both in the theoretical and practical side of architecture as a discipline. Although the “first shelter to protect human beings from environmental conditions”, which is one of fundamental reasons why architecture emerged, is a sign of temporality, permanence became the centre of human sheltering because space corresponds to human survival on earth.

In other words, spaces designed for people who are changing places should be examined. While structures whose life time are designated are referred to as temporary architecture objects, the time which the designer estimates for a space is a decisive factor. It is necessary to indicate different parameters while identifying the structure with time. Context, function, material, construction techniques and size are also parameters defining a temporary space as well as time. Külekçi introduces these parameters as efforts made to be permanent in an artificial environment and they could be valid for temporary spaces too [3].

The context in which the structure is located becomes decisive depending on the relation it develops with the environment and the user. The context in which the architectural space exists plays a role in the development of the environment by means of its location as well as shaping the organization of the interior space in terms of interior-exterior space relations. Context has a special significance for the temporary public space.

Function, on the other hand, affects variety, definition, change, usage patterns and duration of use regarding a temporary space design. A temporary space or structure constructed for a function can be reused to serve a different function later. In this respect, the temporary space, gains sustainability which contributes to its value rather than making it unvaluable.

Materials and construction techniques also affect the state of being permanent or temporary. Demountable material, the usage of local sources and memory gives temporality a different dimension as an ecological positive value.

Külekçi connects the relation between the size of a structure and permanence to the labor and resources spent in the construction process. Taking this into consideration, it is possible to say that large buildings are built to be permanent. What is more, it is stated that big structures are harder to eradicate after once being built [3]. This could be the reason why small sizes are preferable for temporary spaces.

Drawing on the abovementioned information, this study examines certain samples of temporary spaces designed for people who had to move from one place to another. They are analysed in accordance with parameters of time, context, function, material, construction technique and size as well as design principles determined by the designers. The study focuses especially on refugees and asylum seekers and it exemplifies its arguments through space designs proposed or applied to temporary living spaces or refugee camps in addition to present samples from designs offered by architects for cities hosting migrant populations.

An Act of Changing Places: Migration

Changing places is an act realised when people are in need of sheltering, nourishment and protection. Besides, it is an action which has been adopted by human beings since ancient times. As time went on, commerce also became the reason for changing places following the invention of money and writing. As a result, caravansaries and inns emerged on significant trade routes in order to supply the need for accommodation. The turning point of changing places was the Industrial revolution which made going from one place to another easier through the variety of transportation vehicles. What is more, both migration from countryside to cities and population in cities increased which resulted in the concept of modern urbanism. Planning accommodation and living spaces for new urbanites became an architectural problem and solutions were produced.

Being a way of changing places, migration is defined as one person or a group of people crossing international borders or moving from one place to another within a country's borders. The concept of migration also includes population movements causing people change places regardless of duration, form and reason [4]. Changing places can happen either voluntarily or compulsorily due to economics, politics, natural disasters or conflict. Therefore, the concept of migration includes refugees, asylum seekers, economic migrants, irregular migrants or any group of people who are displaced for other reasons. (Ministry of Home Affairs, Directorate General of Migration Management)

When migration is concerned, it can be suggested that there were big population movements in the second half of the 20th century and it is a known fact that more than 175 million people have migrated in masses for the last fifty years. According to United Nations (UN) Global Migration Data, 232 million people- which is equal to % 3.2 of world's population- living on earth are migrants (URL-1).

The situation gets clearer when we look at the number of people displaced because of wars of today. An example for this is the migration as a massive act of changing places from Syria to several countries. In 2017, 6.864.445 Syrian citizens moved out of their country and %37,57 of the population had to leave their places. (URL-2). People who left Syria because of civil war migrated mostly to Turkey, and also to Jordan, Lebanon, Saudi Arabia and Iraq. According to 2015 data of International Organization for Migration (IOM),

the immigrant population in Turkey constituted % 3,77 of the total resident population but this changed into % 6,03 in 2017 (URL-2). While the number of immigrants from Syria was 1.568.494 in 2015, this number increased to 3.271.533 in 2017 (URL-2). The total number of immigrants in Turkey now is registered as 4.880.917 (URL-2).



Figure 1. The Map of Global Immigration.

(<https://images.adsttc.com/media/images/5881/2cee/e58e/ceee/4400/005d/original/globalimmigration.gif?1484860652>)

If one wishes to understand migration, he also should understand people who do the act of migrating. There are different concepts and definitions regarding people who migrate just like the various definitions of migration. Such people are called immigrant, asylum seeker or refugee and they change places for various reasons. It could be suggested that there is not one universally acknowledged definition of 'immigrant'. According to Glossary of Migration, the term 'migrant' generally stands for cases where the decision to migrate was taken freely by the individual concerned for reasons of personal convenience and without intervention of an external compelling factor.

Therefore, this definition is used for people and family members moving to another country or region to better their material or social conditions and improve the prospect for themselves or their family. United Nations defines 'migrant' as an individual who resides in a foreign country for more than a year regardless of reasons, voluntariness or conditions of migration routes. Within the scope of this definition, tourists or business people who travel for shorter periods are not counted as immigrants (URL- 3). However, people who change places for short periods like seasonal agricultural workers travelling within short periods for planting and harvesting are considered to be migrant communities according to the common use. It is possible to identify seasonal migrant workers as "a migrant worker whose work, or migration for employment, is by its character dependent on seasonal conditions and is performed only during part of the year" [International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families, Art. 2(2)(b)].

An asylum seeker, on the other hand, is a person who seeks safety from persecution or serious harm in a country other than his own and awaits a decision on the application for refugee status under relevant international and national instruments. Similarly, a refugee is a person who is outside the country of his nationality due to a well-founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinions and who is again unwilling to avail himself of the protection of that country because of that fear. [Convention relating to the Status of Refugees, 1951 as modified by the 1967 Protocol, Art. 1 A (2)]. In addition to 1951 Refugee Protocol Art. 1(2), 1984 Cartagena Declaration on Refugees indicates that refugees are people “who have fled their country because their lives, safety or freedom have been threatened by generalized violence, foreign aggression, internal conflicts, massive violation of human rights or other circumstances which have seriously disturbed public order” (URL-3).

What asylum seekers, refugees or seasonal migrants have in common is that they want to live their lives under proper conditions. For that reason, temporary protection programmes are developed so that the needs of migrants can be met. Temporary protection is a type of protection developed in order to find immediate solutions in cases of mass influx. It is a practical and supplementary response which is offered to beneficiaries arriving en masse to the frontiers without forcible return to the territories of conflict or wasting time by individual status determination [4]. Three fundamental elements of temporary protection are; the right to access safe territories, complying with refoulement prohibition, supplying immediate basic and emergent needs. Living spaces are established to supply such needs.

In other words, new approaches and solutions should be produced on subjects like home country, homelessness, migration, migrant, refugee and asylum seeker because being deprived of a home country means losing your home, language, culture, relatives and your daily life routines. On the other hand, the migrant gets in contact with the society which he seeks refuge in and which he is unfamiliar to. Spaces that are shelters for people changing places should give them the opportunity to rebuild their daily routine and to establish social contacts. Therefore, establishment of spaces for temporary protection and their quality is of high importance as they are the places where people changing places fulfil their basic needs. Temporary protection places built in Turkey by Directorate of Migration Management for refugees are still in use and they host around 104.800 people. The conditions in such centres are expected to be suitable for continuation of life. As such environments are designed for disassembly, it is crucial that they meet the immediate needs of health, education, nourishment through fast production methods in order to provide life quality and comfort.

Spaces Becoming Places

Architecture is producing spaces so as to fulfil people's vital needs and architect expresses his ideas, thoughts and creativity through the space. Führ considers space as the object of architecture and he says that:

"A space gains virtual existence when designed by an architect. It reaches to material existence when built. However, that does not mean the architecture is present. A structure becomes a structure only when it is approved not for one moment but after a long aesthetic and intellectual visual work and when the user feels home or close to the whole structure" [5].

Führ's interpretation reveals a different concept. It suggests that spaces have different dimensions apart from physical ones. As Heidegger puts it, spaces come into existence not through mathematical perception but through the place perceived through human experience [6]. In that case, there are two different concepts space and place. Unlike English, it is difficult to differentiate between the terms space and place in Turkish language. As the difference got clearer and distinct, especially at the beginning of 1960s, several researchers came up with new concepts such as "the spirit of place" (genius loci) or "the feeling of place" which took architectural space production to a different level. Authors and poets used these concepts as a lot of architects glorified them.

Cresswell defines place as "meaningful locations, spaces where people connect, touch and get attached to" which also suggests that a place is more than a physical location or ground. In that sense, a space is interpreted as an area that is not different from a 'place', since it turns into a place as people attach meanings to it, touch it and built bonds with it [7].

A deeper understanding of place is possible by analysing the views of different researchers, architectures and thinkers.

In his work called "Place and Placelessness" Edward Relph separates "place" from area and the region by accepting it as a conception which emphasises subjectivity and experience [8]. According to him, places are apprehended by means of our practice/action based knowledge. Hence, it is possible to consider 'place' as a reality to which several symbolic meanings are attached and which affects people's lives by subjective and individual values including intense human experiences.

Christian Norberg- Schulz, who has worked on Genius Loci, 'the spirit of place', tries to evoke the feeling of place and to evoke the idea places have spirits by a phenomenological approach [13].

Heidegger, on the other hand, establishes his philosophy of place on "dasein" – the ways in which humans are and exit in the world- and on "dwelling", as in residing somewhere. He claims that places represent a form of taking root for the being and experience of the human and that they are not just dead locations as they possess qualities related to life.

As opposed to abovementioned ideas, Micheal de Certau, who examines daily practices within the relationship of space and place, reverses the well accepted differentiation between them [9]. For him, space is the production of actions while place is an empty system on which these actions take place. Marc Auge who argues on De Certau's suggestions, introduced the concept of "non-place" [10]. He defines this concept by presenting examples for spaces which do not provide meaning or a sense of belonging such as shopping centres, airports, holiday villages or underground stations. The type of relationships built in such spaces are estrangement, loneliness and abandonment.

Although there is not a total agreement on the meanings of 'space' and 'place' within the field of environmental psychology, certain definitions have been made. According to these definitions 'space-place' is a physical formation which possesses symbolic and subjective meanings on social, emotional and behavioural level for each individual since it affects and shapes people's lives while hosting their intense experiences.

People build relationships with space they live in, get attached to them and form their identities through them just like they do it with other objects [11]. In that sense, "place identity" emerges as a concept. At the very centre of "place identity", which is described as a psychological form emerging as a result of individuals' attempts to organising their environment, there is "belonging". The situation of belonging somewhere not only make the individual a user, but also makes him organise the space and turn it into space of attachment, taking roots and belonging.

According to the architectural approach based on Martin Heidegger's article called "Building, Dwelling, Thinking", dwelling, which means one's identification with an environment offering total integration in an unproblematic way, it is a natural way of human existence. It is suggested it is a must for human beings to 'belong' to some place with specific qualities and dwell there as they are not just free-floating minds (URL-4). Likewise, Sharr interprets Heidegger's idea of building - dwelling relations by suggesting that these two activities are connected to each other in accordance with human beings' attempt to give meanings to places and their relation to things at these places [6]. Home is one of integrating powers for people's thoughts, ideas and memories. David Seamon thinks that home is a private resting place which provides control over happenings within a limited space and withdrawal from outer world's chaos. Home is the place where people can be themselves and a representation of their identity. However, place identity has its own logic and stability which is not limited to home. It is possible to have a sense of belonging to each place where one lives.

"Home" is a well-known example for belonging somewhere. To Bachelard, it is our corner in the world and as it is mostly suggested, it is our first universe. Home is the real cosmos [12].

In other words, 'place' is the name of a physical reality to which several symbolic meanings are attached as it hosts people's intense experiences and affects their lives by subjective and individual values that it carries. The examples of this study are analysed within the context of place and settlement.

Alternatives for Settling

Temporality today is acknowledged as a concept which would be adopted by the designer during the process of finding solutions for problems concerning spaces. Temporary spaces are produced for various reasons and they give people the chance to move on since temporary living models are necessary to meet people's basic needs and also they need to be formed by the ideas of the designer.

Suggestions made to develop spaces for people changing places due to natural disasters, migration, economic changes... etc., also raise questions in the minds of architects dealing with structure methods such as; "why temporary spaces need architects?" or "how would an architect create temporary spaces and by which methods?". In order to answer such questions, this study investigates into projects offered or realised by different designers. The examples of temporary spaces designed for migrants by different designers from the world were taken from architectural websites so that both the designer's approach to the subject and the alternatives for solutions are examined. The projects are analysed according to identity, project visuals, design principles and parameters of temporary spaces. The examples are as follows:

Kenya Refugee Camp Sheltering Model Shigeru Ban


Bar Elias/Lebanon Refugee Camp Children Play ground- Catalytic Action


Multi-functional sheltering model- 1week1project & Sophie Picoty


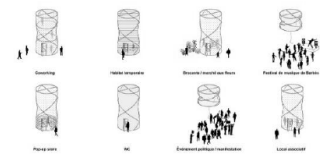
"Weaving A Home" Sheltering Model- Abeer Seikaly


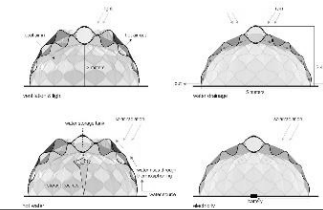
"Sheltainer" Sheltering Model Mouaz Abouzaid, Bassel Omara and Ahmed Hammad



"Maidan Tent" Public space- Bonaventura Visconti di Modrone and Leo Bettini Oberkalmsteine.

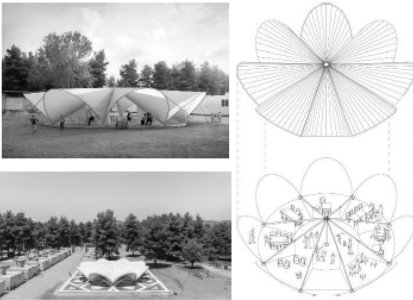
Identity	Visuals
<p>Housing Offer Kenya Refugee Camp Shigeru Ban</p> <p>Architect Shigeru Ban has designed temporary and semi temporary living spaces in disadvantages regions such as refugee camps and natural disaster regions. He is known for the cardboard tubes he uses in his designs. He calls attention to the social aspect of architecture by adding local materials to his trials with different scales.</p> <p>It is a project proposal he developed for 12.000 housing for a refugee settlement region in North Kenya Kalobeiyei with UN-Habitat. The current population at the camp is expected to rise due to migration from South Sudan and Somali caused by climate change and violence. Therefore, the project was developed as an adaptable and repeatable. The project is being run by prototypes now and soon production will begin. Prototypes have been made of local material so far such as cardboard tubes, tree branches and soil bricks</p>	 <p>Design Parameters Time: Short Context: Refugee Camp Function: Sheltering Material: Local material and Cardboard tube Construction technique: Demountable- low technology Size: Small</p> <p>Design Principles Economic Adaptable Ecological Diversional Modular Flexible</p>

Identity	Visuals
<p>Children Playground Bar Elias Lebanon Refugee Camp Catalytic Action</p> <p>Catalytic Action was founded in 2014 and it is a charity and design studio working to empower communities through strategic and innovative spatial interventions. Design processes focus on participatory design, sustainable design and community building. They aim to reduce poverty, inequality and to ensure change through their projects.</p> <p>The project is aimed to offer a place where children are visible and have access to education, feeling safe and playing games, even though shelters at the refugee camp meet the necessary need. The playground, which can be easily disassembled, moved, reassembled or removed, is designed to let children design the space themselves. In this respect, belonging can be established, it can be changed and evolve with the intervention of children. It was produced by many volunteers and users from around the world as an example of participatory design approach.</p>	 <p>Design parameters Time: Short/Long Context: Refugee camp Function: Education/Entertainment Material: Wood Construction technique: Demountable - low technology Size: Small</p> <p>Design Principles Economic Adaptable Ecological Flexible</p>

Identity	Visuals														
<p>Multifunctional Housing Offer 1week1project & Sophie Picoty</p> <p>1week1project architecture collective was founded in 2013 by Axel de Stampa and Sylvain Macaux. Their goal is to provide a social benefit through architecture by bringing theory and practice together in the same pot. The collective primarily identifies the field, diagnoses it and proposes an intervention by taking the rapid design and production process into consideration.</p> <p>The project has been developed in the less-used urban areas of Paris in order to find solutions to the struggles of refugees about finding safe and suitable housing after coming to the city. Under an elevated railway bridge, the project is realised within a modular experience area. It provides temporary accommodation for refugees, and also serves as a playground, performance area and public park. However, it is easily adaptable to provide diversity.</p>	  <table> <tr> <th>Design parameters</th><th>Design Principles</th></tr> <tr> <td>Time: Short</td><td>Economic</td></tr> <tr> <td>Context: less- used urban space</td><td>Adaptable</td></tr> <tr> <td>Function: Sheltering/ Education/Entertainment</td><td>Ecological</td></tr> <tr> <td>Material:</td><td>Flexible</td></tr> <tr> <td>Construction technique: Mobile System</td><td>Modular</td></tr> <tr> <td>Size: Small</td><td>Diversional</td></tr> </table>	Design parameters	Design Principles	Time: Short	Economic	Context: less- used urban space	Adaptable	Function: Sheltering/ Education/Entertainment	Ecological	Material:	Flexible	Construction technique: Mobile System	Modular	Size: Small	Diversional
Design parameters	Design Principles														
Time: Short	Economic														
Context: less- used urban space	Adaptable														
Function: Sheltering/ Education/Entertainment	Ecological														
Material:	Flexible														
Construction technique: Mobile System	Modular														
Size: Small	Diversional														

Identity	Visuals														
<p>"Weaving A Home" Sheltering Model Abeer Seikaly</p> <p>In the proposal of the project, which won the Lexus Design Award in 2013, the designer designed a foldable shelter which can be adapted to different climates and at the same time offers the comfort of contemporary life. The architect's statement about the project summarizes the subject. "Refugees carry from their homes what they can and resettle in unknown lands, often starting with nothing but a tent to call home... In this space, the refugees find a place to pause from their turbulent worlds, a place to weave the tapestry of their new lives."</p> <p>The project offers a space which enables comforts of modern life such as heating, electricity, water and storage and a structure that is collapsible thanks to a reinterpretation of traditional tent as a shelter model. As the designer puts it, this light and mobile structure creates bonds between people's lives in a metaphorical sense. It can potentially close the gap between necessity and desire while reshaping their environment as new and familiar, temporary and rooted, special and connected to somewhere.</p>	  <table> <tr> <th>Design parameters</th><th>Design Principles</th></tr> <tr> <td>Time: Short/long</td><td>Economic</td></tr> <tr> <td>Context: -</td><td>Adaptable</td></tr> <tr> <td>Function: Sheltering</td><td>Ecological</td></tr> <tr> <td>Material: Flexible fabric, plastic pipe</td><td>Flexible</td></tr> <tr> <td>Construction technique: Foldable system</td><td>Modular</td></tr> <tr> <td>Size: Small</td><td></td></tr> </table>	Design parameters	Design Principles	Time: Short/long	Economic	Context: -	Adaptable	Function: Sheltering	Ecological	Material: Flexible fabric, plastic pipe	Flexible	Construction technique: Foldable system	Modular	Size: Small	
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Construction technique: Foldable system	Modular														
Size: Small															

Identity	Visuals														
<p>"Sheltainer" Sheltering Model Mouaz Abouzaid, Bassel Omara and Ahmed Hammad</p> <p>Architects have designed a shipping container housing project for Cairo, Egypt. The project aims to address a need for low-income, student and refugee housing. The design focuses on Egyptian life around a single house unit with all the necessary needs for a small family. Sheltainer aims to offer a flexible solution with new open spaces, activities and homes. Sheltainer looks to support refugees, asylum seekers, students and people of low income jobs by using a standard 20ft container, as well as a smaller 10ft variety and larger 40ft crates for its structures. Individual house units are combined into a cluster that serves as a small neighbourhood of 8 homes surrounding a green courtyard. Units can be adapted to different environments due to the container's ability to provide excellent insulation and flexibility.</p>	  <table> <tr> <th>Design parameters</th><th>Design Principles</th></tr> <tr> <td>Time: Long</td><td>Economic</td></tr> <tr> <td>Context: Urban space</td><td>Adaptable</td></tr> <tr> <td>Function: Sheltering</td><td>Ecological</td></tr> <tr> <td>Material: Container</td><td>Flexible</td></tr> <tr> <td>Construction technique:</td><td>Modular</td></tr> <tr> <td>Size: Big</td><td>Diversional</td></tr> </table>	Design parameters	Design Principles	Time: Long	Economic	Context: Urban space	Adaptable	Function: Sheltering	Ecological	Material: Container	Flexible	Construction technique:	Modular	Size: Big	Diversional
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Material: Container	Flexible														
Construction technique:	Modular														
Size: Big	Diversional														

Identity	Visuals														
<p>"Maidan Tent" Urban Space Bonaventura Visconti di Modrone and Leo Bettini Oberkalmsteiner</p> <p>With the support of United Nations International Organization for Migration, a refugee camp in Ritsona, Greece, has been established as a common social space which would allow refugees to benefit from the public space and to cope with the psychological trauma of war. Lack of common areas in refugee camps creates alienation and adaptation problems. It was thought that the project would allow the users to interact and empathize with each other. The tents are waterproof, wind and fire resistant. The modular form gives them the flexibility to be set up easily. The scheme's circular shape is a conscious attempt to invite people to enter from any direction, where a series of semi-private spaces can enable refugees to establish personal relationships.</p> <p>https://www.archdaily.com/905769/the-first-maidan-tent-is-built-to-aid-refugees-in-greece</p>	 <table> <tr> <th>Design parameters</th><th>Design Principles</th></tr> <tr> <td>Time: Short/Long</td><td>Economic</td></tr> <tr> <td>Context: Refugee Camp</td><td>Adaptable</td></tr> <tr> <td>Function: Social interaction</td><td>Ecological</td></tr> <tr> <td>Material: Textile and aluminum</td><td>Flexible</td></tr> <tr> <td>Construction technique:</td><td>Modular</td></tr> <tr> <td>Size: Big</td><td></td></tr> </table>	Design parameters	Design Principles	Time: Short/Long	Economic	Context: Refugee Camp	Adaptable	Function: Social interaction	Ecological	Material: Textile and aluminum	Flexible	Construction technique:	Modular	Size: Big	
Design parameters	Design Principles														
Time: Short/Long	Economic														
Context: Refugee Camp	Adaptable														
Function: Social interaction	Ecological														
Material: Textile and aluminum	Flexible														
Construction technique:	Modular														
Size: Big															

CONCLUSION

There are many things that people value in their lives. People who try to do their best not to lose those values, to be united with them and adhere to them also need spaces where they would be happy to live and belong to. The space, which is expected to provide such feelings, is not limited to his house but rather includes his street, district and even his homeland. The number of people who have to change places and who are displaced has risen due to wars, natural disasters, famine and so on. New thoughts and offers have been developed regarding where and how would such people live. Likewise, architecture proposes temporary space alternatives for people who migrate. Architecture produces not only what appeals to the eye but also what is useful for the society; thus, the improvement of architectural practices and plans for future studies requires a study of temporary spaces. Accordingly, this study aims to be an analysis of six temporary architectural samples designed for people who moved from their places to another. These samples are examined in terms of design parameters and design principles and the results are as follows:

When design parameters are concerned, projects are analysed according to time, context, function, material, construction techniques, and size. Most of the samples are sheltering-socialising based as well as being small in size and designed for a short period of time. On the other hand, people who have to move from their own places need a long time to gain a sense of belonging, meaning and to adopt their identities to the new living spaces. However, people who change places for compulsory reasons are supposed to stay in places like refugee camps for short terms because they have the scenario of going back home in their minds. When the relationship built between the space and its users gets stronger and when people start to feel that they belong to the space, the lifetime of the space is prolonged which is the start of permanence. Sheltering and socialising are the very basic needs of people migration. Safe sheltering is one of the basic needs of human beings, socialising on the other hand is one of the most preferred features as it prevents estrangement and contributes to integration.

An investigation into the material and construction features of samples reveals certain different approaches. It is understandable that such solutions are looked for in refugee camps lacking proper spacial quality. However, planning new living located in less used areas of urban regions for people who wish to live outside of camps is considered to be supportive when integration into city life is concerned. Demountable structures, fast mounting techniques, mobile and foldable systems are used most to support temporary space designs. Flexibility, natural and local materials also contribute to the structure as material features. The results of analysis made in accordance with design parameters are as follows.

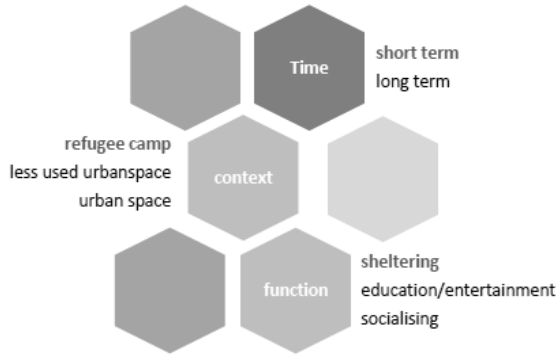


Diagram 1. Design Parameters Analysis.

Design principles are designated in relation to architectural solutions offered by architects for temporary spaces. Being economic, adaptability, felexibility, and ecological traits are common design principles in terms of analysed samples.

A temporary space is economic and ecological provided that it can be realised with a low budget and labour within the context of effort and raw material. Besides, modularity is one of the principles which architects mostly prefer. Modularity provides easier adaptation if the number of users increase or decrease. It also makes fast production and mounting possible which is a significant feature. The results of analysis made in accordance with design principles are as follows.

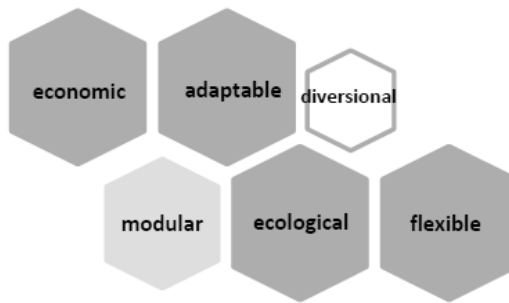


Diagram 2. Design Principles Analysis.

Last of all, the insufficiency of spaces designed for people changing places in our country is already known. Design parameters and principles which are examined can be evaluated and used for space design. As a result, people who suffer physical, sociological and psychological difficulties can be provided with habitable environment.

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ESCAPE HOUSES OF MIDDLE CLASS: INITIAL APARTMENT HOUSING IN DIYARBAKIR

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ABSTRACT

The habits of societies are related to the "place" they exist. The understanding lying behind the "Geography is Destiny" is the relation of society with the place. This relationship begins with the physical environment, develops with internal dynamics, and reveals lifestyles and cultures. While traditions, language, production and consumption patterns, rituals develop with the effect of "place"; these lifestyles and cultural codes are also reflected in architecture. In migrations, which are displacement movements, cultural codes are replaced as well as physical changes. In this respect, migration is a cultural displacement as well as a physical. The problematique of how the socio-cultural codes that are displaced are reflected to the space and how they change/ transform the space/ architecture/ city is the starting point of this study. One of the best examples of this change is the city of Diyarbakır. The aim of the study is to study the effects of this displacement in terms of city and space. The city of Diyarbakır developed within the historical walls surrounding its center until 1950s. Throughout its history, the city of Diyarbakır has been subjected to forced migration because of security problems and natural migration due to its location; the high birth rate, together with the migrations received, caused the population to increase rapidly. In this context, the aim of the study is to reveal the logic of space coming together in the first apartment houses of the city which is developing out of Sur. The time limit of this study is the period between 1960-1984. The floor plans are analyzed with space sequence from samples of multi-storey houses / elitist apartments where displaced architecture from the planned development areas of the city can be seen. As a result of this study, it is observed that the displaced population changed the architecture as well, and the traditional buildings have been changed to the apartment houses; however, cultural and social habits are found to be effective in the spatial configuration while the residential population preferred apartment houses.

Key Words: Immigration in Diyarbakır; Apartment Housing in Diyarbakır; Urban Planning and Development of Diyarbakır.

INTRODUCTION

The cultural differences of societies are in direct relation with the geography, that is, the “place”, where they are located. While the geography/place affecting the psycho-social status of individuals and their relationship with the environment; it determines the traditions and social relations formed by individuals living together in the ordinary course of life, and it also shapes the “place.” However, the place/ space shaped by physical and social factors is transformed and displaced by the changes of time. The city of Diyarbakır, whose history dates back to 3000 BC, is one of the “places” where this change can be easily observed. Social changes in the course of history have changed the architecture of the city. At the same time, the transformations resulted from the displaced architecture can be seen. Architectural formation started with the physical thresholds and possibilities of the city and continued to be shaped by technological, social, economic and political dynamics. The historic fabric of the city, which supports the determination that “the geography is destiny”, has differentiated especially in the 1960s with the changes experienced. The city, which had a high birth rate due to natural migrations and the forced migration until the mid-1980s, experienced rapid population growth and the need for housing continued to increase. Although the city, which had the status of provincial after the proclamation of the Republic, began to take place outside the city wall(Surdişı), the need for housing was met in the city walls(Suriçi) until the 1960s. Factors affecting the housing construction process that started outside the city wall in the 1960s were the transition to a multi-party system, high birth rate, natural migration starting with mechanization in agriculture, and economic policies to promote housing loans/cooperatives. These factors changed the socio-economic and cultural structure of the society until the problematic migrations that started in the mid-80s and shaped the housing and housing production. While examining the size, usage and preference of the space, it is possible to determine the social logic of the space coming together by spatial analysis. Therefore, the reflections of the effects of these changes on the housing have been tried to be revealed by the space arrangement method. The period described as the beginning of the change from individual houses to apartments is between 1960-1984. After the mid-1980s, the most important factor affecting the city is forced migration [12]. Since the quality and quantity of migration after 1980 is different and constitutes the present structure of the city, it is important to examine the process up to forced migration in order to understand and analyze the urban and residential structures. The population growth caused by the migration and birth rates in the 1960s led to the development of the city with multi-storey houses/ first flats outside the city walls, architecture and displacement of the population. The middle class (members of the service and trade sector), who substituted the historic city wall for the first time, formed the first apartment block – “the elitist settlements”. The first/initial flats preferred by the middle class shows a much more planned and controlled development in comparison to the Bağlar region where the slums/ apartment houses of the city are located. This configuration, which is the symbol of escape, is located in Yenişehir and Kooperatifler district within the boundaries of Yenişehir and a

part of the stations and Alipınar within the boundaries of Bağlar. The birth rate and migrations caused a significant part of the housing need to be met by the slums. However, the first nuclei of the planned development areas of the city, which is now considered as a metropolis, are the apartments formed by the escape. It is important to understand the structure of today's city by analyzing these apartments where the architecture, which reflects the cultural accumulations and socio-economic conditions of the residential population. In this study, 21 floor plan samples selected from modern apartment houses preferred by the locals in this period are examined by using spatial analysis method. The dwellings were chosen from licensed houses built between 1960-1984 from the planned and relatively controlled developing region within the boundaries of Bağlar and Yenişehir districts. The syntactic data obtained from the selected floor plans were evaluated. During the evaluation, the transformations and the social structure were correlated with the data obtained and the displaced architectural structure was tried to be read.

Diyarbakir City in the Period of 1960-1984: Transformations and City

After the establishment of the Republic, political changes such as education, economy, health and local governments have been experienced in our country. In this period, the economic crisis throughout the country, the unemployment problem and the migration from the village to the city are also valid for the city of Diyarbakir. These changes, which can be observed in Diyarbakir in particular, have affected the cores of the city, which is known as provincial metropolis or mega village, during the housing process [1,2]. The population of the city, which was 102,653 in 1965, exceeded 300,000 in 1984 (Table 1) [19]. The increase has affected the planning of housing needs and housing constructions.

	1965	1970	1975	1980	1985
Diyarbakir	102.653	149.566	169.535	235.617	305.940

Table 1. Population Growth by Years (TÜİK, 2018).

Today, one side of the city shows unscheduled / uncontrolled development with slum / apartment buildings and the other side shows a planned development. While the first cores of the slums were formed on the walls, the first houses / apartments of the artisans and middle class were formed outside the walls. Marshall Aid after the second world war, determined to revive economic policies and trade in agricultural mechanization has started to migrate across the rural to urban areas in Turkey [3]. This wave of migration took place in the city of Diyarbakir. With the change of hands of the traditional houses of the city, settlements were started towards the exterior walls [1,2,8,18]. Then, with the 1954 condominium law, the promotion of cooperatives and the granting of housing loans, the first/initial apartment buildings of the escape emerged [1,2,5]. The first known planning works of the city were made after the 1930s. The first study carried out in 1937 was directed to the settlement of Suriçi. However, planning studies have been

carried out in order to identify the development areas and to open up the areas to eliminate the housing shortage by increasing the population increase due to migration and birth rate and increasing the infrastructure opportunities of the municipality [8,13,16]. In 1961 and 1965, a 6-page 1/1000 scale zoning plan covering Suriçi and outside Sur (Yenişehir Neighborhood) was prepared by İller Bank [8] (Figure 1). In this period, housing production consisted of private enterprises, state-built housing units and mainly cooperatives. The first apartments of the middle class in the service and trade sector were produced with cooperatives and private enterprises in this period. When the registration records obtained from the Metropolitan Municipality and the cooperative records obtained from the Chamber of Commerce and Industry were examined for the period of 1960-1984, it was found that 96 cooperatives were operating and a total of 717 houses were licensed. In this period, housing construction was dependent on population growth, economic policies and legal regulations. The inadequacy of the actors to provide engineering services, the limitations of housing areas due to the amount of housing loans granted, the differentiation of construction techniques and material choices (lack of traditional methods and materials) and the lack of equipment / qualified personnel constitute the limitations of this period. In a relatively planned / controlled developing housing construction process, apart from individual productions, apartments were widely produced through cooperatives due to factors such as providing housing loans and encouraging cooperatives.



Figure 1. Master Plan of 1965 [8].

METHOD of the STUDY

Spatial analysis method was used for spatial analysis. In this context, Depthmap software was used to prepare syntactic measurements and convex

space maps. In the sample area, 21 sample apartments constructed between 1960-1984 were provided with normal floor plans and evaluated in Depthmap program. With this software, syntactic measurements such as integration, connectivity, average depth and total depth were made and convex space maps based on permeability / accessibility relationships were prepared. Depthmap software used in the field study was developed based on Benedikt's apparent field theory and Hillier and Hanson's spatial syntax [4,7]. Benedict theorized that visible spaces are parallel to the movement cycles and forms of human beings, and Hillier theorized that the relationship between lines throughout space fits with patterns of movement within space [4,7,14]. Based on these theories, Depthmap software was developed by Turner for the use of visibility graphical analysis in macro and micro-scale planning to perform spatial analyzes. Depthmap software enables the creation of visual graphics after the DXF format plans are taken into the software and filled with grid points. After the graphs are created, analysis and measurements are performed on the graph. The spatial sequence method reveals the configuration/conformation relationships. Define the relations of spaces with each other and the system and allow the creation of a pattern. Many measurements can be made for this purpose. These measurements are numerical values of parameters such as integration, control, connectivity, depth, permeability, compactness and orientation. Numerical expressions of values such as the most integrated and discrete spaces in the area on the building scale, the state of motion / orientation, the compactness of the system, the controllability of the spaces, the connection between the spaces (connectivity) reveal the role of the space in the system and the logic of the combination. In this study, in order to understand the relationship between spaces and the reflections of social structure, connectivity, integration and depth values were calculated from these values. The higher the integration value, the more accessible and shallow the system, and the less the spatial fiction, the deeper the system. The places where integration value is high are used most intensively, the places with the most powerful function and the places where the value is low are the places where privacy and security are required [9,10,11,15]. The relative asymmetry (RA) value indicates the integration of space with the system, ie whether the space is unitary within the system. This value is between 0 and 1, and as you approach 0, the integration of the space increases. The more integrated the space is, the more it will attract other spaces, and if it is separate, it will move away [11]. The total depth (TD) value represents the distance traveled (number of steps) when reaching a space [11]. Mean Depth (MD) is considered as the average of the number of steps of moving of a space to other spaces [11]. It is tried to determine the spaces remaining on the surface and deep by finding the accessibility of the spaces with the average depth compared to other spaces [11]. When the convex integration maps prepared are evaluated, integration and separation spaces emerge. In convex integration maps, analyzes take color from red to dark blue. The red color represents the most integrated, dark blue, most segregated space in terms of accessibility, and each space takes a look from warm to cold colors according to its value. In this way, the most

discrete and integrated spaces were identified. Typological data were obtained by using spatial analysis data. In this way, the transformation of the displaced architecture that gained movement with migration became legible. The extent to which the spaces used by the middle class living in the traditional Diyarbakır Houses were transformed by the displacement of the population and the architecture, and the connection / disconnection between them were determined. In this context, the reflections of the cultural and social codes of the displaced population over the transformation of the space were revealed. Thus, the link between the mobility and displacement is explained by the method used.

Starting Apartments-Middle Class Escape

The socio-economic structure and architectural configuration of the city, which has been shaped around the historical core fabric, has changed over time and the core of stratification has been formed among those with different economic levels. The fact that the population with a high birth rate currently faces unemployment problems and migrants from rural areas has accelerated the population growth and created differences in the social fabric. The indiscriminate inhabitants of the resident population have caused the indigenous population to become impoverished. The problems encountered in the integration of immigrants into the city [6,12,13] are seen to reflect the escape of the settled population and the housing construction. This formation is observed in the specific areas in the Bağlar area, although it is observed in the Yenışehir region where the urban settlement with the organic texture in the city - the destruction and slum areas that occurred after the settlement - is carried out. Specifically, the settlement [2]/ escape of merchants, tradesmen and the service sector was experienced during the apartheid process of cooperatives and private enterprises between 1960-1984. The first apartment buildings of the elite segment are observed in this period. Meeting the need for housing that develops in parallel with the population; In 1954, the Law No. 6217 allowed the condominium ownership to be destroyed by the construction of traditional multi-storey houses, the walls of the slums outside the walls of the two-storey detached houses and the construction of the building blocks were used to build apartment blocks [1,2]. In 1951, with the establishment of the Diyarbakır Yeni Evler Building Cooperative with Mahdut Responsibility, cooperative activities started and became widespread in the 1960s and with condominium/housing loans [1,2,16,18]. When the license registrations of the municipality are examined, it is seen that the cooperatives are concentrated in Yenışehir region and they are made in specific areas in Bağlar. The sample area was Yenışehir and samples were taken from licensed cooperatives from Bağlar region. In the 21 selected apartment buildings, the plots were constructed as twin blocks, single blocks and multiple (2 and above) blocks in a separate order. Housing + commercial or residential zoning records are available. The multi-storey houses built between 5 and 7 floors are open to the outside. Constructed parallel to the street and the avenue, these structures are limited by pedestrian roads. They have a distance of 5.00 m

from the road and 3.50 m from the parcel. The residences built in this period do not have any facilities such as parking lot, garden, children playground. In buildings constructed with masonry system, there are rare occurrences, while in buildings constructed with reinforced concrete system, there are closed and open projections along the facade line. The residences are planned as 2 + 1 or 3 + 1 on 2 and 3 apartments. The apartment areas of the 21 houses examined vary between 85-130 m². The biggest space in the residence is the Guest room and the living room (Table 2). These spaces are followed by bedrooms of almost similar sizes, although they differ in part. The housing crisis [18] and the shortage of land affected the housing sizes. The residences are between 85-130 m² and the user population varies between 4-13 people. The saloon size is between 14-19 m², daily room is 11-19 m², kitchen is 6-12 m², bedrooms are 10-15 m². The understanding and opportunities of the people who have the characteristics of being a saving society are reflected in the housing. Considering today's residences of the city, it is possible to evaluate smaller areas with high efficiency.

	Misafir S.	Oturma O.	Mutfak	Antre	Hol	G. Holü	Balkon 1	Balkon 2	Yatak O. 1	Yatak O. 2	Kiler	WC	Banyo
K1	18,8%	19,0%	5,8%	3,1%	2,9%	0,0%	5,5%	0,0%	11,7%	9,7%	0,0%	1,2%	3,1%
K2	16,2%	15,2%	6,9%	1,7%	3,9%	0,0%	8,7%	3,9%	11,2%	10,1%	0,0%	1,4%	2,9%
K3	0,0%	16,2%	6,9%	5,3%	2,5%	0,0%	7,4%	3,7%	12,0%	10,4%	3,0%	1,6%	4,5%
K4	12,7%	10,5%	8,0%	3,2%	3,3%	0,0%	2,4%	5,8%	14,0%	11,8%	2,6%	1,0%	3,9%
K5	13,1%	12,5%	6,6%	2,8%	1,8%	0,0%	6,0%	5,9%	15,7%	13,7%	0,0%	1,2%	2,8%
K6	13,3%	17,5%	6,4%	9,3%	0,0%	0,0%	10,9%	0,0%	11,8%	0,0%	0,0%	1,8%	4,5%
K7	23,1%	10,6%	8,1%	4,0%	1,8%	0,0%	3,8%	12,3%	10,9%	9,5%	0,0%	2,3%	4,5%
K8	22,4%	10,8%	6,2%	9,4%	2,6%	0,0%	3,7%	3,7%	10,9%	10,3%	0,9%	1,8%	4,4%
K9	17,5%	11,3%	7,9%	8,3%	1,7%	0,0%	2,0%	3,5%	14,1%	9,1%	1,7%	1,9%	7,3%
K10	13,8%	13,4%	6,7%	7,9%	3,0%	0,0%	12,9%	0,0%	19,9%	14,8%	1,5%	2,6%	3,5%
K11	27,3%	10,5%	7,7%	11,5%	2,3%	0,0%	3,6%	1,8%	13,2%	11,7%	1,9%	2,1%	6,5%
K12	14,0%	12,9%	6,7%	6,3%	0,0%	0,0%	2,4%	6,1%	16,1%	12,7%	0,0%	2,5%	4,2%
K13	16,7%	17,8%	7,4%	6,8%	1,8%	0,0%	9,0%	7,7%	14,9%	10,8%	1,7%	1,7%	3,7%
K14	17,1%	16,3%	6,8%	7,9%	0,0%	0,0%	2,3%	6,3%	8,0%	7,7%	0,0%	1,8%	4,2%
K15	21,0%	10,2%	7,0%	2,1%	4,5%	2,1%	1,9%	5,0%	11,0%	9,5%	3,2%	2,1%	3,2%
K16	24,7%	7,7%	3,9%	7,6%	5,5%	2,9%	3,8%	2,1%	9,7%	8,4%	3,4%	0,9%	2,6%
K17	17,1%	17,4%	6,3%	3,5%	1,6%	0,0%	2,4%	5,7%	13,7%	12,3%	3,3%	2,8%	3,2%
K18	17,5%	13,7%	4,9%	5,9%	2,1%	7,2%	5,1%	1,2%	12,6%	11,1%	3,2%	0,9%	4,5%
K19	21,3%	15,4%	9,3%	7,2%	4,5%	0,0%	10,4%	0,0%	12,1%	10,9%	0,0%	2,6%	4,5%
K20	14,8%	23,7%	6,7%	6,9%	2,1%	0,0%	3,7%	7,1%	13,9%	12,1%	3,2%	1,7%	4,1%
K21	16,1%	19,3%	5,4%	7,2%	3,4%	0,0%	9,8%	3,5%	10,2%	8,6%	2,7%	1,5%	2,3%

Table 2. Proportional Distribution of Space Sizes by Apartment Areas (%).

It is seen that the connectivity value varies between 1-4,5 and the living and guest rooms and the night hall are the most powerful spaces in terms of spatial relations (Figure 2). The boundaries between the living room, saloon and dining rooms consist of wooden partitions with doors across the width of the room instead of walls. In the analyzes, when the syntactic measurements of the integration with convex space maps, relative asymmetry and depth parameters are evaluated, it is seen that the most integrated spaces are the anteroom, living room and hall, and the most separated spaces are balconies, wc and pantry (Table 3). Balcony and pantry are the most frequently used places in the house. The most intensely used spaces with the kitchen, where women prepare products for food consumption (drying, tomato paste, cheese, yoghurt, canned etc.) on the balcony and store them in the storage area, appear to be separate from low connectivity and spatial fiction. On the other hand, when we look at the hierarchical order of integration values, it is seen that kitchens, bedrooms, guest rooms and bathrooms are equal or very close in weight. This shows that the area of sovereignty and centrality has not been fully clarified in the transition from traditional and self-contained housing to modern apartment houses, and that functions are not fully segregated according to users' specific areas. The fact that the bedrooms have similar or exact same sizes and connectivity can also be considered as a separate reflection.

Misafir S.	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20	K21
Baglantsallik	2	3	3	1	2	1	2	2	2	2	2	1	3	2	2	2	2	2	2	1	2
Butunlesme(HH)	0,91	1,10	1,21	0,75	0,92	0,98	0,66	1,13	1,13	0,94	1,06	0,82	1,04	1,32	1,12	1,30	1,20	0,90	1,10	0,82	1,06
Rotatif Asimetri(RA)	0,33	0,26	0,22	0,36	0,30	0,33	0,44	0,24	0,24	0,31	0,25	0,35	0,27	0,22	0,23	0,20	0,23	0,28	0,27	0,34	0,25
Ortalama Derinlik(MD)	2,33	2,20	2,25	3,00	2,54	2,00	3,00	2,33	2,33	2,40	2,41	2,60	2,36	2,00	2,50	2,23	2,18	2,85	2,11	2,72	2,41
Toplam Derinlik(TD)	21	22	27	36	28	14	30	28	28	24	29	26	20	25	29	24	40	19	30	29	
Oturma O.	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20	K21
Baglantsallik	3	4	3	3	3	2	4	2	3	1	3	2	3	3	1	2	4	2	1	3	3
Butunlesme(HH)	1,83	2,21	1,06	1,39	1,56	1,37	1,65	1,13	1,01	1,65	1,06	1,32	1,74	1,47	1,02	1,04	1,95	0,90	0,91	1,74	1,51
Rotatif Asimetri(RA)	0,16	0,13	0,25	0,19	0,18	0,23	0,17	0,24	0,27	0,17	0,25	0,22	0,16	0,20	0,25	0,25	0,14	0,28	0,33	0,16	0,18
Ortalama Derinlik(MD)	1,66	1,60	2,41	2,08	1,90	1,71	1,80	2,33	2,50	1,80	2,41	2,00	1,81	1,90	2,64	2,53	1,72	2,85	2,33	1,81	2,00
Toplam Derinlik(TD)	15	16	29	25	21	12	18	28	30	18	29	20	20	19	37	33	19	40	21	20	24
Mutfak	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20	K21
Baglantsallik	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Butunlesme(HH)	0,91	0,94	0,82	0,79	0,92	1,37	0,78	1,30	1,13	0,73	1,06	0,94	0,92	1,32	1,23	1,04	0,92	0,94	1,10	0,92	1,21
Rotatif Asimetri(RA)	0,33	0,31	0,33	0,34	0,36	0,23	0,37	0,24	0,24	0,40	0,25	0,31	0,30	0,22	0,20	0,25	0,30	0,27	0,27	0,30	0,22
Ortalama Derinlik(MD)	2,33	2,40	2,83	2,91	2,81	1,71	2,70	2,33	2,33	2,80	2,41	2,40	2,54	2,00	2,35	2,53	2,54	2,78	2,11	1,81	2,25
Toplam Derinlik(TD)	21	24	34	35	31	12	27	28	28	28	29	24	28	20	33	33	28	39	19	28	27
Kilise	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20	K21
Baglantsallik	1	2	3	3	3	6	2	5	6	3	5	4	5	7	5	2	5	5	5	5	4
Butunlesme(HH)	0,55	1,02	1,21	1,29	1,20	6,89	1,02	2,59	2,59	1,20	2,27	1,89	1,74	4,42	2,35	2,60	1,74	1,68	2,75	1,74	1,81
Rotatif Asimetri(RA)	0,55	0,28	0,22	0,21	0,23	0,04	0,28	0,10	0,10	0,24	0,12	0,15	0,16	0,06	0,10	0,10	0,16	0,15	0,11	0,16	0,15
Ortalama Derinlik(MD)	3,22	2,30	2,25	2,16	2,18	1,14	2,30	1,58	1,58	2,10	1,66	1,70	1,81	1,30	1,71	1,61	1,81	2,00	1,44	1,81	1,83
Toplam Derinlik(TD)	29	23	27	26	24	8	23	19	19	20	17	20	13	22	21	20	28	13	20	18	13
Hol	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20	K21
Baglantsallik	6	6	4	4	4	4	4	5	4	4	5	4	4	4	5	4	4	4	4	4	6
Butunlesme(HH)	2,75	2,65	1,21	1,13	1,30	-	1,47	1,81	1,81	1,32	2,02	-	1,42	-	1,81	2,08	1,31	1,23	1,83	1,20	3,03
Rotatif Asimetri(RA)	0,11	0,13	0,22	0,24	0,21	-	0,20	0,15	0,15	0,22	0,13	-	0,20	-	0,14	0,12	0,21	0,20	0,16	0,23	0,09
Ortalama Derinlik(MD)	1,40	1,50	2,25	2,35	2,09	-	1,90	1,81	1,83	2,00	1,75	-	2,00	-	1,92	1,76	2,09	2,25	1,66	2,18	1,50
Toplam Derinlik(TD)	13	15	27	28	23	-	19	22	22	20	21	-	22	-	27	23	23	33	15	24	18
Yatak Odası 1	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20	K21
Baglantsallik	1	1	3	1	2	1	1	1	1	2	1	1	2	3	2	2	1	1	1	1	1
Butunlesme(HH)	0,91	0,94	0,90	0,67	0,78	0,98	0,73	0,86	0,95	0,69	0,90	0,78	0,92	1,32	0,98	1,04	0,71	0,73	0,78	0,68	0,79
Rotatif Asimetri(RA)	0,33	0,31	0,32	0,30	0,36	0,33	0,40	0,31	0,42	0,30	0,37	0,40	0,33	0,21	0,26	0,25	0,40	0,34	0,38	0,41	0,34
Ortalama Derinlik(MD)	2,33	2,40	2,66	3,25	2,81	2,00	2,80	2,75	2,58	2,90	2,66	2,70	2,54	2,00	2,71	2,53	3,00	3,28	2,55	3,09	2,91
Toplam Derinlik(TD)	21	24	32	39	31	14	28	33	31	29	32	27	28	20	38	33	33	46	23	34	35
Yatak Odası 2	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20	K21
Baglantsallik	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Butunlesme(HH)	0,91	0,94	0,75	0,72	0,78	-	0,82	0,86	0,86	0,82	1,01	0,69	0,74	-	0,98	1,04	0,71	0,78	0,78	0,68	1,21
Rotatif Asimetri(RA)	0,33	0,31	0,36	0,37	0,36	-	0,35	0,31	0,31	0,35	0,27	0,42	0,38	-	0,26	0,25	0,40	0,32	0,38	0,41	0,22
Ortalama Derinlik(MD)	2,33	2,40	3,00	3,08	2,81	-	2,60	2,75	2,75	2,60	2,50	2,90	2,90	-	2,71	2,53	3,00	3,28	2,55	3,09	2,25
Toplam Derinlik(TD)	21	24	36	37	31	-	26	33	33	26	30	29	32	-	38	33	33	44	23	34	27
Wc	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20	K21
Baglantsallik	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Butunlesme(HH)	0,91	0,94	0,69	0,56	0,50	0,98	0,78	1,01	1,01	0,66	0,95	0,63	0,82	1,10	0,69	0,80	0,82	0,60	0,91	0,82	0,86
Rotatif Asimetri(RA)	0,33	0,31	0,39	0,48	0,56	0,33	0,37	0,27	0,27	0,44	0,28	0,46	0,34	0,26	0,37	0,33	0,34	0,42	0,33	0,34	0,31
Ortalama Derinlik(MD)	2,33	2,40	3,16	3,66	3,81	2,00	2,70	2,50	2,50	3,00	2,58	3,10	2,72	2,20	3,42	3,00	2,72	3,78	2,33	2,72	2,75
Toplam Derinlik(TD)	21	24	38	44	42	14	27	33	30	40	31	31	30	22	46	39	40	53	21	30	33
Lavabo	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20	K21
Baglantsallik	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Butunlesme(HH)	0,91	0,94	0,69	0,67	0,71	0,98	0,73	0,86	0,86	0,69	0,90	0,63	0,74	1,10	0,90	0,74	0,71	0,73	0,78	0,68	1,06
Rotatif Asimetri(RA)	0,33	0,31	0,39	0,40	0,40	0,33	0,40	0,31	0,31	0,42	0,30	0,46	0,38	0,26	0,28	0,25	0,40	0,35	0,38	0,41	0,25
Ortalama Derinlik(MD)	2,33	2,40	3,16	3,25	3,00	2,00	2,80	2,75	2,75	2,90	2,66	3,10	2,90	2,20	2,85	2,53	3,00	3,28	2,55	3,09	2,41
Toplam Derinlik(TD)	21	24	38	39	33	14	28	33	33	29	32	31	32	22	40	33	33	46	23	34	29
Balkon 1	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20	K21
Baglantsallik	1	1	1	1	2	1	1	1	1	1	2	2	1	3	2	1	2	1	2	2	1
Butunlesme(HH)	0,78	0,63	0,64	0,53	0,71	0,98	0,45	0,67	0,67	0,73	0,69	0,57	0,92	0,78	0,73	0,80	0,58	0,63	0,68	0,58	1,01
Rotatif Asimetri(RA)	0,38	0,46	0,42	0,51	0,40	0,42	0,64	0,40	0,40	0,40	0,39	0,51	0,30	0,37	0,35	0,33	0,49	0,40	0,44	0,49	0,27
Ortalama Derinlik(MD)	2,55	3,10	3,33	3,83	3,00	2,28	3,50	3,25	3,25	2,80	3,16	3,30	2,54	2,70	3,28	3,00	3,45	3,64	2,77	3,45	2,50
Toplam Derinlik(TD)	23	31	40	46	33	16	35	39	39	28	38	33	28	27	46	39	38	51	25	38	30
Balkon 2	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20	K21
Baglantsallik	-	1	1	1	2	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Butunlesme(HH)	-	0,88	0,55	0,50	0,55	-	0,53	0,67	0,67	-	0,64	0,53	0,92	0,69	0,67	0,65	0,87	0,61	-	0,82	0,75
Rotatif Asimetri(RA)	-	0,33	0,50	0,54	0,50	-	0,55	0,40	0,40	-	0,42	0,57	0,30	0,42	0,38	0,41	0,32	0,41	-	0,34	0,36
Ortalama Derinlik(MD)	-																				

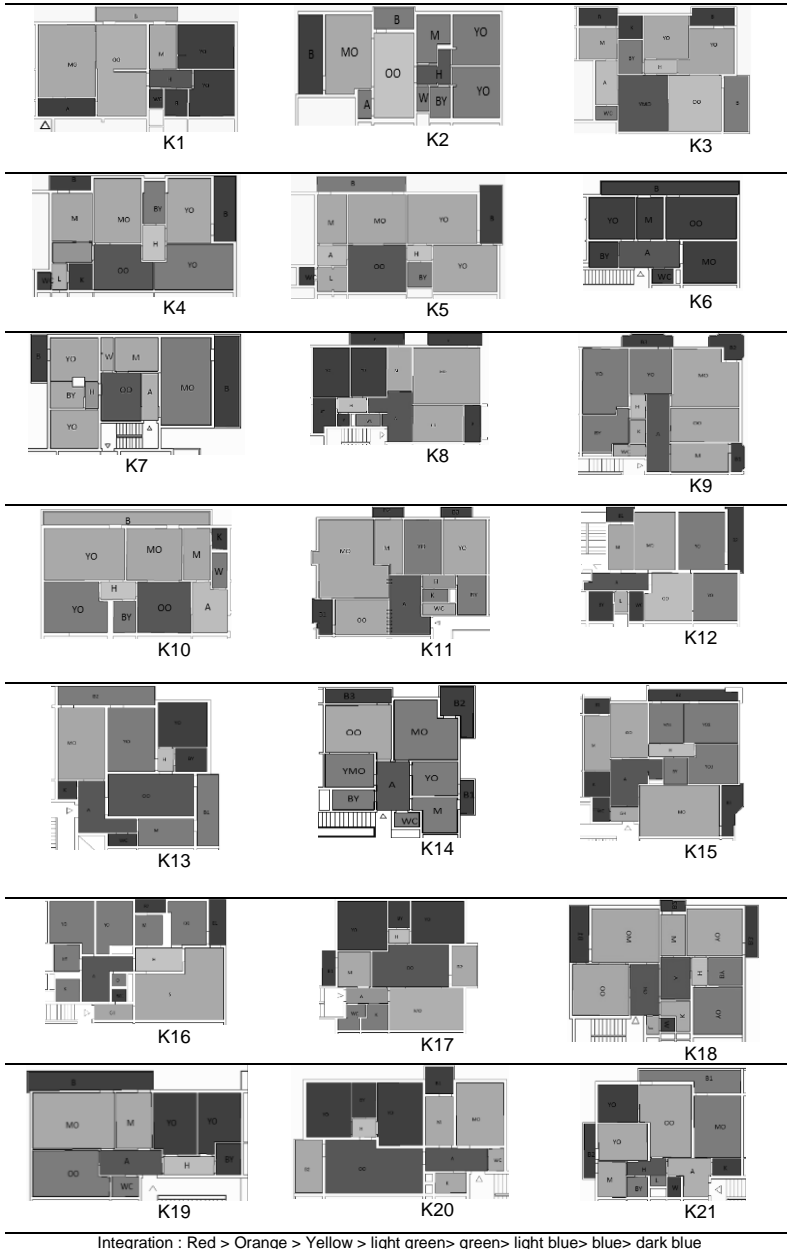


Table 2. Convex Integration Maps.

