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Bypass in Urban  
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# Bypass in Urban Space: Creative Scenarios

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Considering functional and experiential congestion in Kadıköy, the paper deals with the concept of “Bypass in Urban Space” in the context of the user-centred design. The case study is limited with the axis extending from Söğütlüçeşme and General Asım Gündüz Street which is connected to the main artery. Kadıköy, as one of the rapidly growing and transforming urban centres in Istanbul, reflects variable traumas in terms of human-environment behaviour relationships. A research model is developed to identify these traumas and produce a solution through bypassing the congestion in the area. Within the scope of the study, it is aimed to contribute to the dynamic structure of the city by creating new functional experience spaces in the capillary streets. On the other hand, it is aimed to design the spaces that lead the user to stop and perceive the environment beyond its transition function of the main artery within the dense pedestrian and vehicle traffic. By the research model, it is suggested multi-functional creative scenarios through the problems and hypotheses identified within the framework of the user-environment connection. Environmental and behavioural research, conceptual readings, sketch of ideas and visualization of conceptual studies, the designer scenarios are the main phases of the research as well as developing a proposal within the scope of contribution to the field. Most of design solutions analyses several dynamics such as bypass, main artery, in-between space, spatial conjunction, integration in urban space. So, it is aimed to design integrative mobile spaces for continuity of user-environment relationship beyond establishing a physical and visual connection.

**Keywords:** Urban bypass, main artery, in-between space, spatial conjunction, integration.

## Introduction

The main concept of the research focuses on the concept of “Bypass in Urban Space” in the context of the user-centred approach, with the determination of functional and experiential congestion in the field and the creation of functional experience spaces to solve this congestion. This fact creates some sustainability problems in Kadıköy district, as one of the rapidly growing and transforming urban centres of Istanbul. Considering the argument “Bypass in Urban Space”, it is expected the research participants identify these problems and produce a solution through bypassing the constriction and congestion causing trauma in the area. The field study is limited with the axis extending from Söğütlüçeşme Street to the node of Kadıköy, Bull Statue is located, and General Asım Gündüz Street connected to the main artery (Fig. 1). Within the scope of the study, it is aimed to contribute to the dynamic structure of the city by creating new functional experience spaces in the capillary street tissue connected to this main artery. On the other hand, it is aimed to design the spaces that lead the user to stop and perceive the environment beyond its transition function of the main artery with the dense pedestrian and vehicle traffic.





Fig. 1

Image shows the context and physical limits of case study

This research proposes four physical characteristics that support user experience and social interaction, considering the continuity between the Main Street and its capillary streets. These characteristics are (a) personalization of the street front by the passages and commercial buildings, (b) participation of the users to the design of mobile spaces on the street, (c) multi-functional uses provided by the public spaces, and (d) mobile spaces provided by the research participants on the street space. At the end of the research, the use of different environmental analysis methods involving more than one variable has led to the diversification of the design proposals by differentiating the determinations and problems of each designer in the field. In addition to establishing a structural connection in urban areas, the developed mobile space solutions reflected parameters such as bypass, main artery, in-between space, spatial connection and integration focused on experience intervals for the continuity of the user-place relationship.

The user-place relationship is connected with psychological aspects as well as physical. The physical form, activity and meaning are combined to form the sense of place (Montgomery, 1998). In terms of environmental psychology, place is mainly expressed by a physical environment built based on its interrelationship with individual's internal psychological, social processes, attributes and activities done at the place (Smaldone, 2005). As Gieryn (2000) stated "places are also interpreted, narrated, perceived, felt, understood, and imagined, the sense of place could not be separated from user experience and behaviors. It is apparent that without addressing the significance of the people's psychological connection with places, any form of assessment in determining place quality will be inadequate. Awareness of environmental perception of place is an essential aspect of urban design. Research on environmental perception has been focusing on the experiential sense of place. It stresses the importance of attachment in sustaining a sense of place beyond the physical and visual connectivity of the place and the observant. Perception is associated with the mental image, consciousness, physical sensation and intuitive cognition of the elements of place (Hassannudin, 2003). In urban design, a place is also seen as how people experience a place (physically and psychologically) (Gustafson, 2001).

The sense of place is the relationship between man, his image and environmental characteristics. This concept on the one hand is rooted in subjective experience of people and in other hand is affected from objective and external influences of the environment (landscape, smell, sound, etc.)

that these lead to various association of a place. It is a subjective perception of people about their environment and their conscious feeling about places. So, sense of place has both descriptive and emotional aspects of the environment experiences. It means that the concept of sense of place is both a psychological and physical concept, created from interaction between people and places. In another research, Jorgensen (2001) in his studies on the theory of "attitude", defines three dimensions for place. People's feelings about place are sign of emotional dimension, their beliefs about place shape the cognitive dimension and their function in a place is a symbol of behavioural dimension of place. So, the creating elements of a place as form, function and meaning (Canter, 1977) are corresponding to cognitive, behavioural and emotional dimension. As mentioned in literature, physical parameters in addition to respond the existing functions in place, by creating meaning, cause the formation of sense of place. In this regard, legibility and people satisfaction of environmental elements are assumed as influential factors.

Many urban design studies have identified many physical characteristics that make public spaces attractive for public life. At the same time, literature in social sciences has emphasized the role of social qualities of public spaces in place attachment and place making. These efforts attempt to capture qualities in the environment that help create a sense of place for people. Using the knowledge from the social sciences, urban design researchers are broadening the province of design and have begun to evaluate both physical and social aspects of the environment to understand user needs (Mehta & Bosson, 2010). What constitutes the city is a series of internal and external experiences, which come together and present themselves as backgrounds and foregrounds. Physically, while the city consists only of the places and places created by the streets and buildings, the life and pulse of the city are formed by collective and independent actions by the people's bodies (Snyder, 2011). The synthesis of the different perceived images constitutes the image of that space in the mind. Therefore, it can be perceived by moving in space (Hoogstad, 1990). Different images of the space can be obtained with the action of motion. People who are directly or indirectly moving in space make an evaluation as a result of the sum of these views by looking at the space from different angles.