The central position of the living room in syntactic measurements; It is seen that the elements of the feudal structure such as harem and salamism in heating and hospitality, connection and flexibility with the daily / boarding guest accommodation and the relationship between the areas are formed. Again, it is possible to say that when the traditional measures of cooking, climatic preparation and storage are carried to the houses and these spaces in the women's in-house movement are shaped according to privacy, the depth measurements and location of the kitchen / pantry and the balcony connected with these units (connection with the night hall etc.) are possible. When the integration values were examined, the most discrete and integrated spaces were revealed and this distribution was also determined on convex maps. Another important factor for this period is the inclusion of the night hall unit in the spatial configuration. Although the night hall is connected to the living part with the rooms with the transition space feature, the location of the kitchen unit that the woman uses the most in the spatial configuration of the dwellings remains vague. The final finding is that the floor plans are either separately resolved due to religious beliefs or separated by a second limit in the WC.

CONCLUSION

The transformations taking place in Turkey have influenced Diyarbakir's growth. In particular, Marshall Assistance, mechanization in agriculture and the promotion of credit/ cooperatives have been effective. While the city received migration from the countryside, it spreads firstly around the walls and then into the walls. The spread of immigrants caused the displacement of the city dwellers. The historical city wall settlement has changed both in terms of socio-economic characteristics and traditional texture due to migration. While the historic fabric was destroyed, it was replaced by spaces shaped by the taste of the rural settlers. Urban natives with different socio-economic and cultural structures moved out of city wall after the 1960s, especially those in the trades and service sectors, and carried spatial displacements to a different dimension. While the architectural fabric and users differentiate in the city walls, a different architectural texture has emerged from the habits and accumulations of the settled population outside the city walls. After the 1950s, the two-three-storey houses were demolished by the displacement movement that started in the 1960s, and the first apartment houses, which were widely produced through cooperatives, emerged. In this respect, displacement caused by migration is not the only shanty settlement of population activity but rather the starting point of the shanty and middle class elitist dwellings, which are influential in the present appearance of the first settlement areas inside/ outside the city walls. The relatively planned developing areas of the city have also been subjected to the displacement of architecture. According to the findings obtained when this displacement of architecture is driven over the analysis of floor plans, it can be said that user movements in the house carry traditional habits. The limitations of construction techniques, lack of equipment/ qualified personnel, the inadequacy of engineering services and infrastructure facilities, and the apartment sizes of the apartment blocks,

which are shaped by the characteristics of the economic structure, develop along with depending on these elements, but the social structure which is effective in the combination of the spaces has shaped the spatial configuration of the settled population. Traditional Diyarbakır Houses are shaped by social elements such as geographical family structure and neighborhood relations such as climatic conditions. However, it has been found that socio-economic structure and legal regulations are more effective than climatic conditions in modern houses which replaced traditional houses.

Özyılmaz (2007), in his study, made morphological analyzes of traditional dwellings by means of space sequencing method and revealed the traditional and current usage situations of spaces. In the study, the most integrated spaces are courtyard, iwan and space, and the most separated spaces are rooms, balconies and bathrooms [14]. It is found that the depth was high because of large number of spaces. In the first apartment buildings, which are the cores of the elite houses, the most integrated spaces are the anteroom, living room and hall and the most separated spaces are balconies, wc and pantry (Table 2, Figure 2).

In the traditional Diyarbakır Houses, the courtyard is the central location and the spaces are located around the courtyard. The courtyard, which is central is both a passage and a living area [14,17]. When the examples of the studied period are evaluated, it is seen that the living room in elitist houses replaces the courtyard/ iwan space in traditional houses. In traditional residences, rooms lined around the courtyard accommodate multiple functions such as living and sleeping [14,17]. In these dwellings, the rooms on the lower floors are accessible from the courtyard and the rooms on the upper floors are accessible from visits [14,17]. Depending on the temperature factor, the units used differ in summer and winter periods[14,17]. With the transition to modern housing, it is seen that the functions are partially separated and the night hall is included in the spatial organization. In this respect, the first/initial modern houses differ from the spatial configuration of traditional houses. In traditional residences, the kitchen is directly connected to the central courtyard. In the modern residence, on the other hand, the connection with the central living room is indirect. It is connected to the entrance hall or night hall. The mobility of the resident population has shifted from traditional to modern housing. The left behind architectural similarities and differences have been replaced and the cores of today's house have emerged in spatial configuration. As a result, it is seen that Traditional Diyarbakır Houses have been replaced by apartment buildings and this change is caused by the displaced population. While the rural population built houses according to their living styles by destroying the traditional fabric within the city walls and on the city walls, the urban natives, who are the users of the traditional houses, preferred modern apartment houses and this mobility caused the displacement of their spatial usage. However, it can be said that while the spaces and population are replacing, the space usage of the houses that change their shells due to economic limitations and land / infrastructure deficiencies are shaped according to their essence - traditional habits.

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INDUSTRIAL HERITAGE AND DIGITAL ERA INTERVENTION STRATEGIES: KEEPING THE MEMORY IN THE MIDDLE OF TRANSFORMATIONS

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ABSTRACT

Nowadays the urban tissue often presents mixed architectures, abandoned parts from a recent past, mostly former industrial buildings, near new saturation and developments. The city growth has included them after they lost their use, they have still a strong appeal on the collective imagination. Recovering them is not necessarily a demolition and reconstruction operation while such an intervention is at risk about causing the loss of important urban aspects and characterizations. The historical, or even “popular” beliefs about them can be something to implement and/or enhance the quality of urban areas, increasing the chances of a real reintegration into productive reuse. In this complex logic of interventions, the contemporary, “digital layer” may play a strategic role. In the use of this very contemporary solution, both industrial and archaeological heritage are interesting subjects, with very different declinations. From one side there is the need of mixing old peculiar aspects with new functions, with risk about missing the chance in being fully efficient in communication. On the other there is the new, almost intangible, possibility to overlay reality with onsite or online elements, creating “new realities” where anyone should find fascinating elements coming from usual places and/or discovering new information, learning about the value of a place. To better identify strategies and proposals three “operative clusters” will be defined to group the functions and tools for the architect/built heritage expert to operate. A set of case studies, selected while consistent, thus not “compromised by an excess of popularity”, will help to put in evidence aspects that can be useful contributions in defining intervention choices: the Montemartini Museum in Rome; industrial buildings from the Beyoğlu neighborhood in Istanbul; London King’s Cross intervention, the LocHal Library, in Tilburg, Netherlands, the industrial heritage forgiveness in Tirana, Albania.

Key Words: Built Heritage; Industrial Architecture; Industrial Archaeology; Transformation; Digital Layer.

INTRODUCTION

“An immense industrial network cannot be managed in the same way that one changes a tire... It expresses a circuit of cosmic energy on which it depends, which it cannot limit, and whose laws it cannot ignore without consequences”,

Georges Bataille [4].

The evolution of the urban settlements should be seen by analogy with a complex network of rivers and torrents: there are some main streams and many minor waterlines, hidden waters and apparently desiccated channels. Which thing, as it is for a real system of waters, does not mean that the real transformations or the issues will come only from the main flux. And as it is in nature, on the long run, it is not possible to fight and win against time and physical rules, in the same way the urban evolution cannot escape from economic and social features connected to its development reasons. In both cases, accompanying the flows, exploiting the rules, guiding the transformation reducing to a minimal the use of walls or dams can be a better strategy than simply trying to contrast the events. At the base of such a logic of intervention there is the understanding of a very articulated system, where is still possible to separate single sub-parts, finding their reasons and solutions, which thing may result useful until it is possible not to lose the reference to the global asset.

In many cities of our time, the urban tissue often presents a mix of architectures, abandoned parts from a recent past, mostly former industrial buildings stand close to new, sometimes untidy constructions. Most of the time the industrial heritage is reached by new expansions of the neighborhoods or by saturations of previously partially built lots. The city growth has included these buildings after they lost their use, losing with it their need of isolation from common urban living [1, 2]. Now they do not pollute the air anymore, they do not produce noises, dusts, smokes, they do not need heavy trucks and other vehicles moving in and out their lots, nor need large depot areas around the main productive buildings. Thus, the main core of this industrial past still has a strong appeal on the collective imagination, influencing the place from the toponymy name to the urban asset of the following settlements.

The intervention on these areas is often called “industrial archaeology”, creating a “controversial” parallel with traditional archaeology [17, 21] or being intended as included in the “urban regeneration” processes [18]. This variation is applied, most of the time accordingly to the nature more or less inclined to “musealization” of the spaces. In the interventions, many characteristics of the process are undoubtedly a common ground between the two “archaeologies”, with a strong difference in the approaches and in the freedom about altering the consistency of the original building/remains. Thus, it is possible to assume that many solutions adopted in designing the new relationship between traditional archaeologies and the contemporary urban development should be mediated in industrial archaeologies interventions. Some countries, especially

from the European area, have developed a specific inclination towards the re-use/regeneration of industrial spaces, between them, United Kingdom had in the last years an eminent rule [8], bringing some experiences to be considered of reference and capable of interesting replication. The interventions in Germany follow immediately, with less networking solutions, but bringing on high quality and well-structured restorations/reuses [5].

For both industrial and traditional archaeologies, information technology should give a series of great tools in investigating, understanding, promoting, disseminating and, in the end, enhancing the possibility in revitalization of such areas. On the base of the ongoing “digital revolution” what it is possible to call the “digital layer” is more and more a part and a robust set of instruments in the design strategies. All the operators and users of the urban environment are now a days involved, directly or indirectly, in the “digital layer”, a virtual, online or onsite, system of digital tools that extends the comprehension, simplifies the access and, in the end influence the perception of the spaces. Each time users or visitors use their personal devices to navigate to a place, ask information about where they are, scan a QR code, or even when they photograph or write a note about a place and post it to social networks, they contribute to the construction of this layer. It exists and makes sense in the measure it is used or exploited, otherwise it is merely intangible. But even in this specific condition, in our times, it is a robust presence and may influence the way people access a place and the way they interpret its values. More than any other things, the Digital Layer is a design “subject” strongly influencing the project of places, giving new options to define choices, it allows to expand the perception of architecture and the way it can be communicated to visitors and users. The digital layer starts from a first phase, the one of the system of tools that allow the gathering of information and then define the design proposal where the operators create and work on a “digital twin” [27] of the real place; then, it evolves in digital solutions allowing to get onsite specific information about what is in front of the users/visitors, later it is integrated by online digital system that in sparse or coherent and connected ways define the amount of information available in place (and from anywhere) about the subject. This sequence contributes to the definition of the Digital Layer that overlay the traditional reality, influencing people and asking for specific strategies. According to the concept of “Cyberspace”, defined by William Gibson, the Cyberspace “Actually it’s the place where any telephone call takes place and we take that very much for granted” [12], a quarter of century after this definition, the possibility of abstraction and overlaying of the digital on the real is extremely diffused and it looks like something just at the beginning in the way it will change the perception and use of museums, infrastructures, entire urban areas.

The use and design of the digital layer can be considered as something that may contribute efficiently on both the two archaeologies above mentioned, because its potentiality in guiding, teaching and telling about the past aspects, features and stories coming from a former industrial, former abandoned, architectural space.

Antoine Picon in his book, “Smart Cities, A Spatialized Intelligence”, mentions that digital technologies have recovered the importance of space by including geolocation and physical reality through the ability of knowing the position of different movable objects and by enhancing the three dimensionalities of the space. According to Picon, they did not cause a tangible physical change in the past, but it is obvious that the digital improvements will bring soon to morphological transformations. The term “spatial turn” which was defined by the geographer and urban planner Edward Soja, when applied in the field of digital transformation, may correspond to electronic interfaces, emergence of wireless connections, computation and their improvements [24].

The parallel between traditional and industrial archaeology and their (possible) integration with a “digital layer” as active part of the design process, can be spotted taking in consideration two “opposite” cases, where the common rules seem approached in original ways while the use of the “digital layer” appears at the antipodes. The Montemartini Museum in Rome is a rare case, where the industrial building now hosts archaeological remains coming from the Capitoline Museums in Rome, with a minimal (if none) exploitation of digital opportunities. The Montemartini’s Museum in Rome, former a Power Plant [9], at first was setup to host a temporary exhibition and later permanently changed into a museum [3]. It presents a new asset mixing old peculiar aspects with new functions, where very traditional solutions may be enough to create a fascinating environment [29], characterized by traditional solutions in the access, with an almost complete absence of the digital layer (if not for the basic website and the modest dissemination produced by the pictures taken by visitors in the social networks) and so at risk about missing the chance in being fully efficient in its teaching/learning aims and in communication.



Figure 1. Interiors of the Montemartini Museum in Rome, July 2018.

On the opposite, the London Mithraeum, a valuable remain from the ancient London. This is clearly not an industrial archaeology, but it cannot be considered a “fully” traditional one, while the ruins were moved from their original location for unstoppable construction needs and then rebuilt in a new location [15]. It is characterized by a very robust digital layer integration, maybe one of the strongest around, with no similar equivalent about technological development in Industrial archaeology interventions.



Figure 2. Inside the London Mithraeum, February 2019.

This important digital effort was probably applied to compensate somehow the “suffering” from the fact of being a “migrant” archaeology and is fully a part of the exhibition design. This very specific museum completely exploits the new, almost intangible, possibility to overlay reality with onsite and online elements and/or exhibitions. In example, it presents the ruins moved from their original location in a new, attracting architectural and “digital” packaging. This kind of intervention needs a multi-disciplinary approach, moving go and back from the architecture, to the informatics, to the communication, to the pedagogy, to the archaeology. The lesson that is possible to learn from this apparently weird parallel between the Mithraeum and the Montemartini is that the traditional archaeology, with a longer past behind and with subjects of strong appeal, finds easier the access to digital layer integration, especially when the gap between the present conditions and the possibility from the visitors to have a proper abstraction about the place is very large. Specialization and innovative exhibition solutions seem to be the proper way for our time. Massive exhibition, serialization, modest teaching apparatus, lack of communication seem to afflict the possibility of the interventions to fulfill their aims. The digital layer may become the most attractive element of the exhibition, even if, apparently, it remains in the second line, justified by the need of “explaining” and giving the right evidence to the remains. The Industrial archaeology may benefit from the development of this approach, getting similar solutions and inheriting a possible processing to make easier the access and the attraction of visitors. Most of all, if the strength of digital innovation can give a new value to a heavily altered/moved around ruin like the London Mithraeum, it is possible to imagine that similar and even more articulated approaches can be the right solution in regenerating urban archaeology places, helping the preservation of the memory for this complex heritage. In its suffered story, the London Mithraeum, from the context of the “traditional archaeology”, seems to positively indicate a way to digitally-led interventions that may be efficiently declined in the interventions on industrial archaeologies. While the “static” and very traditional solutions of the Montemartini, seem to afflict the potentiality of the place, no matter the richness, quality and spectacularism of the exhibited items and industrial archaeology elements and spaces.

An Architecture Challenge in the Digital Era

An industrial architecture may apparently disappear from the perception of the environment, just to come back in the occasion of its reuse with some new function, bringing back to the eyesight the surprise of incredible, unexpected spaces. In this phase of transformation, the digital layer can be a strong tool to enhance the comprehension and the communication of the place under intervention or in its “new life”. More than ever, the digital layer may allow making the place more interesting and attractive, it may help in creating more chances in learning from the visit, getting useful information and the correct approach in preserving element of the heritage, both built and intangible. And this with the simple and at the same time complex operation of making easy to reach, or even adding, contents to that area. The presence of these contents, telling stories and/or removing uncertainty about the value and the qualities of the place, as well as its development strategies, may allow to make easier any intervention, connecting specificities, addressing the users and the visitors and at the same time leaving the option to people about not using it. Who want to get the simple surprise from a traditional approach to places should be completely free to move looking around leaving the digital layer to those who want it. There are no doubts that such a feature needs a specific project, design and management, all the cases at now, even the more surprising, seem developed most of all chasing the latest technologies or by “spontaneous” overlapping of digital elements over the real. Starting from the reasoning of few pages behind, it is possible to define three ways putting in relationship places and the digital layer:

1) The creation of “digital twins”: in the past 20 years the approach to surveying and inspecting an architecture or a whole neighborhood is more and more a digital operation that creates a virtual model, representation of the reality and of its dataset and information on which all the operators focus their processing. This base brings the development of a digital project, manifestation of the designers’ intentions and conjectures that then reflects itself in what is being constructed. Both the knowledge and project phases are conducted using digital tools. To observe such a result is enough to look around, from the shapes of design objects to those of the urban assets it is clear how much the Ernesto Nathan Rogers’ concept “from the spoon to the town” indicating the whole range of design opportunities, is now clearly guided by a digital-led process.

2) The overlaying of a digital layer as a way to integrate the project: the large number of digital technologies enters and enriches the project strategies; side by side the plumbing, the electrical and the cooling systems, there are the systems of monitors, of interconnected sensors, of cameras and of virtual tools, taking part to the definition of the results, more and more they are not considered as external parts of the intervention, but as fully integrated components, influencing architectural choices. For the “virtual tools” it is possible to mention augmented realities (AR) solutions [25], connections using QR codes [31], information got after localization, like Google Maps and

similar neogeography solutions and all the possible digital services overlaying and connected to the physical place [10].

3) The overlaying of planned, or even spontaneous digital elements and phenomena: the presence of social network activities and online services in everyday life creates a powerful influence in behaviors. The way people choose where to go, where taking a picture, what to buy or where to have a dinner... The strength of communication from the online communities may force the way certain places are interpreted or the way they attract visitors. From the marketing initiative, to the dissemination about events and attractions, to what directly starts by chance from a community and that becomes "viral", the use of social media is a very interesting factor to be considered in a design process.

Approaching an Open Scenario

The digital tools have made possible to develop extremely articulated tasks, creating new way to approach architecture and urban planning. But even our world made itself more intricate, with overlaying, expansion of the town, movements of people, new consciousness about environment and pollution.

When facing such complex contexts, any scholar should identify strategies and proposals, which may be organized in what it is possible to define as three "operative clusters", that can be useful to group the functions and tools for the architect/engineer/built heritage expert to operate:

The cluster of gathering information and transmit the values.

In this it is important to consider that photography, filmmaking, survey procedures are changed, multimedia is more and more a clear creature than a chimera. The implications with social media are an opportunity. So, it became fundamental to identify the right tools to capture the values of a place. The most interesting strategies and solutions from the infield operations to the social media presence should be controlled and properly used.

The Cluster of Intervention

Sometimes finding the right questions is better than keep on searching for the correct answers. In the intervention on former industrial building, at a very first level, the two main questions should be: Which are the more appropriate strategies in approaching the reuse of industrial heritage? Not only for size or potential economic success but in the capacity of creating innovation and being attractive in front of a worldwide community. And in consequence of this: which strategies can be used to fulfil this task?

The Cluster of Overlaying

The common questions about this part should be about which are the main tools to operate and promote a "mixed realities" intervention, but the tools are right now under a continuous evolution, the guidelines seem well defined (interaction, localization, augmented reality, real time) but the real feedback

from the users is still missing and so this system is yet far to define a stable scenario. If such an “intangible” approach will be capable to suggest a step forward in architectural work or not is something that can be approached in two ways: analyzing the most interesting case studies where it has a consolidated presence and reasoning about situations where it can be a prepositive and efficient tool in all its range of applications.

CASE STUDIES

The “New” King’s Cross Railway Station in London

King’s Cross Station is considered one of the main train stations to serve London, England by being one of the oldest train stations with St. Pancras, they both took their names from different companies owning railways. Since 1852 it kept its fundamental rule of transportation knot [13], and in 2012 it was open back after a consistent restoration to better accomplish the new needs of a modern station [6]. The King’s Cross intervention presents all the three ways of the digital layer. The spontaneous one can be found in one of the reason that bring many people to visit the place, without any need about taking a train and which is linked to a specific and original subject: in the worldwide famous series of books and movies dedicated to the fictional Harry Potter’s saga, ideated by J. K. Rowling since 1997, the students of Hogwarts School of Witchcraft and Wizardry take the scarlet steam engine named the “Hogwarts Express” to Hogwarts from Platform 9¾. To get to Platform 9¾, they must run straight at the wall between 9 and 10. Today, this place it is still a part of touristic attractions in London. Its consistency in capturing interest is due to the wide diffusion in the social networks of images and references about this specific place. The fans of the Rowling’s creations are happy to take a picture after a long queue with other people waiting for the pose.



Figure 3. Images of People Playing the “Platform 9¾” Scene at King’s Cross, Taken from Instagram and an Image of the Queue of Fans Waiting to Pose.

They may keep the picture as a souvenir and obviously, they will post it in their social profiles. In this way the attraction coming from the place self-feeds itself from the interaction with the fans. The invention, thanks to its popularity, makes the place interesting, the replication of the action of miming the novels/movies acts keep on the interest. The fans go there not (only) to see the place, but to take that picture. Nothing is real, but all pass by the digital devices in a circle of seeing, understanding the pose, taking the picture in the place, posting it online, someone else doing it again. The digital layer made

the place attractive and at the same time de-materializes it, its manifestation on the Internet become stronger than its presence in the real world.



Figure 4. The Large Shelter Designed Using Parametric Software in the King's Cross Station Main Hall (pictures by Elliott Brown).

The second way of the digital layer is well visible in all the panels, screens and structured info tools around the station, the old parts of the building, as well as the new ones, receive electronic displays guiding people to their destinations, informing them about the news and pushing them with commercial proposals. The online tools, like Google Maps, include a map of the place and all the schedules of the trains, bringing people to move around in the common pose of the smartphone in one hand and the head reclined on it.

Thus, the main hall of the station leaves no doubts about how is worthy to look up. The large shelter of this wide space is clearly the product of digital design, a fascinating work from Arup, John McAslan and partners [16], exploiting the art of parametric/procedural design to develop a large network of beams.

The LocHal Library, in Tilburg, Netherlands

The LocHal library presents a robust digital layer through the transformation of a former locomotive atelier [30], this is done taking various advantages and inspiration from what is in the vicinity of Tilburg. In its nearby there is the Efteling, one of the biggest amusement parks ("luna park" using the common definition used in many European/Mediterranean countries) this element, together with the fame of the city due to its textile industry, gave inspiration to be blended in the redesign of the library, actually much more than a library.

The idea "library as a living lab" has been utilized here through the re-functioning of the elements. This was done from the former function as well as thinking to flexible uses of the building. Paying attention to needs and expectations from the future and digital adaptation. From this point of view, LocHal places itself in a threshold from the regular transformation to a transformation into the digital era.



Figure 5. Views from the Interiors of the LocHal Library in Tilburg, Netherlands (pictures by Ossip Architectuurfotografie, courtesy of Mecanoo).

Design and transformation of LocHal consists of three main parts: the *Bibliotheek Midden Brabant* which serves as folk library, *Kuntsloc Brabant* as culture and art research centre and the *Brabant C* hosting a lot of elements related to the digital layer of the LocHal, aimed to support culture and creativity.

Some specific parts of the LocHal library enhance themselves as a digital layer, connecting to the ideas behind the design and transformations as well as defining the way for using formal elements, spaces and materials. This structure is based on a system of laboratories: Digilab allows visitors to meet photograph and video facilities, editing as well as 3D productions. Gamelab has been designed for the young generations to support creative thinking and problem solving. These two main themes affect the way of structuring areas in order to serve the facility. Futurelab is represented as the part dedicated to future thinkers. Futurelab also addresses the students, entrepreneurs and companies in order to share ideas through presentations and meetings. Mobile Foodlab, corresponds the sense of taste, seeing, smelling and feeling through the idea of food. Different types of activities match with portable/mobile elements. *Kennis Makerij* (learning lab) offers to visitors various spaces to allow them to organize conferences, meetings, performances and discussions in any fields. The aim here is to support active learning by sharing. *Tijdlab* (time lab) is a unique part of LocHal by addressing past, present and future of Tilburg. Any object related to city in timeline, photographic collection, videos, movies and documentaries are represented here together with a specific silence area to focus and to study. *Stemming makerij* (communication lab), refers to a colorful community which respects and appreciates different kind of ideas. A glass curtain is used here to define digital space allowing presentations and digital screen shows. *Woord lab* (word lab), promotes the improvements in language, literature and creative writing. The concept guiding this part is to enhance writing and speaking skills with direct exercises.

In the whole asset of this intervention it is appreciable a specific overlay of elements: the past and the heritage consistency, composed in a sort of background and guiding the further developments: the present arrangement is light, polite, neat, it defines the space and leaves wide open views to the elements from the past; then there is the space of the small elements -while the presence of books opens a travel into a word of details- that fragments

and enriches each view; and last, the digital layer, connecting the mass of the resources to the possibility of finding and enhancing the options of studying and learning.

The Beyoğlu Neighbourhood in Istanbul

Since the XIVth century, the core of today's Beyoğlu, Galata has been the window of Istanbul to Europe, not only in terms of trade but also in terms of lifestyle. In the Ottoman period when the old Istanbul was turned into a center of administration and settlement, Galata and Beyoğlu (*Pera*) were left to the Genoese administration and then to the other Franks who came to trade, making of these areas a small Genoese town, transformed in the architectural features into a sort of Mediterranean Italian urbanscape. This tolerant environment in Beyoğlu and its surroundings has supported both new developments in later stages and played a role in the creation of its own identity. The existing cosmopolitan structure in the region is a natural consequence of Galata being an important port and trade center. All along these phases there is the definition of the urban pattern, with its logic of key buildings, open spaces and housing and marketplace settlements. A trace that, in plant, was destined to remain in time if not for the progressive saturation of the empty lots and the continuous integration of all the existing architectures by superfetation.

Beyoğlu was formed as a result of this pioneering and important accumulation that symbolized the West in the region. As a result, the entrance of the Industrial Revolution, which influenced the period of the Ottoman Empire, became the gateway. Maintaining this feature without interruption, Beyoğlu is almost like the first brilliant product of the Industrial Revolution in Istanbul [14]. Visiting these neighborhoods in the present time, there is something like a colorful intangible heritage that is corroding little by little the built heritage with its wills and behaviors. According to the most consolidated theories about the waterfront evolution, the one in Beyoğlu should be considered in the passage between "Deterioration" and "Rediscovery" [23]. In this way a proper knowledge about the entity of the patrimony is fundamental: the use of buildings, their potentiality, their specific features, the value of the "intangible heritage", balanced with the value of the "built heritage" [7] and the behaviors of the people. Any strategy "cutting out" the present considering the actual configuration "poor" or "too old", like something just to be left behind and replaced by "new" and "more modern/actual" structures, should be successful from an economic point of view, but a failure in preserving the layering and the richness of the place [22]. The high level of details, the large extension of the area and the mix of small to medium size items disseminated all around the shops and restaurants make quite complex to define a "quick" tool to gather details, "intangible features" and architectural descriptions of this settlement. In such a situation the creation of a proper "digital twin" can only start from a global digital survey.



Figure 6. 3D Laser Scanning in Beyoğlu to Create the Bases for a Detailed Digital Twin of the Urban Façade of the Neighborhood (March 2019).

The use of digital tools for survey may allow to create a base of knowledge, sharable in between different competencies. But in such a complexity, an approach based only on architectural solutions, should be limited and only partially effective. The implementation of digital media strategies, passing by social networks, may success in promoting a better use of the built patrimony, not because it is the “right thing”, or because rules make it mandatory, but because is the more convenient one. And this can be well defined in these digital environment as well as expanding the practice of “on the field” activities, like workshops and/or shared events, teaching methods to enhance the approach of users to their built heritage and their recent construction. Once more, the use of social media may greatly contribute to the tourism, not only massive, but most of all cultural and interested in specificities, and the access to places by the locals, helping the sustainability of the whole settlement. Moving it to its next steps limiting the risk of losing specificities and original aspects. A strategic physical/digital-led plan of intervention should be a great challenge for this complex neighborhood in Istanbul.

The Industrial Heritage Forgiveness in Tirana

Albania has seen significant transformations in the past 30 years, passing from one of the most rigorous communist dystopias, which was planted in a country which previously had a troubled political century, to a new condition of possible freedom combined with social and economic crisis. The country has experienced a wide range of complex events, which brought to the present annihilation of most of the industrial apparatus and of some infrastructures (like, with a quite weird choice, the railway system). In the cruise to political stability, large industrial settlements, former pride of the dictatorship [11], felt in abandon: their machines somehow removed, the statues of Stalin or Lenin destroyed or moved somewhere else [20]. Is this the case of the *Kombinat*, a large industrial settlement, located in the Western periphery of Tirana. This industrial settlement was a combination of facilities aimed to production and housing for the workers. Despite a modest quality in the architectural solutions it still keeps a significant presence even if the long years of abandon has brought a quite sad patina on the whole settlement.



Figure 7. Images from the Kombinat area, in the Left Lower Corner a Picture from the '80 with a Statue of Stalin (Kristiana Kumi and Elisa Miho, 2019).

The conditions in the present are characterized by a large abandon of the former industrial structure, while the recent choices in the Albanian urban renovation put large doubts on the future of this industrial heritage, with a difficult equilibrium between complete demolition/reconstruction or partial reuse. In this second possibility, the potentiality of such an area are quite interesting and “in line” with the recent choices about “specific” recovering of the recent past, in the form of a valuable memory of a difficult period. Or at least as a tourist attraction. In this it is important to take in count the rapid evolution of the Albanian society [19], apparently quite inclined in trashing elements of the past and moving quickly to a foggy but attractive future: the concept of metropolis in place of large town, the interest in new malls in place of industrial area, a “boulevard” in place of the central train station [28]. In this, a policy oriented to a partial recovery of the more valuable and impressive buildings from the industrial past, with the reuse of eminent elements justified by their spectacularism can be a choice that may well be integrated by the digital layer, the use of digital survey and digital diagnostic tools to understand the real possibility of recovering, especially in front of unclear pollution conditions, combined with digital strategies for dissemination, can well integrate the ongoing regeneration scenario [20].

The recent restoration of the bunker architectures from the past regime, converted in exhibition spaces presenting memories of the past oppressions, as well as the recent recovery project of the “Hoxha’s Pyramid” by MVRDV and the active debate about the demolition of the National Theatre of Opera and Ballet (*Teatri Kombetar*) [26] seem to create positive premises in putting more attention in the new interventions. A system of operations that need a proper rethinking of the approach to elements from the recent past, while their documentation and investigation must be operated from zero.

The digital layer tools may bring an efficient benefit to this processing, offering practical and low-cost solutions in front of the massive interventions needed and the quality of the possible results.

CONCLUSIONS

The consistency of architecture is not only its walls, the conditions of the windows, the presence of precious details, it is also a matter of perception, of correct reading and interpretation. The original designer thought that architecture according to his/her technical, practical and aesthetic values, which may foresee that building being a significant urban element or even "hidden" and "isolated" from the urban context. In our time the digital revolution is bringing more and more significative transformations. Some of them are immediate, some others take time. But there is no doubt that starting from very first experiences half a century ago, the digital transformation of architectural/urban planning is at a nodal point. The process previously limited to the design/projecting is like "bending" on itself, influencing the architecture is managed and accessed after its opening and for all its use. Planning the digital layer is an opportunity helping a positive result of the intervention, it comes from "the outside" of the architectural world, but it needs to be planned properly, being an integration and keeping the possibility to adapt and evolve. It is a significant challenge for the schools, starting from the re-definition of competencies and moving to the professional firms and to all the operators, asking for ideas, inventions, creative strategies. Something that will not wipe out the previous experiences, but must develop and grow from them, integrating, creating contents, it does not mean if permanent or ephemeral, but keeping connected the architectural design/restoration to its own time.

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PART 5



DESIGN





DESIGN and CONTINUITY

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ABSTRACT

Art and design is a cultural phenomenon, it is the collection of a certain cultural heritage. Designers are a link in between thoughts and reality of people. The designer, is there to turn the thought to reality, make the unseen visible and produce newer alternatives. Now is the age of technology, speed communication and consumption, where design has become a very important case in all areas of life. Everything surrounding us had been designed one way or another. Every object intentional or not speaks to who put it there. The object testifies to the people who conceived it, manufactured it ranging from issues to its form, to its architecture, to how it connects to you, to how it connects to you, to how you touch it/hold it. However, life of the designed products in this consumer culture we are in is increasingly shorter. There is a story behind every design, the fascinating thing about these stories inverted into the designs are specific cultural context. Culture heritage defines where that kind of functionality makes sense, where that kind of ritual makes sense.

There is a tremendous amount of thought behind every design. We are doing a lot to design. Once design was used to make a way of creating difference, by time became a way of presenting resolutions to the specialised users. Because the average users can help themselves. Nowadays many things are designed arbitrary and thoughtless. Many things are produced and brought to the market in all sectors not only consumption goods; in architecture and advertising. We have too many unnecessary things everywhere, constantly designed. Most of what is designed ends up in a landfill somewhere. In the 2010's to be a designer you have to take in consideration, have to think about the complex systems where our designs are going to exit afterwards. Now designing is not just about the way to create individual designs but also what happens afterwards.

Key Words: Design; Culture; Heritage; Object Design; Consumption Goods.

INTRODUCTION

Mass-production has been producing standardized objects for consumption by millions and millions of people. Many of the best examples of industrial design things; are things that people do not think that were designed at all. Every decision was made at some point about everything.

When you see an object you make so many assumptions about it in seconds; what it does, how well it works, how heavy it is, how much you think it should cost. The object testified to the people who consived it, thought about it , developed it, manufactured it. Which has a large range of issues, about it's form, to the material, to it's design, to how it connects to the user (you), how you touch it, how you hold it etc... Every object intensonal or not speaks to who put it there. There is a story edited in every object. Although the environment is filled with lots of industrial goods to make human life easier. Some serving more important tasks while others just created to support brands and mass-production. The design industry and advertisement work very hard to constantly suprise and excite the users. The fasinating thing about these stories that is inverted into the designs are spesific cultural context. Culture heritage defines where that kind of functionality makes sense, where that kind of ritual makes sense.

Designers work as consultants; which means that they work with a lot of different companies in a lot of different fields. However the common interest is in understanding people, and what their needs are. Design thinking is an repetitive process in which designers seek to understand the user, challenge assumptions, and re-define problems in an attempt to identify alternative strategies and solutions. Designers focusing on people, make it easy to think about what is needed design-wise in the kitchen, or the hospital, or in the car... People are doing a lot of things in the name of design in the world now. This even continues to designing the nature aswell.

Although all the design; it is known that users (people) react very positively when things are clear and underestanable. What particularly bothers most designers today is the arbitrariness and thoughtlessness with which many things are produced and brought to the market. Not only in the sector of consumer goods, but also in architecture, in advertising. The world has too many unnecessary things everywhere! In order to stop this and be more sustainable a good design has some silent rules which can be stated as;

Good design should be innovative.

Good design should make a product useful.

Good design is aesthetic design.

Good design will make a product understandable.

Good design is honest.

Good design is unobtrusive.

Good design is long-lived.

Good design is consistent in every detail.
Good design is environmentally friendly.
Last but not least, good design is as little design as possible.

Designers reflect their shelves/personalities and thoughts to their designs. Design thinking is a never ending process which defines who the designer is by the way they look at the world.

It is one of the curses of what designers do, constantly looking at something and thinking, why is it like that? Why is it like that and not like this? And so in that sense; they are constantly designing. When designing a product, you have to look to different attributes of the product, and some of those attributes will be the materials it is made from, and the form that is connected to those materials.

Now there is a new generation of products where the form bears absolutely no relation to the function. A lot of what we seem to be doing in a product design in our current century is, getting design out of the way. When forms develop with that sort of reason, and they are not just arbitrary shapes, it feels almost inevitable, it feels almost un-designed. It is one of those funny things, you spend so much time to make it less conspicuous and less obvious. And if you think about it so many of the products that we are surrounded by, they want you to be very aware of just how clever the solution is.

In the 'old days' of what are called analog products, in other words they are not digital, not electronic, something like a chair or a spoon. 'Form follows function' tended to work. If you have never seen a spoon or a chair before; you could have guessed roughly what you are supposed to do with them sit on them or feed yourself with them by the shape of the object, by the way it looks. Now all that has been annihilated by the microchip. So design is moving from this culture of the tangible and the material, to an increasingly intangible and immaterial culture, and that poses an enormous number of tensions and conflicts within design.

For this we can give the example of the iphone and all the things it does. Physically how do you connect to this product, everything defers to the display.

According to Andrew Blauvert from the film Objectified;
"There are really three phases of modern design. One of those phases, or approaches if you like, is looking at the design in a formal relationship, the formal logic of the object. The act of form giving, form gets form. The second way to look at it is in terms of the symbolism, and the content of what you are dealing with. The little rituals that make up making coffee, or using a fork and knife, or the cultural symbolism of a particular object. Those come back to inhabit and help give form, help give guidance to the designer about how that form should be, or how it should look. The third phases is looking at

design in a contextual sense, in a much bigger picture scenario. It is looking at the technological context for that object, it is looking at the human object relationship, there is no more human interaction.”

Design is the search for form, what form should objects take. Designers have asked that question, and used different processes. Anger or dissatisfaction at the very least, play such an important role in motivation. Ultimately as a designer the job is to look into the future, it's not to use frame of reference that exist now. What's going to happen, not what has happened. Fundamentally it is unknown which object, product or design will stand the test of time.

The world is surrounded by design in all forms. Humans have rebuilt their environment in order to survive. Yet somehow when the word design is used before or within any sentence, people tend to connect it with more value. Something that's well-designed should not necessarily cost more. Arguably it should cost less. But the problem is that design, has become a way for a lot of companies to 'add value' because something is designed, and therefore charge more money for it. It will become more and more pervasive, and things will be marketed in terms of design, in the future. Often the way that a product comes into being isn't because a bunch of expert designers sat down and said, 'what are the ten most important problems we can solve?'. What's wanted is more stuff, and they want more people to buy it. The name of the game is to create a consumption society.

People tend to want new things. Something that has a different look, a fresher look, a new-now look, next-now kind of look. The problem with spending a lot of time focusing on what's very now and very next is that it isn't very forever. That means it doesn't last, because there is someone else coming along trying to design what's now and what's next after that. Some of the designers are making extremely dynamic, sexy objects, in theory. In reality, they are bending metal, plastic, glass. This thing is frozen in the time. Which means we have to create it in a way so that the observer looks at it, and puts the motion into it, by the way they scan it. The designed object has to be the reflection of that emotional energy that is wanted to be seen in it. To give individual character... to something that's produced industrially. That's what interesting as from the point of the designer. When looking at art, you're touched by something. It can change one's life... because in that moment it moves you, has emotion. Designers hope that an object will also do that to someone... Because objects are used in homes, they become part of your family and you will want to inherit them. People have a lot of memories, which makes it possible to give layers of meaning to the material.

According to Karim Rashid;

“Design is about mass production. Design is using industry to produce serialised goods. And I try everything I can in the mass market to change the goods, that people who know nothing about design, or the people who say they don't care about design, or the people who don't believe their world

should have contemporary goods in it. Those are the people I think design can have such an amazing affect on their lives. Looking back, and thinking what effected me in designing is the objects that was very self-contained, and the message was very strong and very simple, and at the same time it was very human. There is a quality about it.

I always had this really strong relationship with physical products. There is something that moves through a lot of my forms, and that is to speak about a kind of digital, technological or techno-organic world. Somehow if I do things that are very, very organic, but I am using new technologies, I feel like I am doing something in a way that's a physical interpretation of the digital age. We have advanced technologically so far, and yet somehow it's some sort or paranoia where we're afraid to really say we live in the third technological revolution."

Digital cameras, for example, their format and proportion, the fact that they are a horizontal rectangle, are modeled after the original silver film camera. So in turn, it's the film that defined the shape of the camera. All of the sudden our digital cameras have no film. So why do we have the same shape we had before.

Having many archetypes and designs, when wanting to design a chair, a designer's thoughts are; how can I put my fingerprint on it and differentiate it from everyone else and every other designer? Am I playing a game to show I can differentiate? Am I actually really doing something that is contributive? The big issue with design is, are the things we are doing really making an affect and making change? 78% of the world is completely impractical. 78% of the world is uncomfortable. People feel it. They feel that the hotel rooms are poorly designed, the chairs to sit on are very uncomfortable. Man made things don't fulfil their mission. If there is a million chairs that are designed to date, or however many chairs have been done in the world, why on earth should we people have to sit on an uncomfortable chair? There is no excuse what's so over.

Things have to get better with use. There is very few things, they mostly degrade which leads to millions of selections on the same design. Most of the designed things effect the users with their shape and texture. Sometimes deliberately not creating an aerodynamic shape; causes the users to ineplicaply want to touch the design. Design needs to be plugged into natural human behavior. Actions that human beings make subconsciously, 'Design dissolving in behavior.' Designers have been working to stimulate people's souls and minds. In reality, when it's least thought about it, that the object can be held most naturally.

Facing the biggest, design challenge right now is sustainability. Its no longer possible right now. The implications are producing more and more stuff, that sometimes people need, and most of the time don't need. Designers spent

most of their time, designing mostly for the %10 of the population, that already own to much. When %90 don't even have basic products, and services to lead a healthy life. Although a lot of designers believe, emotionally and intellectually to sustainability, they and the manufacturers they work for, find it very very difficult to come to terms with. Sustainability isn't just such a pretty glamorous process, of using recycled materials. It's about re-designing every single aspect. Resourcing materials, re-designing to production, and shipping. It is a huge task, so its no wonder that designers and manufacturers are finding it so difficult.

If what's really honest to self, most of what is designed ends up in a landfill somewhere. Millions of things produced, are probably landfills today... This didn't occur to designers before; actually it wasn't even something society is conscious about too. Now to be a designer you have to take that into consideration, because we have to think about these complex systems in which our products exist. The shelf life of a hightech object is less than, 11 months, to be all 100% disposable. In nature is maybe impossible. To be %100 disposable the laptops should be made out of cardboard, or the mobile phones should be made from paper or sugarcane. Things shouldn't be built to be permanent if their life is so short.

Most of the designers of the 21 Century has an admiration for Charles Eames, and designers of those times. This was an admiration for their ability to identify the qualities of new materials, which could be used to create new objects. Nobody worried about, if the fiberglass was going to cause a disease, or difficult to dispose of. Life was a little bit simpler for him, in that regard. He could just think about using the materials for that best design. But now designers have to face the idea that what we do is not just the way we create some individual, design. It's what happens afterwards. When the design is finished, promoted and people have used it. The product's life is finished. From cradle to the grave.

CONCLUSION

Designers do analytical thinking and we do this kind of innovative or design thinking where we're more focused on user-centered ideas, stuff that will resonate with the people who are going to actually use the product.

Everybody already has so many things around. They are in the closet, in the attic, everywhere; that we don't even think about anymore. There's not enough room left in our brains we are so busy processing all the exciting new developments new designs/things. At the end of the day, when you're looking around at the objects in the house and surrounding. You're deciding, what here really has value to me? They're going to be things that have some meaning in your life. Those are the ones filled with memories.

People are going to pick the most meaningful objects to them, because those are the true objects, that truly reflect, the true story of who you are, and what your personal narrative is, and the story that you're telling to your self and not on esle because that's the only audience that matters...

Designers come in from the point of view of; 'What do people value, what are their needs?' and it just results in different products. Design thinking is a way to systematically be innovative. Some people make lists, designers make what plans, where they keep going further and further in thinking. Something leads to something else, which leads to another thing. That's where the interesting design happens. It's really about trying to make an empathic connection with people in their context. So that as designers we're picking up on the vibration of what they're about, and being able somehow to identify with that. The role as a designer to help define what should be created for people, and the output is not necessarily obviously a design, it's not obviously a product.

What designers will do in the future is to become the reference point for policymakers, for anybody who wants to create a link between something hard to translate, the reality for people. Designers can be envisioned in becoming the intellectuals of the future. Designers could be culture generators all over the world. Maybe in the future designers are not going to design anymore objects, pur se in some cases. Where as mostly designers are going to; help people with understanding the consequences of their choices and also making scenarios based on the objects that exists.

Design can be used as a medium to try and explore ideas. We've got cinema, fine arts, literature, crafts... every other medium seems to have a part that's dedicated to reflecting on important issues, yet design the thing that's responsible for so much, of the built environment around us doesn't do that. So even though some design ideas are never really put into mass production, designers always try to suggest that they could be mass-produced or not. People are mostly interested in observing new things. Because that's part of what we're interested in. We love the idea that with a product it's not just about shopping, but sort of site-seeing or individual monitoring like in the museum. People love showrooms. In this case a showroom like IKEA let's people live that feeling. Makes people imagine that the displays are their own rooms, let's them project themselves into this other space. Let's people imagine the products; close to reality as possible before they could be purchased aswell. When people walk in to a gallery or showroom. Whether it's electronics, or furniture, or a car showroom, you do imagine yourself experiencing this thing and enjoying it. Designers of the future can make this feeling possible for conceptual products, hoping that people will imagine how that will impact on the way they live their lives. Maybe then the products that seem more needed would be mass-produced to help with sustainability.



Industrial design has been so closely tied to industry, and working within the constraints set by industry. Very quickly you come to edges of the spectrum of choice, the official choice, of what kinds of things that the companies who produce these products believe people want. Designers know, people want a lot more interesting things, but so far we haven't managed to control all the production process.

People are creative, by nature, and always not quite satisfied with the design of something that they have, that they've bought. They adapt it to their lives. As designers and intellectuals of the future, we can interrogate if there is some way we can better engage with people's creativity. To make more of it or to enhance what they can do for themselves, or create the tools or the platforms from which people can operate. The tools with which we do design today are our tools. We make the shapes, people buy and use the shapes. In the future this will be different. The tools to make things, and to define your world, will be available to everybody. Because of the connected world, the idea of designing something for a different community in a different part of the world is now becoming very much more prevalent. Before there was a sense that Africa was so far away you couldn't do anything about it, but now there seems to be a sense that because of the connected world, we can make big difference. As designers we're so far removed from the actual object. Now design could be done virtually, prototypes can be made remotely, the actual product's often manufactured on another continent. That's why a lot of the products we're surrounded by, a lot of our manufactured environment, seems too easy, too superficial.

The value and importance of design will be in the future, measured more in terms of how it can enable us to survive.

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ANALYZING THE TRANSFORMATION OF THE CONCEPT OF “MOBILITY” DEPENDING ON REFUGEE PROBLEMS VIA DESIGN COMPETITIONS

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ABSTRACT

Interaction with the environment occurs in the perception of movement. Movement is the basic concept of mobility. Development and diversification (i.e., faster transportations, new technological access, etc.) of movement concepts may contribute modern people to become independent of any place. Nomadic cultures constitute the basic principles of mobile architecture with light, portable materials and flexible constructions. In the industrial age, futurist manifesto announced machine-housing concepts. The mechanized perception of the spaces prepared ground for mobilization. Mobility, as a source of independence from places, is sometimes a preference but sometimes the result of urgency. “Individual preference”, “cultural movement” and “forced movement” are key reasons for movements which may differentiate modes of mobile space. The objective of this study to examine distinctive features of mobile spaces of forced movements (i.e., for refugees) by comparing with other types of mobility (individual preference and cultural movement). Various design competitions were held for mobile spaces. The cases were selected for this study, considering the role of the user’s profile (unspecific users; nomads/immigrants; refugees) who live in mobile spaces. We analyzed awarded/selected projects for each type of mobility. As a result of examining the awarded outcomes of the competition the following parameters were detected: quantity of users; designer’s choice for location; reaction to the environment; contextual attention; scope of modularity; mode of portability; type of portability; cost of materials and construction; proposal for belonging; sensitivity for sustainability. It seems that current events in the world have transformed the concept of mobility and led to the development of new definitions of mobility. This paper presents one of the new definitions of mobility, specifically for refugees. Many aspects of mobile architecture for refugees, as a new definition of mobility, has shown in this study.

Key Words: Transformation of Mobile Space; Mobility in Architecture; Portable Architecture; Refugee Problems; Design Competitions.

INTRODUCTION

Mobility can be defined as the “movement” from one situation (location, social relation, etc.) to another situation. The environmental factors that cause movement and the form of the movement are the components for describing the mobility, both in physical or non-physical. In physical movements, the way of filling in space and time and the interaction with the environment are varied. “Interaction with the environment” is a significant keyword for the perception of movement. Interaction with the place where people are located and observed enables them to perceive the movement [1]. Observer's point of view and velocity affect the perception of movement. For instance, the distance between objects that the observer looks out of a vehicle is perceived differently depending on the speed of the vehicle (they appear closer if the vehicle is faster).

The seeking of space and the need for shelter are some of the basic necessities for human. The structure of these necessities may change depending on the alternation of movement's definition. Because the activity of seeking of space takes place through a movement. The search for space is associated with belonging. However, development and diversification (i.e., faster transportations, new technological access, etc.) of movement concepts may cause modern people to become independent of any place. Mobility, as a source of independence from places, is sometimes a preference but sometimes the result of urgency. Although the first case is favorable due to the possibility of making this choice, the latter case indicates a negative dimension because the necessity of mobility results from homelessness and refugee situations.

On the other hand, mobility brought along immobility as its dichotomous concept. Mobility, which is characteristic of the age, gives people a sense of freedom in both social and physical dimensions. Increasing mobility in urban life has led to an increase in the population and commercial activities of cities. This situation caused congestion due to intensification in the demand for movement [2]. For instance, transportation is faster by subway, but when everyone uses the subway, a citizen should line up, so that the time to reach somewhere will be longer. In terms of informatics, users can reduce their physical activities as a result of many internet facilities and it causes immobility again (i.e., ordering pizza). This dichotomy demonstrates the need to scrutinize the results of mobility in a rigorous manner.

Mobile Architecture

Nomadic cultures constitute the basic principles of mobile architecture with light, portable materials and flexible constructions, applications and usage patterns. Modularity is a key element in portable architecture products. Settlement of nomadic cultures provides a model for today's building systems (i.e., prefabricated, tensile and pneumatic systems).

At the beginning of the industrial age, mechanization approach and the machine-housing concepts got attention. These approaches have become

widespread with futurist manifestos. The mechanized perception of the spaces prepared ground for mobilization. Friedman [3], who studied on mobile architecture, claimed that buildings in mobile cities should have the following characteristics: (1) minimum touch to ground; (2) disassembling and transportation; (3) flexibility to meet user needs. The Archigram team has designed “plug-in city” and “walking city”. Walking City has a programmable body, detachable units and telescopic feet [4]. Plug-in City is a city proposal consisting of the merger of prefabricated houses that are displaced in the urban fabric [4]. Many suggestions were developed and interest in mobile spaces increased. Afterward, many suggestions were developed and interest in mobile spaces increased (i.e., Cuschicle by Mike Webb; Habitat 67 by Moshe Safdie, etc.). The Archigram team in the 1970s and the subsequent proposals of flexible and portable projects inspired many designers. For instance, Nakagin Capsule Tower is influenced by the Plug-in City proposal [4]. Manifestos, proposals by drawing and architectural practices which are based on the mobile architecture built an alternative to permanent architecture. Then, what kind of alternative spatialization can be?

Types of Mobility: Shapes of Mobility Depending on Specific Situations

Mobile communities belong to a certain social and cultural group, and they are groups that live without being dependent on a particular place. Communities become mobile due to their individual preferences and sometimes due to cultural and economic reasons depending on the traditions of the society they are in. In addition, they sometimes have to forcibly leave their places due to natural disasters and wars.

Families who choose to live in caravan culture are examples for individual preferences, while nomads and families living in the highlands during certain seasons of the year are examples of cultural and economic reasons to move. Further, refugees can be given as an example of forcible mobility. Since individual preferences are based on the individual's or the community's choice of how they want to live, it is a freely decided mobile life.

Nomadism is a culturally adopted lifestyle based on past histories. It is also a pioneer of immigration. As mentioned before, nomadic cultures have been an inspiration for reflecting on the mobilization of spaces. With this feature, it is the source of many mobile architecture proposals. In the mobile structure view, portable structure, people's emotions, history and culture make the place more important than the permanence of the structure. Culture has a role in redefining the structure. According to Rapoport [5], culture is defined under three main headings: (1) typical lifestyles of a group; (2) a system of symbols, a system of meanings and a system that translates conceptual schemes into symbolic codes; (3) adaptation process to ecological resources. Cultural identity determines the way people communicate with each other and with others in society. People from different geographies camped in the same place define the place in different ways, depending on their culture [6]. Although mobile spaces of different cultures are portable and temporary, they have their own persistence.

What makes the nomadic culture special is that the community does it with its own cultural codes. Thus, it does not have losses from the feeling of belonging when compared to permanent places. It has been observed that accommodation rituals and hierarchical orders are the same in different places in nomadic societies [7]. This suggests that the sense of belonging in nomadism is somehow established. In other words, with migration, people take their values, culture and identity to their new environment. However, in the case of long-term stays, nomads initiate cultural interaction with their new environment. This interaction starts the process of redefining belonging. Thus, the exchange of the identities and cultural codes carries out between nomadic people and the environment. A reconciliation ground is formed in which both cultures are affected.

There is a similar situation for migrant people as well as for nomadic communities. People who migrate carry their culture with them to other places. They have attempts to recreate their own practices in a new destination. Businesses, such as restaurants and grocery stores, are the formations that producing people's own culture. Moreover, it is possible for them to spread their culture on a neighborhood scale. For instance, Chinatowns are formed by mutual interaction between immigrants and indigenous people [8]. Is it possible to say that the cultures of Chinatown in New York and Beijing are exactly the same? Although there are transformations in culture, migrants are aware of the situation they are in knowing that they are part of the transformation. But this is not the case for refugees.

A New Challenge for Mobility: The Refugee

Refugees are defined as people who live in danger and therefore leave their country and cannot return. After World War II, refugees became a problem all over the world. In the 1960s, the refugee crisis was globalized by spreading in Africa, Asia and Europe. Organizations that helped refugees increased in the 90s. Towards the 2000s, the various design attempts to address the housing problem of refugees and homeless people began to become widespread (i.e., Shigeru Ban's temporary shelters for homeless people in Rwanda; Kosovo KIT for or the homeless people in the Kosovo War).

In terms of mobility, there is also a "movement" for refugees. However, this movement is very different from the mobility in which futurists' predictions and sketches about the development of cities. The discourse of the futurists is based on developments in the city and housing. They make predictions of how mobility can emerge in the future. However, there is an emergency in refugees, it is necessary to develop mobile solutions that can be implemented as soon as possible. There is no time for the adaption of the concept of mobile space. Therefore, a new mode of mobile space emerges and it should be analyzed in detail.

The mobility of the refugee is not based on an individual preference; it is entirely dependent on external factors. The way of life is not chosen but

dictated. Although they have similar features to nomadic communities, “the threat” distinguishes refugees from nomads. Compared to nomadic communities that can carry their culture, refugees are forced to leave their cultures with their habitats or they can bring only some fragments from their culture. The refugee's life is a confrontation rather than adaptation to a new environment. For all these reasons, it has new mobility that differs from conventional mobility and mobile spaces. However, it is not easy to describe the mobility and mobile spaces of refugees, it includes many questions. For instance, the duration of the temporary process is uncertain for refugees, the concept of transience is a controversial issue. Similarly, there are uncertainties about many aspects of mobile architecture for refugee. These uncertainties and questions have led to the need to understand refugee mobility as a new form of mobility. Increased interest in this situation can also be seen on the frequency of the competitions held.

Aim of the Study

How would refugees react to mobile structures and establish relations with the new and foreign environment as an immigrant? What are the distinctive features of mobility specifically for refugees? What are the aspects of mobile architecture for refugees?

The aim of the study is to review the predictions on how to transform the concept of mobility for refugees who reluctantly move to an unfamiliar environment. In response to this problem, there are competitions for refugees seeking temporary shelter and mobile accommodation. Proposals of competition demonstrate how the refugee problem is perceived by designers.

METHOD

As a method, the case study has selected to analyze mobility in this research. We looked for design competitions for mobile structures. Many competitions have found, then some of them are elected to minimize the variables among competitions. For this, we checked briefs of competitions. They help us to allocate only mobile living spaces which have housing function (not a marketplace, school, library, etc.) in the earth (not in the moon, mars, etc.).

To understand how the concept of mobility transformed via different situations, the cases have selected among three types of profile: for (1) unspecific users; (2) nomads/immigrants; (3) refugees. Unspecific users refer to people who choose to live in mobile structure with their own consent, while nomads and refugees have some issues to maintain a mobile life. Nomads/ immigrant are people who live in a country that is not their own. Nonetheless, refugees are forced to leave their country or home. “Individual preference”, “cultural movement” and “forced movement” are key reasons for movements which may differentiate modes of mobile space. Thus, the awarded projects were compared and the differences in the interpretation of mobility were examined.

RESULTS

Names of competitions are as follows: (1) *Tiny House Design Competition* (as an example of individual preference) [9]; (2) *House in Forest* (as an example of cultural movement) [10]; (3) *A Place for Placelessness* (as an example of forced movement) [11]. First and second competition has sequential awards, while the third one has many equivalent prizes. Therefore, first, second and third places of competitions have selected for the first two contests. Three random awarded projects have selected for the last competition.

Tiny House Design Competition 2017

The titles of the projects are as follows: (1st prize) *home.rar*; (2nd prize) *autonomous*; (3rd prize) *golpo baksho* (Figure 1). All selected designs are suitable for individuals or families. First project is in the coastline, second one in the forest and city center, third one is in the city center and outskirts. Project are not designed for specific environment. Hence, they are contextual projects which reject to relate to their location. Their modularity results from internal units. First and third project have assemble-disassemble logic. However, tire and rim of second project provide movable structure, we don't need to disassemble the structure. First and third project need a truck to move somewhere else, second one can be pushed thanks to its rim and tire. Level of cost for materials and construction was detected by comparing nine selected projects with each other. First and third one were determined as mid-cost, second one as high-cost. In the second project, there is no clue for enhancing the feeling of belonging. Configurable spaces of the first and third project may be seen as features of belonging. In addition, there is opportunity for intervention to surface of space in the third project as a belonging. While the first and third project have self-sufficient sustainable proposals, the second one doesn't have it.

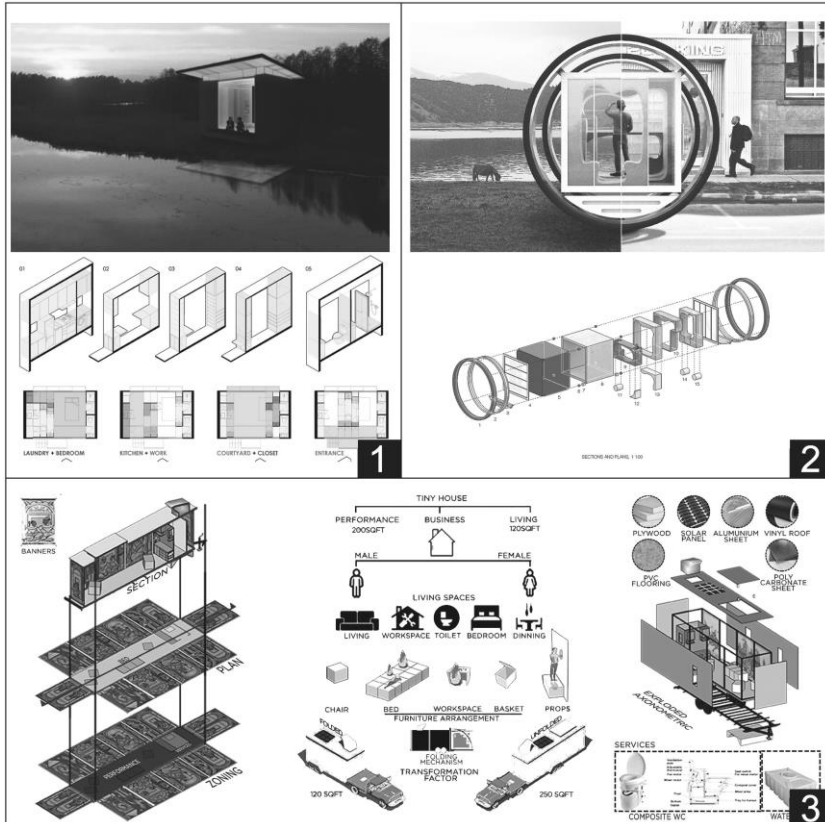


Figure 1. Awarded Projects of Tiny House Design Competition [9].

House in Forest Competition 2019

The titles of the projects are as follows: (1st prize) *nomad*; (2nd prize) *nomade's loft*; (3rd prize) *perched* (Figure 2). All selected designs are suitable for individuals or families. Further, second one also proposed integration of buildings for crowd/community. All selected designs are in the forest because of the competition's brief. First project is not designed for specific environment. Nevertheless, second and third project reacts its environment. First and second project create its own context, while third one depends on its context (such as trees). Modularity of first project results from internal units, while second and third one can create different modules by re-forming the structure. All selected designs have assemble-disassemble logic Likewise, all of them need a truck to move somewhere else. First and third project were

determined as mid-cost, second one as low-cost. Configurable spaces of all designs may be seen as features of belonging. Further, second and third design has a commonplace to interact other people, it can be seen as a belonging tool. While the first and second project have self-sufficient sustainable proposals, the third one doesn't have it.

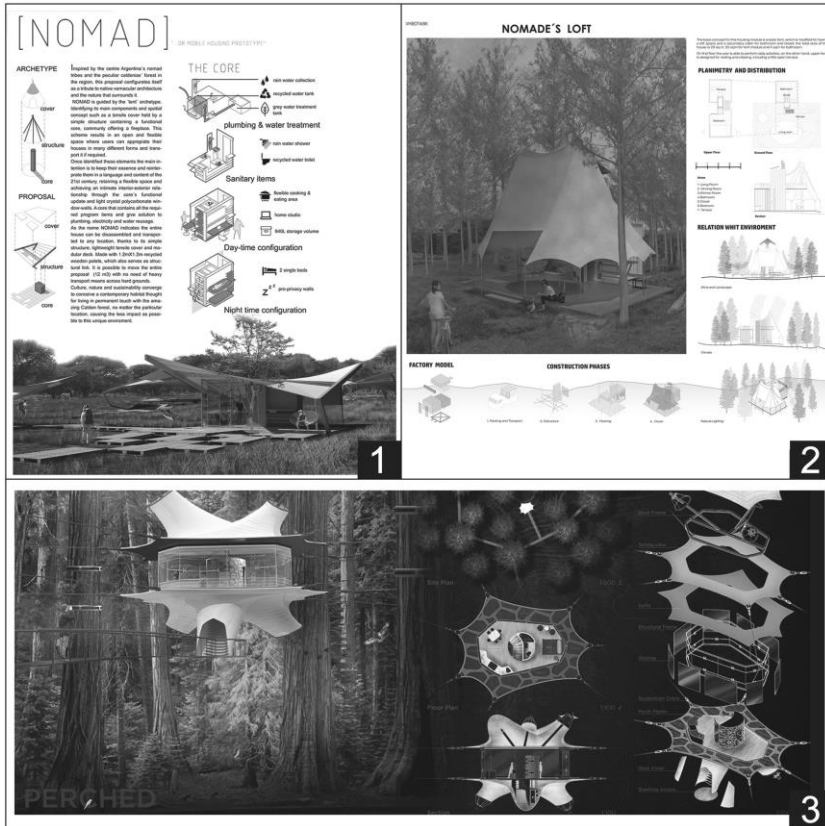


Figure 2. Awarded Projects of House in Forest Competition [10].

A Place for Placelessness 2016

The titles of the projects are as follows: (1st selection) *migrapolis*; (2nd selection) *yokulke*; (3rd selection) *yokyer* (Figure 3). All selected designs are suitable for crowd/community. First and second project are in the out of the city, third one is in the outskirts. All of them are designed for specific environment. Designers care environment as a significant factor for mobile space. All designs are self-contextual buildings. Their modularity results from relations between structures. Because designers focus on social ties. First

project has assemble-disassemble logic, while second and third one have assemble-leave logic. Third project needs a truck to move, while first and second project need great effort. All selected designs were determined as low-cost as possible. All of them have integrated common places to interact with each other so that strengthen their belonging. None of them has priority for sustainability.

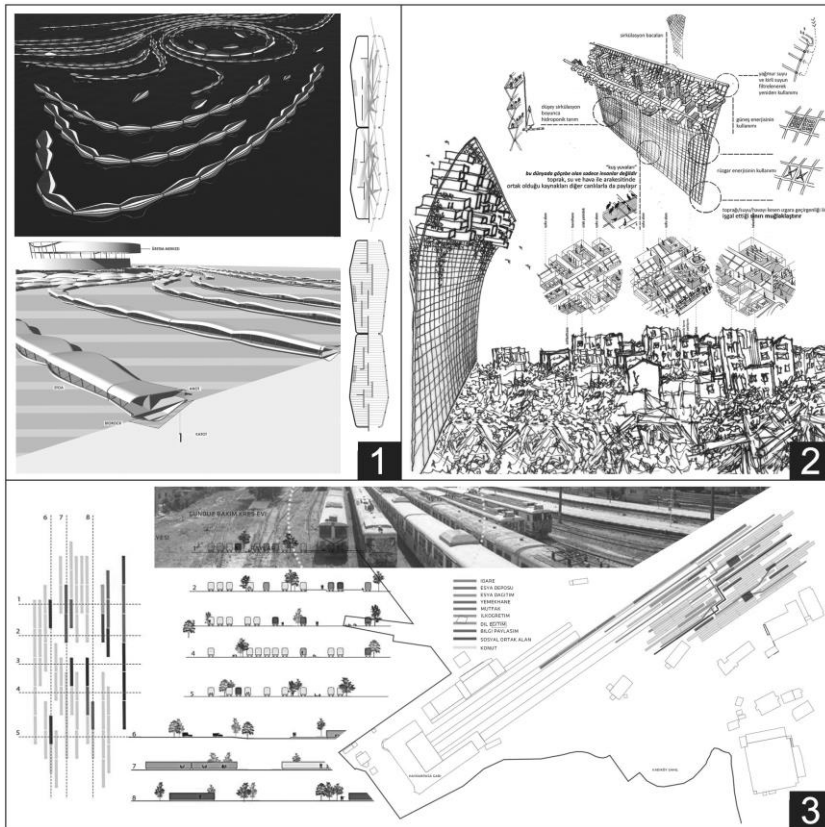


Figure 3. Selected Projects of A Place for Placelessness Competition [11].

CONCLUSION

As a result of examining the awarded outcomes of the competition the following parameters were detected: quantity of users; designer's choice for location; reaction to the environment; contextual attention; scope of

modularity; mode of portability; type of portability; cost of materials and construction; proposal for belonging; sensitivity for sustainability (Table 1).

		Tiny House Design 2017 (individual preference)			House in Forest 2019 (cultural movement)			A Place for Placelessness 2016 (forced movement)		
		1st Awarded	2nd Awarded	3rd Awarded	1st Awarded	2nd Awarded	3rd Awarded	Selection 1	Selection 2	Selection 3
Quantity of Users	individual	X	X	X						
	family	X	X	X	X	X	X			
	crowd / community					X		X	X	X
Designer's Choice for Location	city center		X	X						
	outskirts			X						X
	forest / coastline	X	X		X	X	X			
	out of the city							X	X	
Reaction to the Environment	yes					X	X	X	X	X
	none	X	X	X	X					
Contextual Attention	acontextual	X	X	X						
	contextual						X			
	self-contextual				X	X		X	X	X
Scope of Modularity	internal units	X	X	X	X					
	form of structure	X				X	X			
	between structures							X	X	X
Mode of Portability	assemble-disassemble	X		X	X	X	X	X		
	assemble-leave movable structure		X						X	X
Type of Portability	without vehicle		X							
	by vehicle	X		X	X	X	X			X
	great effort							X	X	
Cost of Materials and Construction	high-cost		X							
	mid-cost	X		X	X		X			
	low-cost					X		X	X	X
Proposal for Belonging	none		X							
	configurable space	X		X	X	X	X			
	intervention to surface			X				X		
	Interaction with others					X	X	X	X	X
Sensitivity for Sustainability	none		X				X	X	X	X
	self-sufficient	X		X	X	X				

Table 1. Parameters of Mobile Architecture Proposals of Competitions.

Quantity of Users - Mobile spaces of individual preference (**MSIP**), from first competition, focus on the individual and the family as they are based on an individual demand. However, mobile spaces of cultural movement (**MSCM**), from the second competition, and mobile spaces of forced movement (**MSFM**), from the third competition, aim to develop family and community-oriented solutions. The number of people for MSFM is dramatically higher than for MSCM.

Designer's Choice for Location – MSIP can be located in the forests, depending on the preference to move away from city life. It does not apply to the other two types of mobile space because of the large number of users. The more users, the more difficulties for mobile spaces that grow in the center of the city. On the other hand, because the MSFM is forced to migrate to a different and unknown location, they cannot have a claim for the city center compared with the natives of the city.

This situation may cause tension among people due to the fact that people who are separated from each other in the same geographies. It may be good for some groups, who have communication with other refugees, to live in mobile spaces scattered throughout the city to avoid any future social conflict.

Reaction to the environment – MSIP does not seem to have to develop a flexible solution to its environment. Because the location of the mobile space may easily differ as a personal preference. However, in MSCM and MSFM projects, designers pay attention to the environment in which they will be found and predict the place to assemble or move at first. For instance, locations of the MSFM projects was identified as an initial design decision at the beginning of the design (first one on the sea; the second one on the border wall of the country; the third one in abandoned railway station).

Contextual Attention – Mobility that begins with a personal preference can be moved or terminated at any time with personal preference. The mobile space can be easily dismantled from its location and may appear to have never been there. Therefore, MSIP can be an acontextual project. However, MSCM and MSFM are generally composed of crowded communities. Even if they do not fit into the existing context, the interaction and spatialization of these groups of people establish their own contexts.

Scope of Modularity – Since MSIP neglect to relate with the environment, it builds its modularity on its internal units. For MSCM, there is flexibility in form. In MSFM, the interaction between the structures becomes important due to the large groups. In this way, the designers are trying to protect the internal cultural structures of the refugees.

Mode of Portability – While the mode of portability in most mobile spaces is the logic of assemble-disassemble, MSFM foresees that users can leave the area without disassembling.

There may be four reasons for this: (1) the refugees are not the owner of the mobile space, so they will not take the structures with them when their life-

threatening end. (2) These spaces may be left there as installed in order to re-use if such problem reoccurs. (3) Another possibility is that if other solutions are developed for the first users of the place while the refugee problem continues, other refugees may move to that place. (4) Governments may prefer to preserve the spaces of refugees and exhibit them, instead of erasing the traces of a certain period.

Type of Portability – Most mobile spaces are manufactured for transport by vehicles. MSFM may also be suitable for such transport. However, large masses and their interrelations may require greater efforts to make them portable. From the very beginning of the process, the designers seem to be inclined to develop a project that is difficult to move which is only the first move will be a radical movement.

Cost of Materials and Construction – MSIP can have very expensive materials and production systems depending on the individual's budget. Nevertheless, MSFM has to be very quick solutions with cheap materials as possible because of the sudden movement and the owners of the material are not the users themselves.

Proposal for Belonging – Belonging and identity may not be very important for MSIP. They may have chosen these spaces to escape from their existing identities and exhausting urban life. Nonetheless, it would be better for MSCMs to acquire belonging to maintain their own culture. In MSFM, the idea of design, which interacts with each other is a priority. Because the communities, who do not already know where they are going, have just each other as a source of belonging.

Sensitivity for Sustainability – Energy consumption is an important issue for designing of MSIP and MSCM. Because the users of these places, who know they will move, will pay attention to solve the problems on the basis of energy. However, users of MSFM are primarily concerned with surviving and feeling safe. Ecology comes after these concerns.

General Conclusions - All these distinctions also differentiate the process of design and design outputs of mobile spaces. It seems that current events in the world have transformed the concept of mobility and led to the development of new definitions of mobility.

Future Studies - More proposals of competitions, such as honorable mentions and top 20, can be examined and compared so that more clear results may be achieved. In this study, the dimensions of mobile spaces were evaluated via ten metrics. Mobile spaces can be analyzed more extensively than in this paper. As the scope of the study and evaluation metrics increase, the distinctions of these different mobile spaces will be clearer.

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THE REVIEW OF MOBILE HOUSING APPROACH VIA SMALL HOUSE DESIGN COMPETITION (2017)

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ABSTRACT

From the very first moment of history, human beings are in a state of movement to be able to adapt to their environment and continue their lives. However, this state of being mobile has evolved into a different form in each age, taking shape according to the difficulties and qualities of the age in which they lived.

Humanity, which was only interested in the mobility of its natural environment and its own individual movement until the process of industrialization, became acquainted with a new form of movement after the process of industrialization. This new movement approach, which has brought about significant changes in human life, has started to be used actively in the social and production field. In this period, the human being, who kept pace with the mobile order of life with machinery as well as the natural environment, concentrated on the concept of mobile architecture as a new inquiry proposal.

Within the scope of this study, the relationship between the concept of motion and architecture will be examined with a holistic approach to the designs, and the effects of motion on the design will be investigated.

Key Words: Architecture; Mobility; Motion; Flexibility; Transformation.

INTRODUCTION

Motion is used in describing almost everything that is not stationary. The concept of motion, which has different definitions such as life, action, change, transformation, function, displacement, has also multifaceted provisions in architecture literature. Some of these are temporary-permanence, function, program in relation to time; and orientation, displacement in relation to space; and parts-whole, system, flexibility in relation to structure [1]. Mobile architecture, on the other hand, provides us with the definitions in the concept of motion through spatial design. The motion within the design makes the

design a whole with the transformation of the spaces and the movement within it.

The purpose of the study is to explicate the relationship between the concept of motion and architecture and to investigate the effects of motion on a design by approaching the design with a holistic view.

In the first stage of the study, the need for housing, mobile architecture, and mobility concepts are discussed. The relationship of the concept of movement with the discipline of architecture was studied through a project competition in which different designers attended. For this purpose, the Tiny House Design Competition, which was recently organized with mobile housing theme, was selected for the research. The projects participating in the competition offer unusual proposals for the near future. Projects that create new thinking systems between the user and architectural design and allow the definition of space to be questioned again were examined by addressing mobility, flexibility, changes, and transformations of spaces. In the research process, the need for housing, the relationship of mobility with the elements of space and architecture (floor, wall, etc.), the effect of this relationship on the design and user were explained in detail.

The Need for Housing in the Discipline of Architecture

The human being has to describe a place in Universal chaos, to bring to chaos an order to be conceived and to determine his own place in that order. Otherwise, he feels such an indescribable fear that fear dominates his entire self and man becomes unable to even think about the impulses that are considered his basic impulses, such as nutrition and reproduction [2]. The branch of science that deals closely with the subject of housing, which is the primary need in the process of time from the first human to the present day, has been architecture for centuries.

Vitruvius divided architecture into three parts as building art, construction of time meters and machine production, and divided the building art into two parts as structures designed for general use in public areas in cities and special structures designed for individuals [3]. The architectural works that Vitruvius refers to as 'special structures designed for individuals' are undoubtedly spaces designed to meet the need for housing.

Gaston Bachelard, on the other hand, says that housing is the main purpose of architecture in the sense of existence [4] and emphasizes how important the concept of housing is for the discipline of architecture.

From the past to the present, the design problems required to find more qualified solutions to the need for housing have changed, even if the

relationship between architecture and the need for housing has not changed. Considering the social, cultural and economic values of each age, it will be the right method to evaluate variable design inputs. In this sense, it is necessary to find solutions to our need for housing through new lifestyles and technological developments in the period in which we experience the information age.

Motion and Mobile Architecture in Architecture

The word of mobility is a name given to the movement from one place or social situation to another, in the simplest terms. Mobility is a multifaceted concept that does not only define a physical state but rather embodies mental and technological development. This is due to the fact that the factors that make up the physical movement are at least as important as the movement itself. The environmental factors that cause the movement to arise and the technological developments that enable the movement to take place are removing mobility from being a physical activity based solely on displacement and transforming it into a social phenomenon encountered in every field of today [5].

Humanity is in motion due to its nature from the first moment it appears in the scene of history. In the Paleolithic period, when they were not yet settled, they adopted a nomadic lifestyle to protect themselves from climate conditions and to meet their nutritional needs and managed to survive by constantly moving.

In the Neolithic period, when agricultural production was active, mankind began to live on the banks of the river and learned to adapt to this moving situation by meeting the movement of water.

Steamships, trains, and automobiles, which joined into human life in the industrial age, gave human beings a different definition and freedom of movement. The persons who adapted to the mechanized world integrated the movement into their life and tried to adapt to the current environmental conditions by changing the design of the spaces where they met the housing need.

In the information age, thanks to digital designs and mobile products, which form an important part of our lives with the developing technology, humanity continues to live in a different concept of movement. This mobility is both in a physical and mental dimension, so the transformation of the space and time in which human beings are present is in question. These developments will provide changes in housing spaces in this era of active movements and will enable individuals to adapt to the ambient conditions in the most ideal way.

If we look at the state of mobility from an architectural perspective, structures are static and stable objects due to their nature. But every architectural structure has definitely its own mobile elements. For example, door wings, windows, their handles, hinges are among the most common and ubiquitous of these objects. Examples of more specific situations include the revolving scenes of Greek theatres, the stairs of feudal lord castles that land and rise, and the elevators and escalators used in later centuries. In addition, the laying of the beds at night and gathering them in the wardrobes during the day in the traditional Turkish house is an example of the different types of dynamic architecture [6]. In addition, an architectural space can become dynamic through the differentiation of seasons, the influence of light on the day and the mobile building elements that are the products of developing technology [7].

It is possible to talk about dynamic architecture that is mobile at much greater distances, even sometimes travels hundreds of kilometers from one city to another city [6]. Examples of these designs include the industrialized prefabricated housing based on standard and mass production designed for the first time by a British carpenter named John Manning in 1850. This design, which is a portable shed, has a flexible structure that is small enough to be transported together and consists of parts of standard sizes that can be exchanged between each other in required circumstances and combined in a short time [5].

After Ford factories opened with the advancement of technology, serial car production caused the cars to enter daily life quickly. A variety of designs have begun to be made so that people can continue short-term journeys comfortably. Thus, units of life, trailers, caravans towed by cars began to enter daily life. The trailer, named "Earl Travel", produced in 1913, is considered to be the world's oldest tentless ride trailer designed for this purpose [5].

The "Dymaxion House" which was designed by Buckminster Fuller, patented in 1928 and produced for the World Fair in 1933, is another example of mobile architecture design with the lightness being able to move from one place to another by helicopter, while the interior walls are capable of movement, allowing for building the needed spatial magnitudes within the dwelling [8]. Fuller designed the "Mechanical Wing" trailer as a military and industrial worker residence in 1940. This design is the first example of plug-in and self-contained mobile housing. These trailers, which are attached to the back of the car, have kitchens, bathrooms, and generators. Fuller's innovative understanding of planning, material selection, and application methods and the capability of the structure to be moved as a whole align with the basic principles of mobile architecture [5].

"Plug-in City" design of Peter Cook who is an Archigram group member, "Computer City" of Dennis Crompton and "Walking City" of Ron Herron are other example projects that include motion in their designs.

In the following years, designers continued to work on mobile, flexible and portable home units. The experimental designs of the pioneers were adopted and realized as a strategic model in line with the technological possibilities of the present day. One of these is the trailer "Markies" designed by Eduard Böhlingk in 1980, which was developed based on Fuller's "Mechanical Wing" design, which includes all the service units belonging to the house and which meets the needs of its users thanks to the systems and accessories that open and close at the point of arrival [5].

Today, mobile unit designs continue. Life and work modules consisting of containers, mobile libraries, health units, various outlets, and entertainment-oriented mobile spaces are routinely encountered in our lives.

Apart from the designs made by emulating the dynamism of machine, there are a number of principles identified by the GEAM group of young architects from France, Dutch, Polish and Israel in 1960, who have covered the movement in architecture and created a program for dynamic architecture. Some of the principles that aim at changing architecture that can fit new conditions are as follows:

Structures must be variable and interchangeable.

Spatial units in these structures should also be open to changes in usage.

Residents should be given the opportunity to change their housing according to the requirements of the day.

The methods they propose to apply the principles they set are as follows:

Development of variable and interchangeable structure elements, for example:

Exterior walls

Interior walls

Moving floors and walls

Development of methods that can easily change to bring heat and electricity to structures and collect garbage

Development of larger spatial units to create a city, for example:

- Interchangeable units (drivable, airworthy, or floatable)

- Structures on the raft [7].

Today, mobility, flexibility and adaptability concepts are frequently discussed within the scope of residential design. The necessity of decreasing the domestic equipment gradually and establishing the maximum living standard in the minimum area, the new lifestyle which comes about through the change of time and movement concepts enable space-independent designs that are mobile, and convertible [9].

Due to the dynamism of our times, change of working conditions, Information Technology and the speed of everyday life, the tendency to use housing for

long periods of time and the use of all the spaces in the existing housing decrease day by day. For this reason, designers are oriented towards minimal designs that respond to people's needs. Individuals who spend the 24-hour time period with fast, active, physical and mental mobility need to be mobile and flexible at the same rate in their new living space. The new housing designs, which include mobility, virtuality, and technological developments, will integrate by establishing a new relationship with their users, and this will enable a different period to be taken into account in the housing designs.

Tiny House Design Competition 2017

Purpose of the Competition

The house is a special and intimate space for all of us. Beyond its daily function as a physical refuge for people and their activities, it involves a personal and emotional level of commitment with its users. Along with the desire to have more freedom, today's scenario of environmental and financial concerns has led people to choose for simpler and more efficient living spaces. It is a competition organized to design efficient spaces for smart living and personal needs emerged with the rapid growth of technology. The tiny house competition focuses on the concept of a simple but qualified life [11].

Properties to Be Found in Project Designs

The design of the house should be innovative and creative with sustainable features. The relationship between the exterior and interior space should be taken into account. The proposal should be well conceptualized. Most importantly, the home design area should not exceed 250 m². Since mobility is a vital factor, it is not mandatory for the house to be mobile in itself, but it should be treated as an extension that can be easily towed by a car or van. However, participants can eliminate the issue of mobility completely, but they also need to cite a strong rationale.

Requirement program:

Living area

Sleeping area for 2 people

Kitchen and dining area

Bathroom and toilet

Working area

Designers can set a user profile based on the design concept [11].

The Project winning the first prize 'Home.rar'

Project designers: Chan Ting Leung Henry - Lau Yuan Lei Flora - Yuen Tung Hing / Hong Kong

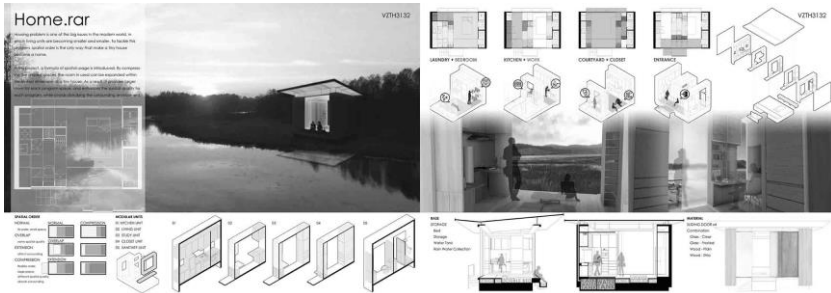


Figure 1. The Project Winning the First Prize [12].

The project's designers consider the housing problem to be one of the biggest problems in the modern world, where living units are shrinking further. They argue that the only way to overcome this problem is to make this space a home by making the necessary design arrangements in a restricted small space. A new spatial use formula is mentioned in this project. The unused spaces within the house are compressed, and the space for the used unit is allowed to be expanded in the limited size of the house. As a result, greater space is obtained for each program space and spatial quality increases for each program.

With this approach, the project offers new solutions by questioning the concepts of space, boundaries, and flexibility. In addition to providing the needs of a standard house with a minimum usage area in today's conditions, it provides users with flexible and large spaces for related places. Furthermore, the ability to switch between compressible mobile units enables new definitions to be made on the concept of space due to the contact of boundary and flexibility concepts with each other. This project shows that the walls that are the design components are not needed as a divisive element in the interior, the walls are just the basic elements that provide the distinction between the exterior and interior. Furthermore, the fact that wet volume modules are fixed at both ends of the space suggests that wet volume requirements limit the idea of flexibility in design. However, the fact that other modular units can be transformed into different living spaces by moving allows users to shape the space according to their activities during the day, preventing the spaces from being separated by sharp lines.

In addition, the project includes the principles set by GEAM (Mobile Architecture Working Group) so that;

It includes mobile modular units

It provides diversity in the use of spatial units because of the flexibility of these units, and

It gives residents the opportunity to change their homes according to the needs of the day

The Project winning the second prize 'Autonomous'

Project designers: Mattias Nilsson - David Fjällström / Sweden

To be able to maximize the available space, in the project, the mobile housing was designed that acts independently with a rotating interior environment. The designed unit can move to any chosen destination thanks to its two wheels. Thanks to its engine system, the interior of the designed mobile house consisting of accommodation units can revolve around itself. The interior consists of four different sectional modules that are combined. These modules rotate to create suitable spatial areas for different daily activities.

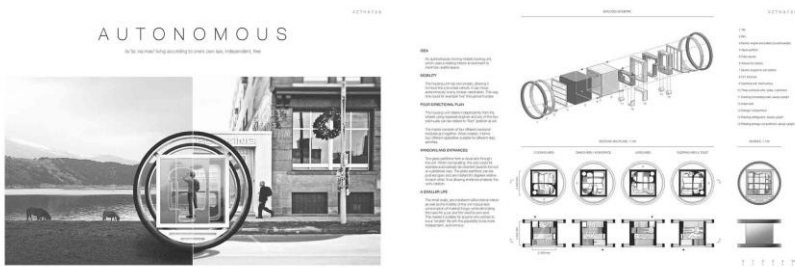


Figure 2. The Project Winning the Second Prize [12].

The design unit has two glass sections. When the housing unit is not traveling, the unit can be automatically directed to the sun or another area of choice. Glass sections can be opened and rotated 90 degrees. Thus entry into the design unit is allowed regardless of the rotation of the modules in the interior. The housing unit is able to meet its own energy needs through its solar panels. The design does not take up much space because of its small scale, but due to the pre-designed and assembled multifunctional interior place and the mobility of this interior place, less material consumption occurs. Furthermore, the fact that the entire housing unit is able to move thanks to the wheels eliminates the need for users to own a car and land. This design would be a convenient choice for anyone who wants to live a more independent and smart life.

With this approach, the project raises awareness of the rapidly increasing unnecessary space, product, and energy consumption. The four different sectional modules in the interior place provide maximum efficiency in the minimum space beyond meeting the daily needs of the users. In addition, the

definitions and meanings of ceiling, floor, wall and divisive elements used in defining the space are changed in this design, also the conversion of the ceiling to floor, the floor to wall, the wall to ceiling ensures that all the basic elements that make up the space can be used actively. In this case, a dynamic housing design was made based on the user's one day in response to the user's dynamic life and needs. The project corresponds to the concept of flexibility with the transformation of the sectional modules. However, it was stated that the modules that meet wet volume needs are upright in all conditions, although they can move within themselves. But there is not enough explanation for how they can stand upright in all conditions. In flexible space designs, wet volumes, which must be fixed, make the design difficult. Although the design is indicated to move with the wheels it has, there is no schema explaining how it performs its motion.

In addition, the project includes the principles of GEAM (Mobile Architecture Working Group) so that;

It is able to move actively through the wheels of the housing unit,
It provides the energy it needs from the solar panels,
It includes mobile modular units that can revolve around itself,
It is able to switch between goods that limit space (it allows flexible use by converting ceiling to wall, wall to floor), and allows people living in it the opportunity to change their housing according to the needs of the day.

The Project winning the third prize 'Golpo Baksho'

Project designers: Debaditya Maity – Anwesh das – Soumyajit Bagchi / India

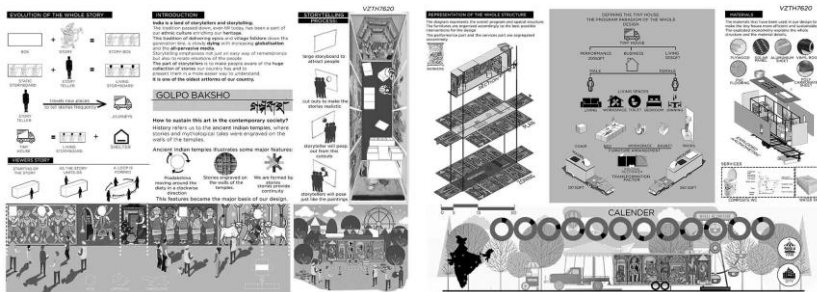


Figure 3. The Project Winning the Third Prize [12].

In the project, mobile design was made to remind the stories and narrators that existed in Indian culture in the past but are not as widespread as they used to be because they lost their impact. Inspired by ancient Indian temples, where stories and mythological tales were dug into the walls of the temples in the past, the designers designed a mobile unit in this tradition but in today's

conditions, creating a unit where both accommodation and storytelling processes would take place.

The unit, where accommodation and storytelling are done, acts by connecting to a vehicle like caravans. It is possible to reduce the space by folding the housing unit; however, the space is enlarged by opening the unit at times when storytelling and accommodation will take place. In this sense, it is a design that has flexibility in terms of spatial growth.

Composite wet volume is used in the unit. In addition, furniture that meets the needs of users is created by using the baskets in the unit. A single basket is used as a chair, while many baskets come together to meet the need for beds. The baskets also meet the needs of the scene for the workspace during the course of storytelling. In this sense, the use of a single item to address different needs suggests that it is the product of a flexible design. It is seen that the unit creates the necessary design substructure for the stories by making transformations on the required surfaces.

In addition, the project includes the principles of GEAM (Mobile Architecture Working Group) so that;

The housing unit can move with the help of a vehicle thanks to its wheels,
It provides the needed energy from the solar panels,
It alternately uses baskets that provide flexibility in design to meet the spatial needs of the interior place
The space grows on the base of area by opening up and has a flexible design by transforming into resident and workplace.

Honorable Mention Award-winning Project '4-in-1'

Project designers: Xichen Sheng - Chendi O - Qinrong Liu / China

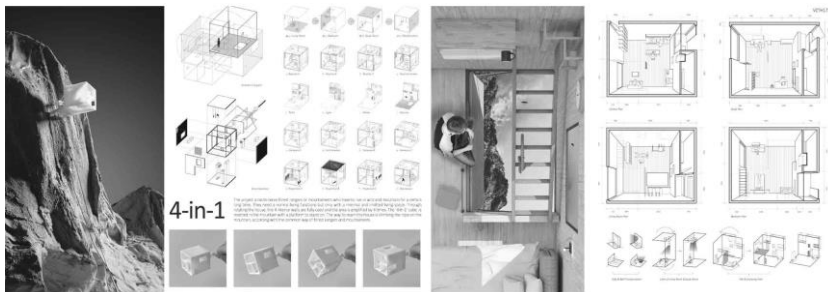


Figure 4. Honorable Mention Award-winning Project [12].

The project includes a space design where all 4 surfaces of a cube are actively used. It has a very different and dynamic structure than residential buildings used today. The components that define the space in architectural design have been added to the usage with a different interpretation. The fact that the floor is turned into a ceiling after two hours or the side surfaces continue to be used as ceiling and floor after four hours shows that the designers have designed not only space but also the users one day.

The design adapts to users thanks to the dynamic it has in itself. Furniture fixed to surfaces is used for different purposes as the surfaces rotate. For example, the bed on the floor can be used as a seat when the bed head falls on the floor if the place is turned after sleeping. Maximum efficiency is achieved by using all surfaces and a small number of furniture for active and different needs in the minimum area. However, there is no detailed information regarding wet volume solutions. The project directs people to think about the space and its usage and to create new interpretations.

In addition, the project includes the principles of GEAM (Mobile Architecture Working Group) so that;

The design is dynamic in itself to meet the spatial needs of the interior space, It uses furniture and all surfaces providing flexibility.

Honorable Mention Award-winning Project 'House Interlock'

Project designers: Kristen Giannattasio - Christina Marsh / USA

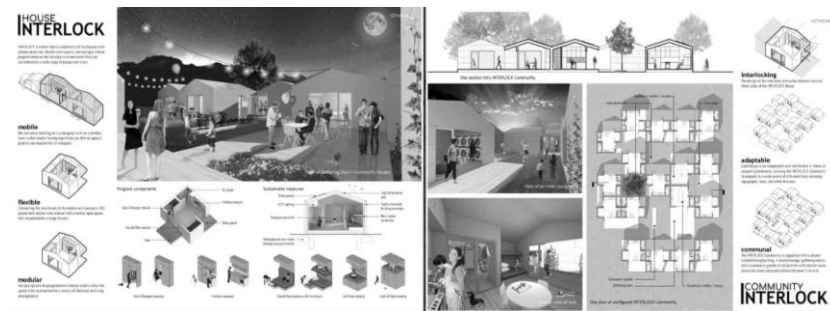


Figure 5. Honorable Mention Award-winning Project [12].

In the design of the project, the mobile structure of the housing units was made possible by moving with another vehicle. The units were designed with modular system thought. In this way, it was possible for different units to come together to increase their spatial usage areas, or units belonging to different individuals came together to form common social sharing centers, providing flexibility and different usage suggestions in the created configuration.

The flexibility that units have for the coming together is also present in each unit's interior design. It was aimed to provide maximum usage by applying interchangeable furniture designs in the interior. While dress cabinets and work desks are designed together, sofa designs are used as armchair during the day and bed during the night to reduce unnecessary use of goods in the space.

In case of increasing the number of users in a residential building and insufficient space, units can be articulated to increase their existing space and the plan schemes they have. This flexibility allows units to create a new configuration. In addition to these, the units are able to produce their own energy, providing the possibility of independent life.

In addition, the project includes the principles of GEAM (Mobile Architecture Working Group) so that;

The housing unit is able to move with the help of a vehicle thanks to the wheels it has,

It provides the needed energy from the solar panels,

To meet the spatial needs of the interior, the furniture of the design is dynamic within itself,

Housing units can be articulated together, thus increasing spatial sizes, and it has a flexible design that allows the formation of common areas between units.

Comparison of Awarded Projects through Determined Parameters

TINY HOUSE DESIGN COMPETITION 2017							
AWARDED PROJECTS	MOBILITY		SPATIAL DIFFERENTIATION POSSIBILITIES (FLEXIBILITY)				BEING ABLE TO MEET THEIR OWN ENERGY NEEDS
	MOBILITY OF HOUSING UNIT	MOBILITY OF INTERIOR COMPONENTS	FLEXIBILITY IN INDOOR USE	MODULARITY OF HOUSING UNITS	FLEXIBILITY IN FURNITURE DESIGN AND USE	USAGE OF ALL SURFACES IN THE INTERIOR SPACE	USAGE OF SOLAR PANELS
First Prize Home.far Chan Ting Leung Henry - Lau Yuen Lai Flora - Yuen Tung Hong / Hong Kong	THE HOUSING UNIT DOES NOT HAVE WHEELS, HOWEVER, IT CAN BE MOVED TO THE DESIRED LOCATION WITH ANOTHER VEHICLE.	✓	✓		✓		
Second Prize Autonomous Matthias Nilsson - David Fjallstrom / Sweden	✓	✓	✓		✓	✓	✓
Third Prize Golpo Baksho Debaditya Maity -Kishorek das - Souravjit Bagchi / Hindistan	✓		✓		✓		✓
Honorable Mention Award 4-in-1 Xichen Sheng - Cheryl Q - Qirong Liu / Çin	THE HOUSING UNIT DOES NOT HAVE WHEELS, HOWEVER, IT CAN BE MOVED TO THE DESIRED LOCATION WITH ANOTHER VEHICLE.	✓	✓		✓	✓	
Honorable Mention Award House Interlock Kristen Giannattasio - Christina Marsh (ABD)	THE HOUSING UNIT DOES NOT HAVE WHEELS, HOWEVER, IT CAN BE MOVED TO THE DESIRED LOCATION WITH ANOTHER VEHICLE.			✓	✓		✓

Table 1. Comparison of Table.

The following features of the projects show that they are capable of finding solutions for today's needs and that they include creative design ideas for the future;

Residential units can be portable or moved alone,

Interior designs of housing units are mobile and transformable,

There are interior components that can move at a 360-degree angle and able to move rectilinearly on the horizontal plane

The concept of flexibility is discussed with a different approach in each project,

In some projects, all the surfaces in interior space are utilizable; they contain very creative thoughts in terms of floor-wall-ceiling transformations,

Only one of the projects allows housing units to be articulated, allowing for increased spatial size; The units of this design come together to form a new configuration; The units can be moved collectively or individually,

In all projects, the housing unit and user can be integrated by providing originality,

Users can make spatial adjustments according to their usage needs for 24-hours in a day, allowing them to be used in different time zones and different periods, ensuring maximum efficiency from minimum space,

All projects are mobile designed to respond to user needs,

CONCLUSION

As a result of changing living conditions, working conditions and technological advances in our age, the persons have started to turn to individual life. With the effect of this situation and the increasing population density, there has been a significant increase in the amount of construction in large cities, while there have been decreases in the social areas in cities. In addition to these, spatial efficiency cannot be achieved within the units as all volumes in the existing housing units are not used by users. For the new generation users who spend every stage of their life moving both physically and mentally thanks to the technological products they use, all these situations require solution-oriented changes in the environment in which they live and especially in housing where housing needs are provided.

It would be wrong to expect today's society to live a stable life in the fast and dynamic condition in which it lives. In this respect, in the information age where technology is actively used and new products are being produced every day, design components need to be flexible and mobile to adapt to the changing needs of users, to be able to use the space efficiently and to transform the interior components in parallel with house that people are staying in.

The newly designed housing units can be moved from one place to another, and the fact that only the interior of the unit is dynamic and transformable will make it mobile.

When mobile housing is in question, often in the minds of designers, there are units that are uniformly manufactured and do not offer qualified space to users. However, in the mobile architecture proposals mentioned here, on the contrary, the volume designs, which provide solutions to the daily, physiological and physical needs of the user, adapt to the individual's movements, and become integrated with the user, are mentioned. The important thing is to be able to relate to the volume we live in as human beings. Thorns said that "Space remains an important part of the way people organize, add meaning to their lives and create a sense of identity for who they are and who they will be. We all live in one place - we have a place we know as 'home'. It can be temporary or permanent, rental or our own, large and small. It may even be a cardboard box on the street, but it has a special property and is crucial in creating the sense of who we are, making sense of our lives and relationships" [10], which shows the importance of an integrated relationship with the place, regardless of where it is.

While some of the aforementioned projects can be produced in today's conditions, some of them offer us new ideas. The fact that the architectural components of interior places can be moved and that users can meet their needs every day for 24-hour time periods will provide efficient use of the space. The use of dynamic goods for this purpose is seen as necessary to ensure maximum efficiency in the minimum area. The designs in which all surfaces are used within the housing unit enable us to develop a new thinking system against the basic architectural components such as floors, walls, ceilings, doors and windows which are accepted in the architecture discipline. Therefore, in a space capable of 360-degree rotation, a design in which the floor can be ceiling and the wall can be floor changes the definition of the familiar space and, as stated by Soygeniş, the components that define the architectural space including column, beam, floor, wall are examined in the context of geometry, thus, the volume is formed when the two-dimensional planes formed by the juxtaposition of the lines come together at certain angles [4]. Through this point of view, the discipline of architecture will turn to the idea of designing volume, rather than just designing space.

As a result, we need to design flexible and productive housing units that adapt to the dynamic lives of people of our age, provide maximum volume and comfort environment in minimum space, have designs that contain transformable solutions for surface, plane and volume of spaces, accompany people in situations of possible displacement of them and adapt them to developing technology.

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CAN ARCHITECTURAL COMPETITIONS PROVIDE FOR “A PLACE” FOR “PLACELESSNESS”: AN EVALUATION ON “2016 YTONG ARCHITECTURAL CONCEPT DESIGN COMPETITION THEMED A PLACE FOR PLACELESSNESS”

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ABSTRACT

In recent years - including the nearby geography - instability in many parts of the world, wars and civil wars, followed by terror and painful events triggered, a mass wave of immigration to the masses to live and leave the geography of the land belonging to a different land. Today, the refugee issue, which is one of the most important actual items in the world and which is very obvious for our country, has become a ground where architecture and design are also focused. What is the focus of architecture and design on the refugee problem?

In 2016, a construction material company's “A Place for Placelessness” themed architectural project idea competition, due to the above-mentioned reasons, who had to leave the geography, migrated to a completely different geography “person who asylum”, “immigrant” and it has centered the problematization of space and common ground in the context of architecture and design disciplines for people who become refugees.

In recent years, when the architectural and design competitions that take refugees to the center in different countries of the world and how they deal with the issue are examined, it raises the question whether the real intention is to build space for “refugees” or to protect the borders of the “homeowners” and to reduce their concerns. The transformation of the approaches of the competitions into prototype space production under the title of producing “A Place for Placelessness”, the reduction of the urgent solutions in minimum areas, the transformation of leftover areas of the city into the perception of potential living spaces for migrants, raises the question of where the refugees' life practices are located in these competitions.

In this context, in the consideration of the aforementioned concerns, the competition titled altında “2016 YTONG Architectural Idea Competition: A Place for Placelessness” which focuses on refugee and immigrant living areas in Turkey in recent years and aims to be examined under the theories of “immigration” and “placelessness”.

Key Words: Refugee; Architectural Competitions; Migration; Space; Placelessness.

INTRODUCTION

"Homelessness is becoming the fate of the world" [1].

These words of Heidegger reveal the reality of the "forced displacement or migration" continues as an important global problem of today and which started from the last century. Millions of people who had to leave the "the land they belong" as a result of bitter events all over the world and have to establish a new life in a geography they never knew are proof of Heidegger's words. As the fate of millions of people, homelessness has become an inevitable reality of our time. These people who are forced to migrate are caught between the insights of their own life experiences and the spatial practices of the places they migrate in the land they come to establish new lives.

As Eliot emphasized in his verses "every country is a house for one and at the same time it is an exile for the other" [2], the land that one feels and belongs to as a home can turn into an exile for the other who cannot feel belonging. Heidegger, "placelessness" and "belonginglessness" to the solution of this case, the search goes beyond asking questions about the essence of being. That is to say, the feeling of placelessness or belonginglessness to space can be understood by asking questions about the essence. This, essence of space, coexistence, the social and the essence of many channels that Heidegger does not consciously specify but we can find answers for ourselves are reality.

Heidegger developed the new discourses in 1954, which he published for the first time in the book *Vorträge und Aufsätze* (Lessons and Writings), after which he presented his first text "Building, Dwelling and Thinking" (Bauen Wohnen Denken) [3]. The summary of the text draws attention to the distinction between the concepts of housing and building. "Dwelling" is described as the place where humanity has acquired itself in the existence of humanbeing, and "building" is the representation of the concept of belonging that people contribute to the place where they live and that they live for themselves. According to this discourse, dwelling is a very old and stable concept, while the building is a spatial phenomenon that affects the living culture of the humanbeing while renewing itself and reproducing itself.

At this point, this study aims to problematize the concept of "belonging", which is directly proportional to the continuous production of the space, with the concept of "placelessness" through the designs of the immigrants' spaces. In recent years, the practice of architecture and design asking questions about the place of the immigrant, and seeking answers to this global problem through different mechanisms (workshops, symposiums, interviews, architectural competitions, etc.) have been witnessed in many different regions of the world. In the present period, the problems of the emigrants who emerge as a result of the migration issue that witnessed in Turkey are discussed through various architectural channels. Among these activities, the competition with the theme of "A Place for Placelessness" [4] opened by a

construction material company is one of the leading architectural events that has opened the most discussion intervals on a national scale (Figure 1). This activity, which contributes to the architecture of the country with the interest, number of participations, with digital and sharing colloquium method, is important in terms of revealing the pulse of the time through the designs of the immigrants' spaces with in the scope of the work. It is considered that the specifications of this competition, participating and awarding projects, the jury report prepared as a result of the competition and the architectural environment of our country in recent years are very important in terms of questioning the range of architecture that the immigrants' practices of the space production.



Figure 1. Poster Used for Promotion of the Competition [4].

About “A Place for Placelessness” Themed Competition

When the content of the competition title “A Place for Placelessness” organized in 2016 is examined, it is striking that rather than a negativity which is affirmed, a positivity which is negated stands out. If the content of the title is mentioned, it will be inevitable to mention that the concepts of dwelling, settling a place and that are symbols of belonging concept. The concept of placelessness is explained through the meanings attributed to the concepts of non-place and none-place that Auge conceptualized and translated into english in different translations. When Auge expresses the concept of “non-lieu”, he does not mention any positivity or negativity. He refers to the place of all action inputs that make place in the human perception. For him, even though the concept of extinction has physically existing dimensions, the disappearance of the relationship of place in human memory corresponds, for

example, to conceptual dimensionality [5]. The fiction of the relationship between the migrants in the center of this conceptual dimensional meeting place and the native receiving the migration is left to the contestants. At the center of the competition, which was designed to design the place that does not exist in human perception, it was aimed to mention the place built by all the inhabitants for a place of "placelessness" that included the immigrant, rather than a search for the new settlement-place of the immigrant. In this case, Güzer, one of the jury members of the competition jury, stated in the jury review report that the theme "...-A Place for Placelessness- is associated with current and popular issues, for example, with refugee problems, while the mutual transformation between global culture and space in a broader perspective..." clearly [4].

Blanchot's concept of homelessness can be read as a reversal against Heidegger's concept of building. According to him, homelessness is not limited to relocation or migration. He states that even in the place where the person is born and raised, the sense of belonging may be lost and he may be in a migration, even if he is not physically conscious [6]. This situation may be due to the fact that the inability to construct the place turned into a moment when many of the places we live in do not feel belonging and do not evoke the feeling that they belong to us. According to Blanchot, even though people are not physically exposed to migration, they may have consciously become a 'refugee'.

The time zone for the "A Place for Placelessness" competition, the conflict between the Syrian civil war and the millions of people fleeing from difficult crises triggered by immigration to neighboring countries and ultimately to Turkey, and their efforts to establish their own lifestyles, coincided with the architecture and space because of the importance of the discussion. When the history of the concept of "migration" in the literature is examined, the impulses of "migration" from rural to urban areas of the Industrial Revolution period as a concept initiated by E. G. Ravenstein in the 19th century are mentioned. However, today, 21st century "migration" has continued and will continue to change by changing many cause and effect correlations from past to present. In today's emigration, the search for a voluntary new place has been replaced by the hope of holding on to life. While voluntary and individual migration movements are considered as carefully determined migrations in order to investigate the feasibility of physical conditions in the place of migration, involuntary and mass migration movements bring about the idea of escape from the existing physical conditions and the point of reaching the secondary plan [7]. Thus, it can be said that the concept of belongingness is more predominant in voluntary migrations than in involuntary migrations. The fact that migrants fleeing the Syrian civil war made involuntary and forced migration should not be forgotten in this context. In addition to the fact that the issue is dealt with in terms of migrants, special circumstances specific to the place of migration should be made. When viewed from the perspective of state policies, sociology, economy, law, local people and urban unity, the

authorities of all these disciplines should manage this process with a common consciousness [8].

According to the numerical data stated in the competition specifications, during the period of the competition (March 2016), nearly three million registered Syrians are in Turkey as refugees. These data increase the importance of the competition for the initiation of the discussion. During this period, all of Turkey's urban centers, immigrant-refugee problem and considering that almost turned into a laboratory to observe the practice of setting up their space, in this competition and be able to understanding it is not surprising that the intensity of debate participation rates. The final evaluation meeting of the contest was held on 28 June 2016, where 116 projects were evaluated in two phases. The competition, which is open to everyone through the virtual environment, is a first and innovative feature for the country's architectural competitions with its digital colloquium, which is based on the digital evaluation process, actively asking questions to the jury, commenting and contributing to the process. When the content of the "A Place for Placelessness" contest opened in a time period suitable for such a discussion, it raises some questions about how much immigrants touched their lives. First of all, the fact that the jury that will carry out the evaluation is limited to the architects only indicates that an opportunity has been escaped in terms of limiting and limiting this multifaceted issue. It is inevitable that a multidisciplinary and multi-disciplinary evaluation team will have an important effect on the results of the competition, as stated in terms of enriching the range of discussion of a phenomenon such as space, from which philosophers to artists, sociologists to anthropologists have produced many concepts - especially the space associated with migration. Moreover, although this is stated in the competition specifications, it is ironic that the jury is reduced to a single discipline. Immigration and the versatility of space in the competition specifications stated as "This is undoubted that a multi-input and complex problem within the economy, on the other side, and politics, culture and ideology. It is unlikely that a single country, discipline, belief or resource will be resolved by the efforts... [6]". On the other hand, one of the members of the jury within the jury of five persons, as a manager of the company organizing the competition, and the report published after the competition in the personal evaluation section of the report stated in any way 'migration', 'refuge', 'place', The fact that the competition only emphasizes the importance of the competition for the company without evaluating the 'place' and 'design' headings leads to the idea that it is detrimental to the range of discussion (Moreover, the aforementioned headings are mentioned as the key words of the competition specifications prepared by all jury members in agreement) [4], [8]. At this point, it is useful to remember the questions Burak Altınışık asked when carrying out a similar study. In an article examining the architectural competitions alleged to be organized for refugees, Altınışık raises the issue to another question by asking the question whether architecture competitions are organized to produce space for refugees or to eliminate the concerns of the sovereign thought [10]. A similar question was examined within the scope of this study. Because in the competition specifications..... Starting from his

own room, house and neighborhood respectively, a person establishes a relationship of belonging with the city and his country and draws his own security limits. Both dreams and concerns are largely shaped through desirable or unwanted places to belong. Attachment to the ground, to settle, to persistence, to look for a place and temporality represents" in the context of Altınışık's question whether the reflection of the refugee spaces is being considered or whether the owner is organized to set its own boundaries for the security zones. As a matter of fact, when the projects that are deemed worthy of an equivalent award or that are deemed appropriate to be exhibited in the jury evaluation report by remaining in the last qualifying rounds, it is not overlooked that they are in similar approaches. In addition, as specified in the specification, the only competition the Republic of Turkey and the TRNC citizens (for instance participation in the exchange of only the host facility) deficit raises another irony [6]. Although it was thought and argued that such participation was foreseen as a result of a legal obligation, the suggestions and approaches of the Syrian and other nationalities living in the center of the refugee issue, which had found a way to emigrate, were of great significance for this competition and discussion. In this case, the competition has become an incomplete mechanism, which does not put one foot down, only demonstrating the host's view of the refugee space.

As a result of the jury evaluation, the projects that were deemed worthy of an equivalent award and exhibited in the jury evaluation report by remaining in the final qualifying rounds, witnessed that these projects mostly call the immigrants who had to migrate as "nomads". The fact that they portray this situation as a lifestyle and build their projects on this acceptance shows that the inquiries about the place of immigrants are carried out through certain assumptions. In addition, the projects that are deemed worthy of an equivalent award, see the leftover space/area of the city as potential settlements for refugees, suggest that the concern of creating a sterile and safe zones for the domestic people is more concerned with the idea of space for migrants. As a matter of fact, the equivalent prizes and projects that are worth to be exhibited include wagons in Haydarpaşa Railway Station, leftover spaces and urban areas belonging to Haliç Shipyard, unused urban leftover areas of viaducts or bridges, abandoned urban areas (parks, residential areas etc.) potential settlements for migrants (Figure 2), (Figure 4). Already, it is seen that the practice of moving to leftover areas, which is the first method applied by the immigrants as housing practice, has been presented as a solution in the context of competition and the jury interpreted this attitude as a positive effort to strengthen the sense of belonging and accelerate adaptation to the city.