Researchers and social commentators have been exploring the relationship between the environment and human behaviour for decades, in order to understand what attracts people to public spaces and supports social activities. Their findings point to characteristics of the environment that are place based and ones that are people based; that is, some are a result of the characteristics of the physical environment, and others, a consequence of human actions and management. Of the place-based characteristics of Main Streets, some are under the control of public or private authorities, whereas others are controlled and managed by individual property or business owners (Mehta & Bosson, 2010). Söğütlüçeşme street as the main artery in Kadıköy reflects this kind of transformation as a consequence of potential human actions and necessities. There are observed many different spatial extensions such as commercial shops front by passages, steel surfaces equipped with show cards and advertisements along the main artery and its capillary streets in Kadıköy (Fig. 2).

Life between buildings is not merely pedestrian traffic or recreational or social activities. Outdoor activities are especially dependent on exterior physical conditions. When outdoor areas are of poor quality, only strictly necessary activities occur. When outdoor areas are of high quality, a wide range of optional activities will also occur because place and situation now invite people to stop, sit, eat, play, and so on. In streets and city spaces of poor quality, only the bare minimum of activity takes place. People hurry home. In a good environment, a completely different, broad spectrum of human activities is possible. According to Gehl (2011), cities with high pedestrian activities and providing experience opportunities to the user are living cities. But it needs dynamic structural connections which organize the way in which behaviours, activities, and people come

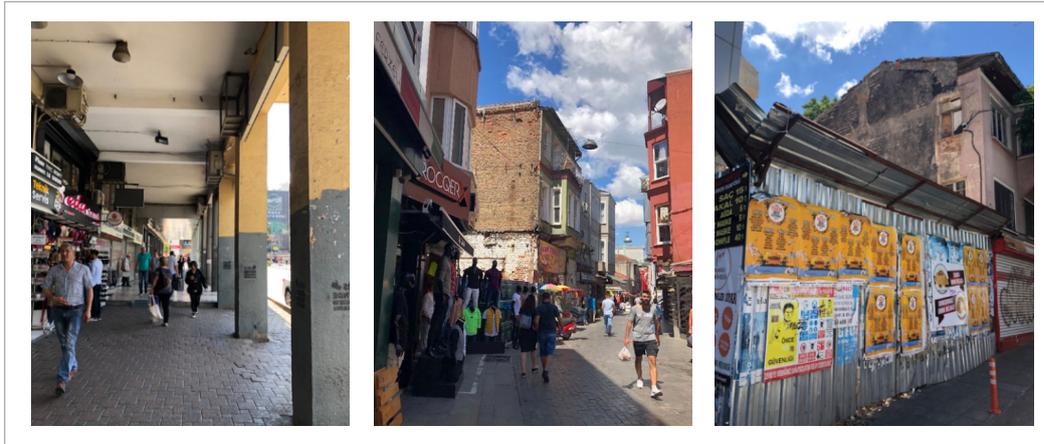


Fig. 2

Use of Public Spaces –on Kadıköy /Söğütluçeşme street – July 2019

together or remain apart (Peponis & Wineman, 2002). The use of the spaces between the buildings provides different opportunities to the users, while ensuring the life of the city. Urban spaces are accepted as living organisms that can respond to changing socio-economic conditions and the cultural texture of cities. In the globalizing world, consumption-oriented cities have emerged with the effect of new lifestyles. From the user point of view, the meaning and function of the avenue, street and square in the city has changed. Especially in public spaces, the space should offer alternatives according to user characteristics and needs. Thus, users will be able to find built environments where they can meet their needs and expectations, and connect with the society (Erdönmez & Akı, 2005; Yalçınkaya, 2020). If the user finds this diversity in the place, the cities will be able to turn into living cities by offering the user more experience opportunities.

The research focuses on User-Centred Design approach, considering users' needs and expectations. UCD is widely used in design and construction of the built environment, for example in urban development, place-making, workplace design and refurbishment (Sanders & Stappers, 2008). It attempts to optimize the fit of product and services with how users can, want and need to use them, rather than forcing the users to change their behaviour to accommodate the product and services. This approach was first defined by Norman (1988) as "a philosophy based on the needs and interests of the user, with an emphasis on making products usable and understandable" (Min Hi Chun, 2015). According to Eason (1995) there are two possible meaning of user-centred approach, 'Design for users' and 'Design by users'. The first calls on the designer to gather information about human behaviour and design the product and services for users, the second incorporates the user more substantively within the design process.

In this research, UCD is accepted as the process of enhancing user satisfaction by improving the usability, accessibility and pleasure provided in the interaction between the user and the urban space. The participants of the workshop will discuss the density of people and vehicles, functional and physical characteristics, user preferences, etc., on Söğütluçeşme Street in Kadıköy. It focuses on contextual criteria and focuses on creating a holistic effect by extending the continuity of this main axis of the city to other street spaces. Some of the design proposals aim to give these spaces the quality of public gathering / experiencing by focusing on non-functional spaces in urban area. In addition, the studies focused on unqualified gaps in the residential area in the side street gaps and aimed to bypass the functional congestion caused by chaos in the main artery with new spatial extensions. In the studies examining the relationship between user and environment within the change of human mobility between Söğütluçeşme and General Asım Gündüz Street connected to this main artery, structuring was followed by the physical boundaries of the street and the rhythm of the space formed a data for the design. The proposals that criticize the sharp boundary

separation created by the façade-street-building relationship on the main artery aimed to create flexible user experiences with the mobile space structure articulated on the surface of the structure at the points where the existing façade border opens to the street. Other design proposals on the study area provided solutions for combining different user profiles with conscious scenarios in the same urban area, beyond user mobility or intensity.

## Discuss: Urban Space Dynamics in terms of Mobility

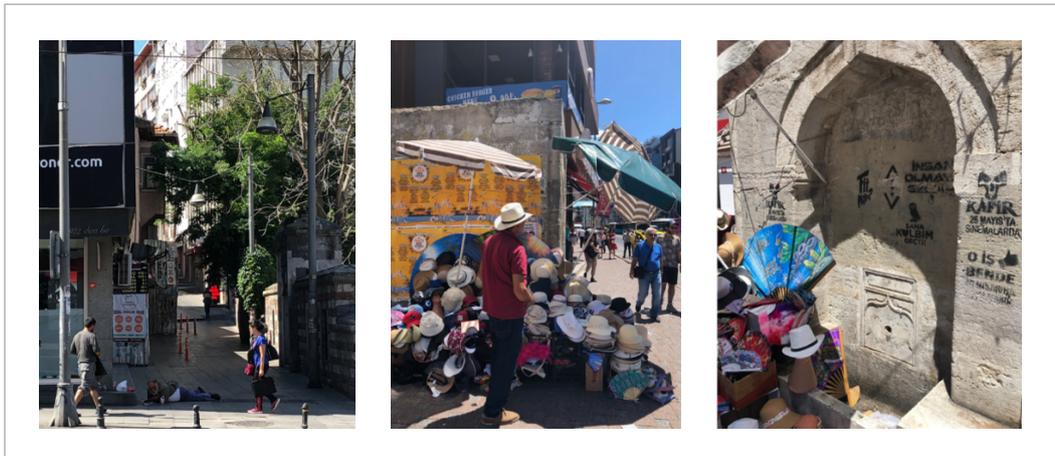
In evolutionary terms, a long time ago, there was a time when human existence was based on their ability to move and adapt. The understanding of portable and mobile structure, which is as old as the history of human housing, has led to the formation of a human being who is constantly displaced to survive in nature, so that the act of accommodation can take with him. Flexible buildings enable its use, operation or location to respond to changing situations. It is an adaptable architecture rather than stagnation, stability, supported by interdisciplinary and multifunctional design approach (Kronenburg, 2007). The concept of mobility in architecture transforms into the re-shaping human experiences and spaces. It is the fact that the mobile spaces in urban area behaves the extend of static building area and provokes them. Beginning with the reality of urban nomads, the concept of mobility presents the users new experiences and spatial extensions (Sarı, 2019). For instance, Winfried Baumann's (2013) ongoing Urban Nomads series has as its focus the harsh realities of homelessness and neo-nomadism, often in conjunction with issues of housing, food, and restricted mobility.

In understanding today's mobility, the way the movement is realized is important. The roads, changing landscapes and geography during the movement are observed, felt and perceived by the passive subject. Mobility, which is a part of modern society; housing, work and recreation problems. (Houben & Calabrese, 2003). Today, information and communication technologies are developing continuously and rapidly, resulting in more flexible working and lifestyles (Clews, 1997). Multi-functional, flexible, adaptable and disassembled structures that are required for mobility have been shaped with the development of both new materials and new technologies together with prefabricated, suspended stretching, swelling or modular systems. Mobile life offers quick and practical solutions to the sudden and changing needs of people in many areas. Mobile life caused by changing living conditions has also been included in social life with areas such as museums, libraries, hospitals and schools that can become mobile (Galindo, Ehmann, & Klanten, 2015).

To sum up, mobile architecture conflicts with the heavy, static, permanent and monumental image of the architectural product. Mobile spaces have always existed for practical reasons as part of permanent settlement. Rising speed and changing rhythm of life with industrialization has led to many discourses that architecture has been unable to keep up with the changes that modern life could not meet the demands of modern life. Although mobile architecture is a reflection of the transformation

Fig. 3

Urban Nomads – on  
Kadıköy /Söğütlüçeşme  
street - July 2019



process of the relationship between space, place and context, it is an operational expression tool that draws attention to the existence of urban nomads brought by urban life (Fig. 3). The positive emphasis of nomadism allows mobile architectural devices to create free and mobile spaces that focus on functionality, user and people.

The purpose of research model is to develop multi-functional creative scenarios through the problems and hypotheses identified within the framework of the user-environment relationship. The conceptual framework of the research consists of five different phases: idea, hypothesis, environmental analysis, visual coding and plan/design process. The idea creation process begins with the discussion of the manifestos that constitute the user scenario and design concept. The hypotheses are based on an assumption that supports the manifesto with the concepts of experiential congestion, in-between space, integration, urban bypass, main artery, user-centred design, and spatial conjunction (Fig. 4).

1	2	3	4	5
IDEA	HYPOTHESIS	SURVEY	VISUAL DECODING	PLAN/DESIGN
Create your user scenario and design concept	Experimental congestion In-between space Integration Urban Bypass Main artery User-centred design Spatial conjunction	Use place standart tool  To define big questions and solutions regarding the context of area	Draw your mental map  Sketch your visual Experience	To develop a proposal/model for user-centred design

## Methods

Fig. 4

The conceptual framework of the research model

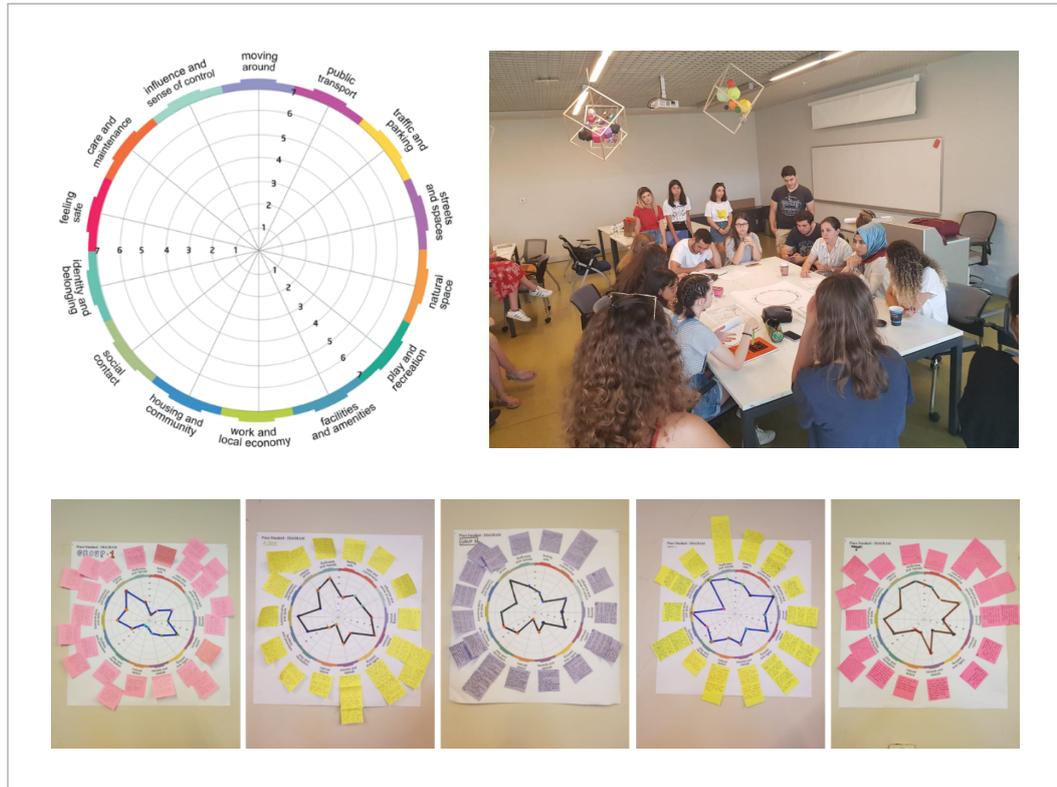
As a result of observations, the data related to the user-environment relationship were recorded with Place Standard (<https://www.placestandard.scot/place-standard.pdf>, 2019), Storyboard (Atasoy & Martens, 2011), mental mapping methods in visual and literary form. By determining the main questions and solutions that question the physical and environmental dynamics of the study area, the necessary data were collected within the scope of the field analysis. Data obtained through observations and "place standard" tool during field analysis were recorded visually with mental mapping and visual experience sketches. The use of these multivariable analysis methods provides for diversifying the design proposals by differentiating the determinations and problems of each designer in the field. The plan / design process includes the development of a mobile space proposal within the framework of user-oriented design that supports the idea and hypothesis creation process. While it is discussed around the concepts such as bypass, main artery, in-between space, spatial conjunction, integration in urban space, it is aimed to design holistic and integrative experience spaces for continuity of user-environment relationship beyond establishing a physical and visual connection.