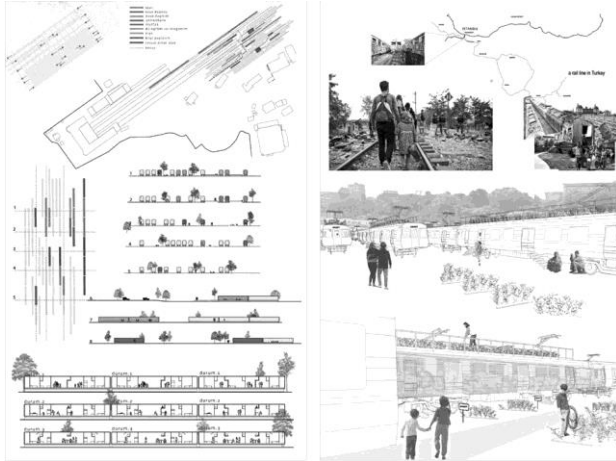


Figure 2. The Award-winning Project no. 596 with the Idea of Transforming the Leftover Rails and Wagons of Haydarpasa Train Station into a Living Space for Refugees [4].

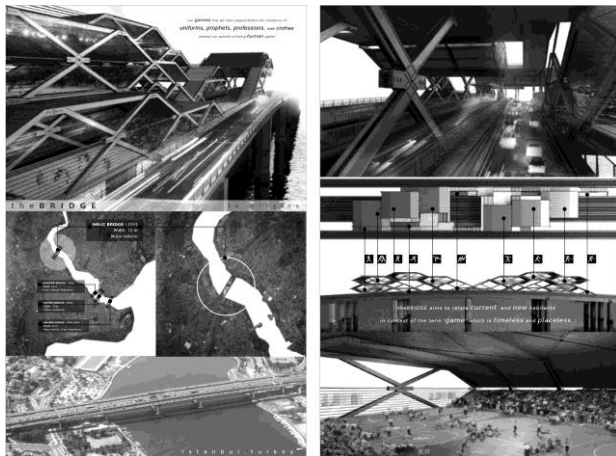


Figure 3. Project no. 298, which is not Included in the Equivalent Awards but is Expected to be Exhibited in the Jury Evaluation Report [4].

It forsees the adaptation of the refugees to the new life through the theme of “play” with a construction-space articulated on an existing bridge in Istanbul (Figure 3). However, it remains unclear how “play” occupies a place in their lives of refugees and how this urban leftover area becomes a place where refugees are accepted [4]. So much so that no equivalent project or jury

review has found no research or reference to the life practices of immigrants. On the contrary, acceptance and projections on immigrants constitute the originating point of the projects. In fact, the 'urban agriculture' proposals in many projects, the question of how immigrants take place in their life adventures and how they will strengthen their sense of belonging remain ambiguous throughout the competition. It is seen that the idle areas of the city centers are considered as potential agricultural areas in the projects rising up to the award winning or elimination groups. However, for people who migrate from different geographies, the problematization of similar situations leads to the fact that the problem becomes even more unresolved. For instance, during the migration experiences in Anatolia in the first half of the twentieth century, it was frequently witnessed that the people living in the mountain and sea villages had different agricultural practices, when they were placed, they cut the land to use hundreds of years of trees and changed the agricultural lands in accordance with their own practices [11]. As a result of these assumptions on immigrants, they cannot reconcile with the daily life of the immigrants, and it is seen that these migrants have changed or completely abandoned the place they settled.

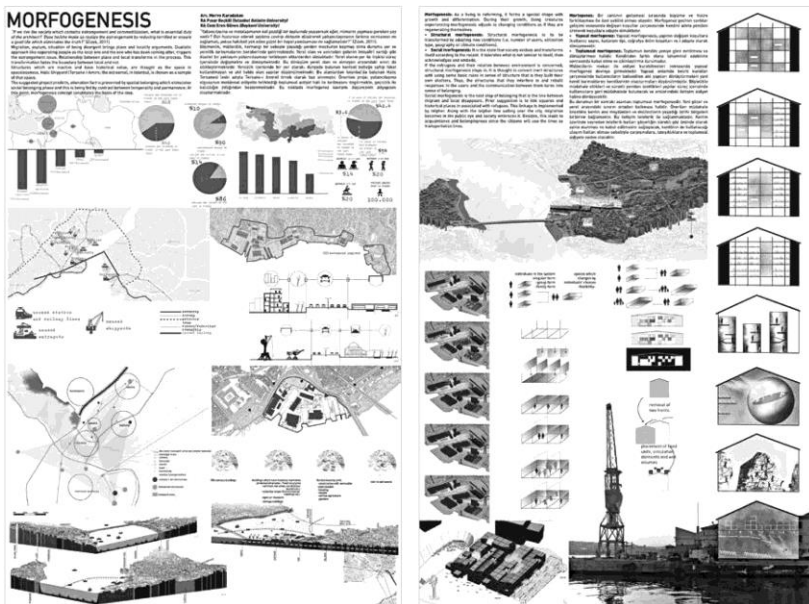


Figure 4. The Award-winning Project no. 612, which Seeks to Transform the Leftover Areas of the Golden Horn Shipyard into a Living Space for Refugees and sees Urban Agriculture as Part of its Adaptation [4].

For years this area of Istanbul's industrial area was used as the how “urban agriculture” will be adapted brings another question mark [4].

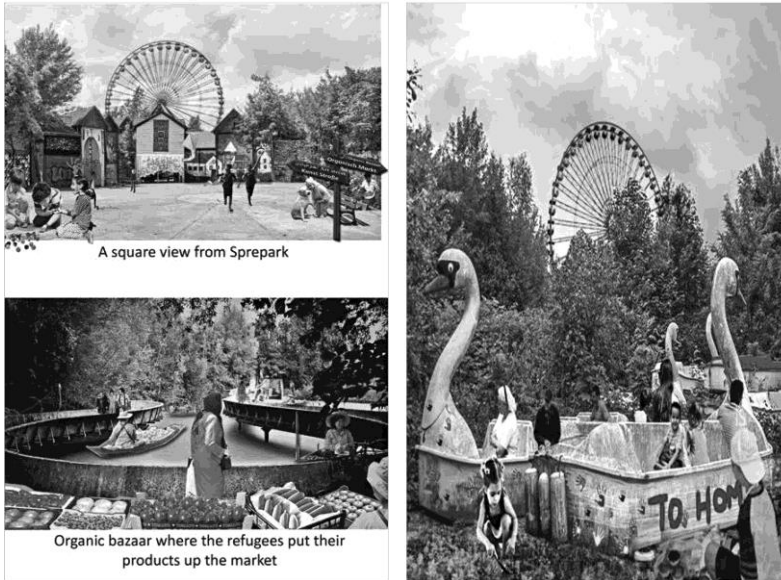


Figure 5. Project no. 675, which is not among the Equivalent Prizes but Exhibited in the Jury Evaluation Report [4].

It proposes to open an unused amusement park area in Berlin to urban agriculture for refugees (Figure 5). The project, which constructs the structures of play instruments as a structural element that will form the skeleton of the refugee shelter units, points to the potential of the park to ensure the integration of the refugees and the citizens. As with other projects, the role of urban agriculture in the life of refugees and the way they provide housing remain unclear [4].

However, migration is not a matter of simple displacement. In addition to its own culture and spatial habits, migrants also carry the trauma left by migration. To solve the immigrant's place through the leftover areas of the city and the spatial practices they are not used to, is to bypass the emergence of other urban trams. The fact that there was no mention of the past life practice of the immigrant in the projects selected in the equivalent awards and jury report reminds us of the process of adapting to a kind of camp life on leftover areas in the city. As a matter of fact, in the camps established for refugees, traces of refugees' own lives are not allowed and it is expected that they will adapt to the prescribed life as soon as possible. It is emphasized that with the Bedir's transfer, even planting trees in refugee camps in the United Nations

Commission is not allowed [12]. In a lexical expression, refugees are asked to “not even have a planted tree”.

Isshaq Al-Barbary calls the refugees ‘citizens’ with whom we share the same city ground. The idea of the “city” of everyone in the client claims that it is not the idea of refugees being placed in leftover spaces, but that it will pave the way for them to establish their own lives on this common ground [12].

CONCLUSION

As a result, the problematization of the spaces of the immigrants, which are of great importance in Turkey in recent years, has been tried to be read through a competition which attracts national attention. This competition paved the way for the broad masses to reach out by creating a discussion environment with wide participation and application of participatory and innovative methods. It was particularly useful to read the point of view of the country's architectural actual on this issue, especially when a very current issue was brought to the actual through a competition in a period that needs to be discussed. However, due to some of the points mentioned above, one aspect of the competition with great potential remains incomplete.

When the projects with equivalent award were eliminated in the third and fourth qualifying rounds but considered worthy of the exhibition in the evaluation report, it is seen that even the projects that fill the conceptual framework establish the spatial practices of the refugees through certain assumptions. For instance, the assumption that urban leftover spaces or urban residual areas from the built environment will be potential refugee habitats is considered to be perceived as a solution for refugee adaptation of agricultural activities, regardless of geography or settlement. It is surprising that these areas are considered as opportunities for refugees to enter the city. In addition, the fact that refugees who have to be relocated for any reason as “nomadic” is treated with a life-long “placelessness” raises the question of evaluation. The fact that the solutions produced for immigrants will continue to live in spaces where the concept of “placelessness” is associated with the discourse of the jury members in the explanatory reports is ambivalent.

The abundance of proposals, which consider urban leftover areas, abandoned areas, unused residues left behind by the built environment, industrial and industrial areas of the old city as potential refugee places, rethink the justification of the above question. Do these areas really carry the potential of the adaptation of the refugee to the city, or does the detachment from the urban life already strengthen the boundary between the host and the refugee? So much so that the solutions to be provided for these places are already being used as the first method for refugees. Considering the content of the contest and the competitor production, the placement of migrants in an existing space brings new temporary solutions for them. On the other hand, the concept of belonginglessness brought about by the temporary solutions cannot form the social unity between the immigrant and the indigenous people

and brings with it many problems in urban, economic, social, security, political and legal terms.

The architectural activity entitled “YTONG 2016 Architectural Idea Competition: A Place for Placelessness”, which is an opportunity to continue these multifaceted and complex debates, is an important opportunity to discuss a lively problematic. Debates with wider and diverse disciplinary wealth and participation are crucial for the capillary of this multi-semantic issue. In this context, it is necessary to draw attention to the fact that it is the product of a multidisciplinary work that brings rational solutions with a well-intentioned competition.

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THE INVISIBLE CORE: ARAD'S VAUBAN FORTRESS

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ABSTRACT

Surrounded by the river Mures, we find the Vauban Fortress of Arad, one of Romania's most well preserved XVIIIth century fortifications. It represents the rare case of a city that neither utilizes its center, nor is it aware of it. It is situated in the Western Romanian Plains, enveloped by luxuriant vegetation, which appeared in decades of abandonment - due to the frequent changes of ownership, and neglect. The fortification represented the main project of a two years' study generated by the Master of Restoration and Patrimony Regeneration of the Faculty of Architecture and Urbanism in Timisoara (FAUTM), between the years 2016-2018.

The collaboration between the FAUTM, the Town Hall of Arad (the future administrators) and the Ministry of National Defense (current owners), generated a research for a methodology of management for the vast patrimonial ensemble (90 hectares, 47 buildings occupying 150.000 sqm.). Considering the large size of the ensemble and its privileged position, the careful handling of these issues required a holistic approach centered around the needs of the city's inhabitants. The existing potential has been explored at a macroscopic level by developing a Master-plan focused on the relation between the city and the fortification.

By careful study, we noticed the potential to use the concentric fortified walls as an "*Amphitheatrum Urbanum*". This solution implied that the interventions on the different wall typologies would allow interpolations in the existing tactical field, of new visual and physical routes, in a concentric direction: starting from the central urban square – through the fortified wall layers – over the Mureş river – towards the enveloping city.

The Arad Fortress represents a rare, almost unique model of valuable heritage, situated in a key position towards the city that surrounds it, a city that at the same time is not yet able to fully use it.

Key Words: Vauban Fortress; Reconversion; Landscaping; Master-plan; Urban Regeneration.

INTRODUCTION

The elaboration of the project consisted in the development and implementation of a number of management strategies of the complex site (Fig. 1), on all the levels of detailing, taking into account the factors that could influence the final solution. Starting from the territorial studies on the relations between the city and the fortification, to the niche evaluations that can intervene on specific buildings, we intended to solve a large number of complex problems between the two entities. Within each semester, students had to construct multi-criteria studies and develop projects to solve the problems they find.



Figure 1. Aerial View of the Fortress in the Present.

In order to better understand how the whole project was carried out, a few pieces of information are worth mentioning. The Masters studies was composed of 26 students. Of these, only 30-40% of them were architects, most of whom were fresh graduates of the FAUTM. The majority of students had very diverse professions: from structural engineers, chemists, interior designers and even an Orthodox priest. Student's age ranged from 25 to 60 years in equal proportions. Considering this "eclectic" collective and the relatively low number of architects, there have been a number of advantages and disadvantages that had to be managed from the start so that no problems arise. Although each of the students excelled more or less in their own field of expertise, it quickly became clear that there were quite a lot of differences in mentality, language and general "restoration knowledge". The Masterclass was dedicated to enlarging the concept of restauration towards the creative reuse and the integration of the historic areas in to the contemporary life. Our main teacher, prof. arh. Ioan Andreescu Ph.D., proposed us concepts [1] as

reprogramming, re-activation, cohabitation, re-use, which himself was using in complex rehabilitation projects.

Thus, one of the first internal challenges was to build a comprehensive dialogue platform between all participants in the project. Completing our general knowledge (technical terms, operating concepts) and specific knowledge (which influenced in one way or another the flow of the project) in the fields of architecture, urbanism and restoration was the first step towards establishing a more fluent dialog and a common understanding. During our studies, these concepts and others have been applied in the urban regeneration project of the Arad Fortress from both an urban and architectural perspective. The following pages contain a short presentation of the work of my colleagues and myself during the two year-long studies.

Arad: The Fortress and Their Common History

The foundation of Arad takes place around the year 1197. In 1329 it became civitas, and in 1388 oppidum, the county capital. In 1331 we have the first mention of Arad in the "Painted Chronicle of Vienna". In 1552 the city entered Ottoman occupation until 1685. During this period the Turks built the old city of Arad. From the 1660 Evlia Celebi description we find that the fortress is situated near the Mureş River, on the current territory of Drăgășani district, between the two arms of Mureş. It was built of walls filled with earth and had two wooden gates. At present, this is no longer the case, the gates consisting of brickwork.

In 1685 the Turks were expelled by the Austrian army. After their retreat, in 1702, Arad was transformed by Austro-Hungarians in a "Cameral City", giving it a series of economic rights, which together with the colonization of Serbs and Germans gave an impulse to the city life, whose evolution was felt in its urban development. In 1740 Arad became the main center of the state domain, after having acquired the status of "Privileged Cameral City", and in 1834 a "Free Royal City".

Between 1763-1783 one of the most modern fortifications of that time was built – the Arad Fortress and inside it the Franciscan Church (1775-1781) [2]. After the completion of the construction, various military units were placed in the fortress, and Arad became a center of representation for the Austrian military and political power in the area. From 1867 to 1918 Arad was part of the Austro-Hungarian Empire. The continuous development of the city ensured in the 19th century the status of a leading industrial and economic center with 25 factories and 7 credit and savings institutions.

Arad is a multi-ethnic and multi-religious city, so there is the Orthodox church with the two branches - Serbian and Romanian, Greek Catholic Church, Reformed Church, Evangelical Church. The 18th-19th century had a great influence on the city. During this period, the city had a strong cultural and economic evolution. The economic and cultural prosperity attracted a lot of investors, fact reflected by the personalities of the time who visited and who

were born, lived and constructed wonderful edifices. This can also be noticed through the buildings erected during that period.



Figure 2. Aerial View of the Fortress in the Early XXth Century.

Arad had its own craftsmen and architects, as well as foreign designers, who built in the spirit of 1900 style. In Arad, at the end of the XIXth century, the middle class, a growing economic force, focused on the latest trends in Central Europe on urban architectural concepts and initiatives. Architects trained in the Secession style in the centers of the Austro-Hungarian Empire built for the families of the local Arad entrepreneurs numerous and ambitious real estate developments that undoubtedly mark the urban context in the center of these cities. It is city which under the Austrian influence after the Ottoman retreat, flourished as the main center of the state domain, at least in the Banat region, acquiring a series of privileges that helped it in its urban development, in the second half of the XVIIIth century. The location of the Fortress was chosen due to its strategic advantage, and the fact that it should function more as a control mechanism over the city, considering that it was being built by an occupational force, which needed to reinforce its symbolic, and military power.

In recent history, the local City Hall is trying to obtain the right to administer the Arad Fortress from the Romanian Ministry of Defense [Fig.3], in order to produce a vast urban regeneration project, and in the future to build new constructions as the city develops.



Figure 3. The Interior Franciscan Church and the Forces of the Ministry of Defense.

A Complex Analysis

During the first phases of study, we conducted a complex analysis on the way the city developed around the fortress, and also the way the fortress influenced the civilian life. S.W.O.T. analysis; urban and architectural studies formed the base of our understanding regarding the dialectical relation between the Fortress and the city [3]. It was interesting to note that although the fortification is a major construction in the geometric center of the town, it is almost invisible due to the wild vegetation that developed in the last 50 years, which engulfed the fortress and the surrounding areas all the way towards the river.

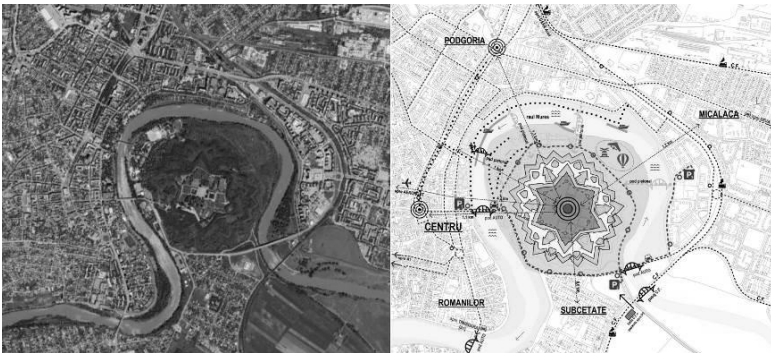


Figure 4. The Fortress in Relation to the City and the Nearby Neighborhoods.

The fortress of Arad, is situated on the left bank of the river Mureş, on a peninsula delimited on three sides by a "loop" of the river. The fortification was built, according to the projects developed by the military architect Ferdinand Philipp Harsch, with the tiptenaille system (scissors), a variant of the type of Vauban fortification. The walls of the city therefore delimit a six-corner star-shaped, hexagon whose sides are broken in the middle, inward. The length of each side measures approx. 500 m, the hexagon walls perimeter being 3180 m. The six spikes of the stellar plane had higher walls, serving as "cavalier" (high artillery platforms). In front of the connecting walls between the cavalry there were built - in front of their broken part - advanced fortification works, six in total, which served the flanking of the enclosure walls and the keeping of the enemy at bay. These buildings were equipped with artillery pieces placed both in the vaults (ramps) and on the upper platform. The above-mentioned fortification works were flanked by two smaller pieces (lunette), each of them accommodating 3 cannons each. A system of earth waves and trenches then enclosed the fortifications described, forming a new advanced defense line. The enemy's access near the walls of the enclosure was more difficult for the ditches could be flooded with water between the inner ring. The defensive system of the fortress was completed by a glacis, the free field in front of the fortification works, which, thanks to its slope, defended the walls, covering them by the enemy's shooting.

The fortress of Arad was considered during its construction a very modern fortification, as proof that even after 50 years it resisted the siege of the army of the Hungarian revolutionaries for more than nine months. The power of the fortress consists primarily in the possibility of efficient use of approx. 300 pieces of artillery. The central square within the fortress was delimited by three bodies of massive buildings - the military headquarters, the guard of the fortress, and the church of the fortress. The place of worship, built in Baroque style, marked by the two towers on its main façade, is one of the most important buildings that was still preserved and is the subject of one of the dissertations (Fig. 5). The fortification is one of the best-preserved monuments of its kind in Europe, which would fully justify its rehabilitation and presentation to the general public.



Figure 5. The Franciscan Church, the Twin Buildings and the Main Square.

The multi-criteria analysis has led to some interesting conclusions. First of all, the volumetric organization of the fortifications in relation to the river and the city generated concentric spatial zones that have a rather unitary character.

Thus, from the center of the fortress (the Axis Mundi generated by the main square and the three buildings) towards the city we can recognize four areas:

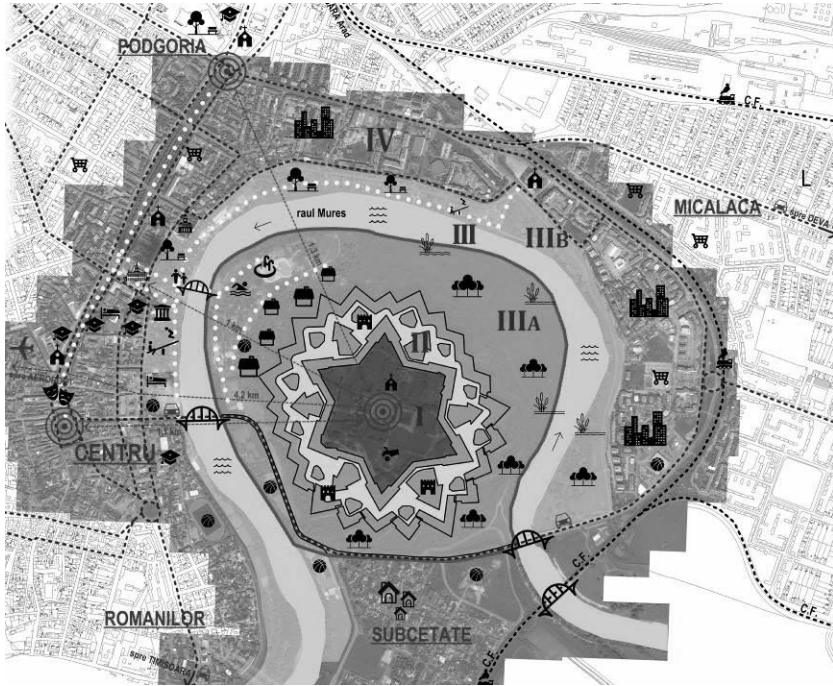


Figure 6. Zone Typologies and Neighborhoods.

Zone I – The Fortress Interior, a large unbuilt area of high interest in which the three architectural objects with the highest patrimonial value are found (the Monastery and the two administrative buildings) is divided by a Cartesian grid. The grid had the original role of marking blocks of buildings (which should have been erected over time) that would have rationally structured the intra-muros.

Zone II - represents the interstitial area formed by bastions, ravelines and fortification ranges with some sunken spaces. These fortifications represent the highest places in the peninsula formed by the river, having the role of a double the barrier (visual and physical) and that of a continuous point of view (a visual communication system with the city).

Zone III - The banks of the Mureș River and the river itself represent the second physical barrier, but not a visual one. The very high landscaping potential represents an enormous opportunity to increase the urban quality of the city. It works like a transparent and permeable physical shell and can be harnessed by landscaping.

Zone IV - The city of Arad is inhabited by 160,000 dwellers. The buildings that inhabit it form the silhouette for those who look from within the Fortress to the outside. There are a number of buildings that currently permit a higher visibility from the city. If a strategic “trimming” of the wild vegetation is to be carried out, the fortress would become an iconic image.

Spatial, physical or visual relations have been explored and represented by understanding the ‘tactical field’ that contains them and represented in Fig 7. The conceptual architectural, functional and strategic interventions proposed by us were based on our understanding of the image of the tactical field and the needs of the city.

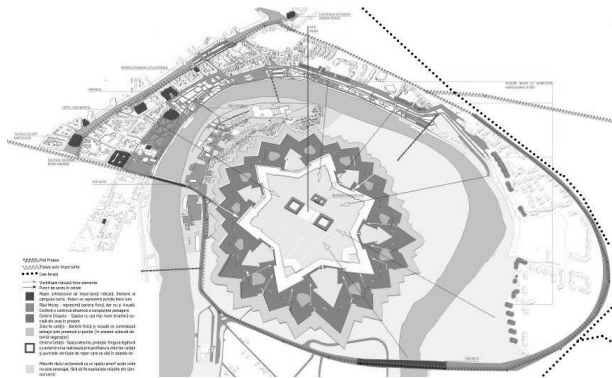


Figure 7. Tactical Field of the Fortress and the City.

After we concluded that there were a lot of factors (most notably economic and political ones) that could influence the outcome of the project, we started taking into consideration that as time passed and opportunities aroused, or became irrelevant, we realized that we had to come up with a number of different intervention scenarios. We split up in three teams that each created a scenario (an optimistic, a realistic and a pessimistic one) that could be applied according to certain external factors. The teams had to come up with urban regeneration strategies that could integrate the fortress in the urban life of the city.

Each scenario took into account some of the key factors of urban development. These were: the duration of the project and the public and private actors implicated, the funds needed for the integration of new strategies, the time it can take to reach each phase of the project and difficulty of its implementation.

The optimistic scenario implied that in 20 years, almost all of the interior of the fortress would be populated with buildings, and the surrounding areas (zone II and III) will have a landscaping development. In the pessimistic scenario, the fortress will be furnished as an open-space, visitable ruin, with open-air

activities while the main 3 buildings would become ground-zero attraction sites such as museums, cafeterias and retail.

The “realistic” scenario, was a multi-phased intervention that combined a number of diverse functions, from administrative, cultural, commercial and a few residential ones over the course of 20 years (Fig. 8). Considering the relative low demographic of the city, a multi-functional approach is best-suited, every-day urban life influencing in a positive way the whole development. This implied that the order of the buildings that would be constructed depended on their capacity to attract tourists and income. Open-air festival could be performed in the main square and there could be organized sport activities and temporary exhibitions that could generate over time the financial and image capital needed to jumpstart such a complex intervention (Fig. 9).

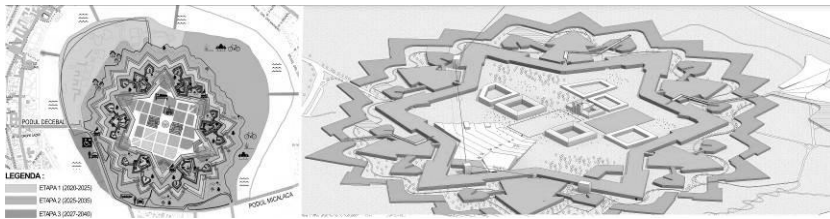


Figure 8. Realistic Scenario and the Three Intervention Phases.

Figure 9. The Fortress of Arad Populated with Mixt-Use Functions (intermediary phase).

Narrowing Down the Strategy

By reshaping the fortress, we aimed to create a new iconic image benefiting the city that can develop interdependently from the current urban tissue. After studying the functional areas of influence, we noticed that the city is in a social-cultural relation with the old-city Centre. The nature of the relation, at the moment, is only “visual”, the two elements being connected through the pedestrian bridges with the residential districts of the north, east and south.

The fundamental concept of the project the use of an “*Amphitheatrum Urbanum*”. Beginning with the insertion of some public functions inside the fortress (the three main buildings – Franciscan Church and the two administrative buildings) we are hoping to create a catalyst, an anchor point that facilitates the course subsequent developments. The “*Amphitheatrum Urbanum*” concept implies a social, cultural and visual phenomenon in which certain urban relations are established through areas of varying heights communicating with each other visually and physically. In this way, for example, a flat area like intra-murrous space in the fortress turns into the “scene” of a piece of “cosmic theater” in which human life unfolds. If the scene

is represented by the inside of the walls, the walls are the "grads" on which the daily show can be observed. Entertainment is a form of activity that maintains the interest and attention of a public producing pleasure, delight and urban activity. The activities that will take place inside this area will be quite varied, ranging from large-scale concerts in the main square to small and intimate cafeterias placed throughout the exterior row of walls.

From a landscaping standpoint, the area is mostly flat. A horizontal site offers minimal compositional restrictions, but also minimal opportunities. Therefore, it is best suited to cellular, crystalline or geometric shapes and compositions. The character of the tactical field depends on the visual and motor relation between object and object, space flowing fluid from one place to another. All the architectural elements and landmarks placed on this surface are of great visual importance, as well as their mutual relations. Each vertical object must be considered not only in relation to its own form, but also as a background for other visual elements.

Made of brick, with short walls, surrounded by trenches, these fortifications are characterized by the use of the bastions in the form of a ridge by creating a whole surveillance device that avoids dead spots. This creates a landscaping opportunity that can be used to highlight different thematic areas, and assures that most of the places can benefit from public exposure. Some of the most important architecture and landscape intervention are as follows:

A contemporary Amphitheater will be erected right across the Main Square, entering in a symbiotic, visual and physical relation with the Franciscan Church. It contains cultural and commercial functions and leisure areas.

A Polyvalent Hall will be built behind the amphitheater, physical linked to it. The building will become one of the main attraction point of the fortress's interior. This will solve one of the city's problems, a large conference hall with more capacity to host a series of important events. The conference hall will work throughout the year, thus keeping the atmosphere of entertainment alive, even during winter.

Thematic Park: The theme park will be a large landscape zone that will include bike trails, marathon, tyrolean traverses, landscaping art, while remaining a natural park. Its theme implies reconstitution of different historic scenes from the XVIIIth and early XIXth century. The outer and inner circulation promenades are critical elements of the composition that will control the visual and pedestrian experience of the site. One of the themes of the park will consist of temporary and permanent reconstitution of past events from the life of the fortress. This re-enactment will offer the visitors opportunities to better understand the value of their local heritage. Part of the Thematic Park extends towards and over the fortress. The years of neglect transformed the once trimmed surface, in a dense weed-like areas, most trees even growing bigger than the 10m walls. Considering a conservative approach in the wild landscape, we can draw new passages for visual and physical

communication, clearing down paths for pedestrian traffic and nurturing green areas that are more valuable.

Swimming pools/Aqua Park: The beach area is very well integrated into the local memory together with seasonal housing, which is why we proposed to extend it towards the fortress, while the cottages will turn into a sustainable eco-village with a unitary architecture. Their positioning is directly related to pedestrian access and the road bridge for a wider connection.

We will preserve the existing north-west pool areas, which is a major point of attraction for the city's inhabitants. Near this area there will be allotted a zone destined for the Aqua Park, that could be covered and therefore used throughout the year. Also, there will be a large parking lot reserved exclusively for this zone. Thermal water is present and can be used as a valuable resource. Through this recreational complex there will be attracted both city residents and other visitors from nearby towns. Therefore, the area will become an atypical leisure destination.

The River Mureș and its banks will be set up in terraces towards the downtown area. The trees will be kept on the water's edge; all the while being groomed to form corridors of visibility to the important visual landmarks of the city. On the contour of the edge there will be created promenades with lots of greenery and flowers. Areas will be set up, platforms that can go down to the water, so Mureș will keep its irreplaceable charm. The river is the most important element of the landscape. It visually links the city with the fortress, but at the same time physically separates the two areas. We proposed a more "permeable" physical barrier, one which can be traversed by small ferries or passage boats. Kayak competitions will be conducted, Arad having a longstanding tradition in this respect. Thus, on the banks of the river there will be arranged sufficient points of stationing.

There will also be a number of smaller functions implemented in the grid-like interior of the fortress. Ranging from outdoor small urban space, to small landscaped public squares, from medium-rise office buildings to cultural ones, and also commercial areas, the entire fortress will become a city, within the city itself (Fig. 9).

In the 3rd semester, the design team divided into 3 groups that proposed „conceptual” interventions on a smaller scale on 3 areas of particular interest. Although there were several areas with higher potential for intervention have been identified, the ones chosen have been considered appropriate to achieve certain research objectives within the Restoration Master. Solution studies have been devised such as: Landscape Design of one of the Bastions as an Outdoor Garden and leisure area (Fig.10); building a Multifunctional Amphitheater in a tangential area with the inner ring of the fortifications (Fig.10) and the conversion of the Franciscan Church into a tourist attraction point, while implementing cultural functions. These interventions have taken into account the concepts and strategies outlined above, using the principles

of landscape, contemporary design and restoration, highlighting the specific patrimonial quality of the Fortress and buildings.

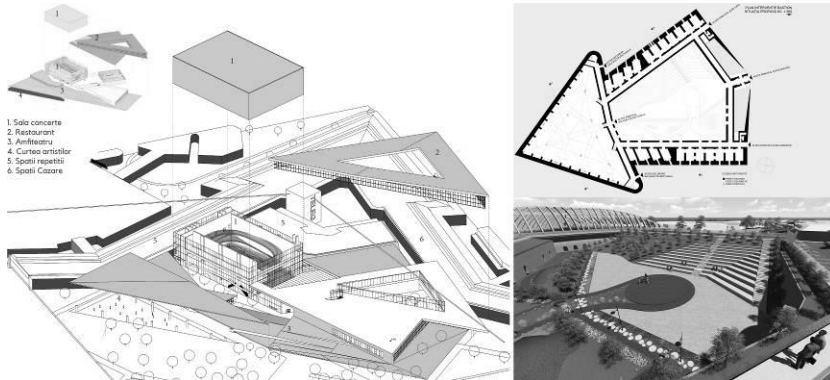


Figure 10. Amphitheatre Proposal and Bastion Garden Proposal.

Dissertations

The final stage of the project was completed with the last semester and the individual dissertations. Once the urban regeneration strategies have been completed at the macroscopic level the last level of detail has shifted our attention to more concrete intervention projects. Thus, each master student had to choose from the three major intervention areas, a topic to develop on his own, under the guidance of a teacher. He could, however, collaborate with his colleagues and other specialists on different areas of study. The choice of subjects remained at the discretion of each person, the teacher having the role of providing relevant information or insight on how to organize the dissertation, provide a specific bibliography and give feedback at certain key stages.

The resulting dissertation themes were well varied and influenced by several factors. For example, the experience or profession of a student in a given field of expertise was one of the defining criteria in choosing the theme. Even so, there were both a "niche projects" with a more specific technical character than others, and more general projects that included knowledge from several areas. Although the subjects were varied, each student had to take into account the conclusions of previous studies and to integrate the dissertations in the previously developed general strategy.

Dissertations consisted of two parts. The first part represents an In-depth Fundamental Study which set the base theoretical and historical outlines from which the student could gather valuable information. This analysis was used to generate intervention projects that could fit into the general Master-plan.

CONCLUSION - THE INVISIBLE CORE

The urban regeneration project of the Arad Fortress is a complex process of integration which uses contemporary views of restoration and interventions in spaces of special heritage value. Extensive studies have been grounded in complex, multi-criterial analyzes, attempting to consider as many factors as possible to understand the fortress-city relation. The design phase of the Restoration Master has played a defining role in the whole development process. If the first stage was rather focused on establishing a communication platform on the same level among students, therefore an internal organization program, the second stage consisted in the development of a set of analyzes and the development of a Master Plan for the integration of the Fortress in the life surrounding city. Once the interdependent situations between the city and the fortress were fully understood, three scenarios of intervention were developed that could be applied by public authorities, depending on the economic resources that could be accessed. Although each of the three scenarios remains valid, the "realistic" chosen scenario has led to three smaller intervention areas. In these, strategies previously developed were applied more specifically. The major "*Amphitheatrum Urbanum*" in which the Fortress of Arad has been turned has highlighted the special landscape opportunities offered by the concentric rings of fortifications, establishing valuable visual relations between the Intra-muros, the fortification rings and the Extra-Muros (surrounding city). The three areas of intervention (the "new" amphitheater, the conversion of a bastion and the Franciscan Monastery) are examples of good practice for the different ways of intervention in a patrimonial context of great value.

Although at first the project began as a collaboration between the FAUTM and the local authorities (Arad City Hall), during the two years, it turned out that the local forces had an inconsistent attitude. They initially supported the project, but, at one point they wanted to formalize the collaboration through a contract. In the contract, FAUTM together with the students would become committed to facilitating a project that would have more to do with local political intentions rather than our own academic goals. When we came to the conclusion that the project and studies could not be used to promote political interests, the City Hall's interest declined considerably, and the collaboration came to an end. At present, the Arad Fortress remained the property of the Ministry of Defense. The transfer of the tremendous patrimony that should have taken place between the local authorities was conditional on the development of legal management plans between the two state institutions, something that had not yet taken place. In the absence of a form of collaboration between the City Hall and the Minister of Defense, interventions in the Fortress, fundraising projects and regeneration strategies designed by the Restoration Master have remained suspended until new changes arrive in the local political scheme.

We ended this two-year period in urban regeneration, restoration and landscaping with a rhetorical question, whose answer is connected to forces



beyond our control. To what extent can such a complex and extensive urban regeneration project be managed and implemented in one of the most important heritage sites in Western Romania, if the collaboration between key public actors is not possible?

ACKNOWLEDGEMENTS

I would like recall all the work that my colleagues put into our common project and their individual searches. From the teaching staff prof. dr. arch. Ioan Andreescu, prof. dr. ing. Marius Moșoarca, prof. dr. arch. Ileana Kisiliewics and from the Master's students team Ramona Izvernari, Ghiura Georgiana and all our other colleagues which unfortunately are too many to enumerate.

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THE REBORN STRUCTURE: TIMISOARA OLD SLAUGHTERHOUSE DEVELOPMENT

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ABSTRACT

Central European cities, such as Timișoara in West Romania, are presenting a remarkable urban coherence, the result of centuries of urban planning. The decisive phase of their evolution was reached at the beginning of the XXth century when urban radical remodeling was imagined in order to connect, via metropolitan Otto Wagner schemes, the city cores with the satellites, during an era of socio-economic and multicultural progress.

Today the areas between the core and satellites have lost their coherence; they became subjected to redevelopment.

Our office, Andreescu&Gaivoronschi, being involved in such projects, started to develop a design methodology based on contemporary concepts such as “reprogramming”, “reinforcing”, “reactivation” and “urban recycling” in order to create new relations between new and existing elements. The integration of historic and geometric data is important for developing landscaping systems of vistas, corridors and panoramas. We first applied the methodology for the design of a waterfront development, the ISHO, east of the city core. Critically positioned at the crossing of main axes, the ISHO became, thanks to a pattern of vistas and fluxes and to the reshaping its inner landscape, a hub into a regenerated urban network.

The most important project up to date is the “Zenit View” situated in the former Old Slaughterhouse area. The monumental Slaughterhouse was the coordinating center of a new district (1904-1906), now partially disorganized.

Reactivating the site’s geometric organization and replacing the inner core of the landmark at the center of a complex system of vistas and connections, we proposed a strategy for recovering the district’s coherence by reviving the center. The resulting design proposal reached two main targets: it achieved urban coherence and identity offering in the same time an ample provision of quality private and public spaces, adapted to the various lifestyles of the future inhabitants.

Key Words: Planning Strategy; Reinforcement; Urban Recycling; Landscaping; Connectivity.

INTRODUCTION

Old cities of Central Europe are presenting a remarkable coherence, the result of centuries of development and attention dedicated to the image of the urban landscape. The decisive touch of their evolution was reached during the late XIXth and early XXth century, a period considered by Paul Philippot worthy of a jealous effort to conserve its image" [1].

The city of Timișoara, situated in west Romania, is a typical Central European town, whose urban evolution was defined by the development of the complex relationship between the urban core (The Citadel) and its satellites (Fig.1). At the end of the XIXth century and during the first decade of the XXth century, an ambitious strategy imagined by Professor Ybl Janos (1894), was aimed at connecting the core and satellites together into a *grand ensemble* of squares and boulevards (Fig.2). The plan was never fully implemented, but presented a continuous challenge for planners and architects.

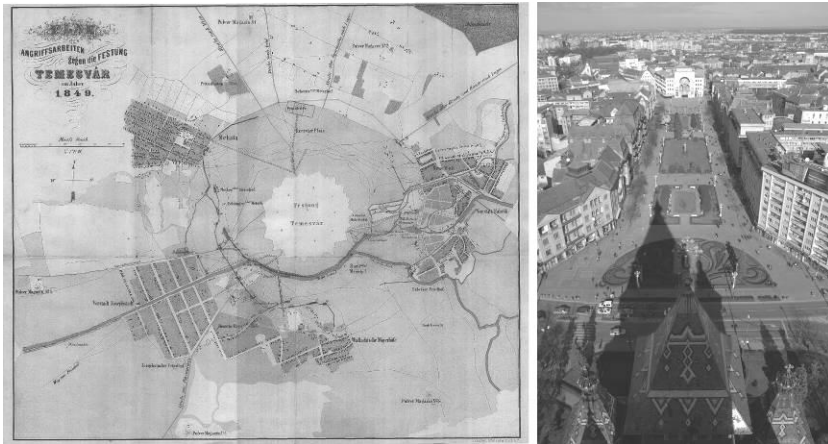


Figure 1. Timișoara City Core and Satellites 1849.

Figure 2. Victoria Esplanade 1901-1913.

Some of the areas situated between the core and satellites lost their original functions and were subjected to strategies of re-development. Our architectural office – Andreescu&Gaivoronschi – was engaged into the development of such zones – and our goal was to establish a working methodology able to balance the needs of a new population with the preservation and/or enhancement of the urban and cultural qualities of these areas.

Timișoara – a Short Urban History

Timișoara was the center of a stand-alone province of the Habsburg Empire, named Banat; it is now divided between three countries: Romania, Serbia and Hungary. The province was benefiting, from the XVIIIth century onwards, from distinct experimental development policies, encompassing both socio-economic measures and physical planning. In order to fuel the economic growth, the imperial authorities organized a massive “demographic project” [2]. Transferring tens of thousands of Germans, French, Spanish, Italian, Bohemian and Hungarian settlers. As a result, the entire province thrived and Timișoara became an economic and financial powerhouse and a multicultural city. The well-planned urban space was an attractor together with the booming economy. The physical re-shaping of the territory followed the Enlightenment policies: the province was covered with new settlements, rationally organized, and the city core itself was remodeled as an “ideal city”, for the ruling elites, encircled by a massive Vauban fortification (Fig.3). The surrounding marshland was drained, facilitating the construction of satellite towns, one mile away from the fortification (Fig.4). Commercial and manufacturing activities were concentrated in these areas.

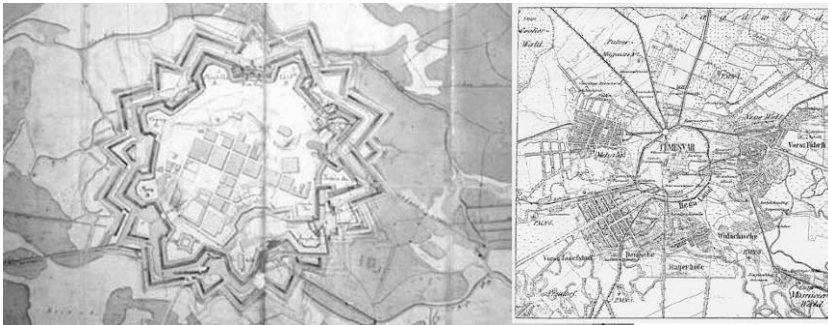


Figure 3. Timișoara Vauban Fortification 1740.

Figure 4. Timișoara City Core and Satellites 1857.

During the late XIXth century, the fortification was demolished and a “modern city” planning strategy, elaborated by the architects Ybl Lajos and Kovacs Sebesten Aladar in 1899 [3] proposed a metropolitan connection à la Otto Wagner, between core and satellites. New boulevards, continuous fronts, ample vistas and monumental buildings were proposed (Fig.5).

The interstitial areas were developed following successive approaches – from metropolitan Wagner schemes to “Garden City” residential districts, followed by collective housing estates between the 1950’s and 1980’s. Carefully designed industrial equipment were also present until 1970’s.

Today these areas are central, their texture is no more coherent and industrial activities vanished – new functions emerged.

The regularity of their urban trama, the presence of green areas and water surfaces are designating these areas as targets for new developments, but designing new districts in these areas calls for new and different approaches than the current practice.

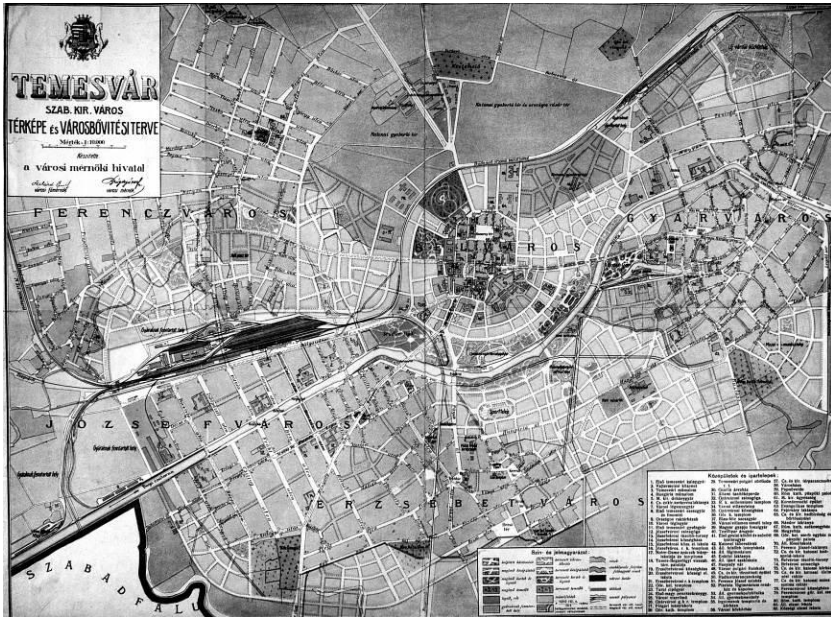


Figure 5. Timișoara Systematization Plan Final Version 1913.

New Approaches and Design Methodologies. The ISHO Development

The involvement in designing large developments in these interstitial areas, oriented the priorities of our team, Andreescu&Gaivoronschi, towards exploring the possibilities offered by new approaches, such as “re-programing”, “re-information”, “urban recycling” – all dedicated to the need “to create new responses for urban complexities which are now desolate” [4].

Fundamentally, these methodologies are about reprogramming existing urban situations by creating new relationship between already existing urban and architectural elements; re-information is about “forming something new” using information as the main method [5]. Of course, these proceedings are based on the information offered by the study of the successive planning strategies implemented on the site.

These methods are complemented by the use of a landscaping inspired system of vistas, linear views, corridors, panoramas and profiles – in order to create a network of visual and functional connections between the developed

area's landmark and the surrounding tissue, enhancing both the existing patterns and the new interventions and creating nodes into an urban network.

This technique was used for the first time, in planning proceedings, by the Greater London Authority in 2004, becoming part of the 2011 London Plan [6] (fig.6). The main steps of our working process consist in analyzing the urban form of the designated area, of its historic evolution – covering both the actual morphology and the successive planning strategies, proposing a complex re-shaping of the existing elements in order to create spatial, visual and functional connections with near and distant areas, establishing appropriate new building typologies and using existing architectural landmarks as focal points of the new development.

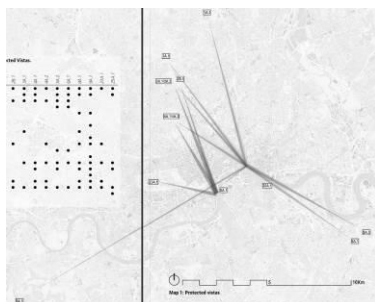


Figure 6. London Plan 2011.

We first applied this methodology for the design of a massive waterfront development, the ISHO, a former industrial site situated along the connecting axis between the city core and its main eastern satellite – Fabric. The development contains 50 000 sqm class A offices, 1200 apartments, a five-star hotel and retail services, etc.

Situated at the crossing between two historic axes: east-west parallel to the river Bega, and north-south, the development was conceived as a node into a network of multiple connections (Fig.7):

- Between north and south, to be sustained by a future bridge and footbridge, linking the area to the leafy and tranquil south bank
- Between north-west and south east, a fascia of visual and pedestrian axes – pointed towards the impressive Millennium Church, the main landmark of the Fabric satellite
- Massive exposure to both the main east-west avenue (marking the northern edge of the area) and the southern river front.

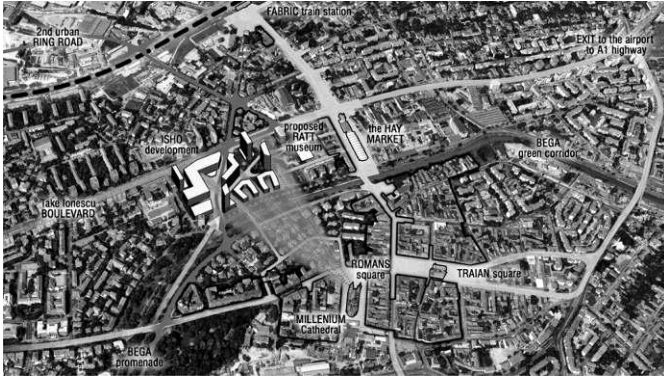


Figure 7. ISHO: A Node into A Network of Multiple Connections.

Managing the complex pattern of vistas, connections and fluxes influenced the urban planning, the design of the inner landscape and the choice of building typologies and apartment configuration. The site was divided into three east-west parallel lanes: along the riverfront, along the main boulevard and in-between. The river lane contains mid-rise U-shaped residential buildings, visually connected to the water and a high-rise tower (21 stories) acting as a signal towards the city core. The northern lane, aligned along the avenue contains massive structures – hotel, offices, high rise apartment buildings, the middle lane contains landscaped surfaces and parks.

The lanes are crossed by transversal axes, either visual or effective pedestrian crossings, linking the riverbanks (Fig.8). The ISHO development acts as a connecting hub between otherwise disconnected entities: The City core, the eastern satellite, the main east-west avenue and the south bank visually integrating the huge Millennium Church, the most important landmark in Fabric.

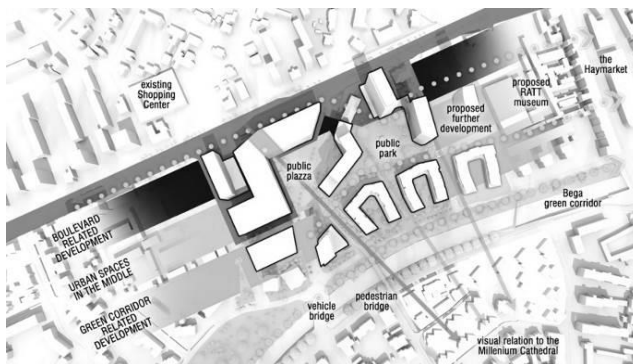


Figure 8. ISHO: Transversal Visual Axes and Pedestrian Crossings.

The coherent application of the methodology, generated high quality public spaces and a remarkable level of urban integration, making the difference between ISHO and similar developments; it attracted considerable public attention and buying options from an important number of would-be inhabitants (especially younger people) (Fig.9).



Figure 9. ISHO: Night View.

From the Old Slaughterhouse District to the “Zenit Views” Mixed Use Area

The Old Slaughterhouse area (48 500 sqm) occupies the central spot of an important in-between area, situated south-east from the City Core, bordered by important traffic arteries and cut in half by an east-west boulevard. The geometric shape of the area was established by the “Systematization Plan” of 1901-1903 (Fig.10), an avatar of the von Ybl plan of 1894 [7].

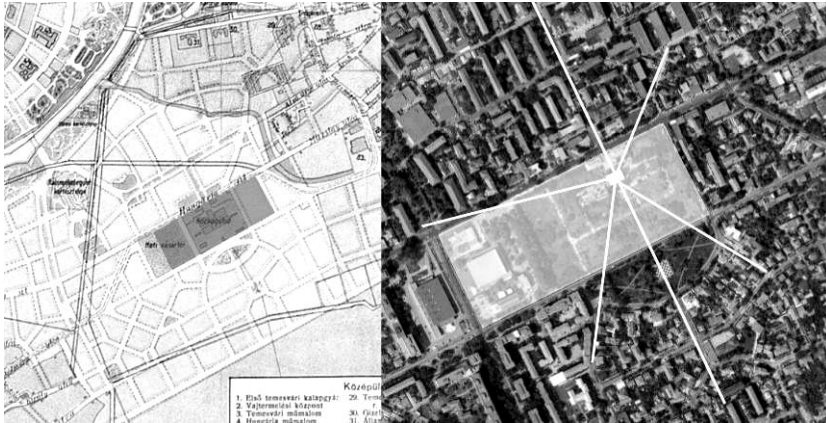


Figure 10. Systematization Plan of 1901-1903 Detail – Slaughterhouse Area.

Figure 11. Present-day Situation (2018).

The plot, situated centrally, immediately south of the east-west boulevard, was destined from the beginning for the Municipal Slaughterhouse, imagined as an important civic landmark. The would-be symmetrical complex was preceded by an entrance agora dignified with works of art and organized around a monumental water-tower. Further south the production halls were symmetrically organized along a north-south axis dominated by the Tower.

The Slaughterhouse is marking the urban shift between the high-density northern part of the district (now occupied by the West University Campus) and the “garden city” low density residential area to the south, separated from the compound by a semicircular green space – the Karlsruhe Park.

The water tower was devised as a landmark and visual organizer of the composition. It acted both as a focus for a northbound urban axis, cutting through the high-density area, and as a center for the radial organization of the low-density residential area around the park. In the same time the tower was supposed to act as an important highlight along the east-west boulevard (Fig.11).

The elegance and complexity of this urban and visual geometric pattern, today almost invisible became de the inspiration point for our project and for it's logo: “The Zenit Views” (Fig.12).

ZENIT VIEWS

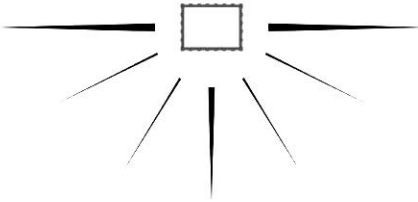


Figure 12. Zenit Views Logo.

Figure 13. Slaughterhouse Tower Present-Day Condition (2018).

The Slaughterhouse was designed, as established, by an important local architect, Laszlo Szekely, in 1904, and was inaugurated in 1906 [8]. Today, only the entrance agora, the office buildings, the artworks and the Tower with its annexes survived (Fig.13).

A mixed used development was proposed containing public services, recreational areas, retail, 900 apartments and an alternative complementary function – either hotel or office building.

During the early stages of the project we have established the main objectives: obtaining high density without compromising the quality of the urban space, proposing suitable building typologies, accommodating a large array of apartment types (adapted to the needs of a variety of future inhabitants), providing high quality public spaces and most important, developing a powerful sense of identity for the ensemble.

In order to re-inform and re-cycle the designated area, the main step we undertook was to thoroughly analyze, revive, reconfigure and develop to the fullest potential the system of organizing lines of the 1901-1903 “Systematization Plan”. Thus, we obtained a powerful tool for organizing the spatial configuration of the development, being able to rhythmically dispose the new buildings in order to benefit from the connecting potential of the latent geometry (Fig. 14).



Figure 14. Zenit Views: The System of Organizing Lines.

Figure 15. Zenit Views: The Three East-West Stripes.

The gesture was sustained by the proposed detailing of the buildings and urban design elements; we chose a contemporary declination of the typical in-site materials: brickwork, stone, plaster and metal.

The duality of the site's exposure: to the north towards a busy avenue and a high-density area, to the south towards the park and a tranquil, low density zone, and the configuration of the existing remains of the landmark, inspired us a three tiers approach, dividing the development into three parallel east-west stripes (Fig.15):

- The northern strip (I), along the boulevard, contains the former entrance forecourt. This area will be completed with two multiuse buildings (5 stories high); each building will contain retail, restaurants and services at the ground floor and apartments above. Thus, an Agora – shaped public space is created, able to support concerts and other public events; the Agora (Fig.16) is axially opened to the main axis of the northern Student Campus. The Romanesque brick-clad Tower will be restored to its former appearance and completed, to the south, with a glass cube harboring a panoramic café, marking the coordination point for the radial axes system regulating the distribution of the residential buildings located in the following stripes or layers. Each layer is composed of three distinct building typologies, organized in order to open vistas both towards the Tower or to the south green area. The height of the building rows is diminishing towards the center in order to enhance the presence of the Tower (Fig. 18).



Figure 16. Zenit Views: View of the Agora.

Figure 17. Zenit Views: Axial View towards the Panoramic Café.