The research workshop program covers a ten-day period; the first day of the workshop started with the project scope and process sharing / technical trip. On the second day, environmental analysis data were recorded in "place standard" diagrams within the scope of the field stud (Fig. 5). In this context, the place standard tool questions the physical aspects of a place (streets, open spaces and transport connections, etc.) as well as its social aspects (social communication, sense of identity and belonging, feeling safe, etc.) The tool provides a methodological approach to all elements of a space, showing the existing values of the space as well as the areas in which it can

be improved. On the third day of the workshop, a discussion / presentation on “mobile space” and user relations in urban areas was held and concept studies were started. In the continuation of the workshop, design proposals were developed with sketches, mapping, models and drawings.

Fig. 5

Use of Place Standard Method/Parameters and Diagrams within workshop (Parameters-Moving Around, Public Transport, Traffic and Parking, Streets and Spaces, Natural Spaces, Play and Recreation, Facilities and Amenities, Work and Local Economy, Housing and Community, Social Contact, Identity and Belonging, Feeling Safe, Care and Maintenance, Influence and Sense of Control)



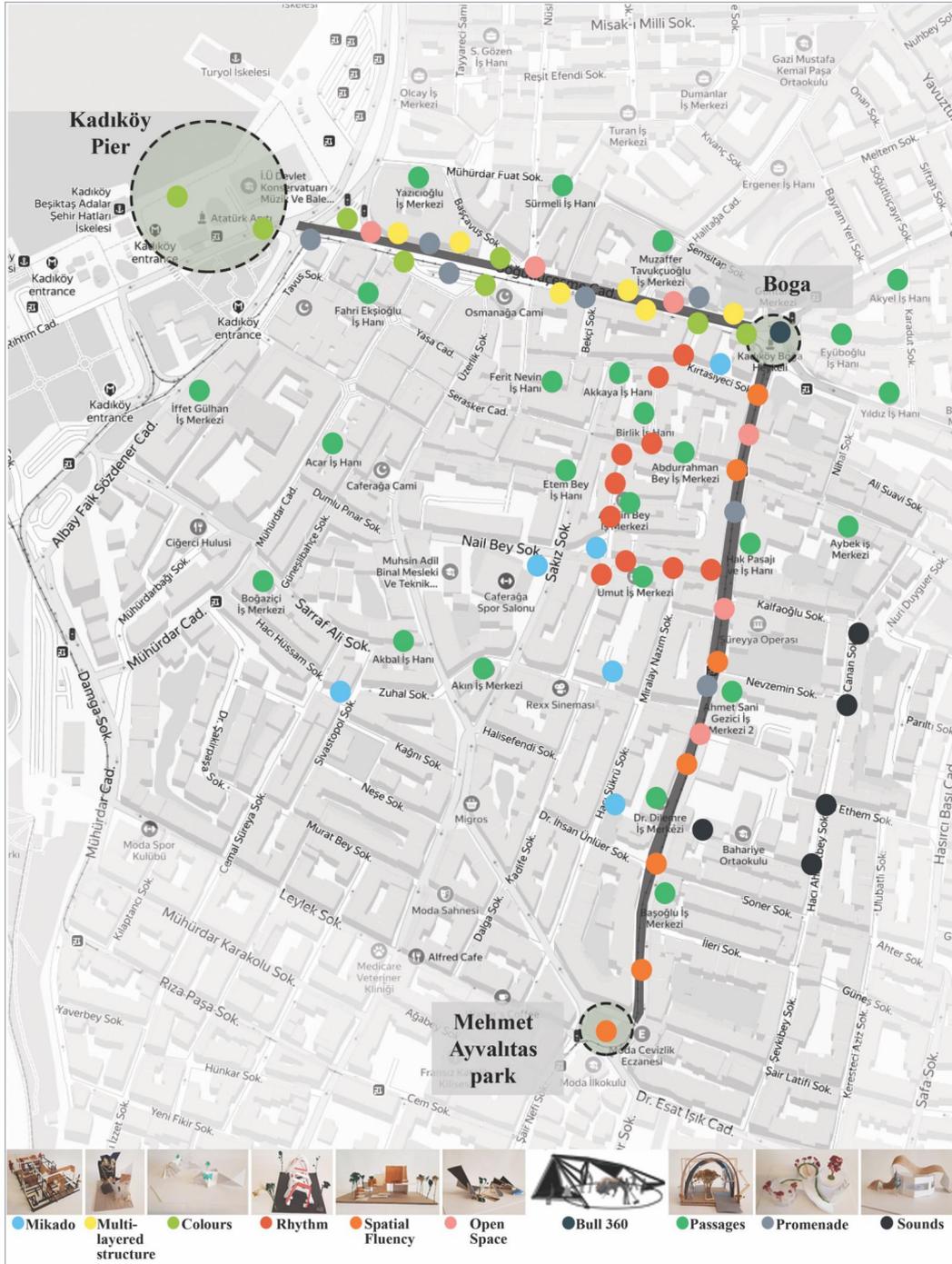
## Results

The user-centered design is adopted to eliminate the congestion and insufficient recreation areas caused by the densities, lack of resting areas, hawkers and shop stands lying on the pedestrian axis along Söğütluçeşme Street and General Asım Gündüz Street, which are the main arteries in the study area. Most of the scenarios aim to distribute the density in the main artery by replacing it in the capillary streets parallel to the main artery. There are several design solutions related to use of Kadıköy main artery and its capillary street. These structures, which are located in empty spaces in the residential areas parallel to these arteries, are aimed to spread the dynamism of Kadikoy along the main arteries homogeneously. In addition, influence and sense of control is found to be insufficient in Kadıköy according to the result from the Place Standard tool. Therefore, the proposed structures are designed to be user-centred in respect to the principles of mobility of space (Fig. 6).

In the first proposal, the design proposal is shaped with an irregular and complex structure to criticize the chaos in Kadıköy. Besides, it provides the opportunity to solve the functional congestion created by this chaos in itself. The structure constitutes spatial extensions for a potential resting area at some points and also it becomes a market stand extension for peddlers and other tradesmen at another points. It meets the function of recreation area where children can enter and spend time with its complex structure as well. It is also possible for the user to interpret and modify this structure at some point. This design of the structure was designed with reference to the game “Mikado”. Although it is perceived as an irregular stack of linear elements at first glance, it is actually a structure that constructs seating extensions, stand spaces, children’s playgrounds and recreation areas. Moreover, the extensions of this structure are not only bound to a single point but

also spread to the main arteries by some extensions. The extensions of the structure are located at different points in the main arteries with different functionalities. Traces of these extensions are sometimes seen on pedestrian roads and sometimes on building facades.

In the second proposal, the mobile space designed on the Söğütluçeşme Street axis which is a meeting and node with Bull Statue of Kadıköy, is aimed to allow the user to experience this area besides to see it as a transit route. The critical point of the design was that the façade of the buildings on this axis separated the street and buildings with a very certain boundary. The flexible, movable

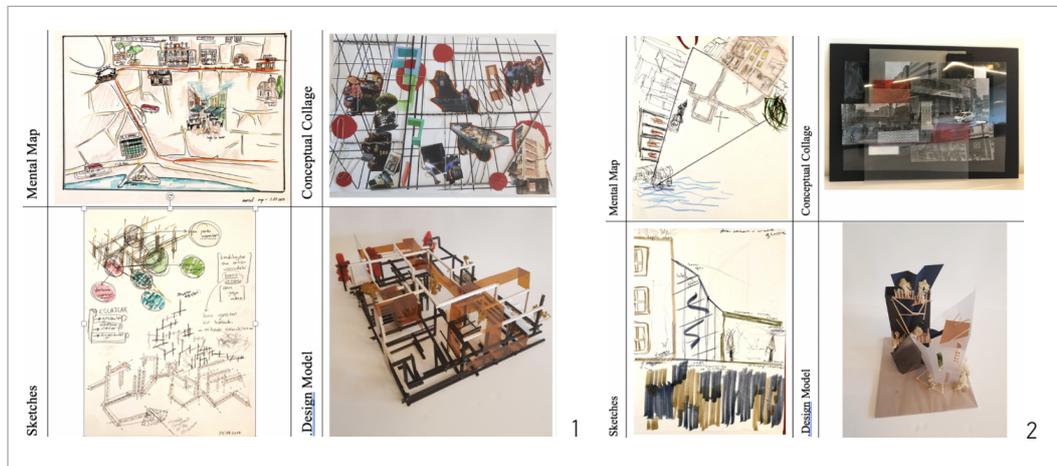


**Fig. 6**  
The map showing the place of design proposals in the context of field study in Kadıköy

structure articulated to the façade was proposed as a design solution to the lack of open space on the main axis due to the environmental data by Place Standard tool. The design approach deals with the behaviour-environment relationship on the concepts such as multilayer, transparent/semi-transparent, Open/semi-open. It is reflected the permeability/semi-permeability phenomena by using different transparent /opaque layers as an articulated multi-layered structure for the façade in Söğütlüçeşme street. On the model design, the crucial point was the expansion of the design both vertically and horizontally. Thus, it will create space potential for the people walking on the axis to experience the space propose a solution for the lack of open space by creating a vertical garden. In this context, a certain boundary distinction is removed among the façade structure, street and building with a multi-layered structure. The volumes between the façade layers define the functional areas. The volume created by the transparent outer layer of the facade creates a semi-open exhibition space with the help of units located at different elevations (Fig. 7).

Fig. 7

Concept 1- Mikado/  
design proposal by  
Doğa Erdoğan –  
Concept 2- Multi-  
layered structure/  
design proposal  
by Mina Sunan –  
Workshop / July  
2019 and Sense of  
Control)



In the third proposal, the design is based on a fiction in which the many variations of Kadıköy are abstracted with different colours. Firstly, it focuses on the Rihtim street, where the human density is the highest in Kadıköy. The increase in the human density brings along an increase in diversity due to its location. Rihtim is the starting point of this structure and it continues in some functional and formal places along Söğütlü Çeşme Street. Collage design, which include different colours, transparent and opaque materials reveals the conceptual approaches of design. This design, also called “Colours of Kadiköy”, is an *empty canvas* which reflects various people passing through Kadikoy. The structure completes itself with the colours or traces left by users in this canvas. In fact, Kadıköy is a place that exists with the traces left by its users. For this reason, the structure defines a space for the users to come and pass or spend time. The structure includes seating areas and creative spaces where users can spend time, so it provides users with flexible and movable functional experiences in Kadikoy.

In the next proposal, Söğütlüçeşme and General Asım Gündüz Streets, which are the main arteries in the case area, are accepted as the primary components reflecting the rhythm of Kadıköy. This irregular rhythm of Kadikoy is not only about the density of people and vehicles, but also the combination of sound, light and even buildings. However, this rhythm is observed only through the main arteries. The capillary streets connecting the main arteries do not reflect the similar rhythm. The mobile spaces are proposed to the capillary streets that connect the two main arteries in order to integrate the irregular rhythm of Kadıköy into the side streets in this design. The starting point of these mobile spaces is Sakızgülü Street which provides the connection between two main arteries. This street is chosen because it is one of the streets with the highest potential to

connect two streets. Extensions of the structure starting from Sakızgülü Street also infiltrate other capillary and main streets. This structure actually reflects the three-dimensional rhythm design of multi-functional mobile spaces which lead to the increase of pedestrian circulation in the capillary streets. At the same time, the structure offers people spatial and new functional experiences. As a result, a mutualist relationship is expected to be established between the rhythm of Kadıköy and the users of the area with these flexible spaces (Fig. 8).