- The mid strip (II) is composed of rather high-rise apartment buildings (10-14 stories). The upper floors have a diminishing size, forming a sculptured setback in order to favor the perception of the Tower tip from various viewing points.
- The south strip (III) contains buildings with a lower height (9-10 stories) rhythmically arranged at an alternate pace in order to open the composition towards the park, creating a visual continuity



Figure 18. Zenit Views: The Diminishing Height of Buildings around the Tower.

The residential buildings are forming a coherent and visually attractive ensemble, regulated by the revived geometric configuration. The patterned distribution of the buildings is creating a variety of public spaces open to the social interaction or recreational needs of the future inhabitants (Fig.19).

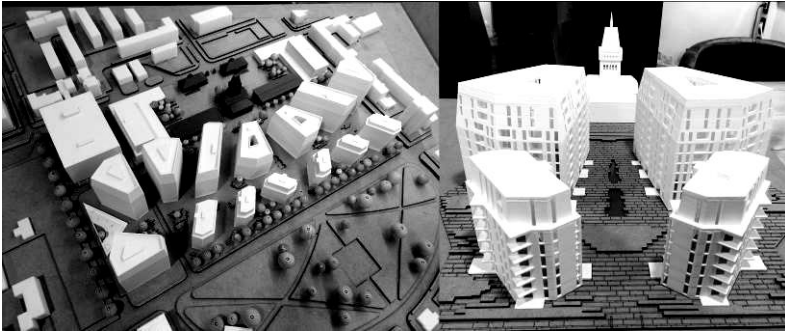


Figure 19. Zenit Views: The Patterned Distribution of Buildings.

Figure 20. Zenit Views: The Water Mirror and Amphitheater.

A spear-like water mirror, combined with a small amphitheater, is pointing from the south leafy area towards the glass cube added to the Tower, marking the southern connection to the park (Fig.20). The north-west corner of the site will contain an important structure – either an office building or a five-star

hotel; nearby a low-rise kindergarten will be placed at the south-west corner of the site, near a historic sycamore row. Most of the underground level is occupied by a parking lots serving the entire estate.

Social an Economic Results

The completion of the project will upgrade the quality of the social, economic and cultural life in the entire, now dysfunctional interstitial district, mainly because it will revive its very core – which will become the hub of a network of connections bringing together the, rather disconnected, parts into a new unity offering a new visual coherence and urban identity (Fig.21).

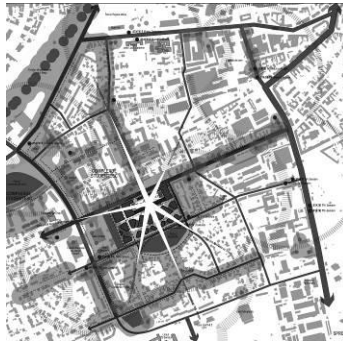


Figure 21. Zenit Views: The Urban Integration Strategy.

The development will bring together a considerable number of new inhabitants, addressing both socially and culturally active people by its northern and middle strip offerings and the more tranquil, nature-oriented people by its southern strip. The Agora will act as a major attractor, not only for the estate inhabitants but also for the people transiting the avenue and for the students from the West University Campus.

The variety of public spaces, offered by the development, will be supportive for various lifestyles. Economically, the area will be sustained by the major investment in the north-west corner and by the various activities of the Agora. The increase of traffic values and the consequent escalation of urban heat and air pollution will be controlled by the upgrading of the public transport network (tramway lines along the southern strip), the offering of sufficient underground parking lots, the creation of water mirrors and the plantation of a considerable number of new trees.

CONCLUSION

Frequently, urban renewal projects are dominated by concerns of economic efficiency and by a research for utterly modern image. The size and complexity of such operations combined with the altered state of the existing areas, make classic urban restauration or even reparation (*stadtreparatur*) impossible. But, these central or near-central areas of traditional cities have a history, they carry the imprint of former planning operations and conserve, sometimes, important landmarks, memories of their former lives.

Starting from the 1980's, experimental urban projects, such as IBA Berlin, envisioned neither restauration nor monumental modern replacements but the creation of "a fabric of new and old buildings, functional transformations and reconceptualized, redefined and reorganized streets networks" [9].

Today, using such methodological approaches as "re-activation", "reprogramming", "re-information" and "urban re-cycling" we are able to reshape such complex areas, forming something new out of the existing topography, geometry and material remnants. Complemented by the use of a landscaping system of visual connections, the new approaches are able to assure the realization of a much-needed integration between formerly disorganized areas. A new urban synthesis can be produced encompassing both the values of the past and the challenging requirements of today.

The presentation of our project "Zenit Views", on the old Slaughterhouse site has proved that using such an approach, we can achieve important targets:

- Reaching a high level of urban coherence and connectivity by reviving and re-informing the original geometry of the site and by reactivating as modal focuses [10] the existing landmarks (Fig. 22).



Figure 22. Zenit Views: Bird's Eye.



- Offering a variety of building typologies and living spaces and diversified provision of quality public areas for the future inhabitants.

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INVESTIGATION OF THE CONCEPT OF MOBILITY IN THE HOUSING BY LUXURY HOUSING SITES IN KONYA

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ABSTRACT

The housing that meets the need for living, which is a vital need, is considered along with concepts such as socialization, development of belonging and family formation. Individuals, due to the connection they have established with their homes, have installed phenomenological meanings such as houses, nests, hearths. Therefore, it is insufficient to express the housing as a physical space. Housing is affected by changes in society and individuals throughout their lives and needs to meet user requirements. Today's technological and economic developments lead to a change in the social life of the society, differentiation of life styles of individuals, formation of different user profiles / types, changes in family life and differentiation of user actions in houses. However, today's housing being built cannot meet different user requirements. Gated communities which are the result of these new searches; with security measures and built limits, it offers its residents a new way of life; it also separates them from other parts of the city, with emphasis on security and exclusivity. Accelerating trend since the 1990s, the site in Turkey, Konya has become widespread since the early 2000s. These sites, which are unrelated to the city center and urban life, have presented a new life concept within their borders, started to change the city and the city life, forget the place context in the housing design. The place, which is the most important data in architectural design, is ignored in such sites. From this point of view, this study aims to investigate why outward luxury sites are preferred, including examples of spatial and social segregation separated from its context and the concept of mobility in housing in the case of Konya city. Within the scope of the study, two external closed security sites in Beyhekim neighborhood of Konya city were selected and the reasons of mobility were determined by surveying the reasons of the users living on the site and why they preferred these sites and why they were not satisfied with the houses they lived in the past. In recent years, on the agenda of architecture; The relationship of the concepts of mobility, placelessness, and lack of sense of belonging, with the sheltering culture, has been demonstrated through externally gated community. It is analyzed why users living on security sites prefer these sites.

Key Words: Housing; Mobility; Floraşehir; Doğaşehir; Luxury Gated Community.

INTRODUCTION

Houses provide the basic physiological needs of people. Also people are housed in their houses and they reflect the socio-cultural structure of society rather than the places where people spend their lives. People reflect their identity in their homes. Therefore, people have given phenomenological meanings to their houses. According to Bachelard (1996), who considers housing from a phenomenological point of view, housing is a place that holds human dreams, enables people to dream and protect dreams. Bachelard also states that housing provides and preserves the acquired things in human life. He also states that housing is the first universe of human existence. Here, he draws attention to the existential relationship between man and housing [1]. But nowadays, houses have become commodified by moving away from the phenomenological meaning with the effect of globalization and capitalism. Meanings such as investment, status and prestige are imposed on the houses. In support of this situation, Tekeli (1994) defines the housing as follows: Mal a property produced and consumed rather than a shelter, providing assurance to the person in the society, taking place in a certain society layer, being an investment, and having a social, economic and spatial meaning for the society it has many functions like being a formation [2].

The change in socio-cultural life experienced under the influence of globalization and capitalism, differentiation of living conditions, diversification of user characteristics and changes in the concept of family have led to the differentiation of the actions made during within the dwelling. Large families have evolved into small families. In the past, while large family members spend their time together, members of small families want their own private spaces. In addition, women entered the business life. As a result, food culture and eating and drinking habits have changed. Because men and women are in business together, fast and practical cooking is required. Thus, the kitchen space has also changed. As the needs increased and differentiated, the housing could not meet the needs. Therefore, it was necessary to change the traditional house and look for new alternatives. With all these changes, there has been socio-economic disintegration in society with the increase in income inequality among people. High income groups wanted to differentiate from other income groups in the society both because they wanted to show their social status and they wanted to live safe. As a result, a different type of housing has emerged all over the world. This type of housing is a secure housing community consisting of more than one housing called gated communities. Gated communities, which were first seen in America, were quickly implemented in many cities around the world. It was originally built in the major cities of developed or developing countries. In later years, the construction of gated communities became widespread in all cities. The development of gated communities, a reflection of social polarization, is a global phenomenon. As a result of the spread of the construction of closed residential settlements, it attracted the attention of the academic community and was investigated.

Blakely and Snyder (1997); gated communities are the residential areas where the public space is privatized and transitions are restricted. They are usually equipped with security measures, such as walls, fences and controlled entrances, to prevent outside access. They are located in new and old settlements in the city center and walls, reinforced with doors and walls. As Blakely and Snyder pointed out, the gated communities are closed to external entrances, establishing an autonomous islet of its own [3]. Here the land and the right to use it is closed to those outside the campus. Burke (2001) lists the most remarkable features of the gated communities, which he defines as a new neighborhood form: "Gated communities are residential or commercial residential areas. These campuses are clearly separated from the surrounding settlements by walls and fences, have a controlled entrance and many security checkpoints and are located as mechanisms by their special administrations, private streets and parks." [4].

The most prominent feature of the gated communities, which have become an urban phenomenon, is that the walls cause division within the city as a physical barrier. In addition, there are social areas such as parks, pools, jogging tracks, walking paths, indoor and outdoor sports areas, wellness center, eating and drinking units for the campus residents. The house, which has an important place for people in life, needs to be designed in accordance with all the actions that can develop in order to fully meet the developing needs. The housing, which is affected by social changes, has to be long-lasting and respond to changes and evolving demands. Because housing should not be treated separately from the users living in house and should be shaped according to the demand of the user. Gated communities have become the most popular mode of production in the market and have attracted the attention of consumers. In this study, the reasons for preferring these housing types were determined by the surveys conducted with the users of the two gated communities.

Gated Communities

In the Middle Ages, European cities are mostly high hills, surrounded by city walls (for defense purposes), closed to the outside, and through a single gate, which allow people outside the country to be controlled. It is suggested that the first gated communities form was built by the Romans in England around 300 BC. Roman military headquarters "castrum romanum" is considered.

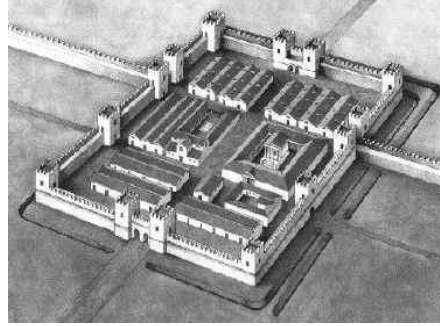


Figure 1. Castrum Romanum Sample.

The walls around these settlements were built to protect them from the villagers in the area that opposed the baron. The walls surround the settlement. It is intended to protect against external attacks. According to Yıldırım (2016), ghettos, which were used as a compulsory means of separation for ethnic and racial differences such as Negroes and Jews during certain periods of history, are used as an example of gated communities. Also according to Yıldırım (2016), Turkey has military housing as the first examples of gated communities. Although military housing does not promise life style like gated community, it actually shows similar characteristics. Housing camps built for military personnel are always under 24-hour surveillance, where foreigners cannot enter [5]. There are also sales units made by the military institution without any profit in military housing. According to Blakely and Snyder (1997), gated communities, which we know in the current sense, were built for retired individuals in the late 1960s and late 70s. Retirement settlements are the first gated communities preferred by middle-income Americans. This alternative idea of life, which then spread to the middle class suburbs, began to spread all over the world since the 1980s [3]. In addition, according to the researchers, gated communities such as suburbs formed outside the city, were first developed outside the city and were built in the city in later years.

Gated communities which are seen all over the world, appear in different typologies according to their geography and culture. Researchers have made some classifications by highlighting certain characteristics of the gated communities in the world. Blakely and Snyder (1999), according to the results of their studies in North America, pay attention to the social structure of the inhabitants and to what purpose they chose the settlement rather than the physical characteristics of the settlement. Accordingly, it has classified the gated communities as Lifestyle Communities, Prestige Communities and Security Zone Communities [3].

Burke's (2001) research in the United States, England and Australia deals with the physical structures of the settlement and their regions. Accordingly, it

has classified the gated communities as Urban Security Zones, Secure Apartment Complexes, Secure Suburban Estates, Secure Resort Communities and Secure Rural - Residential Estates [4].

Grant's (2003) classification in Canada is based on the physical structures of the settlements and classifying the settlements accordingly, taking into account their closure. Accordingly, it has classified the gated communities as Ornamental Gating, Walled Subdivisions, Barricaded Streets, Faux - Gated Entries, Partially Gated Roads, Fully Gated Roads, Restricted Entry Bounded Subdivisions and Restricted Entry Guarded Subdivisions [6].

Kurtuluş (2005) examines the gated communities in Istanbul and discusses its closeness to the public, privatized urban land and changing consumption symbols in three types. The first of these is the sub-cities of the middle class in the modern sub-urban periphery and is flexible in terms of closure. In the second group, the gated community is a luxury housing site which is located outside the city and in prestige areas to meet the investment needs and consumption demands of the new rich. As the third type, they are strictly closed to the outside and provide strong spatial facility belonging to the owners [7].

In addition, Levent and Gülümser (2007) divide the gated communities İstanbul into four types as a result of their evaluation based on nine physical properties (settlement, land size, structure size, living population, number of independent units, unit size, unit type, target profile) in İstanbul. Accordingly, it has classified the gated communities as vertically protected settlements-high-rise residences, horizontally protected settlements-single family houses, semi-horizontally protected settlements-closed apartment blocks and mixed-type protected settlements-satellite cities [8].

In this study, gated communities to be examined were determined by taking Burke (2001), Grant (2003) and Kurtuluş (2005) into consideration as a very important criterion by taking into consideration the externality, security and economic conditions of the users. Isolated from the city with physical barriers, security elements at the gate and prominent with different life promises were examined.

Gated Communities in Konya

Gated communities have begun to be seen in the early 2000s in Turkey. Since the 1980s, gated communities began to be seen in the city of Konya. Yazır Neighborhood, which is a neighborhood where Konya's economically and socially advantageous and disadvantaged groups live without communicating with each other, has been selected as the study area. In the Yazır neighborhood, the housing units built by TOKİ, which primarily addresses the lower and middle income groups of the society, then

concentrated on the construction of luxury residential units that appeal to the upper income group. Yazır Neighborhood is a region preferred by two different social and economic groups with its close proximity to nature such as Rahmet Forest, easy access to the city center by public transportation and private vehicles, and cheaper land accessibility compared to the land near the city center.

In this study, two closed sites were selected from Beyhekim Neighborhood, which is adjacent to Yazır Neighborhood. With the development of the Yazır Neighborhood in the west of Beyhekim Neighborhood and the increase in housing needs, the housing zoning started with the construction of TOKI houses. Later, Azra residences and Beyhekim state hospital added value to the region and became attractive for luxury sites. The boundaries of the Beyhekim neighborhood and the closed housing sites are shown in Figure 2.

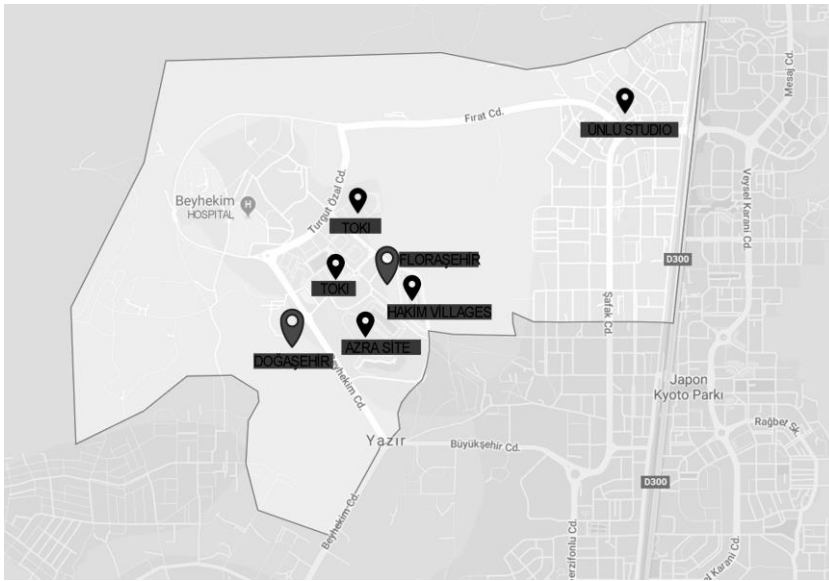


Figure 2. Gated Communities in Beyhekim Neighborhood.

Field Research

Gated communities which are the result of these new searches; with security measures and built limits, it offers its residents a new way of life; it also separates them from other parts of the city, with emphasis on security and exclusivity. Accelerating trend since the 1990s, the site in turkey, Konya has

become widespread since the early 2000s. These sites, which are unrelated to the city center and urban life, have presented a new life concept within their borders, started to change the city and the city life, forget the place context in the housing design. The place, which is the most important data in architectural design, is ignored in such sites.

The locations of the selected houses on the map are shown in Figure 3. One of the sites located close to each other is spread over a large area, while the other is more modest but also assertive. The distance to the important points in Konya is shown in Figure 4.



Figure 3. The Location of Doğaşehir and Floraşehir.

Figure 4. The Distances to Important Points of Konya.

Doğaşehir Site

Is a residential project built on an area of 242 thousand square meters by Dağ Mühendislik, Doğaşehir site located in Beyhekim neighborhood of Selcuklu district of Konya. The project was started in 2013 and completed in 2017. Is presented to people with this introductory sentence: 'A new life is rising in the green space for those who have high expectations from life'. Approximately 210 thousand square meters of green spaces and parks are reserved for Doğaşehir site, 15 of which are villas, 1,200 housing units and 71 commercial areas with large square meters and social facilities are located. Social facilities of the Dogasehir site include fitness room, swimming pool, steam room, sauna, Turkish bath, cinema, jacuzzi, children's playgrounds, masjid and cafeteria.



Figure 5. Dogasehir Site Introduction Catalog Home Page.



Figure 6. Layout plan of Dogasehir (<http://dagmuhendislik.com/dogasehir/>).

There are 3 + 1 rooms, 4 + 1 rooms and villa type residences in Doğasehir site. The spaces are located in the tables below.

Living Room	Kitchen	Room 1	Room 2	Room 3	bathroom 1	bathroom 2	Lw-wc	balcony 1-2
31.85m ²	15.30m ²	17.70m ²	11.15m ²	12.15m ²	6.25m ²	7.45 m ²	3.70m ²	8.40 m ²

Table 1. 3 + 1 Rooms Space of Doğasehir Site.

Living Room	Kitchen	Room 1	Room 2	Room 3	Room 4	bathroom 1	bathroom 2	Lw-wc	balcony 1-2
31.85m ²	19.40m ²	17.05m ²	17.70m ²	11.15m ²	12.15m ²	6.50m ²	7.65 m ²	3.75 m ²	10.55 m ²

Table 2. 4 + 1 Rooms Space of Doğasehir Site.

Ground Floor										
Entry	Hall 1	Living Room	Room 1	Kitchen	bathroo m 1	bathroo m 2	Lw-wc	Room 2	Terrace	Garage
9.00m2	25.40 m2	50.10 m2	25.75 m2	29.19 m2	4.10 m2	3.10 m2	5.40 m2	21.13 m2	35.10 m2	29.90 m2
First Floor										
Room 1	Room 2	Room 3	Room 4	Room 5	bathroo m 1	bathroo m 2	bathroo m 3	Dressing room	Laundry room	hall
34.27m2	18.36 m2	26.68 m2	20.24 m2	20.65m2	10.45 m2	4.80 m2	3.43 m2	5.04m2	2.40 m2	13.55 m2

Table 3. Villa Type Rooms Space of Dogaşehir Site.

FloraŞehir Site

Built by Dağ Mühendislik in the Beyhekim neighborhood of Selçuklu district of Konya city, Flora City site consists of 8 blocks, 4 horizontal and 4 vertical, on an area of 36.500 m2. There are 334 residences, 34 shops and 1 market on the site.



Figure 7. FloraŞehir Site Introduction Catalog Home Page.

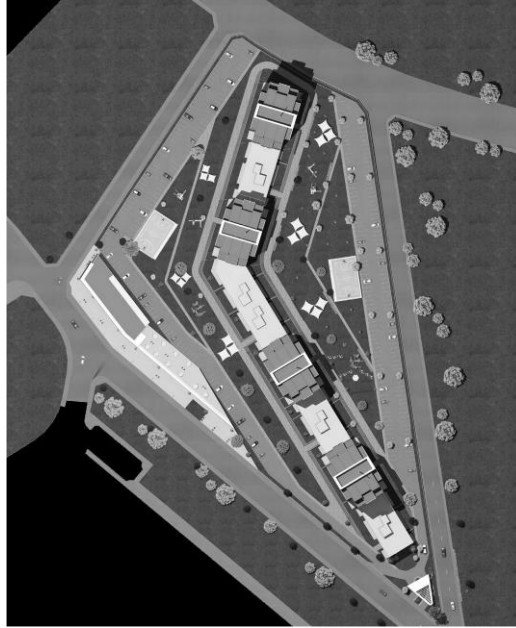


Figure 8. Layout Plan of Floraşehir (<http://dagmuhendislik.com/florasehir/>).

There are fitness center, hobby room, sauna, steam room, Turkish bath, walking areas and basketball court in the complex which has 28.500 m² green area. The flora city site, which was built in 2017, was presented to the public with the 'life is redefined in Floraşehir' promotion sentence. There are 2 + 1 rooms, 3 + 1 rooms and 4 + 1 rooms in flora Şehir site.

2+1 rooms space of Flora Şehir site										
Living Room	Kitchen	Room 1	Room 2	Hall 1	Bathroom	Lw-wc	Hall 2	balcony		
23.73 m2	12.08 m2	12.00 m2	16.63 m2	4.50 m2	5.00 m2	2.10 m2	8.83m2	6.72 m2		
3+1 rooms space of Flora Şehir site										
Living Room	Kitchen	Room 1	Room 2	Room 3	Hall 1	Lw-wc	Bathroom	Hall 2	balcony	
28.80 m2	15.50 m2	16.17 m2	11.10 m2	17.00 m2	7.02 m2	3.30 m2	5.25 m2	9.36 m2	5.90 m2	
4+1 rooms space of Flora Şehir site										
Living Room	Kitchen	Room 1	Room 2	Room 3	Room 4	Hall 1	Lw-wc	Bathroom	Hall 2	balcony
28.80 m2	15.50 m2	16.17 m2	11.10 m2	17.00 m2	11.21 m2	7.02 m2	3.30 m2	5.25 m2	9.36 m2	4.72 m2

Table 3. Flora Şehir Site Housing Areas.

Survey Study

The research method for these two closed housing estates in the Beyhekim neighborhood was determined as one-on-one interviews and surveys. Questionnaires were prepared and the satisfaction of the individuals and the housing they had lived before were questioned. Reasons for moving were investigated and 30 questionnaires were conducted by the researchers on both sites.

FINDINGS

It was found that 64% of the individuals who participated in the post-use evaluation questionnaire in Doğaşehir site were between 31 and 45 years old, 20% were between 46 and 60 years, and 16% were between 20 and 30 years (Table 1). 69% of these individuals are female and 31% are male housing users (Table 2). It was found that 63% of the individuals who participated in the post-use evaluation survey on the Flora City website were between 31 and 45 years old, 21% were 46 and 60 years old, and 7% were between 20 and 30 years old (Table 1). 64% of these individuals are female and 36% are male housing users (Table 2).

NAME OF GATED COMMUNITY:	DOĞAŞEHİR SITE	FLORAŞEHİR SITE
QUESTION-1	AGE	
20-30	16 %	7 %
31-45	64 %	63 %
46-60	20 %	21 %
OTHER	-	9 %

Table 1. Age ratio of users

NAME OF GATED COMMUNITY:	DOĞAŞEHİR SITE	FLORAŞEHİR SITE
QUESTION-2	GENDER	
WOMAN	69 %	64 %
MAN	31 %	36 %

Table 2. Gender Ratio of Users.

70% of the individuals surveyed in Doğaşehir site are from Konya and 30% from other cities (Table 3). 57% of the individuals surveyed on the Flora City website are from Konya and 43% from other cities (Table 3). In addition, they live with 4 or more people in a survey conducted in Nature City (Table 4). This rate falls on the Flora City Site (Table 4). It was observed that 68% of the users surveyed in Doğaşehir Site have lived in this residence for 2 years

(Table 5). This rate is 64% in the Flora City Complex (Table 5). It is observed that 84% of the surveyed users live in 4 + 1 housing types (Table 6) and their housing is more than 150m2 (Table7). It was observed that 49% of the surveyed users in the Flora City Site lived in 3 + 1, 30% in 4 + 1 housing types (Table 6) and 49% of the houses were between 121-150m2 and 30% were more than 150m2 (Table7).

NAME OF GATED COMMUNITY:	DOĞAŞEHİR SITE	FLORAŞEHİR SITE
QUESTION-3	HOMELAND	
KONYA	70 %	57 %
OTHER	30 %	43 %

Table 3. Homeland Data of Users.

NAME OF GATED COMMUNITY:	DOĞAŞEHİR SITE	FLORAŞEHİR SITE
QUESTION-4	NUMBER OF PEOPLE	
1	3 %	7 %
2	6 %	23 %
3	12 %	30 %
4	39 %	20 %
5 AND MORE THAN 5	40 %	20 %

Table 4. Number of People Living.

NAME OF GATED COMMUNITY:	DOĞAŞEHİR SITE	FLORAŞEHİR SITE
QUESTION-5	LIVING YEAR	
1 YEAR	13 %	26 %
2 YEAR	68 %	64 %
3 YEAR	16 %	10 %
4 YEAR	3 %	-

Table 5. Number of living year

NAME OF GATED COMMUNITY:	DOĞAŞEHİR SITE	FLORAŞEHİR SITE
QUESTION-6	NUMBER OF ROOMS	NUMBER OF ROOMS
1+1	-	-
2+1	-	21 %
3+1	6 %	49 %
4+1	84 %	30 %
OTHER	10 %	-

Table 6. Number of Rooms.

NAME OF GATED COMMUNITY:	DOĞAŞEHİR SITE	FLORAŞEHİR SITE
QUESTION-7	M2	
0-50	-	-
51-90	-	-
91-120	3 %	21 %
121-150	3 %	49 %
151 +	94 %	30 %

Table 7. Square Meters.

The majority of users surveyed on both sites benefit from social areas (Table 8). It was determined that the previous houses of the participants in the Doğaşehir Site were generally flats (47%) and closed residential campuses (47%) (Table 9). It was found that the participants in the Flora City Complex were mostly flats (77%) (Table9).

NAME OF GATED COMMUNITY:	DOĞAŞEHİR SITE	FLORAŞEHİR SITE
QUESTION-8	ARE YOU BENEFIT FROM SOCIAL AREAS?	
YES	80 %	72 %
NO	20 %	28 %

Table 8. Social Areas

NAME OF GATED COMMUNITY:	DOĞAŞEHİR SITE	FLORA ŞEHİR SITE
QUESTION-9	PREVIOUS HOUSING TYPE	
DETACHED HOUSE	6 %	3%
APARTMENT	47 %	77%
GATED COMMUNITIES	47 %	20%

Table 9. Previous Housing Type.

It has been determined that the previous houses of the users in Doğaşehir Site and Floraşehir Site are in 3 + 1 housing type (Table 10). While the previous homes of the surveyed users in the Doğaşehir Site were generally 121m2 and more, it was found that 91-120m2 (38%) and 121-150m2 (33%) were generally in Flora City (Table 11). While the majority (75%) of the users in the Floraşehir Site stated that there was no social space in their previous homes, it was found that this rate decreased (57%) in the Doğaşehir Site (Table 12). This result may be related to the data that the users of Doğaşehir Site are 47% of their previous houses as closed gated communities (Table 9-Table 12).

NAME OF GATED COMMUNITY:	DOĞAŞEHİR SITE	FLORAŞEHİR SITE
QUESTION-10	PREVIOUS HOUSING'S NUMBER OF ROOMS	
1+1	-	3%
2+1	3 %	10%
3+1	60 %	77%
4+1	27 %	17%
OTHER	10 %	3%

Table 10. Previous Housing' Number of Rooms.

NAME OF GATED COMMUNITY:	DOĞAŞEHİR SITE	FLORAŞEHİR SITE
QUESTION-11	M2	
0-50	-	-
51-90	3 %	10 %
91-120	7 %	38 %
121-150	46%	33 %
151 +	44 %	19 %

Table 11. Previous Housing's Square Meters

NAME OF GATED COMMUNITY:	DOĞAŞEHİR SITE	FLORAŞEHİR SITE
QUESTION-12	SOCIAL AREAS OF THE PREVIOUS HOUSE	
YES	43 %	25 %
NO	57 %	75 %

Table 12. Previous Housing's Social Areas.

22% of the individuals surveyed in the Doğaşehir Site are social areas, 18% are safe, 18% are large, 15% are liked by the community (prestige), 14% are new buildings and% 13 stated that they chose this residence because of its location. In the Floraşehir Site, 31% of the individuals surveyed are safe, 21% are new buildings, 19% are social areas, 15% are large, 7% are liked by society (in terms of prestige and In addition, the majority of the users in both sites (94%) stated that they were satisfied with the site they live in.

NAME OF GATED COMMUNITY:	DOĞAŞEHİR SITE	FLORAŞEHİR SITE
QUESTION-13	WHY DID YOU MOVE?	
SAFETY	18 %	31 %
SOCIAL AREAS	22 %	19 %
SIZE	18 %	15 %
LOCATION	13 %	7 %
COMMUNITY APPROACH	15 %	7 %
NEW BUILDING	14 %	21 %

Table 13. Reasons of Carriage.

NAME OF GATED COMMUNITY:	DOĞAŞEHİR SITE	FLORAŞEHİR SITE
QUESTION-14	ARE YOU SATISFIED?	
YES	94 %	94 %
NO	6 %	6 %

Table 14. Satisfaction Ratios.

CONCLUSION

As a result, it has been determined that gated community sites, which have become widespread as a new housing form where the importance of place is gradually decreasing in design, is not a correct socio-cultural and spatial strategy in terms of urban planning. However, it was determined that the users preferred these sites due to their housing size, prestige and social opportunities.

Various data were obtained in this study which was conducted by analyzing on-site surveys, surveys with users and sales discourses / promises of closed housing campuses. It has been observed that both sites are not architecturally flexible and aesthetic. When we examine the plans of these houses that appeal to the upper income group, it is seen that they have stereotyped plan fictions. It has been designed to be inflexible without considering various family structures and different human situations. It has been determined that the space layout of the apartments is not different from the apartment projects. However, their ideal home and ideal life discourses affect people and make them preferable.

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EVALUATION OF BUILDING ENERGY CONSUMPTION RELATED TO SETTLEMENT TEXTURE

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ABSTRACT

Today, building energy consumption is especially increasing in Turkey's newly developing settlements because of both rapid increases in population growth and demands for higher living standards. On the other hand, ongoing discussions on climatic change, depletion of fossil fuels and energy efficiency emphasize the need for sustainable built environment and thus the need to reduce energy consumption in buildings and settlement textures and reduce environmental problems. When the relation between settlement textures and climate is examined, it is possible to conclude that design parameters including site, building forms, building orientation, building envelopes have an impact on the settlement climate, and settlement climate has an impact on the energy performance of buildings. Therefore, the evaluation of building energy performance with a holistic approach, taking the effect of settlement textures and microclimates into consideration has become very significant in the recent years. This study aims to present an approach which allows the evaluation of the design parameters such as building form and orientation for different settlement textures to design sustainable, energy efficient built environments. For this purpose, energy consumption of a reference building modelled in different settlement textures formed according to Istanbul Development Regulation, were evaluated. The evaluations were performed for Istanbul region representing temperate-humid climatic zone of Turkey. Annual heating, cooling and lighting energy consumption of the alternatives were calculated by means of simulations and calculation results were discussed. The findings were compared and presented by analyzing the effect of the design parameters of settlement textures (building height/street width, settlement and building orientation). The result of this study will be useful for Istanbul because an ongoing mass urban renewal has already been changing existing settlement textures. Furthermore, inclusion of the effects of settlement texture on the evaluation of building energy consumption is critical for making correct decisions for sustainable, liveable, energy efficient built environments.

Key Words: Energy Consumption; Settlement Texture; Building Form; Building Orientation.

INTRODUCTION

The increasing urban population in Turkey causes the existing cities to grow more than necessary. In these rapidly growing cities, the settlement areas where people will meet the basic needs of housing are increasing in parallel. Considering that the housing sector is highly dependent on fossil fuels, it is clear that new settlement areas will generate high costs in terms of energy expenditure. When the final energy consumption rates are compared, the housing sector has an energy consumption rate of approximately 20% among all sectors [1]. However, with the effective use of energy efficient design approach instead of active systems in houses and settlements, high saving potential can be evaluated and energy consumptions can be greatly reduced.

While new settlement areas continue to be formed in our country, energy efficient design approach is often ignored and new unplanned settlement areas developed increasingly. Especially, the design decisions taken at the settlement scale continue to remain unchanged for many years, causing irreversible consequences for both the user and the national economy. For this reason, it is very important to consider and implement energy efficient design in the new settlement areas primarily at the settlement scale. In other words, Optimum values of the design parameters that effective in reducing energy consumptions should be determined in order to ensure energy efficiency at the settlement scale. Energy efficient design parameters are closely interrelated and should be handled with a holistic approach. The design parameters that are effective on the settlement scale are site, location of buildings relative to each other and distances between buildings. On the building scale building form, building orientation and optical, thermophysical properties of building envelope. The buildings in the settlements act as obstacles to each other in terms of solar radiation and daylight, depending on the distance between them, their height and their position relative to each other. Therefore, the heating effect of the solar radiation and the shade areas varies depending on the open space between buildings. However, the orientation of buildings has an important function in making the buildings benefit from solar radiation and daylight according to the different movements of the sun during the year. On the building scale, one of the most important parameters is the form of the building. Because it defines all the geometric features of the building and determines the surfaces exposed to environmental factors such as the sun. All of these parameters should have optimum values in order to ensure energy efficiency in the settlement texture. This study aims to present an approach which allows the evaluation of the design parameters such as building form and orientation for different settlement textures to design sustainable, energy efficient built environments. For this purpose, energy consumption of a reference building modelled in different settlement texture alternatives were evaluated. The evaluations are performed for Istanbul region representing temperate-humid climatic zone.

Methodology

In this study, different settlement texture alternatives were formed, depending on the distances between buildings given in the Istanbul Development Regulation 2018. In each of the different settlement texture alternatives, a reference building was determined and the reference buildings were analyzed by energy simulation method and results were compared in terms of heating, cooling and lighting energy consumption.

This study consists of two main stage. In the first stage, different settlement texture alternatives were developed and the energy consumption values were calculated for the reference building for each developed settlement texture alternatives. In the second stage the developed settlement texture alternatives were analyzed in terms of orientation.

Determination of Settlement Texture Design Parameters

In a planned settlement texture, the dimensional parameters that define the texture are building width, building depths, yard distances (front yard distance, side yard distance, backyard distance) and road distance. In the settlement alternatives used in the study, the road and yard distances were determined based on the given values in the Istanbul Development Regulation 2018.

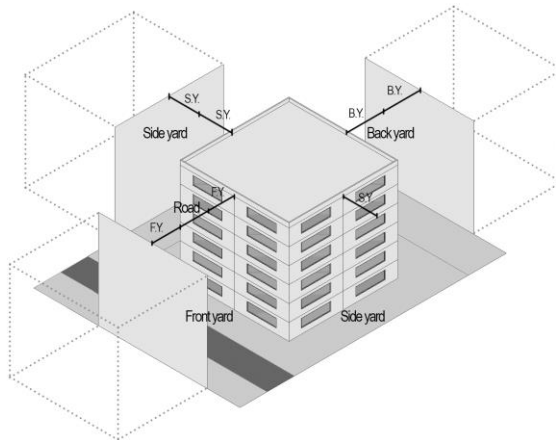


Figure 1. Building Yard Distances.

According to the development regulation 2018, side yard distance is minimum 3m for buildings up to 5-storey (including 5-storey), it is increased by 0.5 for each additional storey if the number of storeys are more than 5. Back yard distance is also minimum 3 m for buildings up to 5-storey (including 5-storey), it is increased by 0.5 for each additional storey if the number of storeys are more than 5. Front yard and roadside yard distances are minimum 5 m. When defining a settlement texture front yard distance is not enough alone, it defines the settlement texture along with the road distance. For all settlement texture

alternatives, distances between the buildings which determined by means of the regulation are given in the table 1.

Building height (m)	Number of storeys	Back yard		Side yard		Front yard		Road Width (m)
		B.Y Distance (m)	H/W	S.Y Distance (m)	H/W	F.Y Distance (m)	H/W	
9	3	3,0	1,50	3,0	1,50	5,0	0,47	9,0
15	5	3,0	2,50	3,0	2,50	5,0	0,63	14,0
30	10	5,5	2,73	5,5	2,73	5,0	0,74	30,5

Table 1. Minimum Yard Distances and H/W Ratios in Settlement Textures According to Building Storey [2].

Determination of Reference Building Design Parameters

In this study, building forms were developed based on the common plan type that can be used in the existing settlement textures. Five different shape factors (defined as the ratio of the building width to building length) alternatives are taken as 1, 2, 1/2, 3, 1/3 respectively in the study. The plan types based on the shape factors (SF) are given in the figure 2.

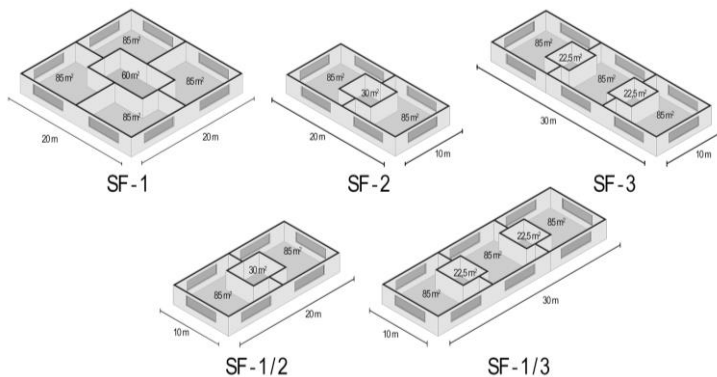


Figure 2. Plan Types Based on the Shape Factors (SF).

Plan types including different number of modules (housing units) with area of 100m² were chosen and each housing unit was accepted as a single conditioned zone. In buildings, radiator system using natural gas was chosen as heating system and split air conditioners using electricity from grid were used for cooling. The indoor comfort temperature was accepted as 20 °C for the heating, 26 °C for the cooling period.

Building envelope layers of alternatives was determined in accordance with the limited overall heat transfer coefficient values (maximum U values) specified in TS-825 Thermal Insulation Requirements for Buildings (2013).

The detailed layers of building envelope are given in Table 2. The transparency ratio (total transparent area/ total facade area) was assumed as %30 for all facades.

Component Name	Layers	Thermal Conductivity (W/mK)	Thickness (m)	Density (kg/m ³)	U Value (w/m ² K)	Maximum U Values for Istanbul - Ts 825 (w/m ² K)
External Wall	Plaster-lime,cement mortar	0,80	0,02	1600	0,568	0,57
	Perforated brick	0,42	0,19	900		
	Cement mortar plaster	1,60	0,03	2000		
	Rock wool	0,05	0,05	92		
	Gypsum plaster	0,51	0,02	1200		
Internal Wall	Gypsum plaster	0,51	0,02	1200	1,265	
	Perforated brick	0,42	0,19	900		
	Gypsum plaster	0,51	0,02	1200		
Internal Floor	Laminate flooring	0,14	0,01	600	1,674	
	Screed	1,40	0,05	2000		
	Sound insulation mat	0,04	0,01	40		
	Reinforced concrete	2,50	0,14	2400		
	Gypsum plaster	0,51	0,02	1200		
Ground Floor	Laminate flooring	0,14	0,01	600	0,527	0,57
	Screed	1,40	0,05	2000		
	Protective concrete	1,65	0,03	2200		
	Thermal insulatin board(xps)	0,04	0,04	35		
	Bedding mortar	1,40	0,05	2000		
	Foundation concrete	2,50	1,00	2400		
Roof	Gravel	0,36	0,01	1840	0,384	0,38
	Felt	0,19	0,00	960		
	Thermal insulation board(xps)	0,04	0,08	35		
	Water insulation	0,30	0,01	1200		
	Slope concrete	1,65	0,04	2200		
	Reinforced concrete	2,50	0,14	2400		
Window	Gypsum plaster	0,51	0,02	1200	1,042	1,4
	Low-E coated glass	1,00	0,00	-		
	Air space(argon)	-	0,01	-		
	Low-E coated glass	1,00	0,00	0		
	Pvc				1,8	

Table 2. Building Envelope Layers According to TS 825 [3].

Settlement texture alternatives which developed based on the development regulation are given in the table 3. Uniform settlement textures were chosen. Number of storeys were 3,5,10 storeys respectively.

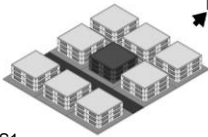








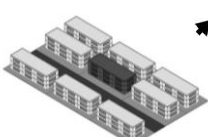
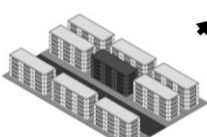

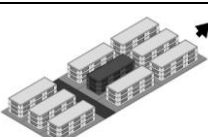
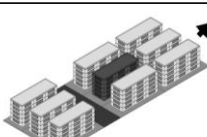


Shape Factor	Number of storeys		
	3	5	10
SF-1			
	S1 B.Y.: 3 S.Y.: 3 F.Y.: 5 Road: 9 (m) Number of modules: 12	S2 B.Y.: 3 S.Y.: 3 F.Y.: 5 Road: 14 (m) Number of modules: 20	S3 B.Y.: 5,5 S.Y.: 5,5 F.Y.: 5 Road: 30,5 (m) Number of modules: 40
SF-2			
	S4 B.Y.: 3 S.Y.: 3 F.Y.: 5 Road: 9 (m) Number of modules: 6	S5 B.Y.: 3 S.Y.: 3 F.Y.: 5 Road: 14 (m) Number of modules: 10	S6 B.Y.: 5,5 S.Y.: 5,5 F.Y.: 5 Road: 30,5 (m) Number of modules: 20
SF-1/2			
	S7 B.Y.: 3 S.Y.: 3 F.Y.: 5 Road: 9 (m) Number of modules: 6	S8 B.Y.: 3 S.Y.: 3 F.Y.: 5 Road: 14 (m) Number of modules: 10	S9 B.Y.: 5,5 S.Y.: 5,5 F.Y.: 5 Road: 30,5 (m) Number of modules: 20
SF-3			
	S10 B.Y.: 3 S.Y.: 3 F.Y.: 5 Road: 9 (m) Number of modules: 9	S11 B.Y.: 3 S.Y.: 3 F.Y.: 5 Road: 14 (m) Number of modules: 15	S12 B.Y.: 5,5 S.Y.: 5,5 F.Y.: 5 Road: 30,5 (m) Number of modules: 30
SF-1/3			
	S13 B.Y.: 3 S.Y.: 3 F.Y.: 5 Road: 9 (m) Number of modules: 9	S14 B.Y.: 3 S.Y.: 3 F.Y.: 5 Road: 14 (m) Number of modules: 15	S15 B.Y.: 5,5 S.Y.: 5,5 F.Y.: 5 Road: 30,5 (m) Number of modules: 30
B.Y.: Back yard distance S.Y.: Side yard distance F.Y.: Front yard distance			
 Reference building			

Table 3. Settlement Texture Alternatives.

Evaluation of Determined Settlement Texture Alternatives

In the first stage, the energy consumption values were calculated for the reference building for each developed settlement texture alternatives. In order to calculate energy consumptions, DesignBuilder simulation program, which is the comprehensive interface of the EnergyPlus dynamic thermal simulation engine, was used. Simulations were performed on fifteen settlement textures with five different shape factors and the results including heating, cooling and lighting consumptions for per module are shown in Figure 3.

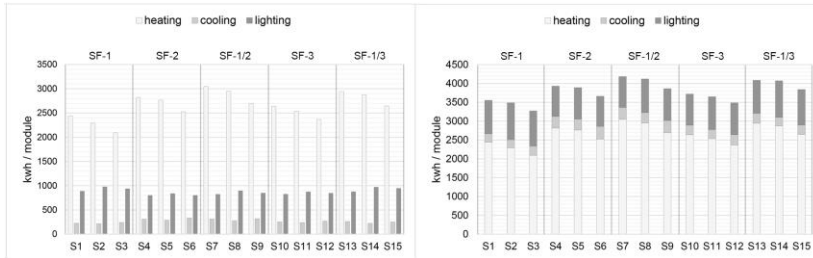


Figure 3. Heating, Cooling, Lighting and Total Energy Consumptions of Reference Building in Settlement Textures.

As seen in the figure 3, there is a significant decrease in the heating energy consumptions per module as the building storey increases in alternatives with the same shape factor. In cooling energy consumptions, the best results were obtained with five-storey alternatives. When the lighting energy consumptions are taken into consideration, three and ten-storey alternatives have similar results, while the five-storey alternatives have higher lighting energy consumptions. As the number of storeys increases in settlement textures determined according to the regulation, H/W ratio which is defined as the ratio of building height to distance between buildings in all directions, is also increasing. In buildings with the same number of storeys, when the HW ratio decreases, the distance between the buildings increases and buildings can benefit more from solar radiation. When the total energy consumptions are compared, a parallel result was obtained with the heating energy consumption graphics. Because the heating period is longer than the cooling period in Istanbul, heating energy consumptions are higher compared to cooling. The calculation results are shown that the differences in the lighting and cooling energy consumptions in the settlement textures, fall behind the heating energy consumptions in order of importance when total energy consumptions are taken into account.

In order to see the importance of shape factor in terms of energy consumptions, alternatives with the same number of storeys are given in Figure 4. As seen in the figure 4, ten-storey settlement texture provides minimum total energy consumptions for a module. When evaluation of the ten-storey settlement textures where the minimum total energy consumptions

occur, according to the shape factor, the lowest total energy consumption and heating energy consumption are achieved by S3 (SF-1).

In terms of cooling energy consumptions, the best results were obtained in five-storey settlement textures. When the effect of shape factor on the change in cooling energy consumptions was examined, SF-1 achieved the minimum cooling energy consumption. When the lighting energy consumptions were evaluated, minimum values were obtained in three-storey settlements. In the three-storey settlement alternatives, the H/W ratio is the lowest and the distance between buildings is proportionally better in terms of the opportunity to use daylight more effectively.

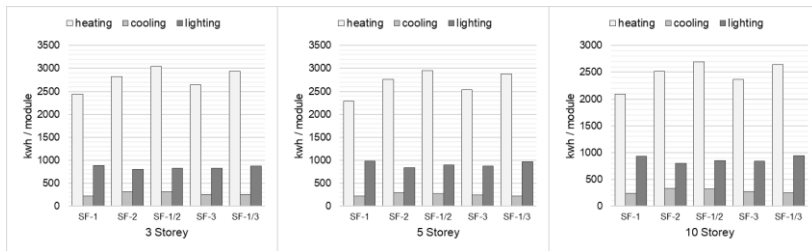


Figure 4. Energy Consumptions of Reference Buildings According to Number of Floor Of Buildings.

In the second stage of the study, it was aimed to investigate the effects of orientation on the energy consumptions. For this purpose, S3 which achieved minimum total energy consumption is selected. The orientation alternatives with the orientation angles of 0°, 90°, 180 and 270° for S3 are given in the figure 5.

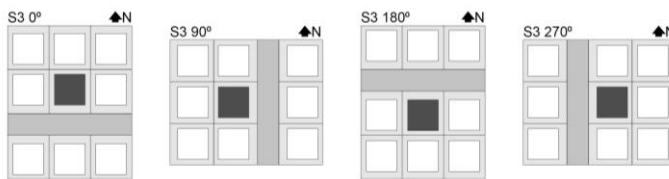


Figure 5. The Orientation Alternatives with the Orientation Angles of 0°, 90°, 180 And 270° for S3.

For the orientation alternatives energy simulations were carried out and the results were evaluated. The simulation results are given in the figure 6.

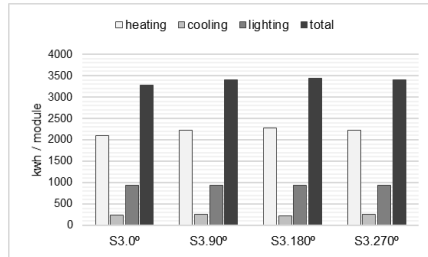


Figure 6. Energy Consumptions (Heating, Lighting, Cooling And Total) in the Reference Buildings in the Oriented Settlements.

As shown in the figure 6, S3.0° achieved the lowest total energy consumption value. In this alternative main road is orientated towards the east–west orientation (east-west road). East-West roads are available to use winter solar radiation from the south. Therefore, heating energy and total energy consumptions are minimum for this alternative.

When the cooling energy consumptions evaluated for reference buildings, unlike heating energy consumptions, the lowest energy consumptions were at 180° oriented options that the road side facing north. When the results were evaluated in terms of lighting energy consumptions, the difference in energy consumption values due to orientation is very low. In terms of lighting energy consumption, the result values of the settlement textures that oriented 90° and 270° are very close to each other and provide the best results.

CONCLUSION

In this study, building energy consumptions were evaluated related to settlement texture. The study was carried out in two main stage. In the first stage, the energy consumptions were calculated for the reference building for each developed settlement texture alternatives. In the second stage, the alternative which achieves minimum total energy consumption was evaluated in terms of orientation. As can be seen from the results, values of the reference building energy consumptions can vary significantly according to design parameters in the settlement scale and building scale as a great deal. Therefore, determination of the proper values for the design parameters in the design stage, effect the building energy performance and design sustainable, energy efficient environments. For this purpose, in this study, for Istanbul representing a temperate-humid climatic region, the effect of design parameters of settlement textures was analyzed and the findings were compared and presented. However, in order to have an acceptable general conclusion, similar analysis using a high number of alternatives should be carried out. This analysis becomes crucial to provide sustainable and energy efficient built environment especially for Istanbul because of ongoing mass urban renewal studies in Istanbul.

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MOBILIZING THE URBAN: TACTICAL FORMATIONS IN URBAN SPACE*

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ABSTRACT

The mass and individual migrations, as well as social mobility, constitute the basis of the ever-changing dynamic structure of cities. Therefore, mobilization implies the movements of individuals or social groups in order to meet the ordinary needs of everyday life, or refers to the expression of a socio-political movement. The urban dynamism is formed by the need-based or socio-political movements of individuals or social groups in the urban space. Thus, urban space with its symbolic function to mobilize society turns into a tool for both displacing individuals and societies, and manifesting their existence in the everyday life. In this conceptualization, mobility and mobilization are essential for tactical methods. The mobile characteristics of tactical formations save the ideology of those tactics and the transformed space from being lost and melted into the system. The mobile tactical interventions have the power to mobilize society. Throughout tactical formations, society interrelates with urban space.

Within this framework, this study scrutinizes the relationship between the tactics created by different social groups or individuals for displaying their existence within everyday life and demanding their right to city in urban space. The aim of the study is to investigate on the questions of how mobilization of society through tactical formations transform urban space and of which characteristics of urban space have the power to mobilize the society and transform the everyday life. Among many other urban tactics and spatial interventions, this study focuses on mobile tactics, identified by Boyd and Mitchell (2012) and Abujara (2018), namely Blockade, Mass Street Action, Occupation, Clandestine Leafleting and Guerilla Projection. With a comparative research strategy, this study dwells on contemporary cases in global scale and figures out the relationship between tactical formations, transformation of urban space, everyday life and mobilization in/of society.

Keywords: Mobilization; Tactics; Urban Space; Spatial Interventions; Everyday Life.

INTRODUCTION

The social mobility has been transforming the cities since the 19th century. The mass and individual migrations, resulting social mobility, constitute the basis of the ever-changing dynamic structure of cities. The dynamism of urban spaces depends on the mobilization of the individual or social groups. The mobilization interrelates with the changes in the cultural, social, political, economic fields. Displacement and replacement of societies related to various reasons result in coercive mobilization of the masses. The word 'mobilization' refers to "the action of organizing and encouraging a group of people to take collective action in pursuit of a particular objective" and "the action of making something movable or capable of movement". Therefore, mobilization implies the movements of individuals or social groups in order to meet the ordinary needs of everyday life, or refers to the expression of a socio-political movement.

As mostly counter-actions and tactical interventions, the social mobility also exists as a key element in the transformation and dynamism of urban spaces. Hence, the urban dynamism is formed by the need-based or socio-political movements of individuals or social groups in the urban space. Thus, urban space with its symbolic function to mobilize society turns into a tool for both displacing individuals and societies, and manifesting their existence in the everyday life. Hence, urban space activates individuals and social groups, and makes people and their mobilization visible in the everyday life.

No matter by whom, government or society manages, the spatial interventions change the urban space by transforming everyday life. Community-based spatial interventions express 'the right to the city' and they may possibly turn into resistance. The urban society realizes that it has the power to change throughout the socio-political transformations. Hence, they can express their counter-ideas against superstructures referring dominant ideology, institutions and state [21]. They show their existence in urban space through tactical interventions [10]. The term 'tactic' refers to "temporary, short-term, small-scale interventions to achieve a specific purpose" [22]; while it is expressed by de Certeau (1984) as "a free, moving, resisting series of actions by the public". In this conceptualization, mobility and mobilization are essential for tactical methods. The mobile characteristics of tactical formations save the ideology of those tactics and the transformed space from being lost and melted into the system. The mobile tactical interventions have the power to mobilize society and to transform the urban space. Throughout tactical formations, society interrelates with urban space.

Within this framework, this study scrutinizes the relationship between the tactics created by different social groups or individuals for displaying their existence within everyday life and demanding their right to city in urban space. The aim of the study is to investigate on the questions of how mobilization of society through tactical formations transform urban space and of which

characteristics of urban space have the power to mobilize the society and transform the everyday life.

Among 47 tactics by Boyd and Mitchell (2012) and Abujbara (2018), the scope of this study is limited to mobile urban tactics that utilize urban spaces for social mobilization and transformation. These tactics that intervene in the urban space are Blockade, Mass Street Action, Occupation, Clandestine Leafleting and Guerilla Projection. The tactical spatial interventions are focused on throughout contemporary cases in global scale, namely the Protest for Vietnam War (1970), Seattle War (1999), Reclaim the Streets Acts (1995), Street Into Gardens Acts (1999), Citizen's Posse (2010), Day-care Center Sit-in (1989), Wisconsin Capitol Occupation (2011), Occupy the Gezi Action (2013), Conflict Kitchen (2010), Gezi Park İftar (2013), A Man with Balls (2011), Koch Brothers Guerilla Drive In (2011) and %99 Bat Signal (2011). The inquiry is conducted with a comparative research strategy, analyzing and comparing each tactic by contemporary cases. This analysis aims to figure out the relationship between tactical formations and transformation of urban space. Referring to 'strategy-tactic' conceptualization by de Certeau, the chosen cases first described briefly are interpreted by Lefebvrian notions of 'everyday life', 'right to the city' and 'production of space'.

Tactical Formations against Strategies in Urban Space

Michel de Certeau (1984) conceptualizes the urban interventions in a twofold definition of strategy-tactics in everyday life: Strategy refers to interventions by the superstructures and tactics are community-based interventions that transform everyday life [10]. In dictionary definition, strategy is defined as "a plan of action designed to achieve a long-term or overall aim; the art of planning and directing overall military operations and movements in a war or battle" [32]; whereas, 'tactic' refers to "a plan, procedure or expedient for promoting a desired end or result" [33]. Then, in de Certeau's notions, strategies are the methods of superstructures to establish dominance over the people, to restore the established system and operate long-term control mechanisms over the community-based interventions; whereas, tactics are "free, moving, resisting series of actions by the public" and "temporary, short-term, small-scale interventions to achieve a specific purpose" [22]. In this conceptualization, the tactical actions are related with mobility, mobilization of the society, flexibility and opposing stance against static superstructures. Thus, any intervention that emerges from within the cracks of system corresponds to tactical practices. The art of tactical actions aim to capture the most appropriate moment and create tension for providing transformation and turning this moment into an opportunity.

The urban spaces are environments to enhance social mobility; similarly social movements and mobile actions transform urban spaces. Some of the actions and the tactical interventions, compiled and deciphered by Boyd and

Mitchell (2012) and Abujbara (2018), differ with their mobile, spatial and tactical qualities as defined below:

'Blockade' is a tactical action based on the idea of interruption of the continuity of the existing system. Through this tactic, critical urban spaces within the existing system are chosen as points of intervention. They are occupied in different ways; while circulation is blocked for preventing the system from continuing. The chosen points of intervention mostly correspond to production or consumption spaces with symbolic meaning, such as factories, shopping centers or private companies. Thus, the actions alter the spaces and interrupt the continuities of everyday; while help to question the system [9]. Here, blockade is inquired by the Vietnam War Protests, Seattle.

After four students of the Kent State University were killed by the Ohio National Guards, the Vietnam War Protests in Seattle arose in 1970 and led to other strikes in 650 regions [3]. During this protests, an improvised human barricade was set up by 6000 students on a highway to block the traffic in Seattle. Then, the university campuses in Washington were turned into centers for the protests and the hard barricades were also included at the entrances of the campuses (Figure 1). Besides, a number of students acted like dead bodies on the street and blocked the traffic by performance art aiming to make the people aware of the war and the students' murder [7]. .Seattle War blockade was against the global capitalism's board meeting organized by the World Trade Organization in 1999. Thousands of activists joined together (with hands and chains) and created human clusters to block the key intersections and the street around the Seattle Convention Center. A giant dance party was started by marching bands, dancers, theater troupes, giant puppets and cheerleaders [30].



Figure 1. Mass Human Blockade and Hard Blockade, Seattle, 1970 [26 and 6].

'Mass street actions' is another effective tactic that refers to occupation and symbolizes the power of society. In these actions, the clear explanation of the purpose of choosing that space to the crowded people is necessary [9]. Mass

Street Action tactic was appropriated in the Reclaim the Streets, Street into Gardens and Citizen's Posse.

Reclaim the Streets was the most striking mass street action in London carried out by an activist group between 1995 and 1998. They argued that streets should not be driven by the traffic and the capital; instead, they should be real public spaces free of public use. It was carried out by the help of many street parties or performance art by blocking the traffic or creating a sand pool for children in the street (Figure 2). Nearly 8000 participants transformed the streets into a carnival venue by distributing free food and beverage [29] The Street into Gardens was started in 1999 in New York against the decision of mayor about the auction off 198 community gardens. People turned the sidewalks next to community gardens into carnival era by putting plant boxes on street, dancing people, playing children and musicians. Hence, the street turned into a public space for the several hours [27]. The Citizen's Posse occurred in 2010 in Washington for enforcing the draft of law about health insurance reform. It was against to the top health insurance lobbying group (AHIP), who let people dying for making a gain. The poster, showing the head of the AHIP, was posted on a famous hotel, where the meeting would be held. Besides, 1500 people surrounded the hotel building, which was declared as a crime scene [31].



Figure 2. Reclaim the Streets Occupation, Camden High Street, 1995, London [29].

'Occupation' is defined as the process of moving into a public square or park, owned by the government, and staying there to take the public space back for the urban society [25]. The occupied spaces remind the notion 'right to the city'. The people create social mobilization by occupying the urban spaces in order to claim their right. The intervention points are important in this tactic, which can be analyzed through actions, for instance, Day-Care Center Sit-In, Wisconsin Capitol Occupation and Occupy the Gezi.

Day Care Center Sit-in occurred in 1989 in Rhode Island to make the Housing and Urban Development Office built a day care center at a low-income public

housing area. It turned into an occupation by the young mothers with their children. They reached their aim and a new day care center was built [8]. Wisconsin Capitol Occupation in 2011 was against the governor's decision about legislation to strip civic unions of collective bargaining rights. The protestors occupied the Wisconsin State Capitol, where they spoke out. 70.000 people joined this debating for occupying the building [23]. The Gezi Park Occupation in 2013 in Turkey was activated against the decision of the government regarding the renovation plan in Taksim Square İstanbul. It was also related with the Gezi Park, which was demolished without any legal permission. Then, the people, with their tents and artistic activities, occupied the Taksim Square without leaving it nearly for 2 weeks (Figure 3). Realized against the domination of the state, the occupation spread to other cities of Turkey.



Figure 3. Taksim Square and Gezi Parkı during the Gezi Occupation, 2013, İstanbul [14 and 2].

'Clandestine Leafleting' is a combination of ideas and spaces. Though leafleting aims to spread political thought through leaflets by individuals on the streets; the city space itself is used as a declaration paper in the clandestine leafleting. Therefore, to choose free and safe urban space, where the people visit mostly, is critical to easily exchange the ideas [9]. This tactic appropriated in the actions, Conflict Kitchen, Gezi Park İftar and A Man with Balls.

The Conflict Kitchen was an activist dining place and founded in 2010 by two activist artists in Pittsburgh. It was described as an experimental public art space for creating an environment to exchange political ideas by selling food from the conflicted countries of the United States (Figure 4). At the dining venue with a colorful façade, the food was packaged with political declarations on it. Thus, the ideas were shared while different dishes were served in the public open space, welcoming communication and many other intercultural activities [4]. The action, called A Man with Balls, was realized during the Arab Spring protests in Damascus by the Syrian activist Ahmed Zaino in 2011. In his non-violent resisting action, a thousand ping pong balls, on which freedom was written, were tossed on the street guarded by soldiers. This performance

gave the message about the war and the need for freedom [5]. Gezi Park İftar was held during the Gezi Occupation by the Muslims first and the whole people at the Gezi Park later. The Muslims participants invited the whole crowd to eat together at their *iftar* table for breaking fast. Then, simple dishes were brought and shared with others at the tables from the Taksim Square to the end of the İstiklal Street. The aim was celebrating the commonality against capitalism by the food used as a leaflet [13].



Figure 4. The Public Space around the Conflict Kitchen [11].

'Guerilla Projection' also conveys ideas by projecting on spectacular surfaces of urban spaces. By enhancing the spaces with technology, the message is conveyed by projecting through the urban space. The messages bring different symbolic meanings to the urban space and everyday life [9]. This tactic can be analyzed in the actions, called Koch Guerilla Drive-In and the %99 Bat Signal.

During the Koch Guerilla Drive- protest in 2011 in the Washington DC, the protesting groups were gathered at the car park of the convention center and turned it into an open-air cinema (Figure 5). Against the conservative government regulation established by the wealthy Koch Brothers company, a film was held on the wall of the congress building, which was turned into a public space by occupation [15]. Related to the nation labor unions coalition's national day of action, the %99 Bat Signal action came about against the austerity and demand infrastructure improvements in 2011, in New York. After the Occupy Wall Street action, thousands of people came together and gave the messages by saying "look around", "you are a part", "of a global uprising", "we are a cry", "from the heart", "of the world", "we are unstoppable", "another world is possible", "happy birthday", "#occupy movement", "occupy wall street". Standing on the Brooklyn Bridge, the crowd reflected these slogans on several buildings, the City Hall for instance, for conveying the message to the urban space [28].



Figure 5. Koch Brothers Guerrilla Drive-In Protest [18].

Urban Tactics with Reference to Everyday Life and the Right to the City

Everyday, meaning “happening or used every day, daily” and “commonplace”, [12] is conceptualized by Henri Lefebvre (1991) as “the network of relationships and actions that occur within daily routines.” This network includes social relations established within the economic and political activities of the superstructures in urban space. Therefore, everyday life is transformed by both micro decisions of individuals, and community-based social actions [19]. The social mobility is based on a desire to obtain a right to the city by standing against the obscurity of these rights. The right to the city, defined by Lefebvre (2015), is the right of the urban society to use the urban space freely for fulfilling specific urban needs [20]. In addition, David Harvey (2013) states that the right to the city defines the freedom of the urban society to transform and to reinvent the city [16]. The right to the city, as a slogan and a political goal, has the power to gather all kinds of social actions and mobilization against the domination of capital in urban space [17]. The demand for the right to the city expresses political ideas, for changing the existing system or for fulfilling the needs. Accordingly, it is a form of urban politics in organized rebellion for obtaining the right [24].

Within this conceptual framework, the urban tactics and spatial interventions briefly mentioned above are directly related to everyday life in two ways: On the one hand, some of these interventions --blockade, guerilla projection, occupation-- helped to break the continuity of everyday life by powerful and short term actions. They have the political power to obtain the right to the city for transforming the urban space. On the other hand, the others --mass street actions, clandestine leafleting, and occupation-- aimed to penetrate everyday life by slow and long term actions. They aim to obtain the right to the city for using the urban space freely to fulfill urban needs.

Production of Space

The social movements are interdependent with the socio-political mobility and the space itself. Lefebvre (1991) defines the space political; such that, it becomes a part of conscious and unconscious strategies; while the dominant ideology uses the space as a tool for dominating society [21]. The formation of space refers not only to physical formation, but to the collective memory and individual perception. In Lefebvrian theory, space as a social product is based on the idea of a dialectical process of production involving three fundamental dimensions. He analyses historical notions of space in trialectics of space: The 'perceived space', 'conceived space' and 'lived space', which form the triad of social space: The perceived space, as the first dimension in the production of space, represents 'the practical basis of the perception of the outside world'. Perceived space, similar to physical space, abstract space, surfaces, materialism and visual, gains its meaning through social developments, daily routine and urban reality. The conceived space, as a place for the practices of social and political power, is designed to manipulate those who exist within them. Accordingly, representation of space points out the designed spaces by professional inputs to establish the order through codes, signs and design decisions constructed in order. Therefore, this order leads to the creation of space designed within the relevant professionals or institutional structures. The conceived space provides a framework for society in everyday life routines. The lived space relates with space of representations, experiences of people, and communication in society. Thus, the representational space is formed through images and symbols that derive its essence from historical events. Then, space also gains a symbolic meaning, depending on the social tactical events in urban space. Therefore, space is produced by the dynamic interrelationship between spatial practice, representations of space, and representational space [17]. The spatial practice is realized together with social relations as a representation of social life within the continuity of production-reproduction of space [21].

With reference to the notions, strategy, tactics, and production of space, the space of strategies refers to the expression of the conceived space; while the spaces, created or transformed by the tactics, belong to the perceived space. In other words, strategies and tactics are tools for production of space and social transformation. Accordingly, the space production and interventions differ in strategies and tactics. Strategies assume space as property and aim to manage activities, social relations and everyday life in that space. Tactics, contrarily, appropriate the spaces of strategies to generate temporary tactical intervention. Tactics trace the cracks in the system and relocate the space of strategy by manipulating its symbols or meanings within the governing ideology [8]. Within this theoretical framework, the spaces produced in the chosen tactical formations above refer either to the perceived space by the contemporary social practices of individuals, or the lived space with permanent symbolic meaning and public opinion. The tactics, as blockade, occupation and guerilla projection, mostly result in productions of lived space;

whereas mass street action and clandestine leafleting produce perceived spaces.

CONCLUSION

The socio-political transformations in cities bring about by the tactical interventions in the urban space. Although urban space has been mostly shaped by the dominant ideology throughout history, the social movements and the community-based initiatives are also effective in its transformation. Sometimes social movements transform spaces; as public spaces can also pave the way for the formations of social movements. Urban spaces interact with both superstructures and social movements.

The tactics, blockade, mass street action, occupation, clandestine leafleting and guerilla projection are similar in defending space against superstructure as the existing dominant ideology. They all restore the right to the city and help to change everyday life. Yet, some of the urban interventions, such as occupation and mass street action, intend to transform urban space. Besides, some tactics, such as blockade, guerilla projection and clandestine leafleting, arise against ideological or cultural crisis and appropriate urban spaces for political transformation.

The tactics, blockade, mass street action, and occupation, occupy physically the spaces by discontinuing the functions of spaces and producing different urban spaces with symbolic meaning in the political context. Clandestine leafleting and guerilla projection tactics intend to disseminate messages by altering the functions of space. Even if the main purpose is to produce different meaning of urban space, or to change its function regarding the political ideas behind; all these tactics appropriate urban space by non-violent carnival like artistic interventions. They have the power to produce space through creative artistic interventions. Led by the political or artistic spatial interventions, social mobilization expresses the right to the city, and produces new urban spaces with new symbolic meaning. These urban spaces can either break the continuity of everyday life, or change it dramatically. Mobilization of society through tactical formations transforms urban space; and urban space has the power to mobilize society and transform everyday life.

TACTICS	WHO			WHEN		WHERE		WHY	HOW
	AIMS	CASES	ACTIVISTS	YEAR	SOCIO-POLITICAL CONTEXT	LOCATION	URBAN SPACE	REASONS	TOOLS
Blockade	to block the target, to represent a symbolic stance	Vietnam War Protests	students	1970	social movements eruption reached its peak in USA	I-5 Highway University of Washington, Washington, USA	university campus	murder of four students in Kent University	performance art mass mobility hard barricade
		Seattle War	each part of society	1999	movements against post-capitalist society erupted	Seattle Convention Center, Seattle, USA	convention center	global capitalism's board meeting organized by WTO	mas mobility playing/dancing
Mass Street Action	to set up a pressure on a target	Reclaim the Streets	each part of society	1995-1998	movements against post-capitalist society erupted	Camden High Street, London, UK	streets	community ownership on public spaces and resistance to the dominant vehicle traffic.	playing dancing painting dining
		Street into Gardens		1999		East Village and Lower East Side, New York, USA	open public spaces	decision of mayor about auction off 198 community gardens	planting playing dancing painting
		Citizen's Posse	each part of society	2010	the era that corrosive role of corporate money in politics	Washington, USA	hotel	enforce the draft of law about health insurance reform, against to the top health insurance lobbying groups	mass mobility
Occupation	to seize the public space, to defend a domination of society	Occupy the Gezi	each part of society	2013	the era that corrosive role of corporate money in politics	Taksim Gezi Park, Istanbul, Turkey	open public spaces	the demolishing the park without legal permission and non-democratic form of government	tenting mass mobility planting dining
		Wisconsin Capitol Occupation	under the leadership of teaching assistants and each part of society	2011		Wisconsin State Capitol, Wisconsin, USA	state capitol	governor's decision about legislation to strip civic unions of collective bargaining rights	mass mobility debating
		Day-Care Center Sit-In	mothers	1989	the era that movements to fulfill social needs	HUD office, Providence Rhode Island, USA	different public spaces	lack of a day care center in a low-income at public housing area	mass mobility playing/painting
Clandestine Leafletting	to convey important information to the right people	Conflict Kitchen	art professors	2010	the era that US involved in several wars with East	Schenley Drive, Pittsburgh, USA	different public spaces	to create a political exchange of ideas by selling food	dining debating
		Gezi Park Ittar	under the leadership of muslims and each part of society	2013	movements against the government in power erupted	Taksim Gezi Park, Istanbul, Turkey	open public space	to create a political exchange of ideas by sharing food	dining
		Aman with Balls	Ahmed Zaino	2011		Damascus, Syria	streets	to show the resistance to war	performance art
Guerilla Projection	to publish a message, to announce the purpose of the action	Koch Brothers Guerilla Drive-In	employees	2011	the era that corrosive role of corporate money in politics and austerity politics	Washington Convention Center, Washington, USA	convention center	Koch Brothers influence on politics as a financial group	projection playing/dancing dining
		%99 Bat Signal	under the leadership of labor unions and each part of society	2011		New York, USA	open public space	against austerity and demand infrastructure improvements	projection mass mobility

Table 1. Comparison of Tactics with Descriptive Characteristics.

TACTICS	CASES	TYPES OF INTERVENTION	RIGHT TO THE CITY (AIM)	EVERYDAY LIFE (AIM)	PRODUCTION OF SPACE (RESULT)
Blockade	Vietnam War Protests	political-spatial	politics-driven urban space transformation	to block everyday life by powerful and short term actions	lived space (space with permanent symbolic meaning and public opinion)
	Seattle War				
Mass Street Action	Reclaim the Streets	spatial-political	urban space-driven political acts	to penetrate everyday life by slow and long term actions	perceived space (contemporary social practice of individuals)
	Street into Gardens	political-spatial	politics-driven urban space transformation		
	Citizen's Posse				
Occupation	Occupy the Gezi	spatial-political	urban space-driven political acts	to block everyday life by powerful and short term actions	lived space (space with permanent symbolic meaning and public opinion)
	Wisconsin Capitol Occupation	political-spatial	politics-driven urban space transformation & urban space-driven political acts		
	Day-Care Center Sit-In	spatial-political	urban space-driven political acts	to penetrate everyday life by slow and long term actions	perceived space (contemporary social practice of individuals)
	Conflict Kitchen	political-spatial	politics-driven urban space transformation & urban space-driven political acts	to block everyday life by powerful and short term actions	
Clandestine Leafletting	Gezi Park Iftar			to penetrate everyday life by slow and long term actions	
	A man with Balls	political-spatial			
Guerrilla Projection	Koch Brothers Guerrilla Drive-In	political-spatial	politics-driven urban space transformation	to block everyday life by powerful and short term actions	lived space (space with permanent symbolic meaning and public opinion)
	%99 Bat Signal				

Table 2. Interpretation of Tactics Regarding to Michel De Certeau (1984) and Henri Lefebvre (1991).

*This paper is structured within framework of an ongoing M.Arch thesis study, with a prospective title, "Marginal spatio-cultural production practices in public realm and tactical urbanism", by Ece Güleç (Advisor: Assoc. Prof. Dr. Gökçeççek Savaşır) in Dokuz Eylül University Graduate School of Natural and Applied Sciences.

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PART 6



INTERIOR DESIGN





THE IMPACT OF THE CHANGING UNDERSTANDING OF CONSUMPTION ON TODAY'S INTERIOR SPACE EQUIPMENTS, « IKEA » EXAMPLE

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ABSTRACT

The formation of the social values and the transformation of these values into various courses of conduct and create a unity is called "culture". The concept of culture, which is used as a symbol of human behaviors and to convey it, determines the nature of the society materially and spiritually. By the industrialization, the concept of culture has rapidly changed and gained a new identity, compared to the previous eras great changes emerged in the society. Especially with the "globalization" phenomenon that emerged as a result of industrialization in late 1900's, the cultural patterns that are embraced by people have been almost totally reshaped. With the effect of the rapidly developed technology, the courses of conduct peculiar to a society could easily reach to others and are accepted and embraced in a faster way. With the spread of technologic developments and become more effective, economically and ideologically new courses of consumption emerged. Consumption is started to be used as a tool that determines the status of people in a society rather than fulfilling the basic vital needs. In the new social structure in which the individuals are identified as consumers, they are alienated from their essence and they tend to keep up with the majority and be "standardized". Following the involvement of the concepts such as industrialization, globalization, mass production to the everyday life, a standardized culture is formed and besides the effect on the social structure, the subject of design is also discussed. The consumption-oriented global market has struggled to create an inter-cultural common design language. With the production, consumption and culture concepts, the new design criteria brought today's furniture design formations. In this study, today's furniture and design understanding will be discussed by taking fast production-consumption courses -which is relied on common culture, easy to reach and fast – into consideration.

Key Words: Industrialization; Mass-production; Consumer; Globalization; Common Culture.

INTRODUCTION

When we look at the development process of furniture, we see that it has been changed in accordance with the life styles for ages and by renewing itself reached to its present form. It is known that many factors played a role on the change of furniture since the first ages. Primarily cultural factors, social structure, social and geographical features can be considered among these factors. Especially historical incidents, the results of these incidents and the changes that have happened throughout the history have changed the societies, individuals, living conditions and cultural habits and naturally have led to a constant change in furniture.

Industrialization

Industry means « All the necessary tools which are required to produce a commodity.» or «Finding, processing and producing the raw materials in order to make them eligible for people to use. » The Industrial Revolution, which is one of the major developments of the 20th century, has started by new inventions in 18th and 19th century in Europe. With the invention of steam machines and the increase in the capital stock in Europe, the new formations in European civilizations lead to the birth of industrial revolution and with these formations there has been a dramatic change in the basis of societies. The developments in production and transportation lead the society to rapidly improving mechanization, therefore an increase started in worker population. With the emergence of big inventions, production has increased; however the labor power used for production has gradually decreased (S. Kariptaş, 2006;31).

With the industrial revolution, which is accepted as an important breaking point for design and civilization history, mechanized production has gained importance and hand-made production has lost its importance. The newly emerged technology concept has provided fast and constant production in industry. With the developments in technology, there has been important changes in design, as well. These developments have opened a new path in intersocietal relations and production process and changed the direction of art and science. Mechanization and mass production caused the death of artisans gradually. Workshops has been replaced with mechanical production and factory workers. The changes primarily observed in architectural works and then spatial design. Although the buildings that are constructed in the 19th century are numerically more than past ; their distinctive style has started to melt away. Although the quality production of furniture in technologically underdeveloped workshops with hand-craft is possible ; as a result of economic pressures, mass production has gained importance in furniture production like every other area of life (Yalçın Usal, 2004).



Figure 1. Examples of Industrial Furniture Production Workshops.

The major impact of industrialization on design, is visible in production methods. The most important one among these methods is mass production. With mass production the costs have decreased and it enabled consumers to reach the products easily. Easily reached products have spread to a large number of users and it lead to the disappearance of the differences between statuses. Thus, individuals became the same in the society. The furnitures which are produced with the mass production techniques for a little cost has ended up in many users' homes (Soner, 2007).

After the changes of Industrialization, an urban society has started to be formed. With the migration to the cities the developments in big metropolises have changed the social structure and lead to an increase in communication and interaction between countries.

Gradually increased needs brought new production techniques. This situation triggered the importance of industrialization in furniture like it is in all products. Therefore, usage of « mold », which is one of the most important industrial production technique, became common. Until that time, because wood -the raw material of furniture- was not an eligible material for mold, can be considered as one of the most important factors that has triggered the developments about mold. The problems about design and materials have led the technicians think about the materials which can be molded easily. They targeted to apply complicated shapes with a little effort as well as making mass production. Iron, which can be used in many productions by molding in 19th century, can only be used by forging until the middle of the 18th century. In furniture, iron production designs were being experimented instead of forge technique. Various pipes, profiles, chair backs and table surfaces were used, painted and ornamented.

In 1820s, Austrian designer Michael Thonet has used the wooden bars by smoothing and shaping them as an accessory on furnitures, afterwards has started to use this technique in general in order to construct the body and the structure of the furniture. With the demand for these special and genuine furniture, he had a workshop and started mass production in a small scale.

When you look at the furniture as a whole, as a result of the bending of the material, less pieces were added and therefore it would be lighter and more durable. Less joints reduced the labor power used and enabled to produce it in a shorter time with less cost. Over time, Thonet design became more popular and they continued production with a higher capacity in the factory which is established in 1853. Thonet blazed a trail by bending the wooden material and at the end of 1960s with the beginning of the modernist trend it boomed again.

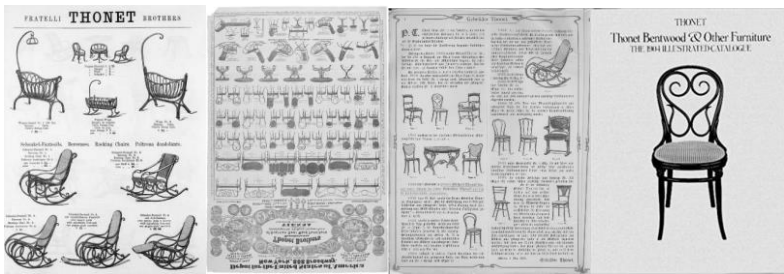


Figure 2. Thonet Design Catalogue Examples in History.

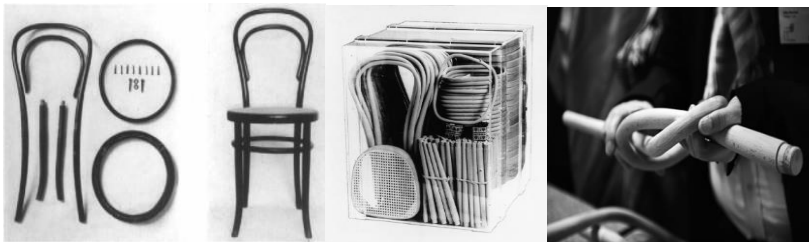


Figure 3. Examples of Industrial Furniture Systems; Thonet Designs.

After the Industrial Revolution, the importance of saving is reduced like many other values and gave way to consumption. Companies started to make mass production instead of small scale production. They targeted to make profit by reducing the cost, fulfilling the society's needs and reaching many people. Although the cheapened products started to become standardized with mass production, the lower costs made the people demand them more. The

understanding of mass production brought a dramatic increase in consumption (Söylemez, 2006; 13).



Figure 4. Thonet Bentwood Chair, Pink Catalog, and Thonet Maple Bentwood Coffee Chairs.

Consumption

Consumption is a behavior in which ethnic culture and ethnic identity has an impact. Culture, cultural identity and the interaction of cultural identity with other societies are the basic factors that form the basis of the concept of consumption. Some of the factors that help to identify the consumer are : Age, gender, conventional life style, social habits, social perspective and status. Especially socio-cultural factors can be considered to affect the consumer related to moral and political formations. It is known that ethnic culture, which contributes to the formation of significant and different consumption patterns, plays an important role in defining the consumer as well as emotions, feelings and beliefs. People have the instincts that lead them to objects. Nonetheless, they have a nature which can never be satisfied and recreates itself for new needs. Therefore, it is the real target of the producers. Individual shapes his/her needs in a concept of consumption in every aspect of life.

Socialization process and mass culture play an important role in defining the needs that direct the consumer preferences. Today's economy's basic problem is not producing anymore, but to make the produced object being noticed and consumed constantly by the consumers. Therefore, individual is now defined as consumer (Söylemez, 2006; 7).

After the Industrialization, in the end of 19th century the capitalist system and consumption models, economic recession and collapse periods took place in history as the troubled periods of which the consumption goods couldn't reach people properly. Being depressive and tough in every way, it lead to the formation of consumption concept and modern phenomenon of consumption. In 1950s and at the beginning of 1960s, with the increase of mass consumption, the dramatic change of the concept of consumption in social and cultural ways has started (Çubukcu; 1999; 93).

The Relation Of Changed Consumption Patterns With Furniture Design, «Ikea» Example

When the changed consumption understanding and consequently reshaped design process is examined, we see that it is affected by the developing technology, production and logistics processes. These technological developments help people whereas they can cause some problems sometimes. In terms of authenticity and value, some negative effects came into existence. However, it has many positive effects such as fast production, low costs and easy access.

In terms of design, mass production brought quality and production standards to the furniture. Since the parts are produced separately, it enabled the spare parts to be replaced when it is needed. However, despite these good sides, the concept of consumption is imposed to the society and with the enforced fashion trends it became attractive to people. Instead of durability and being used for years; being consumed and replaced as a consequence of the constantly changing trends became the objective (Yalçın Usal, 2004).

While the design understanding is developing with the cultural and technological factors peculiar to every period, the changes spread every layer of the society. After the industrial revolution, stylistic features derived from social and cultural nature was seen on objects reflecting the architecture, furniture, daily objects and decorative elements of the era (Boyla, 2011; 62).

With the great change it created, mechanization has brought many negative and positive things in social, economic and technical areas. Bauhaus school has brought the handicrafts and industrial mass production together in order to reach the masses and is established in Germany after the World War I. Design and production criterias such as standardization, rationality, functionalism, honesty in material, being economic, durability, easy transport and easy storage, disassemble and assemble provided and insight for today's furniture understanding.

With the usage of screws; the furnitures could be disassembled and stored when it is needed and could be assembled again and be ready to use. The changed life conditions lead to new design understandings. Constantly increasing urban population caused new necessities. The industrial formations to fulfill these needs came into existence before the World War I. In 1950s Danish furniture came into existence with the cooperation of industry and handcraft technologically. The wood of the furnitures was cut and industrial methods were used for its productioni whereas the ornaments on the surface was handcraft. With the change in the structure of the society, life styles and needs were reshaped.

Modular furniture systems were designed for small living spaces. For the worker families –who has reached to a certain buying capacity- furnitures that can fulfill the basic needs besides conventional objects were designed.

With the impact of capitalism, standardized culture and disappeared differences created a single dimensional society. In the capitalist order, in which the profit-seeking is the priority, the system that makes the individual and the society same is supported. This system, which is based on more sinsumption, caused the individual and the society lose their freedom and it brought the understanding which behaves the individuals as commodities. By ignoring the autenticity of the individuals, it makes the societies uniform. In the uniformed society, the local is replaced with the universal and shaped that way. The individual, which is an element of the society, is formed with this change. The individual becomes an object instead of a subject by getting away from his own culture and values. The role of the individual in the society is reduced ; the culture has lost its autenticity and became the same with the achievements of the modern life. In a sense, it can be said that the indiviual is industrialized like the commodities produced with industrial methods.

American furniture manufacturer Erie J. Sauder has invented a demountable table which is plain and placed in a box and ready for the consumer to assemble himself. This furniture idea has expanded to various full equipped collections for spaces like home and office. This work of Erie J. Sauder has started the ready to assemble furniture industry (Sauder, 2016).

Today the biggest example of the furnitures that are ready-assembled came in to existence in a snowy day of 1956 ; IKEA company's Swedish designer Gillis Lundren got angry while he was trying to place a box into his car and said « Disassemble the damn legs of this table ! ». The nails were removed by an adze and the legs were taken down. Then, the table was boxed with the four legs and constituted a box which was easily fit into the car. After that, IKEA's founder Igvar Kamprad started to produce and market ready-assembled furnitures for the customers. Transportation and assemble belongs to the customer this way, the cost of big and expensive packing diasspeared and customers started to carry the furnitures that are boxed in a flat way themselves (Özkan, 2008).



Figure 5. Boxed Furniture with the Handbook « IKEA » Furniture Systems Example.

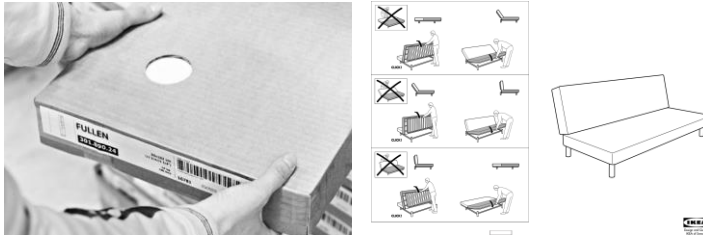


Figure 6. Boxed Furniture with the Handbook « IKEA » Furniture Systems Example.

Ikea company, which aims to provide a better daily life for the majority, supplies low-priced, functional, high-quality and attractive designs to the consumers. With the importance given to ergonomic principles in 1950s, it provides spatial usage, design according to human behavior, example space and usage types to the consumers in creating personalized spaces (Karıptaş, Yararel, Ünver, 2012). Ikea furnitures that are combined in different ways, are in their flat boxes and with their special manual books can be assembled in an easy way in the space that they will be used and become ready to use. It is possible to talk about a concretized relationship in different dimensions between the human needs and the furniture (Özel, 2016). When we look at furniture and the basis of the cultural structure, we see the common point is to answer the human needs. There is a parallelism between culture and human needs. Furniture design develops in accordance with the needs. The increased importance of individual and new needs came into existence in this perspective are primarily important in formation of furniture and even modern art. In other words, the parallelism between the individual and the identity features of the furniture is significant. In this respect, it is a dynamic phenomenon that includes the values that are created by the self dynamics of every society such as customs, traditions, aesthetics, art, literature, law, religion and moral. Culture is composed of many different elements such as culture, customs, traditions, aesthetic values and morals and it distinguishes the society from others. The loss of authenticity in design and being uniformed in the concept of culture industry lead the individual to lose his identity and to gain a new one as consumer.

Serhatlı stated the negative impact of culture industry on individuals in his article « The Individual that Got Lost in Culture Industry » as : « The individual who has lost his reality and uniqueness is in a spiritual loss and has lost his 'halo'. Just like an art work that is taken away from its tradition and recreated ; the individual is no longer a one-off creature. It turns to be a mass, standardized object that has lost his will-power. The individual who lives in an industrialized culture is considered as an industrialized commodity. Therefore, the individual in culture industry becomes a commodity that is shaped by the necessities of the system instead of a subject ». The reflections of the corruption caused by culture industry can be seen in many areas of the

system. Standardization of the cultures unifies the common tastes and creates world brands and therefore a standardized society with the similar products that are supplied by these brand. The standardization of tastes and demands became visible in art and design.

While the world is getting urbanized gradually, disidentification of design is being on the front burner as an important subject. The difference between life styles and preferences is reducing, with the cultural corruption all values become similar and same (Aslanoğlu, 2000;27). One of the points that this problem is centered upon is the loss of identity or disidentification. Ikea, which developed the idea of producing ready-assemble furnitures and made it its marketing strategy in 1956, has the largest product range today. It is a company that contributed this idea to reach a large mass and become popular.



Figure 7. Example Ikea Boxing and Montaj Systems.



Figure 8. Example of Industrial Furniture Production Systems ; Modular Furniture.

Disidentification is the basic design problem today. The individuals are surrounded by the furnitures that are away from autenticiy and similar to each other. In the mass-produced furnitures, the design's convenience for mass-production has importance. In this respect, there is a mutual relationship between the designer and the producer. While the producer aims to produce

the furnitures that allows him to maximize his employment and cost the least by mass production, the designer has to design under the pressure of the producer who has sales and profit expectations.

The comfort Ikea provided for the user ; while the design enables it to enter every home, it takes away the feature of hte space being unique for the user. Similar furnitures are presented to the consumer in a way that they can suit each other in spaces that are prepared beforehand. It leads the consumer to its preferences by ignoring the identity of the of the consumer. The consumer, whose identity is ignored, has given no choice and becomes a part of the sales-oriented system.



Figure 9. The Firs Version of Ikea Storage Example, 1958, Switzerland.



Figure 10. Ikea Storage Example, Industrialized Furniture Production Systems.

CONCLUSION

The consequences of Industrial Revolution are stated in two ways as positive and negative. As a result of the developments following Industrial Revolution many inventions that are important for people has been made, technology has been developed and boundaries in transportation has been removed. Besides the positive developments, there have been dramatic changes and corruptions in sociological and psychological structures of the society as a result of of migrations and the birth new working class. With the negative consequences, the changed social life and comfort in production have

changed the habits of consumption and created a new world which is consumption-oriented. Individuals are defined as « Consumers » in this world where consumption is dominant. In post-modern world, consumption without production or vice versa is impossible and because of this mutual existence, both should be considered important. With many things that are changed, the understanding of design and furniture have been changed, as well. The competition that globalization has created in world in general has affected furniture design as much as it affected the society and individual. With the help of the advertisements that impress the consumers, the employment-ambition between the brands, constantly changing fashion, media and press ; the individual has turned to be an industrial commodity that is living for consuming.

Furniture and design is reshaped by the needs of the modern world and they are affected by globalization and the consequences of industrialization. Changed criterias, with the external factors and increased expectations that shaped design, includes negative elements more than positive. In the basis of the negativeness in design are, social and psychological pressures in the social realm can take the primary role. When we look at Ikea sales policy, we see the problem of gathering all cultures under its ideology and make them standardized. Besides supplying similar industrial products and services which belong to different cultures and traditions ; it supplies a common architectural understanding and concept, too. As a result of the standardization, the architecture in different countries in different parts of the world with different climates becomes the same. This causes the loss of cultural differences and make them unimportant. While using the positive sides of universal production methods in order to solve the problems that are faced after the modernization of design, local features should be emphasized, a variety must be provided instead of standardization and local values must be preserved. In order to offer a proper solution to the disidentification and standardization problem of design and individual, common culture problem, which is derived from globalization, should be mentioned primarily. By proceeding from plural to singular, the negative effects that affect the society and the individual should be removed.

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CHANGING LIFE STYLE AND TRANSFORMING OF HOUSING IN ISTANBUL METROPOLITAN: A CASE ON VARYAP MERIDIAN

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ABSTRACT

Human beings have ability to perceive, to understand and to react to situations related to their necessities, wishes, desires and expectations. Although the changing world, the diversifying living conditions and transforming city are changing people, they change and transforms his/her environment in the direction of his/her personal needs and satisfaction. Perception of housing changes according to needs desires, expectations and wishes of different socio-economic and socio-cultural groups. Nowadays, people from middle-upper and high socio-economic incomes groups live in gated communities and try to be part of "ideal home" concept presented to them through "luxury and mixed-use living environments". On the other hand, the differences in the people's way of life change and transform the thoughts, attitudes and expectations of the housing, that is, the perception of housing. This change in the perception of housing inevitably leads to transform the notion of housing and its physical entity as well. In metropolitan cities such as Istanbul there are "luxury and mixed-use living environments" designed to meet this demand. These gated communities affecting the city's culture, life style and silhouette offer a privileged, prestigious, luxurious and comfortable life to residents and locate close to main transportation networks and central areas of the city. In this context, the selected examples of luxury and mixed-use living environments in Istanbul is exemplified. Besides those, "Varyap Meridian", located 1.5 km from "Istanbul International Finance Center", chosen as a case study of this paper is also examined for understanding the impact of rapidly changing living conditions on the perception of housing in Istanbul Metropolitan city in the scope of interior architecture discipline. The data, gathered through questionnaire from residents living in Varyap Meridian, is analyzed and discussed within the context of "Hierarchy of Housing Needs" and "Post-occupancy Evaluation (POE)" criteria as well.

Key Words: Istanbul; Metropolis; Housing; Living; Varyap Meridian.

INTRODUCTION

Rapid developments in globalization, technology and information systems are leading to changes in living conditions. Human beings have the ability to perceive, to understand and to react against any situation through their necessities, wishes, desires and expectations. They adapt themselves to the environment according to changing living conditions. Just as humans, cities are also live systems that have been in continuous relation with the environment. In consequence of this reason, changes in living conditions are inevitably trigger off the process of transition in cities and physical environments especially in "metropolitan city."

Cities that have a limited and homogeneous population growth, along with the industrialization, grow into one another and reveal the "metropolitan city" notion. The metropolitan cities are seen as attractive centers that provide employment to large masses and better living conditions for individuals. The metropolitan cities have been accelerating migration from rural to urban as well. Increased migration leads to multiculturalism and rapid changes in values, lifestyles and social structures. For those reasons, from past to present, cities (urban) have become physical and cultural bonding zone for people for different religions, languages, races and cultures (heterogeneous social group). As Yorukan (2006) emphasizes that the rural areas consist of a homogeneous community but the urban areas ensues from a heterogeneous social group [18]. In urban environment and human life, the most crucial issue is "housing". The house is the place where memories, dreams and thoughts embody an architectural form. There is no other place that is involved in an unrelenting interaction with human beings. Therefore, the place that people changes most in their entire life is his/her residence where he/she feels the sense of belonging and emotional dependence.

Changing living conditions with metropolitan cities, as well as causing the differentiation of human needs, also transform the perception of "housing". In the direction of differentiating human needs, expectations, wishes and desires changes the individual's perception of housing, and how he/she perceives and interprets it. This leads to a change in the dwelling, and these two processes influence each other. Strong and harmonious communication between the person and the living environment offers better quality of life for the person and increases the user satisfaction in the housing environment as well.

Today, housing projects in metropolitan cities are designed, built and marketed as a consumer object. These housing projects impose on user and way of life that has shaped by the urbanized society's consumption culture. "Luxury and mixed-use living projects" are designed specifically for the needs of the middle-upper and upper socio-economic income groups living in metropolitan cities. While the metropolitan city is becoming more crowded and chaotic, such projects offer a privileged, prestigious, comfortable and luxurious life, as well as offering a living space with a similar socio-cultural group for those who want to separated and protected from the "others".

In the scope of interior architecture discipline, the aim of this paper is to examine and understand the changing living conditions in Istanbul metropolitan area, in terms of satisfaction of housing and housing environment, determining which vital expectations and priorities increases or decreases the importance for the user and, to reveal how the perception of housing changes. In this context, selected examples of luxury and mixed-use living environments in Istanbul is exemplified besides of "Varyap Meridian", located 1.5 km from "Istanbul International Finance Center", chosen as a case.

Changing Life Expectations in Metropolitan Cities

In the 21st century, most of the cities have an extremely dense population and urban growth. These cities have become flow points of migration, finance and cultural capitals. In this process, they have changed and transformed and, left their places to "mega" and "metropolitan" cities. Metropolitan city is not only known with their huge architectural areas, giant potential of capital, cultural diversity, dense and mobile population, bureaucratic or political center. It is the settlement area where the social life cycle flows rapidly, speed and mobility become the motorized power of life, and the effect of global winds is manifested itself in a faster way [2]. Thus, Simmel (1903) identified metropolitan city as "a socio-technological mechanism" [3].

Along with the changes in the world, changes have been occurring in human's way of life as well. This situation leads to shape and differentiate the societies. Considering that society and culture change over time, it is natural to think that the needs of the individual will also change [4]. Depending on the changes in social structure, cultural features, technological developments and urban organization, also give rise to the changes on human perception and thought. With the increase in the number of sophisticated and educated individuals in the society, developments in technology, chaotic and crowded life style brought by metropolitan life and people needs have started to take an important role in human life.

Housing Transformation in Metropolitan Cities

Housing is the vital issue for human beings. It is not only meets human's privileged need of "sheltering". It is also a place that keeps the family together, gives clues about human's vital values and determines their relations with the environment.

House is a notion used to describe a space with more physical aspects, whereas home is a place where memories, dreams and thoughts embody in physical space through identity, belonging and cultural attachment. Francescato (1998) defines the home, the place of residence, the refuge in everyday life, the socio-economic status, a symbol of the self, and the place

where the individuals with multiple psychological and social characteristics have emotional ties with the environment in which they live [5]. Bachelard (1964) says, "Memories are immobile, the more they are fixed in the space, the stronger they are." [6]. Thus, it is possible for a person to define and interpret his/her house as a home. In human life, firstly, essential needs and then high-level needs must be met. Beyond being a place where people can meet their basic biological needs and functions such as breathing, warming, sheltering, eating, drinking, sleeping etc. It is also essential that protects people from physical harm and threats, ensures their safety and provides the appropriate conditions for them to live a stable and orderly life. The organization of the housing is shaped with culture according to needs, behaviors and activities of the people.

Human being has psychological, biological and spatial needs. Quality life standards of the space is evaluated according to the conditions where these needs could be met. The fact that the space provides the basic physiological requirements an individual need does not mean that it provides the desired and expected quality life standards. As Günal and Esin (2007) stated: "The quality of the place must be measured by meeting the biological needs of the human as well as the psychological needs" [7]. An individual has his/her own priorities, wants, expectations and desires. Considering that human and space are in constant interaction, if a place meets the needs, expectations and desires of the individual as well as biological needs, it is obvious that he/she will psychologically feel much more relaxed, peaceful and comfortable.

Toby Israel (2003) used Maslow's hierarchy of human needs and created a new hierarchy of housing needs in his book called "Some Place Like Home" [8]. According to this hierarchy, in reference to priority, each accomplished residential need, take the user one step forward in order to reach "Home as Self-actualization", in other words "Residential Satisfaction" (Figure 1).

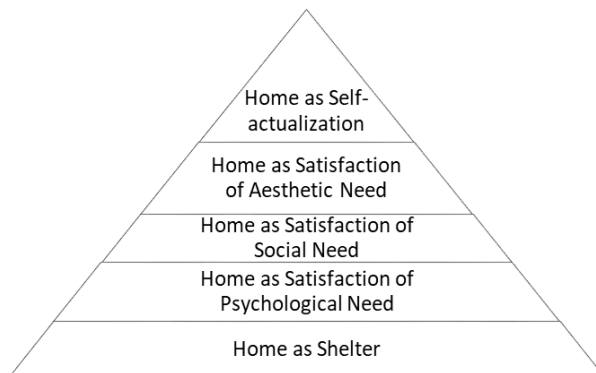


Figure 1. Toby Israel's (2003) Hierarchy of Housing Needs (8).

Israel (2003) emphasizes that it does not matter whether the user lives in a fancy mansion, a rented apartment or a communal place in order to achieve the home as self-actualization. Self-actualization of the housing is not only possible by user satisfaction in a physical sense, but also possible by meeting the deeper existential needs [8]. In order to talk about user satisfaction, it is necessary to design the housing and its environment in accordance with the user's satisfaction requirements. The parameters that affect the satisfaction of the home are frequently mentioned in the studies examining user's housing satisfaction. For instance, the parameters affected residential satisfaction of an individual that is living alone in a flat could not be same for a couple with 2 children living in the same apartment's flat. Therefore, it is significant to consider that the degree of satisfaction varies depending upon the individual's need, time, social criteria, desires and expectations of target user's group.

Presier et al. (1988) defined that "Post-occupancy Evaluation (POE)" is a systematic and regular environmental assessment system that can enabled after a while the environment has been built and used [9]. POE focuses on the users of the environment and their needs. The previous design decisions that are effective in the planning and building of the environment are considered as environmental performance and in one sense the system evaluates these design decisions. Knowledge gained in this direction provides the basis for designers to build a better environment in the future [9]. According to Francescato (1989), Post-occupancy Evaluation emphasizes the value of assessing environments that are in use, not before use [5].

The most vital point that should be highlighted regarding the determination of the user satisfaction for housing is that the user satisfaction is emphasized by the user from his/her own perspective. Because, many problems in the built environment have raised because of neglect to consider users' perspectives.

Changing Housing Perception in Metropolitan Cities

In today's metropolitan cities, rapidly changing living conditions causes perception of housing. Users' expectations, wants and desires are altering in line with the diversifying needs of changing living conditions. This also transforms users' perception of housing and the way they perceive and interpret it. The preferences and expectations of housing users may vary according to their socio-economic status. It is sufficient for a housing to meet the sheltering need for the lower and middle-lower income groups whereas the housing needs is an indicator of identity and lifestyle for the upper, middle-upper and middle-income group housing users.

Another reason for the change in the perception of housing is the changing of family structure. Especially in metropolitan cities, the traditional male-dominated family structure has been replaced by the nucleus family structure. Moreover, it is quite common to see couples without children, single parents

and single families in Metropolitan cities. This situation affects housing types for such differentiating groups and diversified users as well. Some of these new housing types are named as studio, flat, suite, loft, residence etc. (10). In addition to the small housing units with low square-meter, there are also very large and spacious housing units for upper-income groups that commit the user a comfortable, privileged and prestigious life. Most of these apartments are presented as comfortable as the hotel, rich social reinforcements, qualified services and highly secured living spaces to its users. These privileges can be found especially in luxury mixed-use projects that is identified as “Gated Community”, which was mentioned by Blakely and Synder in 1997. They state that the boundaries formed by such structures symbolize belonging to a certain group and attracted attention to the ‘others’ should be outside while the ‘ones’ are inside [11]. Those buildings are presented to potential users as the living spaces of the future during the marketing of the projects. Luxury housing projects are promoted on television, on the internet and on street billboards with similar slogans by construction sales offices. With this marketing method, the new perception of housing is spread that lives can exist in high standards that the vast majority of people (others) will never have. This situation is not only imposed utopian lives that can be reached just by the upper income group, but also leads to a change in people's perception of housing. Marketing policies have been causing those people to enter new expectations and diversify their wishes.

The interiors of this gated communities and residential housing complexes are fundamentally reshaped according to the needs of contemporary life style. In this sense, it can be argued that residential interiors are reduced to be an object of consumption. Considering that the perception of housing varies from person to person, the housing interiors in gated communities and residential housing complexes appear as identical, contemporary look and uniform spaces designed with user's expectation and vision. In this case, the perception of the housing becomes an anonymous structure that eliminates the feeling of home for the users [12]. Therefore, designing the housing interior according to the direct user will be positive in terms of human-environment interaction. This will allow the user to feel a sense of belonging, familiarity and place attachment, as well as to feel him/herself more comfortable and safe psychologically.

Case Study: Varyap Meridian

Today's new generation of mixed housing and living projects, designed for the middle-upper and upper income group, as well as meeting the vital and spatial requirements, shows status symbol and common trends for user's expectations. In this context, “Sarphan Finans Park”, “European Houses Yamanevler”, “Metropol Istanbul” and “Varyap Meridian” are examined luxury mixed living projects in Istanbul in Turkey through their spatial opportunities and marketing strategies (Table 1). The investigated projects are located in Umraniye and Atasehir regions that are closed to “Istanbul International

Finance Center". In these projects, "prestige", "privilege" and "luxury life" are committed to the users. In addition, it is clearly seen that the target group is middle-upper and upper income groups. There is a common feature of the selected projects that all of them have multi-used living facilities such as shopping, entertainment, sports, and education besides housing.





Luxury Housing Projects	Sarphan Finance Park	European Houses Yamanevler	Metropol Istanbul	Varyap Meridian
Images				
	(1a)	(1b)	(1c)	(1d)
Region	Umraniye	Umraniye	East Atasehir	West Atasehir
Marketing Slogans	<p>"The Doors Of A Fairy Tale Life Opens For You"</p> <p>"A Luxury Life with Privileges in The Center Of Anatolian Side"</p> <p>"Rising Value in Umraniye"</p>	<p>"A Prestigious Life Comes to Light"</p> <p>"All Your Needs Are Just One Step Away"</p> <p>"Privilege Is Redefining"</p>	<p>"A Brand New Life in This City Full of Beauty To The Bosphorus"</p> <p>"This Is Metropole Residence, everything is in One Place."</p> <p>"You will find a new life in life."</p>	<p>"Golden Life, Golden Opportunity"</p> <p>"Houses Up to The Clouds, Gardens On Every Floor"</p> <p>"Someone Comes and Changes the World"</p> <p>"Where The Change Starts"</p>
Features	<p>808 thousand 587m2 construction area.</p> <p>VIP 300 Offices that provide the advantage of Office and Helipad, Shopping Center and a Luxury Residence Block.</p>	<p>It will build on 75 acres of land.</p> <p>The project, which consists of 11 blocks in total, will include 1,672 residences, 38 commercial units and office blocks.</p>	<p>705 thousand-m2 construction area.</p> <p>The project consists of three towers; a residential, an office and a mixed-use super high tower. Additionally, project has concert area, public landscape area, gym, parks and many social activity areas.</p>	<p>410 thousand-m2 construction and 340 thousand-m2 usage area.</p> <p>Total 6 towers and 3 low-rise commercial blocks. 5 of them are housing blocks.</p> <p>"Meridian Office & Hotel" Building with the functions of business center, office building, hotel, congress and business center.</p>

Table 1. Investigated Projects [13].

As a case of this paper, “Varyap Meridian Project” is located in Ataşehir district known as the business center of Anatolian Side in İstanbul (Figure 1). The project can be described as being luxurious, mixed-use housing and living center which is constructed by Varyap, TOKI and Emlak Konut. The project, which designed by RMJM's Design Group, has met the “Sustainable Architecture” requirements, is found qualified for LEED certification and has become the first sustainable green project in Turkey [14].



Figure 1. Istanbul Varyap Meridian Project (1d).

The most crucial reason for chosen the Varyap Meridian as a case is just 100 meter far from the “Istanbul International Trade Center”, where is planned to transform Istanbul into one of the financial capitals of the World. In addition, Varyap Meridian is located to main connecting roads and arteries of the city as well. In a metropolitan city like Istanbul, transportation is critical at every stage of life. For instance, one of the most vital criteria emphasizes in choosing housing is transportation for the people who are living in Istanbul metropolitan city. If the location of the dwelling makes it easy to access public transport and/or access roads, this adds value to housing prices.

Varyap Meridian project consists of six towers and three low-rise commercial blocks. There are five residential blocks (1500 housing units) ranging from 20 to 60 floors, business center and office building, “Meridian Office & Hotel” building, congress and business center, and commercial areas in the project. In residential blocks, there are different housing types such as 40 m² studio apartments, custom design penthouses and villa type of residences. In the project, which attracts attention with its large land and high residential blocks, it is seen that the areas reserved for social facilities have larger areas and are more qualified compared to other similar projects (Figure 2). Thus, Varyap Meridian Project addresses users of middle-upper and upper socio-economic

income groups with its central location, construction techniques, used materials and presented social facilities.

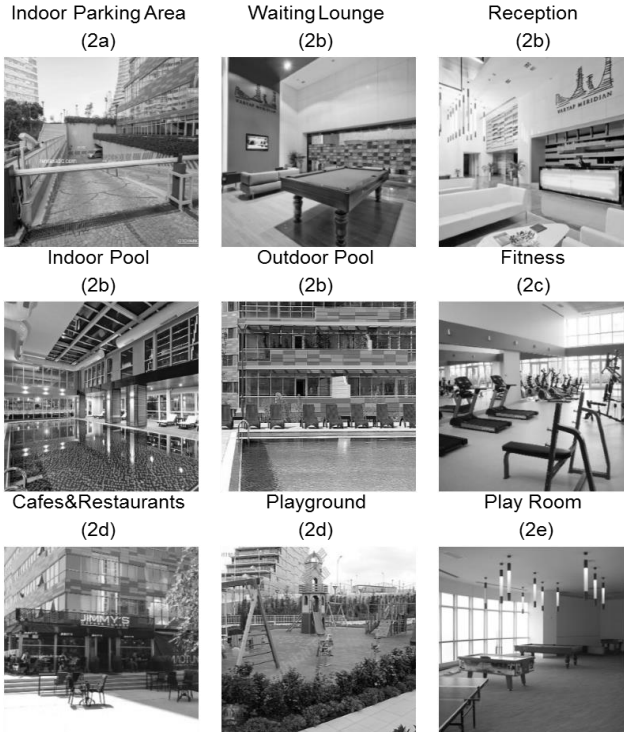


Figure 2. Varyap Meridian's Facilities.

Within the scope of this study, a survey was conducted with residents living in Istanbul Varyap Meridian in 2018 [13]. The aim of this survey is to examine that perception of housing has changed with the changing living conditions in Istanbul Metropolitan city. The questionnaire was conducted to 56 people living in Varyap Meridian by the interviewers. Questionnaire study consists of 3 sections and 46 questions. In the first part, the socio-demographic profile and income status of the users were tried to be revealed. In the second part, the reasons why people prefer Ataşehir Region and Varyap Meridian for living and their general satisfaction levels have been tried to be determined. In the last part, within the basis of perceptual, cognitive and emotional parameters of the place, it has been tried to find out to what extent Post-occupancy Evaluation (POE) criteria met the physiologic, psychological and social needs of users after use.

FINDINGS

The data, gathered through questionnaire from the residents living in Varyap Meridian have analyzed by “SPSS” statistical analysis method. The results of this analysis, “Hierarchy of Housing Needs” [8] and “Post-occupancy Evaluation (POE)” criteria [5] have taken into consideration for interpreting and evaluating the results. Thus, the collected data from the Varyap Meridian have used for determinate the changes on perception of housing and user’s satisfaction parameters.

In the first part of the questionnaire, 13 questions have asked to respondents. With those questions, data collected from respondents like gender, age, marital status, educational background, having a child status, financial situation etc., and thus reveals the socio-demographic profiles of the respondents. In consideration of the data gathered, Varyap Meridian project is resonated mostly with the users who belongs to high-income group aged between 30-49, single, educated and career owner professionals.

In the second part of the questionnaire, the reason of choosing Ataşehir region and Varyap Meridian have been asked to the residents and general complacency of the users have been questioned. In consideration of the data gathered, it is understood that general complacency level of the residence users living in Ataşehir region and Varyap Meridian is recorded high. According to the information gathered from “What are your reasons for choosing Ataşehir?” (Table 2) and “What are your reasons for choosing Varyap Meridian?” (Table 3) questions, the both answers were related to “selection of region” and “selection of housing”. In addition, there are three main criteria appears to being more important for the users, which are “be centrally located”, “secured zone/safe neighborhood” and “socially satisfying” with respect to the order.

	N	%
Socially satisfying me	41	73,2
Having a prestigious neighborhood	35	62,5
Secured	42	75,0
Suitable for my living culture	18	32,1
Central location	55	98,2
Close to my family / friends	12	21,4
Close to Istanbul International Finance Center	23	41,1
Close to shopping malls	24	42,9
Other	3	5,4
Total	253	451,8

Table 2. Percentages and Frequencies of the Question “What are Your Reasons for Choosing Ataşehir?”.

	N	%
Social environment and services	45	80,4
Indicator of status	23	41,1
Suitable for my living culture	32	57,1
Central location	50	89,3
Close to my work	38	67,9
Fit my budget	16	28,6
Easy to access	27	48,2
Close to my family / friends /colleagues	11	19,6
Secured	47	83,9
Clean, tidy and well-kept environment	30	53,6
Close to Istanbul International Finance Center	30	53,6
Close to shopping malls	32	57,1
Total	381	680,4

Table 3. Percentages and Frequencies of the Question “What Are Your Reasons for Choosing Varyap Meridian?”.