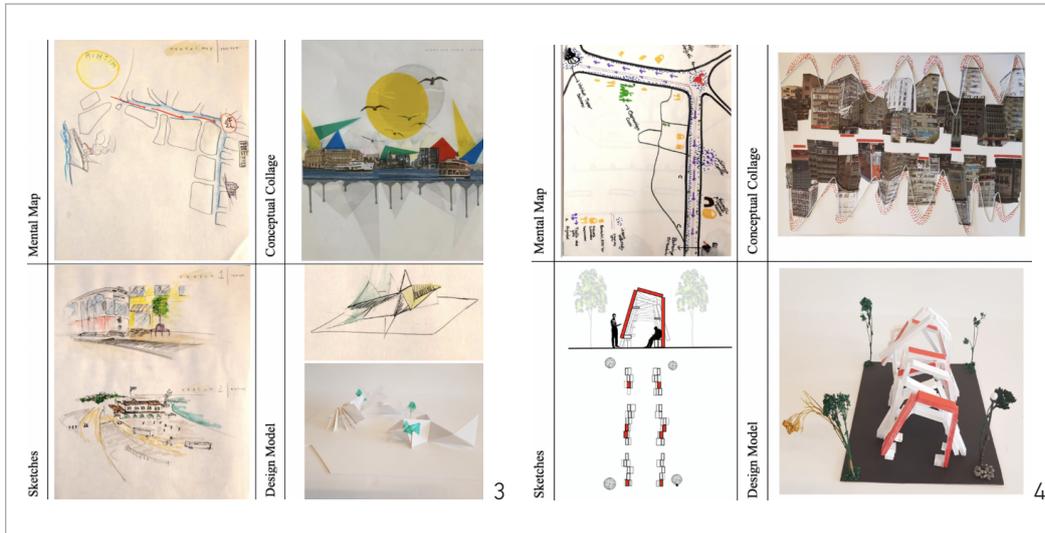


Fig. 8

Concept 3- Colours/  
design proposal by Alara  
Naz Aydın – Concept 4-  
Rhythm/design proposal  
by Aleyna Kaya –  
Workshop / July 2019

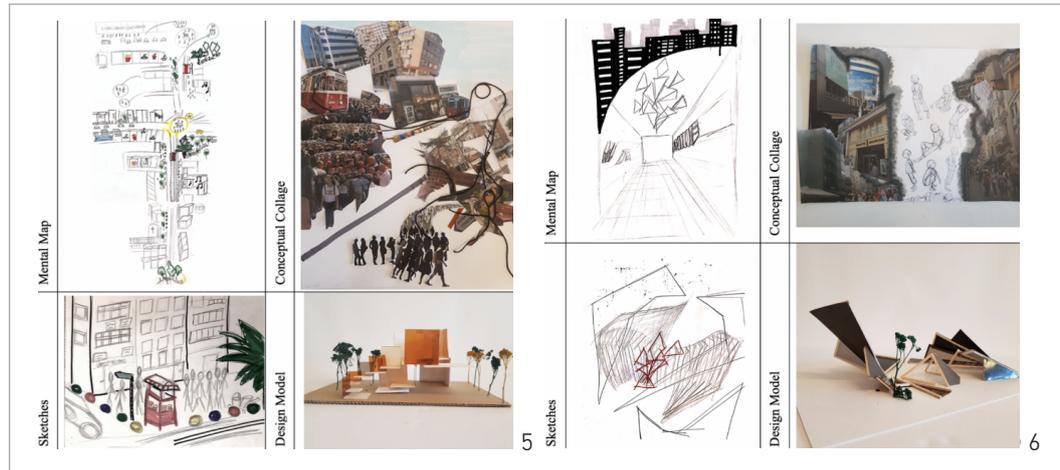
According to the other design approach, along the Söğütluçeşme and General Asım Gündüz Streets, it is observed that the spaces with different functions have many mobile, connected and intersecting relations. The route formed by this flow is supported by tram line which is one of the characteristic features contributes to the experience of the area. In addition, the “Place Standard” method was used to determine the lack of open space for the users in the area. Mehmet Ayvalıtaş Park, which is accepted as the end point of the main arteries in the study area, is the only open area on this route. However, this park has been left ineffective both functionally and spatially. The tram line along the whole route and the experienced, uninterrupted spatial connections provided the design concept as “Spatial Fluency”. Mehmet Ayvalıtaş Park where is at the end of the route is the starting point of these mobile spaces. The structure starts from Mehmet Ayvalıtaş Park and extends along the route by this way. In the concept of the design process, surfaces of different sizes come together in a spatial flow direction. The mobile spaces, where these different surfaces come together, sometimes intersect and sometimes intertwined, are transformed into an open structure to experience with resting, street arts and gathering places. Mehmet Ayvalıtaş Park, which is the last point of the structure experienced along the route, offers these mobile spaces with the function of exhibition. Thus, the existing but unused open space will be able to bypass the density to this point both functionally and spatially.

A new design solution mentions that the main arteries were not experienced by the users but turned into only transition element, on the contrary to the density and dynamic structure of Söğütluçeşme and General Asım Gündüz Streets. For this reason, it is decided to design spaces to experience these axes that reflect the Kadıköy’s dynamics and provide the user with the opportunity of come to these two main arteries. These spaces, which is determined by the Place Standard method, includes functions to eliminate the inadequacies of open space and strengthens the relationship between the user and the place. These ranges, determined by the Place Standard method, include functions to eliminate the shortcomings like open space or playgrounds and strengthen

the relationship between the user and the place. The structure located on the main arteries is intended to eliminate experiential congestion in these axes. As a result, the design allows Kadikoy to be experienced as a place and makes an experiential bypass to chaos with its playgrounds for children and interactive spaces left to the user (Fig. 9).