On the other hand, according to the data shown in Table 4, “the location of the housing in the city” seems as the most appreciated feature of Varyap Meridian.

	N	%
Spatially large	37	66,1
Spatially small	1	1,8
Useful/Functional	36	64,3
Location in the city	46	82,1
Position in the block	12	21,4
Facade	17	30,4
Scenery	10	17,9
Space atmosphere	16	28,6
Quality and durability of the materials used	6	10,7
Total	181	323,2

Table 4. Percentages and Frequencies of “Please Specify the Most Satisfied Properties of the Housing That You are Living in”.

In the third part of the questionnaire, the data obtained from the residents of Varyap Meridian showed that the users are very satisfied with the housing complex in terms of physiologic, psychological and social satisfaction in the ratio of % 90. When it is considered that residential user profile composes of the people who belongs to high socio-economic income group, it brings to light that in this project’s design process the target group and their needs have been analyzed and determined properly.

Changing living conditions have been causing diversifications in traditional family structure and perception of housing. The data obtained from the study showed that “working, single/widowed and living alone” woman profile in the respondent group is quite high. Today, woman breaks the perception of traditional role of woman that are “ideal partner”, “ideal mother” and “ideal

housewife". In metropolitan cities, women play active role in business sector and shows up as single individuals compared to past. In this study, 24 of woman respondents out of 36 (% 66,7) have confirmed this point. When Table 5 is taken into consideration, 16 of "working, single/widowed and living alone" women out of 24 (% 66,7) are house owners, while 8 of them have a satisfactorily enough income for encounter the rental payment and other general expenses of this luxury housings.

	N	%
Yes	16	66.7
Rental	8	33.3
Total	24	100

Table 5. Percentage and Frequency of Housing Ownership of Working, Single/Widowed and Living Alone Women.

As a result, women who lives in metropolitan cities have socio-economically self-dependent. Moreover, as it seen in Table 6, half of relevant women (working, single/widowed and living alone) have chosen "3+1" housing type that is traditionally preferred by a married couple with two children.

	N	%
1+1 Dwelling	3	12,5
2+1 Dwelling	8	33,3
3+1 Dwelling	12	50,0
4+1 Dwelling	1	4,2
Total	24	100,0

Table 6. Percentages and Frequencies of Chosen Housing Types of Working, Single/Widowed and Living Alone Women.

Within the scope of this questionnaire, two questions; "Which of the following needs is important for you to provide by your home?" and "To what extent does the housing you live in meet the following needs?" were asked to residents to get the data of prioritization of the physiological, physiologic and social needs expected to be met by luxury housing complexes. The results showed up priorities from up to down as below:

- Safety and protection
- Independence and freedom
- Privacy
- Aesthetics and beauty
- Belonging
- Expressing yourself
- Gaining reputation as part of a community

In the light of the data obtained from the questionnaire conducted in Varyap Meridian, Israel's "Hierarchy of Housing Needs" (Figure 1) were also tested according to needs that increase and decrease in priority ranking.

The needs that increase in priority for the user are;

- Independence and freedom
- Privacy
- Aesthetics and beauty

The needs that decrease in priority for the user are;

- Expressing Yourself
- Belonging
- Gaining Reputation as part of a community

Shortly, the results in the case of a luxury mixed-use living project in Istanbul titled as "Varyap Meridian" shows that the interactive relationship between metropolitans (inhabitants of metropolis) and housing have been rapidly changing and those alterations have been transforming people's housing perception. Metropolitans, that prefer to living in gated communities, identified themselves more independent and free in their life and this consideration exactly embody with their thoughts, activities and behaviors.

CONCLUSION

This study focuses on changing perception of housing and living conditions in metropolitan cities, in terms of cultural, economic, communal, social and psychological significance in the case of "Varyap Meridian" in Istanbul in Turkey. In addition, the influencing factors of the transformation in housing perception is analyzed and discussed based on changing living conditions in the case of "Varyap Meridian".

Life in metropolitan areas have prioritize altered requirements and this has differentiated human's life expectations, needs and desires. This also cause people's thoughts, attitudes and expectations related to housing. Industrialization, technological developments, diversifying production and consumption have turned Istanbul to a metropolitan city. Compared to recent past, cities that contain similar social groups and less intense human population within itself, have been enhancing migration from rural to urban. For this reason, psychological and social disintegration between different cultural and social groups in metropolitan cities came into focus.

While the metropolitan city is becoming more crowded and chaotic, urban transformation projects get started to build into or close to the squatter settlements. Most of them are "luxury mixed-use living projects", they offer a privileged, prestigious, comfortable, and luxurious life and a living place with similar socio-economic and socio-cultural groups, who want to live separated and protected from the "others".

This new kind of this housing perception points out that the housing is not only expected to user's needs, desires, expectations and demands, but also becomes a form of consumer culture. Within the scope of new housing perception blended with these expectations, "luxury mixed-use living projects" take its form with these properties such as close to the arterial roads, located in central zones, surrounded with various kinds of social reinforcements and living in gated communities with more secure and protected from the rest of the people.

Shortly, in order to prevent individuals to sustain their lives in housing units and complexes which could not fulfill the notions like sense of belonging, place attachment and identity, the relationship between user and built environment and user and designer should be considered. In this context, the facts such as user needs, changing living conditions and technological developments should be taken into consideration for designing living spaces. Moreover, the studies about interior architecture and interior spaces could help to acquire more reliable data for designing new, different and/or supportive living environments for people.

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ARCHITECTURE OF THE NEW TYPE OF SACRED SPACE

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ABSTRACT

Multi-faith spaces are, the new type of sacred environment that anyone can pray irrespective of their religious believes. They are the new type of sacred spaces in the 20th and 21st century replacing Churches, Mosques and temples in social places like airports, universities, shopping malls and hospitals. The origin of this spaces is obscure, since they gradually emerged due to the need of them by society. Their architecture has always been abstract and quarrel as well. They can be considered as vernacular architecture of this century.

This research paper tries to cover the history, analysis of these sacred spaces and their design principles in contrast with purpose of praying or worship in general to find the convenient way to design multi-faith spaces. Since, they can't afford to look like neither Churches and/or Mosques, nor can it be a temple style associated with something non-religious. To identify the best or appropriate architecture for these new sacred spaces a questioner form was collected from different backgrounds and religion followers through social media on the basic's functional requirements of praying area qualities and sharing of praying areas with other religions.

Time sharing of an empty space to be defined by the user, that is transformable space, can be the simple definition of universal sacred spaces.

Key Words: Multifaith; Sacred Space; Empty White Room; Praying; Worship.

INTRODUCTION

Religion has always been a delicate topic to be discussed by different groups especially. Therefore, it is a sensitive issue to accommodate and share a worshiping area between followers of different religion. However, at some point it was necessary that multi-faith spaces were introduced. As described by Father Cuenin, "architecturally the direct ancestor of the modern multifaith room are a few spaces shared by Christians and Jews dating from the middle of the last century, the oldest of which could be found in the United states Army before the Second World war" [1]. Though this is said there are some

other examples of sharing of sacred spaces in India and Far East between two or three religions traditionally.

Very little has been discussed and written about the origin of multi-faith or an important person associated with shared sacred spaces. The first discussion on the topic was made in 21st - 22nd March 2012 at a conference in Manchester University by the title 'Multifaith Spaces, symptoms and Agents of Religions and Social change'. This was followed by the exhibition encapsulates the essence of the project: Multi-Faith Spaces: Symptoms and Agents of Religious and Social Change, a three-year collaboration between the Universities of Manchester and Liverpool designed in partnership with the North West based creative agency [2].

Three phases have been discussed as a forerunner for multifaith spaces. First being Non-denominational space, as the Meditation Room at the United Nations in New York (1957) designed by Dag Hammarskjöld and the Rothko Chapel in Houston (1971) founded by John and *Dominique de Me nil* with paints of Mark Rothko. Followed by, Multi-denominational and ecumenical initiatives, examples like MIT Chapel in Cambridge Massachusetts (1955) designed by Eero Saarinen where in both cases Christian and Jews provisions were considered. Later, leading to the Multifaith spaces that we see today, the first known example of it being Vienna international Airport in 1988.



Figure 4. Vienna International Airport Multifaith Space (1988).

These new sacred spaces are referred by different names as well like Quiet space, Room for reflection or prayer room. The most common type of these spaces is a windowless white room with religious texts and books on a shelf kept in boxes out of site, where the design challenge is how to avoid a space from being meaningful in an inappropriate way, which is preventing any concepts that come closer to any religion [3].

The architecture of the space is restricted as when there are more religions to accommodate less is shown. The user conceals or reveals the amenities

according to convenience. The research based on an interpretation and analysis of existing multifaith spaces in airports and schools and questioner distributed through social media to gather the cultural understanding of sharing sacred spaces with others without being offensive and preferred design principles for new proposals.

Classification of Multifaith Spaces

Based on the architectural composition and design concepts of researched multifaith spaces, for the purpose of this paper they are classified into three as: Neutral Design, Alternated Design and Separate rooms.

Neutral Design Multifaith Spaces

This type has the principle of avoiding all concepts of religion since it can't look like a church or a mosque nor it can it be a temple of other religion. Where religions are considered by their absence. It is seen "as a response to a globalized world in which social life is torn from its loyalty and we interact with absent others rather than face to face" [4].

The most common one of these spaces is as mentioned above a windowless white empty room with a couple of texts and materials at the corner shelves. As also seen in the pictures below the room is left empty with different lighting art, where shelf of materials at the back. The user conceals or revels which elements and facilities to use.



Figure 5. Queen Mary University of London, Multifaith Center [5].



Figure 6. Multifith Room, Athens International Airport.

The other type from this group is concepts based on sea and/or sky or abstract works of gravels plain branches artfully arranged, which can be generalized as concept of nature and other abstract touches.



Figure 7. Boston Northeast University, Multifith Space with Concepts of Nature.

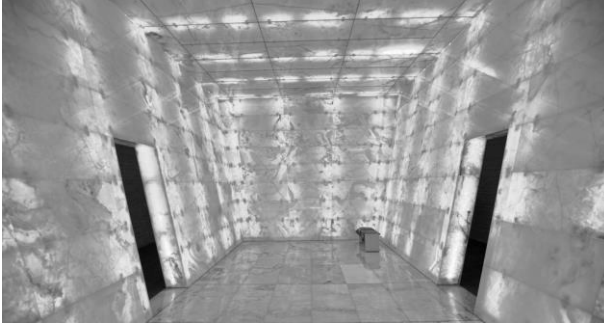


Figure 8. Zurich FIFA Praying Room, Abstract Design.

Alternated Design Multifaith Spaces

In this type, multifaith space are rooted in one tradition but in need of inclusion it is open to all in spirit of hospitality. Harvard Chapel is a good example of this type, where the Chapel's choir is transformed to praying area for Muslims due to its need [3]. The lower floor is also open for other group religious practices and meditations [6].



Figure 9. Harvard Chapel, Previous Choir Place Currently Used as a Masjid.



Figure 10. Harvard Chapel, Lower Floor Used For Group Activities and Upper Floor Remaining As the Church.

Another example of similar type is Houghton Chapel in Wellesley College completed at the end of the nineteenth century, turned to new Multifait center in the crypt beneath the historic chapel [7].

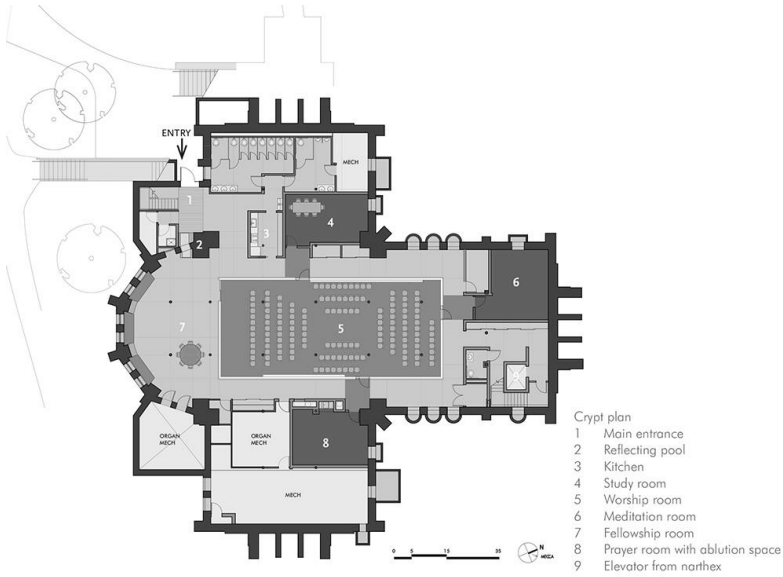


Figure 11. Houghton Chapel's New Plan as a Multi-Faith Center.

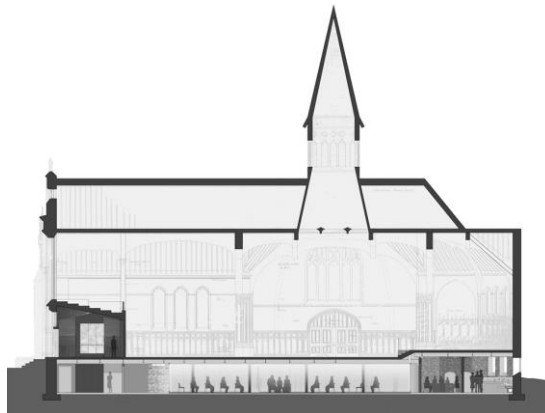


Figure 12. Section Showing the Multifait Center in the Chapel Basement.



Figure 13. Chapel's Interior Separated as Mesjid and Group Prayer Areas.

Second example from this type is a transformable multifaith spaces that change according to the user's interest. A unique example being the Manchester Trafford shopping center Multifaith room [3].



Figure 14. Manchester Trafford Shopping Center Multifaith Room.

Separate Rooms

As the name express different rooms are assigned for different religions. An example can be Taiwan Taoyuan International Airport Prayer room where three separate rooms with different signs on the doors are designed with a lobby space and separate doors [8].

In Brandeis University Massachusetts three different buildings have been designed for the Jewish, Catholic, and Protestant faiths. These chapels are designed to be equal in size and physically placed surrounding the pond and never to cast shadow on one another [9].

The concept of separate rooms or spaces only works to some range. Since when the number starts to outcome and there is a need for accommodation of more it runs short.



Figure 15. Taiwan Airport Multifaith Space with Three Different Rooms for the Three Main Religions of the Area.



Figure 16. Brandeis University Three Chapels.

DISCUSSION and SURVEY

Anthropologically sacred spaces have been conceived of as a place where heaven and earth are joined, metaphorically a navel of the world [10]. With this understanding, those who believe that their God is real, in showing of tolerance recognize others having a similar opinion treat multifaith spaces a place where a free choice is made among alternatives.

Based on the survey done on thirty-seven individuals in July 2019, from different part of the world through social media data is gathered on the exposure of people to other religion and sacred places. Discussion includes purpose of praying, sharing of praying areas with different religions and what should be the suitable or better architecture of shared sacred areas in public places where there is a need for multifaith spaces.

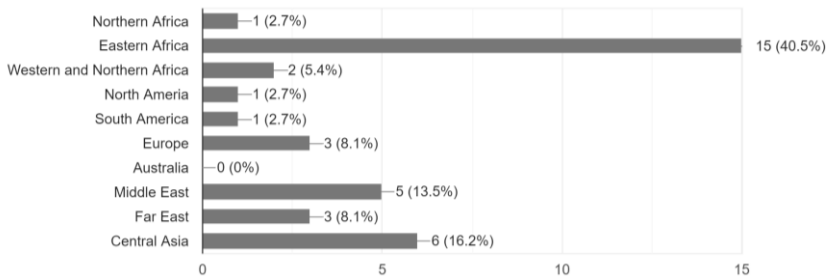


Chart 1. Nationality of the Participant of the Survey.

The survey is done on the youth generation with average age range from twenty to forty. From this survey 96% of participants had the opportunity to be in close contact with followers of other religion and 78% has visited other religions place of worship. However, only 54% is comfortable in sharing praying spaces and pray in room with symbols of another faith. From a previous survey done in 2016 on fifty individuals a similar theme it was collected that people are more positive towards sharing their spiritual places with other rather than praying in places belonging to another religion.

The purpose or reasons of praying and worship was also asked in the survey in order to project on the possibilities of architectural qualities and remind collect common objectives of worshipping. Summary of the result is shown in the chart below.

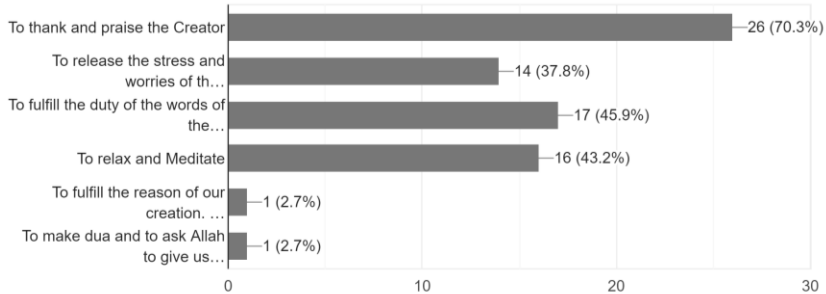


Chart 2. Summary of Survey on Worship and Purpose of Praying.

From this chart we can see that the main three reasons of praying can be summarized as to praise God, to fulfil our duty and Meditate or release stress of this world. These are common reasons shared by followers of different faiths.

Based on the results of the purpose of prayer and sharing of sacred spaces with different religion follower, sample of multifaith spaces were shown with adjectives of concept designs of shared sacred places and results are:

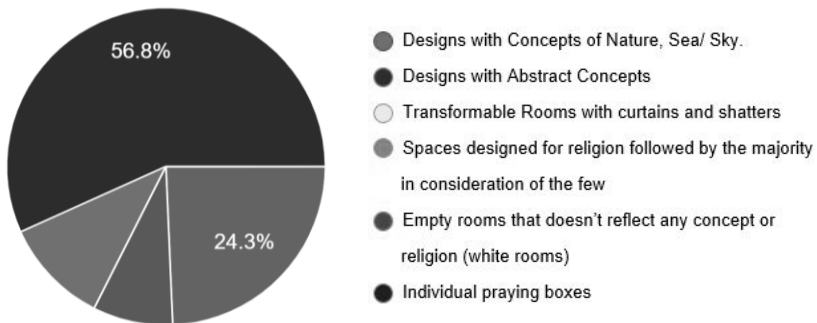


Chart 3. Summary of the Survey on the Design Concept of Shared Sacred Spaces.

From this summary chart 57% prefers multifaith spaces that are designed in a concept of not giving a space inappropriate meaning that is empty or nothing, which is the 'architectural equivalence of silence' [3]. Thus, the only way we can speak of nothing is to speak of it as though it were something [11].

Important note to consider in the survey analysis is that, 80% of the participants are from same religious background which can't give a comprehensive result.

CONCLUSION

In this century of globalization and dynamic era it is essential to think of multi-functional spaces in most aspect. This new type of scared spaces referred as Multifaith spaces, Prayer rooms or room of reflection are attempts of framing various worship practices in a unified interior.

Even though, picturesque of nature is not considered culturally neutral when presented in a non-religious setting even produces a pagan atmosphere, it can be said that monotheism can't deny nature being the Creator's work to be appreciated. The architecture of this new sacred spaces also has two options of either removing all concepts absence becomes as significant as presence perhaps making the architectural objective the very least design of enclosing a space. Or the second choice the maximum resemblance of it to nature. What should not be forgotten is these spaces are still places of worship missing the traditional forms of expressing sacredness.

The multifaith room is empty and undefined when it is unfilled, but the users are the defining characters of it.



Figure 17. University of Toronto, Multifaith Space/Room.

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PART 7



EDUCATION





LIQUIDITY AS A NEW CONCEPT IN ARCHITECTURE AND ARCHITECTURAL EDUCATION: ARCHITECTURES BY STUDIO THINKIMAGINE

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ABSTRACT

Industry 4.0 and Society 5.0 developments triggered drastic changes; conventional concepts of architecture, such as memory, belonging, place, context, construction, meaning and the settled started to live side by side with their alternatives, i.e. placelessness, acontextuality, destruction, mediocrity and disjunction. Intensive use of digital technologies put *time* into the center and time started to act as a parameter in designs. *The virtual* gained strong position in architecture whereas *the real* enlarged its repertoire. Cyberspace became the new field of/spatial experiments, as it gave birth to *liquid architecture*, an architecture that *tend to music*. Architectural education, on the other hand, stepped beyond the vertical methodology that was based on the master-apprentice relationship and proposed the horizontal experimental-critical pedagogies that took the learner individual to center. This time, all participants (learners, masters/teachers) as critics were included in the experiment. In this context, present paper focuses on a design studio experience. *Immigration museum* was given as the design topic due to several meanings that can be associated with flow, fluidity and liquidity. The studio developed liquid spatial responses to the issue. Composed/meaningful connections between time-space sections created architectures, therefore one-time / frozen architecture was tried to be exceeded/replaced. The experiment was *learning from cyberspace* rather than acting in / with it, thus it was on carrying/adapting/trying dynamics of cyberspace to the real. The paper displays a retrospect of the trial. The methodology of the experiment was; (i) working with music as a possible inspiration/base for liquidity in architecture, (ii) writing time-space scenarios and (iii) designing time-space sections as architectures. Experiment results display future architects' potential in dealing with eternal social issues as old as Göbeklitepe (10000 BC, Şanlıurfa) in the age of artificial intelligence. Liquid architectures can surprise us with their imaginings for future, the urban and social considerations taken into account and their disjunction with the conventional.

Key Words: 21st Century Architecture; Architectural Education; Immigration; Design Studio; Liquid Architecture.

INTRODUCTION

Creating meaningful, imaginative, habitable environments via conventional art and craft of construction had been the main concern of architecture throughout centuries. Through the end of 20th century, architects started to show interest to heterogeneity, fragments and contradictions since these concepts were useful tools in expressing physical, cultural and social differences and conflicts [1]. Moreover, the redefined physical experience and materiality introduced via computer technologies [2], and the new social demands hit the firm place of the *frozen form*, replaced it with *function*, *event* and *program* variables [3]. All these triggered vast changes in understanding and making spaces in the first quarter of the 21st century.

Education of the architect displayed reforms accordingly; the adventure that started with Beaux-Arts and Bauhaus, that continued with various experimental pedagogies came to a point seeking for new approaches that can cope with the new developments [4]. Obviously, the conventional education serving to the slowly changing sector is becoming an obsolete one as new pedagogies encouraging dynamic changes via critical thinking and horizontality (instead of conventional hierarchy in architectural discourse) are becoming more valid. Digital archives and interfaces have been proposed as the new horizontal platforms that can boost collective intelligence and innovation, therefore reverse the position of university and the knowledge produced in it [5].

Both architecture and architectural education has been sensitive to social issues throughout years and immigration is a topic that requires special concern of architecture. Industry 4.0 and Society 5.0 developments do not seem offering much to such big enforced human movements. Instead of offering 50 shades of temporary residential environments for immigrants, developed methodologies, sensitive approaches, throughout proposals of architecture and research are needed. Since immigration is social, political, global, economic, sociologic, psychological, dramatic and real, architecture's involvement with such kind of a heavy issue requires deeper concerns.

Certainly, immigration, aging society, climatic changes, artificial intelligence and robots will be among the leading problems that future generations will be dealing with seriously. If future architects are expected to be *game builders* rather than being poor *game players*, the topics and methods that have been part of education for centuries should be replaced with such future issues as well. Transition does not need to be sharp and immediate; new developments can provide old topics with enrichment in thinking and doing.

Smoothness, Flow and Liquidity

Flow and *fluidity* is being proposed by various theoreticians and artists as a response to the complex nature of developments. *Smoothness* was formulated as an alternative for getting rid of the limitations caused by the two distinct strategies opposing each other in creating architectural environments; (i) the opposition and contradiction and (ii) the integrity and re-construction.

The first strategy, opposition and contradiction, was based on heterogeneity and hard formal conflicts whereas the second strategy, integrity and re-construction, was based on continuity, repeating an architectural language that is obtained via historic analyses or acting in a kind of regionalism via following traditions and continuity. *Smoothness* was proposed instead of choosing and acting in one or the other. Continuous transformation of properties / characteristics provided designers integrations in heterogeneities. Continuous changes, developments of form and the concept of flexibility killed the hegemony of the static and gave birth to *flow* and *fluidity* in architecture [1].

Cyberspace, the new space of art, similarly, proposed another kind of liquidity that facilitates an architecture out of logic, perspective, gravity and Euclidian geometry. Liquid architecture is a form of continuing metamorphoses therefore time is one of the main elements of architecture. Time has to flow so that forms can metamorphose. Metamorphoses is explained as the *changes in one aspect of an entity as a function of other aspects, continuously or discontinuously*. Space becomes navigable music, therefore liquid architecture is an architecture that possess *to music*. It is open to poetic thinking, uses poetic devices. It is not a single edifice but a continuum of edifices, *smoothly and rhythmically evolving in space and time*. The dematerialized architecture of *fluctuating relations between abstract elements* constitute the liquidity. Liquid architecture has an identity, an identity that is not fixed or frozen in time but can be diagnosed through a careful consideration of lifetime [6].

Architectural Education in Transition

Education of architects has always been a topic high on the agenda. New design pedagogies were used from the mid-1960s to the late 1990s, as critical inquiry and process-oriented pedagogies characterized the education from the late 1990s to the mid-2010s [4]. A *trans-critical pedagogy* has been recommended for near future. According to this approach, theory and studio courses should be united, the knowledge derived in classrooms is expected to be re-called in the studio. Bodies of knowledge such as economic issues, construction practices, history/theory knowledge, social/cultural/behavioral issues and environmental/sustainability issues should all be able to be used in design via specific design assignments, therefore design assignments also need special design. For a trans-critical pedagogy for graduation thesis projects, architecture design studios are expected to be formed in trans-disciplinary consideration; come together with sister disciplines such as landscape, engineering, urban design, interior design and planning so that all designers can act in team projects. For all levels in architectural education, the following expectations have been pronounced; (i) thinking globally and acting locally, therefore developing understanding for larger context and processes of human habitation, (ii) utilization of built environment as an open text book, therefore directing students to present environments for thorough analyses and diagnoses and (iii) encouraging students for searching and

thinking critically, therefore being able to make comparisons and reasoning [4]. All these require well-designed and well-run curriculums both for design studios and for schools.

This paper focuses on a studio scale pedagogy. On the other hand, whole curriculums deserve reconsideration due to the newly appearing international on-line learning platforms and newly developing project-based learning strategies. I am afraid, the transition and replacement need to be fast and sharp in order to catch the developments lived in the production of architecture, and need to be faster and sharper in order to be capable of directing all these developments. Otherwise, artificial intelligence applications that are capable of learning from human experience and each other can take over a big part of architect's role.

The Problem Statement

Considering all these chaotic developments and the future of profession, the following problem statement was formed: Can one-time-frozen architecture be replaced with *flow* and *liquidity*? What can be the obstacles in putting *liquid architecture* into action in real life design processes and for real life problems?

One semester studio experience of Studio ThinkImagine (Gazi University, Turkey) was devoted to this experiment.

Objectives

Exceeding the limits of one-time / frozen architecture and making future architects more responsible from the future of places were the general objectives of the experiment. Therefore a specific problem, thematic immigration museum, for an urban environment in transition was given them as the assignment. Participants were expected to consider various urban dynamics that change in time therefore create architectures as responses to these changes, to keep places alive, architectural and habitable.

The Assignment

The assignment of 2018-19-II semester were defined as the following: "Experiments on building–destruction-(re)building potentials in Ankara Gazi Mustafa Kemal (GMK) Boulevard as an *urban (re)construction... time as a creative/destroying effect in architectural design... (re)forming / (re)organizing capabilities of space according to changing migrant/migration fluxes.*" [7]

Ankara GMK Boulevard is a typical axis in the city in transition. The newly constructed High Speed Train Station started to change the building types on the Boulevard in the last two years. As present buildings are old, each face the reality of destruction and being rebuilt, obviously higher and bigger. Populations arrive this district via the Station and public transport as the walking student population is also high. Residences, hotels, catering services, night clubs, schools, offices and several retail activities all take place on the Boulevard, each having its own flow and presence.

Participants were asked to design a *thematic immigration museum* for the Boulevard, in place(s) and in time(s) that themselves would propose and reason. Immigration museums were expected to have 2/4 *time-space sections* (architectures) in line with the future scenarios written by participants. By observing the real environment, considering/imagining possible long/short term urban/global changes, participants were expected to keep all district alive/updated via controlling the components of the physical environment. Designs were expected to be accessible, have different program components in different time-space sections, offer social spaces for different populations, sensitive to climatic issues, offering / discussing new modes of living both in residential and public scales.

METHODOLOGY

Participants were let free in their inquiries. Their search in the actual physical environment and in the academic knowledge on humanity, immigration, global changes, Industry 4.0, Society 5.0, music, liquidity, flows, architecture etc. was not limited with already existing techniques and a ready-made reading lists. Studio tried to activate individual's own potentials and background for running investigations. Therefore, participants were not expected to present any formal results derived from a formal inquiry. Rather, their senses, perceptions, understandings, feelings, freely collected data, attitudes and connections to the site were considered to be more important than the knowledge that could have been gained via already known analytic strategies.

The experiment was run as the following:

- Working with music: Each participant focused on a specific music piece, listened it several times and prepared a hand-made 3 dimensional model representing the flow of music in time. Making the model and presenting it verbally provided each participant ideas about flow, how music was flowing in time, so could architecture. Music was used as an inspirational source. Knowing the limited and mostly form-based relationships between music and architecture in time [8,9], participants were expected to propose more subjective, conceptual, emotional approaches. The concepts and adjectives defining the *flow of the music* were used as keywords, the keywords that could also define the *flow of space*. Please see Picture 1, displaying examples of the chosen music piece, how it was reformed as a 3 dimensional model by individual and the keywords attributed to the models.
- Time-space scenarios: Rather than thinking an architecture for one-time, different time-space scenarios for the Boulevard were written by each participant. Since Studio ThinkImagine is a vertical design studio that holds 2nd, 3rd and 4th year students, younger participants were expected to write 2 and the 4th year participants were expected to write 4 time-space scenarios for the Boulevard and the near environment surrounding it. Each participant has different interest and background in terms of imagining future scenarios for

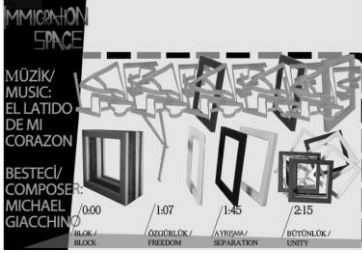
urban environments. Most imaginings were closely related with the Hollywood films and best seller novels. Therefore, personal stances were encouraged to be used in the establishment of time-space scenarios. Please see Picture 2, displaying examples of urban scenarios written for different years in future.

- Time-space sections: The scenarios written for characteristic times of the urban future gave birth to time-space sections as architectures. Rather than the conventional design and presentation tool, the word *section* in this experiment, stands for the architecture that is supposed to be present for a certain period of time, the specific/definite/definable step or phase in the urban/spatial flow that makes the continuity of *architectures* possible,. Therefore the term *architecture* was replaced with *time-space section* as one-time frozen and eternal architecture was replaced with a more flexible existence that can evolve to something else according to certain future changes. The characteristic of the evolvement was determined according to individual's interpretation about flow and how music was flowing. Please see Picture 3, displaying how different but connected architectures were derived from the time-space scenarios, how they could provide a continuity or act according to the definite break / disjunctions of the urban environment.

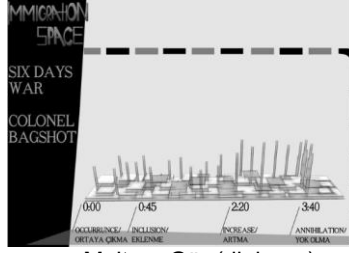
The Studio Process

Some conditions eased participants' flow in the studio and semester; (i) freedom of search and speech, (ii) obligation for attendance and presentation, strict tracing, (iii) lot of writing and talking before designing, (iv) obligation to have a personal and original stance/voice, (v) cooperation with the other participants, (vi) obligation for acting proactively in all studio processes, following/motivating the flow of the studio and (vii) acceptance of hard working, the kind of working for an unknown/unforeseen result.

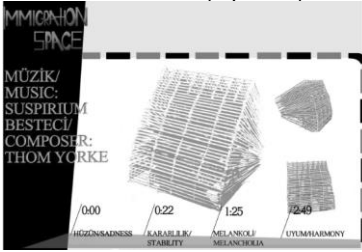
The experiment that started in a more introvert manner via intensive in-studio sessions that later opened itself to strangers (invited professionals) through the end of the semester. Critic day, which is a critical and characteristic practice of Studio ThinkImagine, happens 11th week of each semester with participation of external critics to the studio for table critics. Teachers of the studio do not take part in these table critics as student participants are expected to present their proposals properly to people who know nothing about the design problem and process. Very probable that professionals know a lot about architecture but nothing about architectures, architecture's potential for being liquid. Reinforcement of verbal / conceptual skills, rethinking, reconsidering, answering possible questions, betterment of design and hearing some professional advice are among the objectives of this educational activity. Puzzled minds are directed to peaceful solutions via extra table critics by studio teachers through the end of the semester.



Dilek Ertürk (diploma)



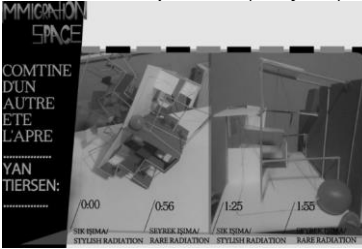
Meltem Gür (diploma)



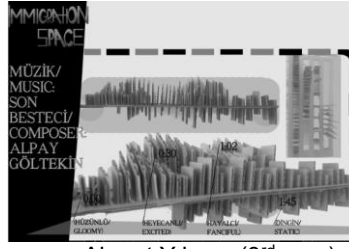
Ahmet Necip Belek (2nd year)



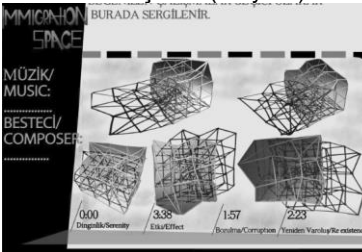
Melih Atılı (4th year)



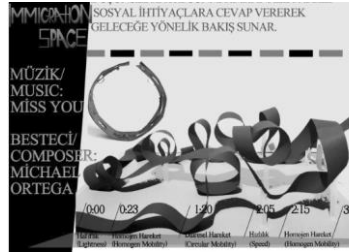
Murat Çırlak (3rd year)



Ahmet Yılmaz (3rd year)



Meryem Polat (2nd year)



Betül Akbaş (2nd year)

Figure 1. Examples of the Chosen Music Pieces, the Emotions and Adjectives Attributed To Different Time-Sections of the Flowing Musics, Studio Thinkimagine, 2018-19/II, Prof.Dr. Pınar Dinç Kalaycı, Instr. Can Güngör, Instr. (Part-Time) Bolkar Açikkol, and Res.Assist. Gizem Özkan Üstün.



Betül Akbaş (2nd year)



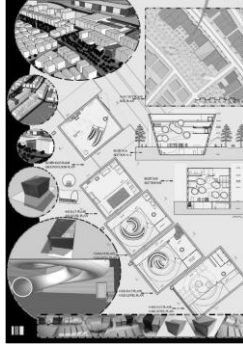
Ece Dalgıç (2nd year)



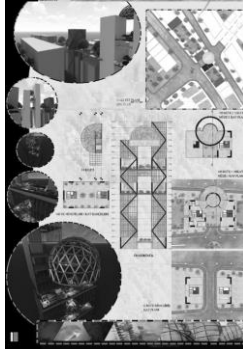
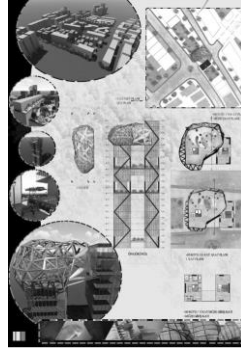
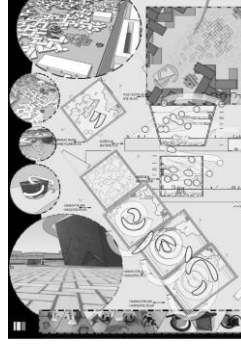
Ahmet Yılmaz (3rd year)



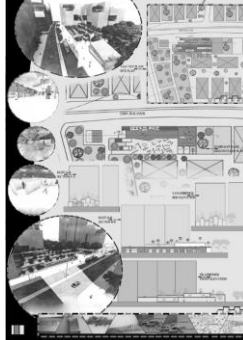
Figure 2. Examples of Time-Space Scenarios Written For Gazi Mustafa Kemal Boulevard (Ankara, Turkey)
Studio Thinkimagine, 2018-19/II, Prof.Dr. Pınar Dinç Kalaycı, Instr. Can Güngör, Instr. (Part-Time) Bolkar Açikkol, and Res.Assist. Gizem Özkan Üstün.



Betül Akbaş (2nd year)



Ece Dalgıç (2nd year)



Ahmet Yılmaz (3rd year)

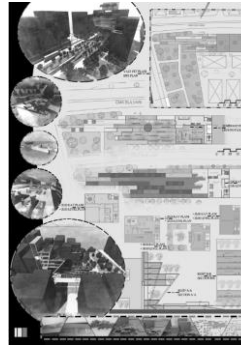


Figure 3. Examples of Time-Space Sections for the Thematic Immigration Museums in Gazi Mustafa Kemal Boulevard (Ankara, Turkey)
Studio ThinkImagine, 2018-19/II, Prof.Dr. Pınar Dinç Kalaycı, Instr. Can Güngör, Instr. (part-time) Bolkar Açıklol, and Res.Assist. Gizem Özkan Üstün.

Accurate presentation is a must for closing the semester with success. Therefore, last 2 weeks of each semester is devoted to presentational issues, such as how to draw, how to compose, how to write and how to speak. Unconventional assignment causes conflict in using vocabulary and creating terminology. The conventional vocabulary already at hand need replacements, therefore dictionaries are encouraged to be used in order to check the present/common meaning of words. By using the conventional meaning, participants are expected to use these words in unconventional ways in line with their time-space proposals. Graduation Project students are encouraged to write a mini-dictionary stating their own understanding / interpretation of specific terms after proposing time-space sections.

Project Bazaar and exhibitions at the end of the semester and at the beginning of the following semester also provide strong feedback to participants. Responses of other people, their specific areas of interest, their reasoning of their evaluations and their recommendations enrich not only the social environment of the Studio but also the personal stance of individuals. Defending and presenting a completed unique work helps the development of self-confidence of individuals. Instead of juries that have been criticized a lot in terms of injurious effects on personality, the Project Bazaar gives equal opportunity (5 minutes presentation) to each individual to express oneself. Similarly, the formatted exhibition in which each individual inserts his/her designs in a pre-formatted order of sheets gives equal opportunity to each individual to present oneself.

Briefly, freedom in search and speech and equality in presentation and expression manages all studio process together with hard work. The unconventional design assignment was considered as a challenge that could have only been tackled in this way. We are open to further suggestions from possible readers.

Experiment Results / What is learned? Is liquidity possible in real life?

Results can be summarized as follows:

- Considering The Atatürk Cultural Center in Taksim (Istanbul) or Atakule in Çankaya (Ankara), possible to claim that an architect or an office can design for one specific place for more than one time. Changes in the urban life, politics, uses, renovation needs all require architects to adapt / change / redesign their buildings. Therefore *flow* in architecture, with the meaning used in this paper, is an already existing concept. Students observing these changes in their vicinity should be equipped with the dynamics and vocabulary of such changes rather than continuing their education in conventional manner. 21st century has appeared in our lives with its own dynamics and flow and fluidity are one of them. So, liquidity is not a possibility for real life but it actually is a real fact of contemporary life.
- Student participants were enthusiastic with the assignment given to them. But carrying out such a work requires strict discipline and forcing people

for thinking out of frames. Though freedom of search and speech in studios eases the process of jumping out the already knitted frames, total curriculums need redesign as well so that they encourage individuals for unconventional thinking and inquiry. Design studio is insufficient itself for developing individuals in that way. So, liquid architecture needs liquid curriculum. Electives that can be taken from other disciplines, such as philosophy, physics, cinema, literature, sociology, media art or crafts, workshop environments, summer / winter schools, excursions, participating colloquiums and exhibitions and several other sources should be available in curriculums. Skills and information derived from variety of environments can support minds imagining liquidities.

- Architecture is an intellectual discipline and recently developed digitalization requires more intellectual individuals who can control/connect/operate the dynamics of digital and real world simultaneously. Lot of looking, understanding, walking in, sensing, touching, talking, criticizing, filming, drawing, dancing should be encouraged before individuals sit in front of PCs and automatically start developing the parametric forms, one innovated from the other. Future architects should not consider digital world as real but as a tool for developing a real world living in harmony with humanity. Competition between parametric approaches can be very fruitful in hands of conscious individuals. So, liquid architecture requires developed personalities in terms of sensing, understanding and interpreting the real world.

- Success is a magic word. In professional life, designs or works receive several and varying criticism. Therefore, individuals should not be limited with educational scores but their works should be opened to discussion and reasoning as well. Working on an unexpected / extraordinary assignment, being able to cope with it, presenting it and exhibiting it were considered to be a success for all participants, therefore 95 percent of participants received AAs at the end of the semester whereas 10 people's works were awarded by the independent Project Bazaar jury. Two different results is better than one that is supposed to be the ultimate. So, success in unconventional situations is more possible when individuals let their creative powers flow to the ultimate and when the responding evaluative habitat of the studio is also liquid.

- Architecture's connections with arts should be reconsidered though design and construction processes nowadays are run via digital technologies, in fab-labs and by robots. Internet of things may connect several gadgets and an intelligent system can start / end working with one push of a button. In such an over-engineered world, spaces get in danger of losing character and becoming non-architectural. What buildings / structures / constructions need is human / soul / poetic / artistic touch. Therefore cooperation with arts, whether inspirational as proposed in this experiment or methodological can save architecture and it's humanly purposes. So, liquidity can be learnt from arts; any music, film or novel (as a composed work) can be a good source of inspiration causing architecture to be liquid.

CONCLUSION

Study presented an experiment on *replacing one-time / frozen architecture with a liquid one*. Experiment got its inspiration from the liquid architecture approach that was generated in/for cyberspace, therefore tried to learn from cyberspace and its experiences. The series / sequences of metamorphoses that the liquid architecture required were tried to be obtained via time-space scenarios and time-space sections. Continuity, the flow of metamorphoses was obtained via learning from music; music's flow in time inspired the flow of the dynamics that caused liquidity in architecture.

The experiment itself and studio teachers' observations in real life indicates, one-time / frozen architecture can be replaced with liquid architecture, though replacement requires special concern. Time's effect on things, on human, life, urban environment, climate, materials, culture, construction techniques etc. need further and deeper consideration. Skills of today's architect is very limited with the practices for creating one-time designs, designs that is supposed to live forever but instead function until another thing is required.

Architecture needs support of other disciplines, not as magical tools that can solve every problem instead of architecture but as sources of inspiration that can give clues to architects for more innovative solutions. In addition, the information / knowledge that architects face in their life-long education should include a varying set of unconventional topics as well such as ethics, global developments, climate changes, human nature, habitat, flora and fauna of places, urban dynamics, economy, politics, futurism, data mining, parametric design, robots, artificial intelligence, history, archeology, arts, social media studies etc.

An architecture that tries to flow in time and act in liquidity requires data to be updated continuously so a time-space section as a response to a certain set of data necessitates changes, metamorphoses, flow, give birth to another time-space section that is response to another set of data. Architect's own dynamics, such as feelings, understanding, skills, knowledge and ideals are also included in the process.

Liquidity requires strong control of individuals on the varying kinds and numbers of dynamics therefore tomorrow's architects need to be proactive intellectuals rather than being pure followers. Architectural education that is based on conventional course contents should also be replaced with a more dynamic approach allowing students feed their intellect from various sources. The topics that have positive effect on the intellect is another paper's subject.

ACKNOWLEDGEMENTS

The works presented here could not be possible without the wholehearted work of Studio ThinkImagine teaching staff, Inst. Can Güngör, Inst. (part-time) Bolkar Açıkkol and Res.Assist. Gizem Özkan Üstün. Also I want to present my gratitude to the whole teaching staff of Faculty of Architecture, Gazi University for their showing interest and favor to our studies, especially to the Project Bazaar and the exhibitions. Being the volunteered third eyes of our studio, special thanks to architects Resul Saraç, Seda Yorulmaz, Hamiyet Gökmen Balcı, Levent Balcı, İnci Erat, Tarık Mermer, Sinan Kınıkoğlu, Gülsu Ulukavak Harputlugil, Cansu Dinç and Halit Erkmen for their precious contribution to Critical Week and the Project Bazaars. At last but not least, I need to express my enthusiasm for the forthcoming World Architecture Festival-2019 (December, 4-7, Amsterdam, Netherlands) in which I will take place as a jury member, under the theme of “flow”. Our work gained special status with their invitation.

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STUDIO FOR POTENTIAL ARCHITECTURE (POMI) AND “THE PHOENIX PROJECT”: STRUCTURAL EXPERIMENTS WITH A SINGLE ELEMENT

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ABSTRACT

Studio for Potential Architecture was founded as an architectural studio in 2002, in Eskişehir Osmangazi University and has been active since. The Studio published the first volume of collective works in 2012 as a bilingual, 360-paged book which almost covered all *Pomi* works.

In 2015 and 2016 the studio focused on a long-term, yet ephemeral mobile project: Building fourteen different, successive architectural installations, later baptized as *The Phoenix Project* by its protagonists.

Initially, *Pomi* students were asked to unfold concepts like wave, roots, snow, cloud, etc. to built with a single architectural element: 220 cm. long, 5 x 5 cm. sectioned standardized wooden sticks, perforated and staggered in every 20 cm. on all sides to be articulated with bolts and nuts. Concepts were deliberately chosen as delimiting; so any design attempt would face a “oulipian” constraint which is called monovocalism. A monovocal text is composed of a repeating vowel (and only that vowel is used); and translated into architecture, this would almost be the equivalent of building with 500 identical linear wooden sticks like ours.

The process began with the making of scaled conceptual models; then came the execution of the proposals in real scale. (Before that, all wooden material was drilled, sanded, veneered collectively by the students.) With a small group of students, the installations were to be built in a few days. This required reasonable assembly logic and had to be done with minimized labor. As soon as the installation was finished (be it within the building of the architecture department or outside of it), the work was to be carefully and ambitiously photographed and then dismantled within days. This process was a repeating work pattern, which had to be planned and orchestrated carefully to avoid time loss to reach the maximum variety of designs with the reuse of the same materials over and over again.

The architectural installations proved to be so unique that, one could scarcely imagine that, all were done by the same sticks and bolts within a year. The entire work never existed at a given time; still, the photography shows the spatial potentials of a phenomenal architectural differentiation, which strongly leaves traces in and around a school building. This inexhaustible building and re-building process created a dynamic memory for its dwellers.

Fourteen different teams with often opposing ideas managed to build rhizomatic, chaotic, rhythmic structures. Even orthogonal assemblages proved to be topologically complex appropriations. All were to rely on a strong yet simple detail or law of assembly; and that single detail proved to be the generator of the promise of the installation. Repetition was one of the foundational leitmotifs; variations within repeating articulations were the source of mathematical intensification, which also helped to produce aesthetic qualities.

This paper deals with the entire design process accompanied by the photography of those architectural installations and proposes "The Phoenix Project" as an alternative Architectural Design Studio practice.

Key Words: Potential Architecture; Architectural Education; Design Studio; Installation; Wooden Structures.

INRODUCTION

The project subject to this text dates back to 2015. I am not content to just report this work in this text because this would only be a reinterpretation of a studio experience.

The theme of the sixth Livenarch, "replacing architecture", appears to be predominantly set within the outline of the architect's social responsibility and major problems such as migration. From this perspective, the paper you are reading is not akin to the problems of settlement, the city, migration; nor the social responsibility of the architect on this topic.

The theme on Replacing Architecture has a considerably grand assertion. In this study, I have taken "re-placement" literally as "re-location" which seemed more captivating, than the formidable urban and political rhetoric promised by this term. There are no prescriptions and strategies I can proffer on substantial architectural hurdles; moreover, as an academician, author and lecturer, I doubt that any major proposition will work. By its literal meaning I mean physical relocation of architecture, the *de facto* replacement of built structures.

In the past, architects have played more roles than they could take; after all, restoring the derailed world was an overburden, therefore the architect wasted his heroic identity. It is therefore difficult for young generations of architects to position themselves with extensive allegations. Issues such as experimentalism have long been regarded as insignificant equal to unpretentiousness by "machines of major discourse production" and were underestimated. That is why the theme of "Replacing Architecture", in my opinion, has the promise to supply an unparalleled pedestal for experimental

works. In short, Livenarch's theme of "Replacing Architecture" provokes me to think thoroughly about phenomena such as portable structures and transiency rather than chronic urban problems or global migration problems.

One of my central obsessions in the studios I conducted in Eskişehir Osmangazi University Department of Architecture, in the books I have written for over twenty years and in the photographs of architectural objects that I chased in my city visits, was themes like the architecture in motion, the migrating object, the temporary artifact, the body/artwork that metamorphosed.

It is of course impossible for me to address them fully within this paper. Instead, while re-viewing *Pomi*, the Studio for Potential Architecture (2002) in the context of the *The Phoenix Project* (2015-17), I will try to think about the ambivalence that based architecture on persistence and stasis is connected to restlessness and ephemera.

The reason why mobility has become one of my inescapable subjects in terms of architectural education is that, in my own studentship my architectural professors were obsessed with permanence. Actually, the reason I wanted to study architecture was the contrary for me: It was my intuition that in architecture I would return my hope of getting rid of the burden of causality and be liberated. But I found the opposite. My lecturers in the 1990s were not only insisting on the immobility of the architectural structure with their mixed discourse of the *genius loci*, contextualism, monumentalism and modernist pragmatism, but were also susceptible on the portable architecture topic.

The subheadings of *Livenarch VI* bring the risk of restraining the concept of "replacing", by focusing on current urban politics and narrowing it into a framework of major urban/architectural problems. This may be an appropriate academic outlet in the context of Trabzon's current urban transformation. As a matter of fact, urban interventions in Trabzon, which has a multicultural urban geography, are destroying its historical accumulation. The concept of replacement finds its political meaning with this aspect. What I propose in the context of this study may remain amply apolitical.

The subtitles of Livenarch's "Replacing Architecture" seem to be figuratively thought out rather than being understood literally. "Memory", for example, involves criticizing the discontinuity of the conserving attitude towards the built environment. "Belonging" implies that we can make spaces ourselves only if they are not radically transformed. "Transformation" marks the change of the entirety of permanent structures over long periods of time which has a leery timbre. "Mobilization" is a reference to the crises caused by phenomena like migration, rather than the *de facto* replacement of architectural structures. "Placelessness" refers directly to the loss of sense of place in an unfavourable state, whereas "contextlessness" also involves a similar negation and is the *sine qua non* of a conservative modernism. "Destruction", reveals the ultimate

goal of the de-contextualizing and dis-placing evil ideology by discrediting it and focuses directly on the perpetrator. “Mediocrity” makes us think of the inevitable architectural inferiority of what the destructive ideology built after the pillage. “Earthliness”, on the other hand, implies the desire, power and optimism to escape all this chaos and vicious circle. Except for the last subtitle, they all seem to be elements of a declaration.

POMI: 17 Years of the Studio for Potential Architecture, a Brief Inspection

I started *Pomi* or Studio for Potential Architecture in 2002, under the name *Arch-po* in Eskişehir Osmangazi University, Department of Architecture where I graduated and started to work as an assistant. The main reason for adopting this name was my inspiration from the *Oulipo* or Workshop for Potential Literature, established in France as a branch of surrealism. The group, which includes writers such as Georges Perec, Italo Calvino and Jean Lescure, dates back to 1960. The founders are two mathematicians: Raymond Queneau and François Le Lionnais. The *oulipo* was founded in order to test the creative possibilities of writing under constraints by embracing mathematics into literature which sprawled quickly and became world-famous.

Yet even today, there is hardly any group that fancies to do the same for architecture; in the early 2000s I did not know that the situation was so desperate and that I would be alone in this endeavor. In the field of architecture, it was *Arch-po*'s starting point to attempt to do the same as the *oulipians* did in literature. Over the years I had the opportunity to conduct many experiments in this architectural studio. In 2012, I collected the outcomes of the first decade of the studio in a bilingual, 360-page, large-size, illustrated, colored book and published it in the university. [5] Among the themes of this first decade were recycling; architecture and tailoring; surveys of fishing huts; the Modulor of Le Corbusier; non-linear History of Manuel De Landa; building escaping walls with stop-motion technique; a surreal catalogue devoted to mock the urban kitsches of our hometown; a wooden, life-size student studio module on wheels, etc. In this period, we made exhibitions and installations with students in architecture schools; we also participated in art and architecture biennials.

After 2012, with a sense of urgency of having conducted experiments partially distancing from the *oulipo*, it would not be wrong to say that I had withdrawn *Pomi* to a line that I would call a return to the *oulipo*. More mathematical, parametric-like experiments; the reconsideration of some of Calvino's *oulipien* books (*The Invisible Cities* and *If on a Winter's Night a Traveler*), the study Bilge Karasu's experimental work, *Fear with Variations*; the search for the counterparts of harmonographic drawings in architecture; and finally, the return to Raymond Queneau's *Exercises in Style* (1948), are some of the themes of the increasing experimentalism of the 2012-2019 period. The

Phoenix Project represents more of the *oulipians* second phase of experimentalism of *Pomi*.

The Phoenix Project: Sequential Installations, Singular Material

In terms of architecture, nomadic structures are as old as permanent ones, although they disappear without a trace. From tents to ceremonial architecture, I will not explain in detail the long and comprehensive history of these structures. Robert Kronenburg's *Portable Architecture* (2003) is still one of the most comprehensive works in the field. [2] [3] I was not interested in looking for a historical point of departure for the *Phoenix Project*. Already, the *oulipist* texts are predominated by the generation of "synthetism"; that is, the invention of new procedures, rather than "analytism", a study of the past [4].

Today, mobile architectures are the culmination of the joint enterprise of structure engineering with architecture and industrial design. Though its examples are glamorous and wise, I cannot intellectually fit into the idea of mobility that evolves into sophisticated architectural shows with technological details in terms of workshop processes. Here, once again, a high level of utilitarianism eliminates the fragility and depth of the one-off work.

The solution-oriented mobile architecture is not of interest to *Pomi*. Because I'm not interested in finding solutions in *Pomi*; the idea of finding new problem areas and the thought of inventing new concepts is my main concern. As a matter of fact, *Pomi* is a workshop that was founded not to predict its experiments' results and aims to enter experiments without considering their ends. I endure the mechanics and elegance of efemera as much as the extremes that accompany it; if there is no excess, a mechanical function will be taken; and to me this is synonymous with efemera losing meaning. In the background of the idea of portable architectures, there are philosophies of discontinuity that now have a half-century history. Conventional and canonical theories are manifested with integrity, completeness and specification in architecture: The continuity of form, representation and concept. However, discontinuity comes to the fore with the modern; in terms of architecture, this manifests itself in geometry, architectural representation and incompleteness.

The great post-structuralist movement contributed to the normalization of mobile architectures that were considered exceptional, but were acceptable to the extent that they assumed a function that permanent architects could not perform. The concept of Deleuzian nomadic thought proposes not only the actual detachment from the roots, but also the detachment from power and any established code [1]. *Pomi* appreciates these meanings in terms of portable and mobile architecture.

First Initiative: One of the Side Ways of “Introduction to Design”

In the spring of 2015, my friends and I decided to have a series of construction experiments titled “Rhizomes” in the *Introduction to Design* course. Each week a group would build their own design, while other practices and work continued.

The basic structural challenge was: Only one type of element would be used. This was a 220 cm. long wooden bar with 5 x 5 cm. cross-section and perforated at 20 cm. intervals at each side. A total of 500 wooden bars would be used to construct thematic structures. No fasteners except 120 mm. steel bolts and screws were to be used. For the next group to build their own thematic rhizome, the completed work would be dismantled after being photographed and documented.