Fig. 9

Concept 5- Spatial Fluency/design proposal by Dilara Dizman – Concept  
6- Open Space/design proposal by Sude Şen – Workshop / July 2019



The bull statue (Isidore Bonheur, Bronze Bull Sculpture), which is one of the most important symbols of Kadiköy, is one of the gathering and meeting points in this area. However, it does not contain the necessary elements for these functions. Therefore, within the scope of this research, the other designer was decided to develop a proposal of mobile space extensions that can sustain and support the existing functions in the area where the Bull Statue is centred. The location is actually getting too much sunlight for a meeting place. For this reason, it is decided to design several portable panels which can be shaped by users according to the angle of arrival of the sunlight. The design of panels creates shadow areas where people can wait or meet around the Bull Statue, while street artists reflecting the image of Kadikoy create spaces that can change and transform continuously. Finally, the main purpose of the design is to maintain the meeting and waiting functions of the Bull Statue and also to reflect the dynamism, vitality and mobility of Kadiköy.

Kadikoy has in-between spaces and capillary streets as well as passages and commercial buildings that reflect the genius loci of the place. Also, passages are capable of bypassing the physical, functional and experiential density of the main axles. In addition to in-between space, the passages create spatial permeability by connecting different streets. The design process is supported by Place Standard analysis method, conceptual approaches, collage and model. The place standard analysis method allows the design process to be directed to passages, while the collage expression reflects the relationship between Kadiköy and passages. Collage becomes an abstract structure, conceptual model. The main purpose is to direct the density of the main axles to the passages through a structure consisting of mobile spaces reflecting the spatial connection, permeability, experiential / collective attitudes of passages. With this proposal of structure, the passage will become an extension of the main axle. The commercial functions that extend to the pavements on the main axles will be carried to the structure with flexible mobile spaces. Thus, more walking areas will be created for pedestrians and the structure will carry these functions to the passage through the mobile commercial spaces it contains. As a result, the structure not only allows the density to be bypassed by the passages, but also proposes mobile spaces for temporary commercial stands on the main axle (Fig. 10).

Although Kadiköy provide many functions for user, it cannot be experienced because of the congestion caused by pedestrian axles. Especially, Söğütlüçeşme and General Asım Gündüz Street in the

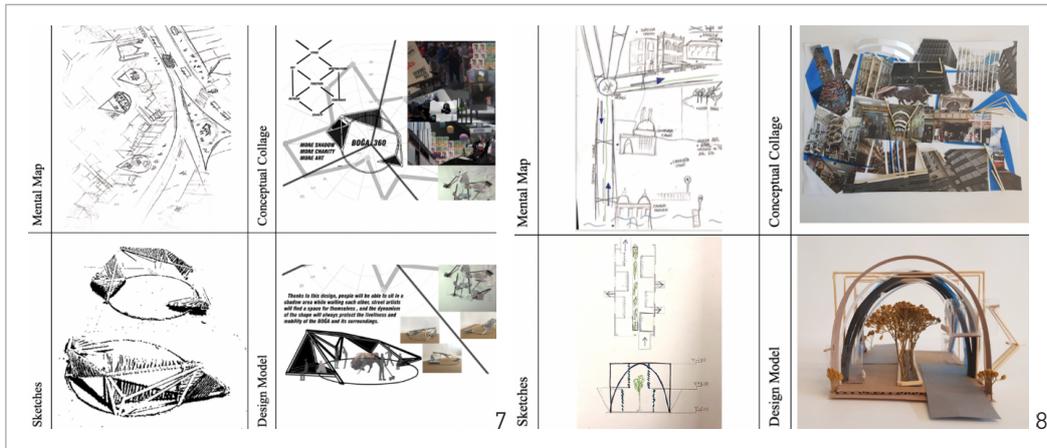


Fig. 10

Concept 7- Bull 360/design proposal by Yağız Eray Esgin – Concept 8 - Passages/design proposal by Ezgi Toru – Workshop / July 2019

research area are the main axles where this situation is observed. In addition to the congestion of these axles, the lack of natural area and the lack of play areas are determined by Place Standard analysis. For this reason, a promenade is suggested to experience Kadıköy, which is built on the main axles (Fig. 10). In fact, this promenade is an experience axle located on the main artery, sometimes moved onto ramps and different elevations as parallel to the main axles. So, it becomes an alternative that can bypass the experiential congestion in the main axles. Besides, the promenade is also supported with green space and playground functions. So, it proposes to different experiences such as walking, seating and viewing platform for its users that are lacking in the field.

Kadikoy is a place where people, vehicles and sounds are intense due to the continuous mobility. As a result of the observations, the next design solution focuses on the sound intensity which shows very high decibels in Söğütlüçeşme and General Asım Gündüz Street, and suddenly decreases in the back streets of these main axles. Therefore, the design aims to bypass the sound intensity from the main arteries of Kadıköy to the back streets parallel to it. The design process starts with the sound analysis of Kadıköy and continues with collages and concept models that indicate the relationship of sound with Kadıköy. As a result of this process, it was decided to design a mobile space to bypass the sound intensity in the main arteries. Mobile spaces are not located in one place, but in multiple locations that can bypass density and change direction. This structure, which consists of mobile spaces, will be placed on the Halil Ethem Street, Canan Street and Kuzu Kestane Streets parallel to the main arteries starting from the Rıhtım Street and continuing to the public park at the end of the main arteries. Mobile spaces create a quiet zone and provide resting seating areas when positioned in the area where the sound intensity is high, and when located in quiet areas, the sound intensity is supported by functions that will attract this point. As a result, it is aimed to distribute the sound homogeneously in this region with mobile spaces (Fig. 11).



Fig. 11

Concept 9- Promenade/design proposal by Zeynep Demirer – Concept 10- Sounds/design proposal by Bilge Ökten – Workshop / July 2019

## Conclusion

The environmental-behavioral analysis of the research area by Place Standard method, points out that the capillary streets and in-between spaces in Kadıköy are not used sufficiently. Because, the density of traffic and pedestrian circulation in the area caused to experiential congestion on the Söğütlüçeşme street axis. For this reason, it is decided to direct the density on the main artery to the capillary streets in the field. In this respect, Kadıköy is selected as research area to interrogate some of design solutions through several dynamics such as bypass, main artery, in-between space, spatial conjunction, integration in urban space. So, it is aimed to design holistic and integrative experience spaces for continuity of user-environment relationship beyond establishing a physical and visual connection. It is expected to discuss the user preferences with place standard parameters such as moving around, public transport, traffic and parking, streets and spaces, natural spaces, play and recreation, facilities and amenities, work and local economy, housing and community, social contact, identity and belonging, feeling safe, care and maintenance, influence and sense of control on Söğütlüçeşme and General Asım Gündüz Streets.

The research which deals with the contextual relationship aims to create a holistic effect by extending the continuity of this main artery of Kadıköy to other potential street spaces. Some of the design solutions plan to create mobile spaces of the public gathering / experiencing by focusing on non-functional spaces in the urban area. In addition, the studies focused on unqualified gaps in the residential area in the side street gaps and aimed to bypass the functional congestion caused by chaos in the main artery with new spatial extensions. These extensions are located at different points in the main arteries with different functionalities. Traces of these articulated structures are sometimes seen on pedestrian roads and sometimes on building facades.

It is the fact that the capillary streets connecting the main arteries do not reflect the similar rhythm in every part of the area. In the case studies analysing the relationship between user and environment within the change of user mobility between these streets, the rhythm of the space was formed by the physical boundaries of the area. Some mobile spaces are proposed to the capillary streets that connect these two main arteries in order to integrate the irregular rhythm of Kadıköy into the side streets. Other proposals that criticize the sharp boundary separation created by the façade-street-building relationship on the main artery aims to propose flexible user experiences with the mobile space extensions articulated on the surface of the structure at the points where the existing façade border opens to the street. Most of design proposals on the research area have provided solutions for combining different user preferences with creative scenarios in Kadıköy, beyond user mobility or intensity.

## References

- Atasoy, B., & Martens, J.-B. (2011). STORIFY: a tool to assist design teams in envisioning and discussing user experience. Paper presented at the CHI'11 Extended Abstracts on Human Factors in Computing Systems. <https://doi.org/10.1145/1979742.1979905>
- Baumann, W. (2013). *Urban Nomads*. Chicago: The University of Chicago Press.
- Canter D (1977a) *The Psychology of Place*. London: Architectural Press.
- Clews, D., Henry, R. (1997). *Softdwelling: A Programme for Living and Working, Transportable Environments: Theory, Context, Design And Technology*. Paper presented at the International Conference on Portable Architecture, London.
- Eason, K. D. (1995). User-centred design: for users or by users? *Ergonomics*, 38(8), 1667-1673. <https://doi.org/10.1080/00140139508925217>
- Erdönmez, M. E., & Aki, A. (2005). Açık Kamusal Kent Mekanlarının Toplum İlişkilerindeki Etkileri. *Megaron*, 1(1), 67.
- Galindo, M., Ehmann, S., & Klanten, R. (2015). *The new nomads: Temporary spaces and a life on the move: Die Gestalten Verlag*.
- Gehl, J. (2011). *Life between Buildings*, translated by Jo Koch, Island Press, Washington.
- Gieryn, T.F. (2000). A Space for Place in Sociology. *Annu. Rev. Sociol.* 26, 463-496 <https://doi.org/10.1146/annurev.soc.26.1.463>
- Gustafson, P. (2001). Meanings of place: Everyday experience and theoretical conceptualizations. *Journal of environmental psychology*, 21(1), 5-16. Hoogstad, J. (1990). *Space-Time-Motion*. Gravenhage, Netherlands. <https://doi.org/10.1006/jev.2000.0185>

Hasanudin, L. (2003). A Comparative Analysis of Perception of Urban Landmarks Between Designers, Non-designers and Laypublic: Kuala Lumpur Malaysia. Unpublished PHD Thesis, University of Sheffield.

Houben, F., & Calabrese, L. M. (2003). *Mobility: A room with a view*: NAI Publishers Rotterdam.

<https://www.placestandard.scot/place-standard.pdf>. (2019). Place Standard- How Good Is Our Place? Retrieved 30.12.2019, from Architecture&Design Scotland

Jorgensen, B., & Stedman, R. (2001). Sense Of Place As An Attachment: Lakeshore Owners Attitudes Toward Their Properties. *Journal of Environmental Psychology*, 21, 233- 248 <https://doi.org/10.1006/jevp.2001.0226>

Kronenburg, R. (2007). *Flexible: architecture that responds to change*: Laurence King. <https://doi.org/10.4324/9780080523194>

Mehta, V., & Bosson, J. K. (2010). Third places and the social life of streets. *Environment and Behavior*, 42(6), 779-805. <https://doi.org/10.1177/0013916509344677>

Min Hi Chun, C. H. a. L. S. (2015). Comparative study of user-centred design approaches. Paper presented at the ARCOM Thirty-First Annual Conference Lincoln.

Montgomery, J. (1998) Making a City: Urbanity, Vitality and Urban Design. *Journal of Urban Design*, 3: 1, 93-116. <https://doi.org/10.1080/13574809808724418>

Norman, D. A. (1988). *The psychology of everyday things: Basic books*.

Peponis, J., & Wineman, J. (2002). Spatial Structure Of Environment And Behavior. In R. B. Bechtel & A. Churchman (Eds.), *Handbook of environmental psychology* (p. 271-291). John Wiley & Sons, Inc...

Sanders, E. B.-N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *Co-design*, 4(1), 5-18. <https://doi.org/10.1080/15710880701875068>

Sarı, T. (2019). Re-Shaping Spaces: How The Concept of Mobility Transforms Architecture. Paper presented at the LIVENARCH VI Livable Environments&Architecture Congress, Trabzon, Turkey.

Smaldone, D., Harris, C., & Sanyal, N. (2005). An exploration of place as a process: The case of Jackson Hole, WY. *Journal of Environmental Psychology*, 25, 397-414. <https://doi.org/10.1016/j.jenvp.2005.12.003>

Snyder, A. B. (2011). Kent Mekânı, Sokak Mekânı ve Eşik Mekânlar: Beyoğlu'nun Kentsel İç Mekânlarından Geçerken. *Mimarlık- Dosya Mimarlık ve Gündelik Yaşam (Aralık)*.

Yalçınkaya, Ş., (2020). Çocuk ve İkonik Yapılar, Mimari Yansımalar, Şengül Öymen Gür'e Armağan, YEM Yayın, İstanbul, 385-400

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