Such a study has several major drawbacks: The first is, not being able to see things simultaneously. The second is, the extra labour required by the dismantling of the work done. Lastly, application errors, incompatibilities, unpredictable material difficulties caused by manual handling of the design. We had to overcome all these disadvantages due to the very limited budget.

There were several basic challenges awaiting the students to build such a task from scratch: The first was themes that didn't fit with a bar element, such as “smoke” and “roots”. These were deliberately chosen, often referring to curvature. Thus the functional approach was wiped out from the beginning. The second difficulty involved articulation, because the students of architecture had to mutually design a 1/1 scale articulation logic with the scaled model. The third challenge was to maintain an articulation/hinge logic throughout the design and build the mathematics of the installation. The fourth challenge was to imagine an installation on the campus, in the atrium of the architecture department or elsewhere, and to imagine a location.

Our first-year students working in peer teams revealed different rhizome installations despite using the same material. This installation and dismantling process was repeated many times throughout the semester. The models of the groups matured after a few revisions, approaching to construction phase. The competitive side of rhizome was that: The group approaching to practice the most, was getting the right to build. Thus in the spring of 2015, “The Wave” became the first construction. “The Wave”, with its excessive baroque articulation and its consecutive character that did not allow pre-production, was the first work rising in the atrium to create excitement and encouragement among students.

The subsequent “Roots” installation became a true rhizome with stark aesthetic effects in terms of spatial attachment to the atrium.

"The Passage", based on a series of frames rising from the ground in an amorphous series and descending again, was a kind of movement fiction.

"The Arc" was an attempt to build a single arch and to span the maximum distance in the atrium.

"Snow" was an attempt to orthogonally enclose the entire atrium volume with structural units.

"Gothic" was an experiment to achieve the maximum height by a continuous planar extension from a center through a continuous joint.

"Arches" were set up as geometric series matching a prime aperture transition equation. The greater the span, the higher the number of sticks and therefore the structural complication of the arch became. Independently assembled fragments were freely disposed in the courtyard.

"The Organ" was designed and constructed as a compact algorithm with a surging, orthogonal gridal density. Here, I mentioned 8 works that were noteworthy among those built in 2015.

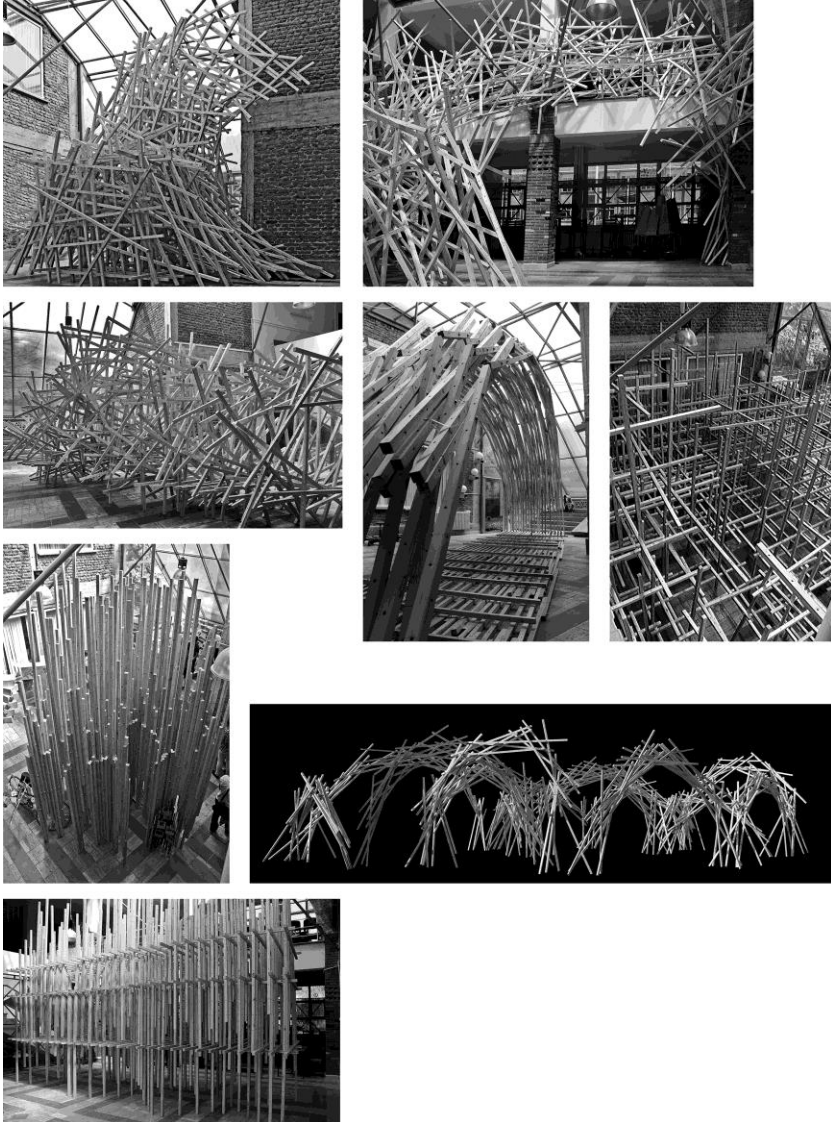


Figure 1. Left Top to Bottom Right: The Wave, Roots, the Passage, Arc, Snow, Gothic, Arches, the Organ. 2015.

Second Initiative: Other Rhizomes in POMI

Two years later, I decided to bring the same material and subject to *Pomi* and to debate it in supplementary detail. We worked with 16 students from 202; this is quite a number for *Pomi*, I mostly work with 10. We completed the mending, sanding and polishing of the existing wood; meanwhile our new bars arrived. Their drilling, sanding and polishing were again carried out by the students. This time we split the works into groups of two.

The first experiment was to produce improperly assembled structural skeins; the first practice that included the entire group. They became actors of a stop-motion movie as light-weight and bulky beings.

The second work was a oxidant of rods, matching a staggered, zigzag joint, thus leaving no gaps in between. Once these panels were jointed, a "Labyrinth" appeared.

By spreading the pieces of the labyrinth into the courtyard, we achieved the "Carpet", a kind of floor mat.

The third work was a floating structure where all the bars were randomly distributed on a minimal main frame, which we called "The Cloud".

The next work was based on a spiral formation. With a simple skew operation, dozens of identical rings were produced. When we spread them through the yard, they looked like nests. Then these 5-meter rings were joined together to form a tunnel. This was the students' favorite. The structural principle was very simple, but the result was striking. Often, such simplifications frustrate students who initially want to produce a more complicated installation. But despite the simplification of the work, it never fails to create satisfaction and confidence in students.

Finally, we produced a supple gridal surface that grows with random orthogonal articulations, whose construction begins on the ground. The surface, which was lifted up when it reached an adequate size, became layered by horizontal and vertical inserts growing in all directions. It grew until it swallowed all the material and we called it "the Cathedral". When it comes to dismantling, students feel uncomfortable because they do not want to leave their works. The same happened in the dismantling of the last one, but the construction site could not be left alone.

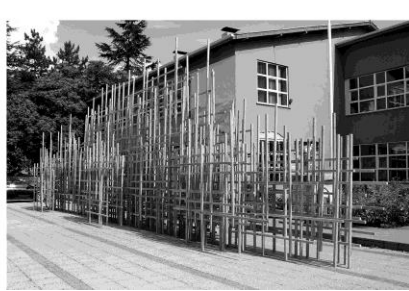
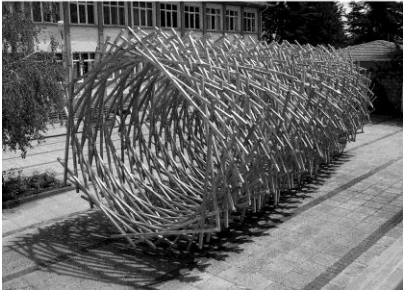


Figure 2. Left Top to Bottom Right: Skeins, the Labyrinth, Carpet, the Cloud, the Spiral, the Cathedral. 2017.

CONCLUSION

Oulipo's techniques include monovocalism; this is analogous to building with sole material in architecture. Monovocal texts correspond to texts written by only one vowel; for example, a text written by words that only contain the vowel "a". The structures we fabricated in the studio experiments in 2015 and 2017 can be discerned as the experimental equivalents of *oulipian* monovocal texts in architecture.

The potential of the structures we produced is not limited to this. The second issue is that: Each experiment is open-ended, capable to be reproduced with more sticks. The third point is that, each experiment, in terms of its one-time and temporal nature, has a much more fragile existence that is appropriate to the nature of architectural creation because it is short-lived. Fourth: Each experiment is largely based on improvisation, coincidence and error; since they were not modeled in a digital milieu whereas parametric designs, on the contrary, rely on accuracy and precision in production.

Also: Since the Phoenix is cooperative, it is the outcome of a collective mind. The use of a limited number of bars and the determination of the articulation from the start, turns from being an obstacle to a range of possibilities discovered, as installations progress. Achievement within the architectural studio is bound up with the unpredictability of the consequences and a first-time experimentation. Thus real knowledge is produced. The Phoenix experiments in *Pomi* can be said to have brought a multi-dimensional design experience. While in the production or realization of the designs, economy, collectivity, mentality and aesthetics comes to the fore; cultivating a theoretical standpoint for production, pushing the critical capacity of productivity; finally, a methodical consistency comes to the fore.

The ephemeral structures strain the realm of architecture that is split between reality and virtuality. A transient material structure conflicts with the permanence of a conventional architectural formation. On the other hand, it suggests that it belongs to a more virtual space due to its short life, preceding the subsequent design that contradicts its corporeal existence. An ephemeral structure is not a sculpture or an installation; for in both, there is almost no sequential production and metamorphosis. Moreover, both sculpture and installation are one-time and specific spatial creations. The structural beings of the Phoenix project are one-off and specific; however, the instantaneous forms that emerge through a universe of probability belong to the fourth dimension. In short, the Phoenix project is not mere artistic initiative or pure formalism: Although it uses construction routines, it does not belong to the habitual architectural temporality. The Phoenix experiments externalize *Pomi's* experimental aspirations in architecture, for they have a transient and moving, displaced and fragile, multi-form and unexpected, short-lived and mathematical existence that contributes to the questioning of the basic qualities of architectural production.



When it comes to *Pom*'s debates on memory, belonging, transformation, mobilization, placelessness, contextlessness, destruction, mediocrity and earthliness through the Phoenix project: The multiple structures of the Phoenix seek their place although they are placeless. But this place can be a heterotopia that can absorb the tension of this contradictory existence. The Phoenix is sensitive toward memory with its polymorphism. For the same reason, it can display strong architectural formations if it meets urban areas and dramatic landscapes. The Phoenix cannot develop belonging, but still, it can establish dialogue with places that have a promise on belonging. The Phoenix is a strong attitude towards the fascism of architectural and cultural destruction because it does not monumentalize itself in a form, but develops hope through destruction that created its multi-formality. The Phoenix is a real line of resistance against mediocrity because it has a nature that conventional criteria cannot operate on. The Phoenix is a powerful act of earthliness because it continues to possess numerous structural and formal possibilities that can never be consumed –even when it sleeps.



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THE CONCEPT OF GENIUS LOCI IN ARCHITECTURAL EDUCATION: AN ARCHITECTURAL STUDIO EXPERIENCE

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ABSTRACT

Nowadays, architectural design, which does not bear the spirit of place where the relation of place is broken, has not been touched by the architectural features. Considering that one of the most important issues in architectural education is to expand the students' perspectives, this study argues that the awareness of the organic connection of the space and the spirit of the place at that arises from the interaction of these two can be gained through the education of architecture. The aim of this article is to investigate how the place is used as a contextual data in architectural design and how it is formed in an architectural structure through student projects. For this purpose, in order to enable students to think about the spirit of the place in the studios and to internalize the subject and increase their awareness by creating various projects. In this context, Konya Technical University Faculty of Architecture and Design, Department of Architecture 2018-2019 Fall Semester Studio 6 students were asked to design a boutique hotel project using location-specific data in Sille.

In this context, prior to the beginning of architectural project design, conceptual discussions and presentations on the subject and physical codes related to the ground (topography, vegetation, climate data, environmental texture and scale, local architecture, local material) and perceptual codes (tradition, socio-cultural data) were analyzed. By analyzing the students, Sille has taken socio-cultural, geographical, historical, natural and architectural features. They have developed spatial suggestions according to their analysis and needs program. At the end of the design process, it was seen that the students successfully interpreted the codes related to the location and transferred these data to the boutique hotel projects they designed.

Key Words: Design Education; Genius Loci; Place; Cultural Sustainability; Sille.

INTRODUCTION

The concept of “place“, which is the result of the interrelation of space and time, has become a common research topic of interest to sociology, anthropology, literature, geography and architecture. According to the dictionary meaning, space is defined as gap, space, space that something can occupy or occupied by anyone. [1] Space describes a structure that can be perceived as concrete and imagined as abstract, can be perceived and perceived with perception. The relationship between human and space is primarily related to the physical and pragmatic properties of space. Concrete spaces are abstracted by experiences and experiences in the human mind.[2]

Many architects, designers and thinkers, including Vitruvius, have explored and examined the phenomenon of place on an urban scale, in visual perception, in the distribution of functions and in social identity.

According to Roth, unlike other beings who build, people think when they build. Therefore, the building action of man is a conscious and intellectual action that embodies numerous decisions and choices. These are the features that separate man's structures from those of other beings. Non-human beings do so as a result of their genetic programs. People build structures to meet a requirement, but even when doing so, they give expression to values and emotions. [3]

Heidegger (1971), explaining the concept of “residence“ through the concept of place, states that man creates places where he can safely settle by using the distance between the sky and the earth throughout his life. [4]

The identity of an architectural product depends on its ability to feed from the ‘place’ to which it belongs. On the one hand, they contain tangible physical properties such as material, form, texture and color, while on the other hand they contain intangible socio-cultural and behavioral components formed by human. So, every places has a character and identity. The concept of place is a broad concept which also includes space. Norberg-Schulz (1980) argues that places have a spirit of its own (Genius Loci). The organic bond of place and space originates from the genius loci. [5]

According to Shulz (1980), ‘the embodiment of the spirit of the place is architecture. Human perceives the environment and makes it the focal point of architecture.’ He stated that the relationship between architecture and place is “place is the beginning and end point of our structural search”. Schulz's (1983) definition of “the spirit of the earth, is related to the criticism that Modern Architecture produces diagrammatic and functional circles that, in his own words, do not allow residence, that is, to eliminate the sense of belonging to the place where one lives.. [6] According to him, the task of architecture is to create meaningful places.

For this purpose, Konya Technical University Faculty of Architecture and Design, Department of Architecture 2018-2019 Fall Semester Studio 6 students were asked to design a boutique hotel project using location-specific data in Sille. Due to its characteristic features, Sille has always been a settlement center of civilizations. In Sille, an ancient Greek town, many small churches carved into soft volcanic rocks, Ottoman gravestones, Muslim and Greek houses have survived to the present day. Although its original structure has been damaged in recent years, the village and its surroundings have been accepted as protected areas and taken under protection. With a rich historical background and specific characteristic features, students have developed their sensitivity to the spirit of places “; natural / historical / social values in the context of awareness will allow.

In this context, prior to the beginning of architectural project design, conceptual discussions and presentations on the subject and physical codes related to the ground (topography, vegetation, climate data, environmental texture and scale, local architecture, local material) and perceptual codes (tradition, socio-cultural data) were analyzed. By analyzing the students, Sille has taken socio-cultural, geographical, historical, natural and architectural features. They have developed spatial suggestions according to their analysis and needs program. At the end of the design process, it was seen that the students successfully interpreted the codes related to the location and transferred these data to the boutique hotel projects they designed. Thus, at the end of the semester, the students learned awareness, knowledge and sensitivity to design specific to the place and learned to collect data about the built environment, natural, cultural and local data, analyze and transform the analyzes into synthesis and spatial relations.

Case Study

Description of the Study Area

Sille, one of the first settlement areas of Konya, is located in the 8 km northwest of the city center. Sille, which has a rich history, has been a center of settlements for many civilizations due to its location in the middle of Anatolia and its characteristic features. It is an Anatolian settlement with a deep-rooted history where the Turks have lived as Orthodox-Christians and Muslims. Sille was a strong and developed settlement center commerce-economically and socio-economically until the first half of the 19th century. However, this has ended with the immigration of Rûms to Greece with the population exchange in line with the Treaty of Lausanne 1923. This exchange has affected the population of Sille adversely, accelerated the immigration in Sille and led to Sille's socio-economic decline. Many small churches carved into soft volcanic rocks, Ottoman tombstones, Muslim and Rûm houses in Sille have been able to survive until today. Even though its authentic structure has been damaged, the village and its surroundings have been accepted as an archeological site and been taken under preservation (Figure1).



Figure 1. General View from Sille.

Sille was one of the few villages where the Cappadocian Greek language was spoken until 1922. It was inhabited by Greeks who had been living there in peaceful coexistence with the nearby Turks of Konya for over 800 years. In the barren rocky neighbourhood of the village, the remains of several medieval rock monasteries are worth visiting; they are very 'Cappadocian' in style. The monastery and rock churches still exist in the settlement (Figure 2). Sille being a witness of a rich history and culture exhibits this character in spatial variety. There are stonework churches, chapels, houses, Aya Elenia Museum (Figure 3), Tepe Chapel, mosques, baths, fountains, public laundries, public buildings, waterways and some sort of civil architectural buildings in Sille.



Figure 2. The Rock Churches.



Figure 3. Aya Elenia Museum.

There are two districts having different religious lives in Sille carrying valley settlement characteristics. However as different from similar other settlements there are districts in Sille where Muslims and non - Muslims live together. Sille brook (dried today) was a factor for the location of the dwellings and the mountain in the south of the brook obstructed the settlement to grow towards that direction. The original settlements under conservation form an arc in northeast - southwest direction. There are fountains in the intersection point of some streets covered by stone. Dwellings have generally double floors. The relationship of the dwellings located around twisted narrow streets with the exterior is provided directly with a door opened through the street the doors

and windows are small, low and narrow in the dwellings and there are rooms, storage and kitchen in the ground floor. On both floors the main spaces open to the sofa/transition space, there can be balconies in front of the spaces in upstairs or it can be possible to widen the usage areas, provide visual relationship with the outside and increase the view angle by the use of oriel. Kitchen shows generally a double space organization in ground floor. This formation can be named as cooking section and storage section. Storage areas generally carry appropriate conditions for food storage in rock carvings. In the scope of the space relationship from the religion angle, although the Muslim and Christian dwellings generally has formal similarity (material, silhouette, etc.), there are differences in the space transparency, permeability and the way it opens to the outside and the space. [7] The Sille andesite stone is probably the most important construction material which used in buildings (Figure 4).



Figure 4. Architecture of Sille Settlement.

Traditional buildings display features which are “proper” in many aspects, which may be taken as an example by all actors in the field of education, and from which certain deductions may be made throughout the design process, from the whole to the details or from the details to the whole. It is clear that every research study conducted in order to understand “how” traditional architecture fulfills the needs and requirements of its users and meets high performance criteria, contributes to architectural education directly or indirectly. [8]

METHOD of STUDY

In order to produce the project “Boutique Hotel in Sille in the spirit of the place”, the students were first asked to read on the concept of the spirit of the place and make researches on the general characteristics of Sille. In parallel, the historical texture and local characteristics of Sille were analyzed and the land was introduced through field trips. Through these trips, students were able to experience Sille, walk through the streets, touch the walls of buildings and recognize materials, observe the behavior of the public and interact with the public.



Figure 5. Design Area.

The students synthesized their research and observations during the trip to Sille and made socio-cultural, geographical, economic and architectural analyzes of Sille. Throughout the semester, the studio process progressed every week in the form of critical taking and was completed with two open juries and a final submission. At the end of the semester, students developed different and unique boutique hotel projects in the spirit of the place in Sille, in the light of site-specific analyzes based on land data and needs program.

Student Practices

In this design studio it is aimed for students to design based on ‘place’ in Sille. The design problem is determined as “boutique hotel” in this area where is under conservation and has a unique traditional texture. Studio 6 project was organized in in 2018-2019 fall semester in Department of Architecture in Konya Technical University with a team consisting of 15 students under the supervision of Dr.Emine Yıldız Kuyrukçu and others. Firstly, a trip, study field of which was shown was organized and observations and meetings were

performed about the Silile architecture and history. In the first days of the study, information about surveying was given to the student. After that each student designed his or her own “boutique hotel project” in historical texture of Silile. Throughout the semester, students are given critical feedback every week to improve their projects.



Figure 6. Students Explaining Their Projects.

At the final submission of the student projects, it was seen that the students designed the new together with the local. While benefiting from the opportunities of technology in their projects, it was seen that they successfully interpreted ‘place’ elements such as local material, local architecture, using topography and respecting nature in their projects successfully. 5 examples selected from student projects are shown in the study.



Figure 5. İdris Yağmahan's Project.

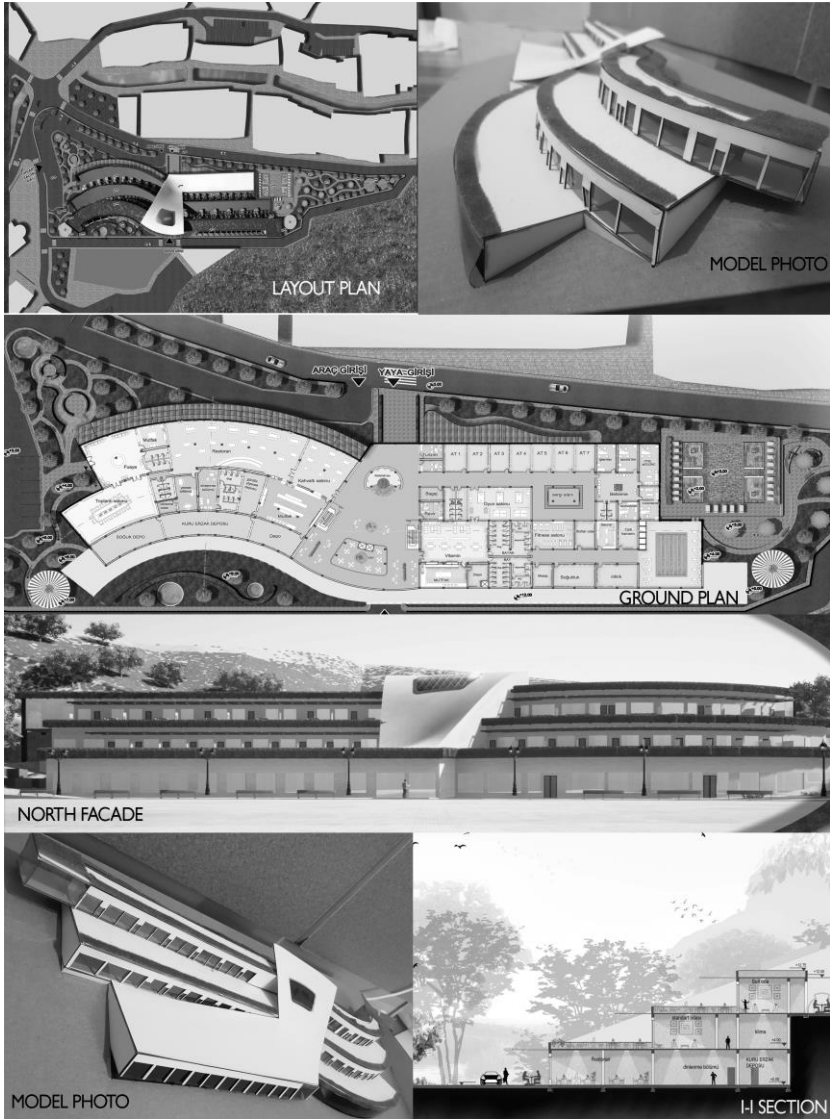


Figure 6. Nour Atrash's Project.

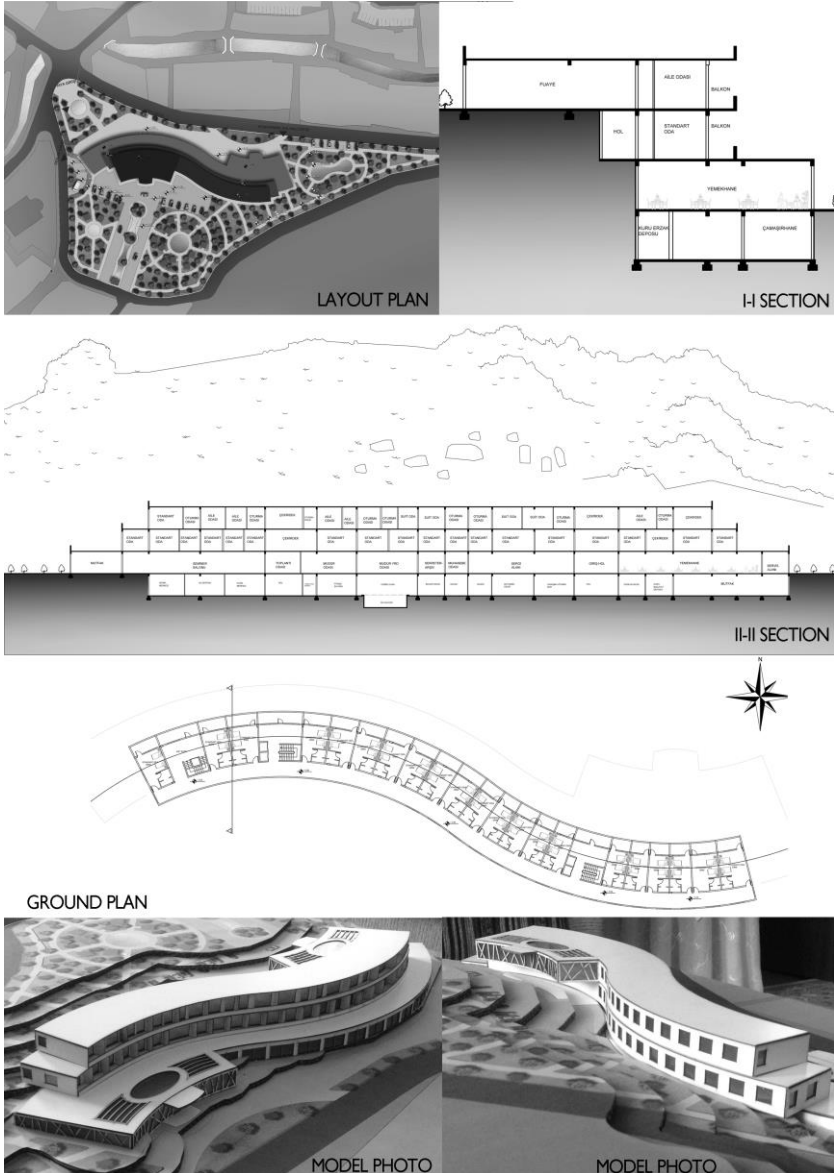


Figure 7. Muhammed Şeref İsen's Project.

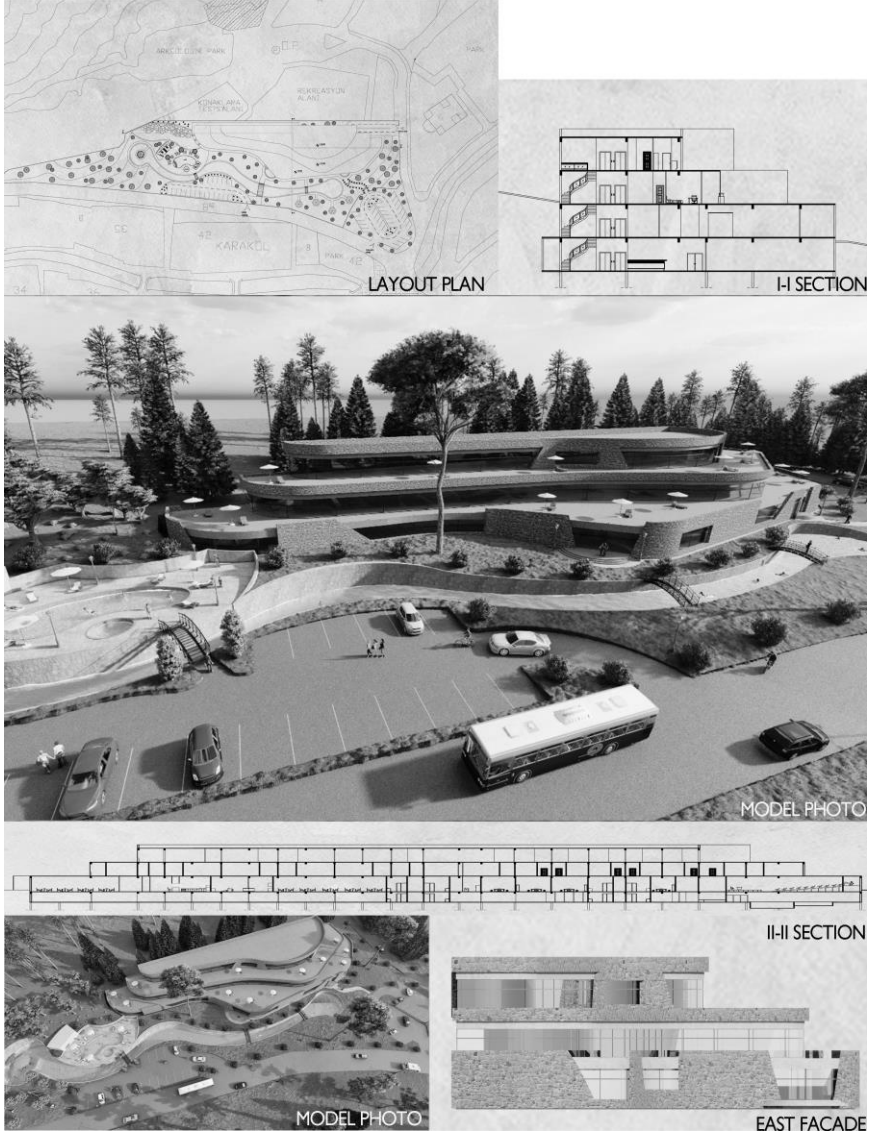


Figure 8. Hind Ahmet's Project.

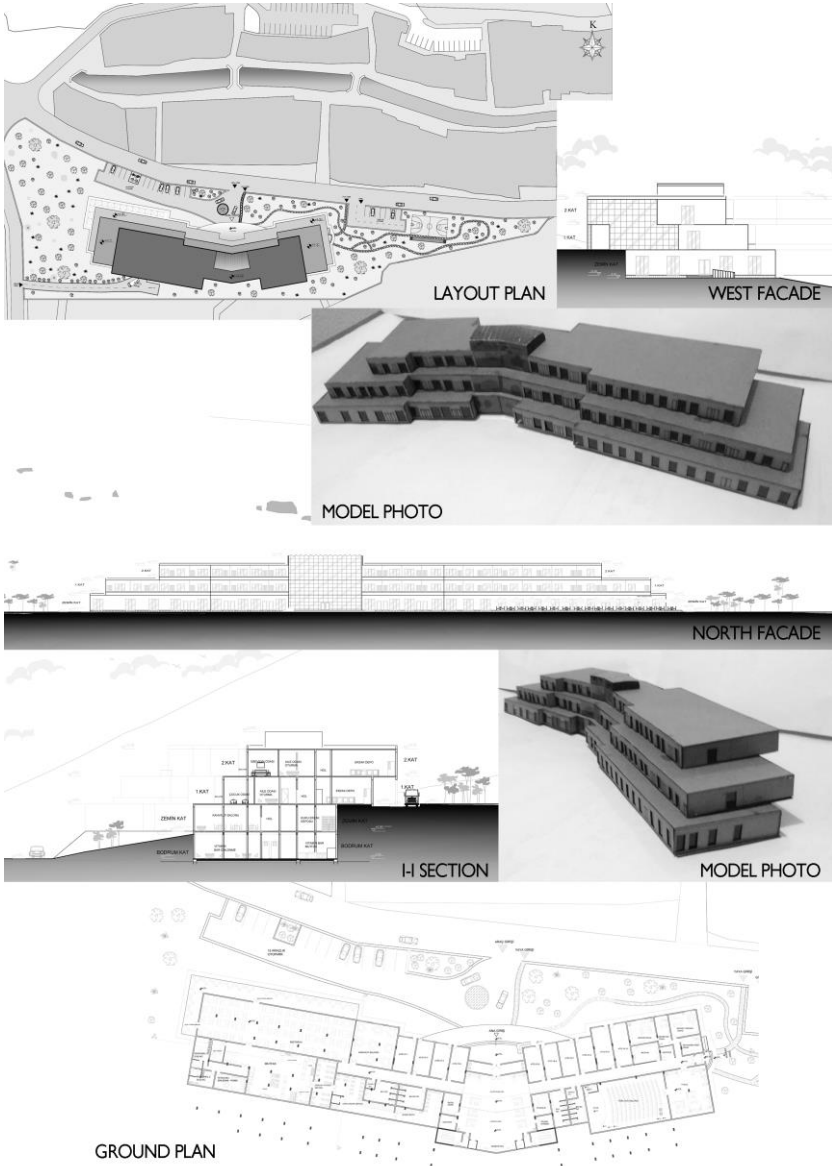


Figure 9. Kadir Güven Aygen's Project.

CONCLUSION

The spirit of the place is described as the secret force underlying the conditions of culture and traditional architecture and environmental conditions in that place. The spaces designed on the singularity of the place emerge in different styles in different geographies, and with their local strength, the place affects the places to be built on and therefore people. It has different values from past to future with its history, geography, contribution to economy, local characteristics, folkloric inputs, architecture, art and life style. In this context, searching for the spirit of the place in Silile has provided a different learning and teaching experience.

It is very important studying in area where is under conservation and has a unique traditional texture for architectural design education. It is seen that in this study students evaluated Silile original architecture, topography, traditional material (Silile stone) and socio-cultural characteristic in their boutique hotel projects.

The architecture, along with the place are. The place is building architecture and architecture is transforming the place. Architectural design is a combination of belonging, identity and identities. The identity of the place is a premise for architectural design. This study emphasis that 'place' is very important and significant for architecture education context of original design that must take care topography, material and original architecture.

As a result, we think that it is valuable and necessary to consider the spirit of place as a part of the academic education process and also in the education process of architecture.

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**PLAY:
AWAKE SPECULATIONS IN ARCHITECTURAL DESIGN EDUCATION**

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ABSTRACT

Based on the idea that can contribute to the development of a learning-oriented education strategy, it can be said that the design idea is constantly trying to discontinue from the usual productions and explore alternative areas. Awareness concept is a meaningful axis of this situation which can be viewed from many different angles. The relatively priority problem for the newcomer in design education is to comprehend the act of awareness. The discoveries and findings on the environment in which he lives, the events involving the whole of society and the actors who realize all of these constitute the definition of the field of awareness of the individual. The expansions in this environment where everything is questioned prepare the ground for new and multifaceted perspectives.

Experiencing, resuscitation and flexibility of play manifest multiple potentials in the development of awareness discovery. Besides the play fiction contains a number of routers such as purpose, rule and space, it creates an environment in which the idea of architecture is re-discussed. In this direction; The architectural design studio, which was held in the spring semester of 2019 in Van YÜU architecture department, was designed as a laboratory to reveal the relationship between play and awareness through a series of concepts. These concepts which are population growth, migration, crisis, survival, integration, transformation, belonging, memory, mobility, placelessness, mediocrity and possibility try to make initiatives that emphasize social changes. The play created by each group in the studio invents and plays alternative speculations of these concepts. This situation allows discussion and development of the area of awareness in architectural design education.

Key Words: Play; Awareness; Speculation; Replacing; Design Education.

INTRODUCTION

“Automation of manufacturing and appropriation of basic goods for the public will reduce working as a social necessity and eventually liberate the individual. This way, the person, who will be free of all economic responsibilities, all debts and all guilts felt towards the past and other people, will not have to be reduced to the criteria of a paid job, and therefore, they will have an added value that is not possible to calculate in monetary terms: the value of playing plays, a life that is constructed in freedom. Within the framework of the equality that is guaranteed by eliminating exploitation of man by man, usage of this playful creativity is the guarantee of everyone’s freedom. Freedom of playing plays is synonymous to the creative trait of man, and it is beyond the old distinction between forced labor and passive spare time” [1].

The purpose of this study is to discuss the phenomenon of ‘social awareness’ in design education in the context of play theory. In the scope of this objective, the concepts of migration, crisis, survival, integration, transformation, belonging, memory, mobility, homelessness, extraordinariness and likelihood were discussed in the context of plays constructed in 1st-year introduction to architectural design studio by using the potential of the experiencing, animation and flexibility forms of plays. In architectural design studio, the play fictionalized by each group opens the spaces of inventing and playing the alternative speculations of these concepts. Thus, play initiatives have a potential to shed light on multidimensional possibilities regarding the concepts on which the designer works in their mind. Plays create a significant space in the environment that can also be felt by senses in the context of its interaction with the process, the space and another person by including the dimension of time in addition to the third dimension with spaces that are opened, materials that are selected, relationships, approaches and points of view that are formed and creative situations that are produced. It was aimed for designers that work in integrated interactive spaces to achieve multidimensional perceptual and spatial initiatives in the context of the organized studio.

Schools, education and practice of architecture have different processes and operations than many learning and production fields that are accustomed to. Design studio forms the most significant and effective focus on architecture education. The studio, which is a field where all knowledge that is collected is blended, measured against those that were previously acquired, synthesized, the definitions of situations that are read with this synthesis are created, and recommendations of them are developed, is known as the first space of competition for the individual who is walking on the path to becoming an architect. Architectural Design Studio was defined by Şentürer [2] as “An imaginative, philosophical and experiential environment based on

communication where design work is carried out individually and in teams under an approach of an idea, architecture is spoken about and discussed with all aspects, and it is aimed to provide the student with relevant knowledge and design experience.” This environment with one of its most important characteristics as “experience” opens and multiplies the channels of discovering the working areas internalized by the student by action. In this process, one of the skills that are expected from the individual as an architect is the state of awareness. The architect, who can be conscious of their environment, social relationships, problems and changes, may be effective only with the help of this awareness in their recommendations created over these. The individual intellectualizes the things they obtain as a result of experiencing the spaces and information they encounter and establishes their own data. Experience is an important field in terms of opening channels of awareness.

This study aims to take awareness initiatives on social and societal changes such as the concepts of migration, crisis, survival, integration, transformation, belonging, memory, mobility, homelessness, extraordinariness and likelihood by approaching the 1st-year architectural design studio as a field of experimentation. It is believed that the mental initiatives of especially 1st-year architectural design studio which are far from conventional education methods should be taken in a broader area. The fieldwork of the research is created by integrating plays and the studio. In the light of this view, it is important to examine the concepts where the dynamics of plays and the design studio get similar. These concepts may be listed as motivation, learning to think, decision-making, creativity, knowing oneself, discovery, confidence, alienation, ambiguity, temporariness, intuitions, flexibility, randomness and interpersonal relationships. Rather than explaining these concepts as definitions by taking them out of their context, it was considered to be more suitable to discuss them over the examples that are examined. Consequently, when the studio which is the laboratory of architecture is organized in the context of expectation, it is a practice that flexes itself and provides a space for the situation that is being researched.

Plays in Architectural Design Education

More humane relationships may be established in informal situations where the existing hierarchy can be broken even for those who are familiar with formal relationships within the normal order. An informal environment provides a different reality. Plays are also found outside the normal order and mostly in an informal order. Plays are a reality that have different rules than the accepted rules of life [3]. In postmodern philosophy where semantic relativity reaches its peak, Baudrillard defined simulation that refers to an absence as production of reality that is deprived of an origin or truth by models. In this sense, simulation is the thing that has all data of reality but is not real [4], [5], [6]. Comments about that life and the universe are a play have been the source of several works of art related to the topic. For example, the movie

Matrix is based on the idea that the life in the world is a simulation. Here, the reality is a thing of the past. Plays open the concept of reality for debate in this sense [3].

There are many definitions of the word play [oyun in Turkish]. Children's plays, dancing, dramatic displays, card plays, dice plays and sports-related activities are always represented with the word play. When Western theater arrived at Anatolia in the Tanzimat Era, the word "play" was used with the meaning of written theater text. There are also meanings such as purchasing a play, playing a play on someone, playing cards, giving a play, getting out for playing and being played. The word 'oynak' that is made with a base suffix in Farsi means both organized and deceptive. As a verb, it takes on the meanings of meddling with, endangering, showing differences [7].

The most important characteristic of plays is that they have integrity, they are temporary and voluntary [3]. Integrity refers to the consistency and restrictedness of a play. A play needs to be temporary because the regular and ordinary nature of permanence contradicts the nature of a play. Volunteerism refers to adoption of the play and perception of it as real. In this context, according to Huizinga (2006), a play is a voluntary act or activity that is freely consented to but held within certain time and space boundaries in complete compliance with mandatory rules which is accompanied by the feelings of tension and happiness, as well as the consciousness of 'being different' to 'accustomed life' [8], [9]. A play is, after all, a voluntary activity [8].

What define a play are the rules of the play. These rules distinguish the reality of the play from the reality of the world that is lived in [3]. These rules have absolute, mandatory and undebatable qualities [8]. The preliminary condition of getting into a play depends on accepting these rules. At this point, Wittgenstein also defined architecture as a play we play and establish the rules of it while playing [10]. It would not be wrong to argue that a play, which has obtained a significant place in all societies, is related to the culture. In this sense, it may be stated that a play is not only an interactional activity but also a social activity which simultaneously has cultural and imagery aspects [11].

It is possible to use plays as a tool in architecture education, too. This is because, in education, plays are useful for learning, rather than teaching [3]. Team plays that focus on teamwork are usually in the form of competitions. They focus on the significance of the feelings of trust among people and authority distribution. Various plays may be used towards skills development or getting attention to different aspects. The important issue is to apply the play that is designed in terms of the objectives targeted in education [3]. Moreover, in architectural design education, the improving aspects of group work may be discussed in the specific sense of the play, and an informal approach may be presented.

For some, a play refers to getting rid of excess energy, eliminating the instinct of analogy and achievement of release. According to another approach, a play had qualities such as improving the desire to regain lost energy through one-way animation or activity in addition to being an improvement on skills or winning and competing that comes from birth (And, 1974). The similarity between the problem-solving and puzzle solving processes is one of the foundations of likening architectural design and plays. The situation of being able to get outside mental patterns, which may be seen as the rule of solving puzzles, is also the first step of being able to produce an architectural solution that has value [3]. According to Huizinga [8], the common point in this matter is the original point of action as the assumption that a play is for reaching an objective which is not a play [7]. Thus, this characteristic of plays is open to usage/utilization in architectural design education, which is a creative process.

The relationship between architecture and reality forms one of the bases of association with plays in architecture. As architecture is equivalent to forming a new whole, a new reality, and as a play exists in a reality other than the reality we live in, this association is inevitable. Architecture education, which aims for a reality in a very distant future that does not exist yet, therefore, is an area where the relationship between architecture and the concept of play is felt strongly [3].

This study, which is based on forming a space from the dynamics of the practice of playing, also reveals the relationships between plays and architecture. It puts steps that may be followed while creating a play into usage as a tool in a studio process.

METHOD, MATERIAL AND TOOLS: Plays, Design Studio

The highly complex nature of the design process that starts as an idea and slowly turns into a product has been a field of speculation so far among educators. In this context, researchers have held a set of debates and brainstorming processes regarding a group of concepts and topics related to design education including the concept of design, design behavior, creativity, skill, abstraction, problem-solving, concept, conceptualization, representation, thought and visual perception [12]. The term creativity in architecture that gains attention in this aspect is related in the same way to sub-topics such as the practice of design and design education and perception of the complex social issues taken on by architecture. Additionally, it may absolutely be argued that creativity, which is required in each process of architectural design, has several aspects. For this reason, creativity has significance in the theory, practice and critique of architecture, and it is the topic of several debates that are continuing in architecture education [13].

The studio construct that is discussed in this study adopted a process that is based on increasing awareness rather than creativity and prioritizes this. In

order to achieve the speculations that support architecture in the studio practice, playing was used as a tool. During the studio process, selection of the concepts that formed the starting points of the play was achieved by the hypothesis that the awareness of the individual may be improved in the process adaptation to playing. The concepts that were selected with a focus of awareness aimed to take initiatives that emphasized social changes such as population increase, migration, crisis, survival, integration, transformation, belonging, memory, mobility, homelessness, extraordinariness and possibility. These concepts were accepted as an interface for philosophical and physical products to emerge in a metaphorical context while increasing awareness levels. These concepts were tried out with the play to present a speculative form of representation.

To achieve this speculative space formation trial in design education, it is needed to organize a studio process. This process model needs to define/correspond to a studio process that will provide representation of concepts, reconstruction of meanings and revelation of a spatial, volumetric and stylistic product. The flow that aimed to achieve this was tabulated as shown below (Table 1).

STEPS	DESIGN STUDIO PROCESS	CONCLUSION
PROVIDE INFRASTRUCTURE AND INFORMATION	Introduction of concepts Introduction of materials Creating groups Selection of concepts	PROCESS OF AWAKE SPECULATIONS IN CONTEXT OF PLACE AND PLAY
RULE CREATION	Analysis (the process of transforming themes into plays) Rule formation (the process of providing meaningful integrity to the play)	
SPACE CREATION AND CONSTRUCTION	1/1 scale construction process of the play with selected recycle materials	
PLAY	The process of experiencing the functioning of the rules in the constructed play space	

Table 1 . Steps of the Studio on the Design of the Space.

The steps of the architectural studio process were discussed in the context of play and space by redefinition by the studio coordinators. Firstly, the aforementioned studio process was presented to the students by the studio coordinators in a general sense. 68 students were divided into 10 different groups. The groups were firstly asked to select concepts. The students who made their choice after collecting information about the concepts analyzed the concepts they selected and presented the concept-play relationships they established throughout three weeks by using models. The play rules they produced were developed over the models. They were asked to produce these plays that were created in this studio process which was focused on raising awareness and social change on a 1/1 scale by using recycled

materials. The play construct whose ideas were formed in the studio setting was built at suitable open spaces in the campus and near the faculty. Finally, the plays that were created were experienced.

While the play-concept relationships were being advanced within the framework of the rules that were determined in the constructed plays, the play-space relationships were expressed by the surfaces and volumes built by recycled materials. In this process, the physical and mental possibilities on how concepts may be transformed into a space for playing were presented. So, this way, the usability of plays in architectural design education as a method with possibilities of architectural representation, research and experiencing was exemplified.

The works that were produced in the scope of the studio were examined through the photographs and videos recorded while the plays were being played, expression of the experiences of individuals who were sometimes viewers and sometime players, and eventually, the presentation sheets where the students explained the process that was asked to conduct and their experiences. It was observed that the internalization statuses of each group's selected topic, methods that were used and all stages of the processes were much faster and deeper than those in the conventional studio settings and organizations. This outcome was a positive one in terms of the achievement of the objectives that were formed in the scope of the studio.

Block or Step named play:

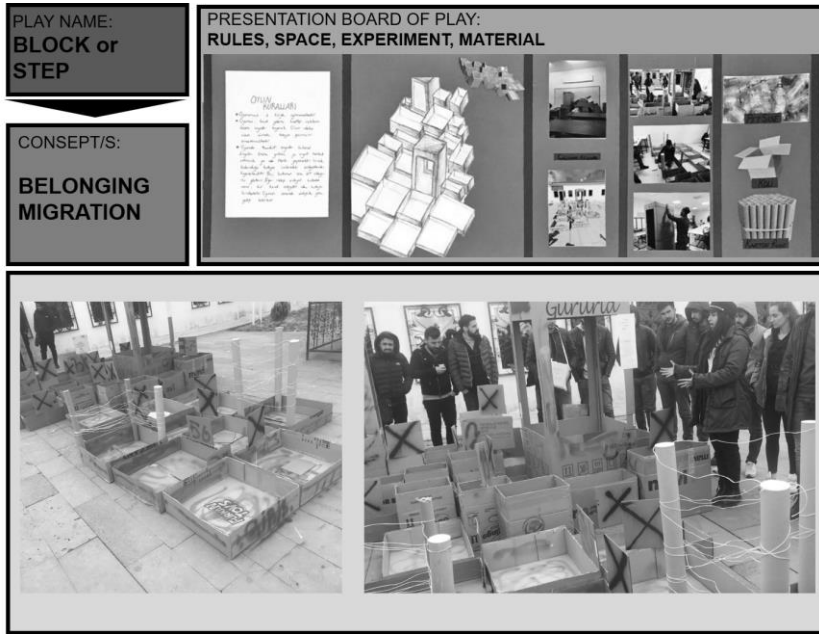


Table 2. Designing the Play: Block or Step.

While constructing this play, concept selection was made towards belonging and migration. The space of the play: in the composition that is formed by ordering differently sized rectangles on the surface from the smallest to the largest, it is defined by elevating the rectangles on different scales. The rules of the play: the play is played by two persons. While the player shortens their path, they aim for their opponent to reach their goal by placing obstacles in front of them. There are randomly placed obstacles in the play. When a player encounters an obstacle, they have two options for making a move: either move the obstacle and stay where they are or move towards a different direction. For each box that is passed through, the player gains a card that represents their presence and shows that the box belongs to them. If there is already a card that shows that the box belongs to the opponent, the player can still place their card. At the end of the play, the winner is determined based on the numbers of cards that are left on the boxes, meaning belongings. The group members explained the relationship between the play they constructed and the concepts they selected as: “among the rectangular boxes placed from the smallest to the largest, the shrinking boxes represent the crowdedness in the city, while the growing boxes represent the vast lands in rural areas. In addition to this, the instinct of players to gain a sense of

prepared planning cards for 10 seconds each during the process. Based on these rules, the player tries to accurately form the space in the planning cards by transforming the moving mechanism based on the plan. The group members explained the relationship between the play they constructed and the concepts they selected as: “the fact that the play is played based on keeping the plans in the card in mind indicates the concept of memory.” The group which explained the concept of crisis with the crisis effect created by limited time also explained their act of achieving physical change through the mechanism with the concept of mobility. The group members stated that, with this play, competition, formation of a space by using memory, time management and the crisis environment created by time could be experienced. At this point, the group members gained the skills of integrating the concepts they selected with the play and the rules of the play, in addition to being able to express the space they formed with the play not only in 1/1 production but also in two-dimensional narratives.

İplengeç named play:

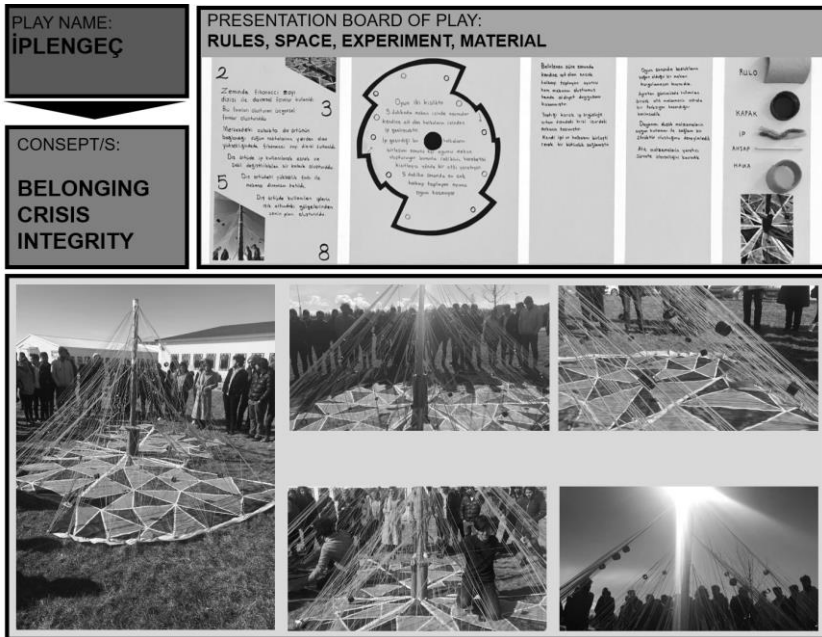


Table 4. Designing the Play: *İplengeç*.

The concepts that the group selected while constructing this play were belonging, crisis and integrity. The space of the play is defined with a form on the surface created by the Fibonacci number sequence, a rod at the center

and a network system between the borders of the form on the surface. The rules of the play involve making links on the existing network system with threads coming out of pulleys on the rod at the center and rings. The player creates new spaces in the play field with the links they make and shows that the space belongs to themselves with the rings they collect. The play that is played by two players is evaluated based on the number of rings that are collected within a certain time. The group members explained the relationship between the play they constructed and the concepts they selected as: "the player who has collected the highest number of rings at the end of the specified time period has not only created their own space but also gained a sense of belonging. With the complex connections of threads that they have made, they have carried the crisis on the surface to the internal space. They have achieved an integrity by combining their own thread and ring." Consequently, it was observed that the selected concepts were deepened in the production and play processes, reflected on the space of the play, and the group members' potentials of having their experiences through these concepts increased. In addition to this, the group members stated that they gained significant experiences in fields such as space, emptiness-fullness, material and structure formation. In conclusion, although the play and the 1/1 production were mainly selected to discuss concepts and raise awareness, they opened multidimensional channels in the perception and knowledge of the students.

Tiki-Taka named play:

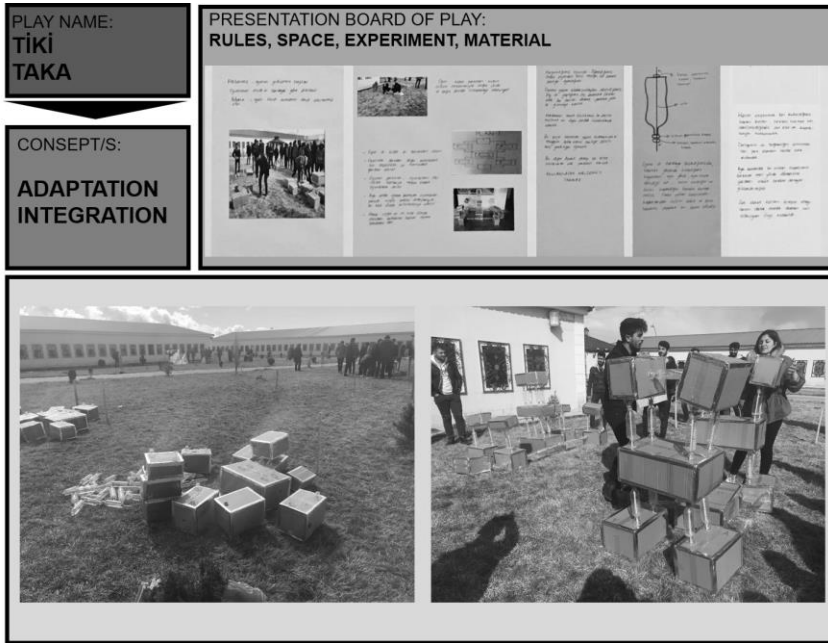


Table 6. Designing the Play: Tiki-Taka.

The concepts that were selected by the group while constructing this play were adaptation and integration. The space of the play is formed while playing the play with boxes, connecting elements and maps. The rules of the play dictate players to form a three-dimensional space through a two-dimensional plan at the shortest time. The player tries to form the integrated space by solving the relationship between the plan and the materials. The students who created the construct emphasized the importance of discovering the differences created by the back and forth action between designing and experiencing the play. At this point, it is observed that the act of forming a space that is experienced by playing a play gave rise to positive outcomes in design education and practice. If one makes a reading on the concepts that were selected at this point, it may be stated that the integrated relationship between the design and production processes opens significant channels among the designer, the design and the act of designing.

CONCLUSION

Architectural design studio 1 is one of the most important stages of architectural education in which the student shifts between intuitive and conscious thinking on architecture and makes essential expansions about the profession. The student needs guidance to interpret, use, develop and reinterpret her/his existing infrastructure and experience. This can only be possible with the studio's one-to-one relationship and the informal construction of studio's works – processes. The research area, which is parallel to this definition of the text, has been realized through the act of “setting play - playing” and its processes have been examined and it has been possible to examine both the studio and the results of the informal form of the studio.

It was observed that student groups which are designing, producing, writing rules, playing and discussing the whole process by internalizing the concepts they selected and they are constructing new information production networks over this concept. In other words, the game that is constructed with the concept has enabled the concept to develop in the mind and be connected to various points with new connections. As a result, although the game and 1/1 production were mainly chosen to discuss the concepts and to raise awareness, it is thought that the student can open multidimensional channels in their perception and knowledge.

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