COMMUNICATION OF EXTERNAL WALLS VIA URBAN TRANSFORMATION

Çiğdem TEKİN*

Halit BEYAZTAŞ

Mimar Sinan Fine Arts University, Department of Architecture, Istanbul

Abstract

In this study, the region renewed within the scope of the urban transformation process in Istanbul province Kadikoy district Suadiye neighborhood with intense tall residence buildings is selected to question this communication. Buildings having one or more non-cavity/slight cavity external walls were chosen. Communication of the buildings with their immediate vicinity is analyzed in two categories by taking physical characteristics of non-cavity external walls into consideration. Accordingly, it is identified that buildings have initiated different, yet unordinary type of communication via their physical characteristics with the street and adjacent building users. It is highlighted that such change might continue with the urban transformation activities in the context of urban aesthetics, visual communication and visual culture and should be controlled by the local administrations.

1. INTRODUCTION

"Happiness-generating architectural designs" is one of the objectives of the "Urban Transformation" aiming to improve risky areas. Despite the fact that happiness differs according to the perception of users, data is available showing that this objective is not achieved as defined within the scope of the urban transformation.

The aforementioned transformation process has been initiated and has sustained/is still being sustained in the form of individual activities without identification of the scenario for the recently facilitated transformation activities in particular, in large cities. Therefore, such renewal activities bring many problems in relation to their specific location. One of these challenges is the manner that old and new buildings coexist, the relation and communication established by them.

Each reflection of the physical and social environment brings the concept of perception in exchange of which each idea, behavior has a back reflection on the lifestyle, physical and social environment. All these reciprocal reflections constitute the basic communication. These reflections defining the communication arise due to our senses [1].

Human language comprising of "words" is the most competent communication means. However, other communication tools that are not based on the word are also available. According to Ozcan, the perception emerging as a significant factor during perception and analysis of the environment is defined as "transferring the objective world to the subjective conscious via senses [2].

Perception of the environment realizes in different ways and at different levels. In the simplest term, perception of the environment is sensory conscious and serves as a prerequisite for all other vital activities and processes. Perception is not passive, but active and emerges bilaterally in relation to the environment. Furthermore, the perception is not only a physiological fact, but also past experiences, social and cultural factors do have impact on the perception [3].

*Corresponding author, cigdem.tekin@msgsu.edu.tr

Each object on earth has the capability to communicate and hence, convey messages [4]. Humans do not only communicate with themselves and their environment, but also they have contact with the space they're living and the walls surrounding them. The external wall, which is among the most significant elements of the structure, allows the building to communicate its surrounding via its color, texture and shape.

The wall is a communication item ensuring understandability within the space of an architectural system. Serving as the interface of extremely complex relations between the interior and exterior, the wall, in some cases, act as a code conveying features of both spaces. The wall ensures communication "between the human and functionality" and "special uses and general-purpose uses" [5].

2. THEORETICAL FRAMEWORK

2.1. External Wall as an Interface in Visual Communication

The wall is a three-dimensional element elevating in reverse to gravity, whose width, depth and height differ in line with the location it's built and one edge is fixed to the soil [5]. The wall is an arrangement tool used for protection, defense, punishment, property and ideological purposes until today. This arrangement provides insight into the social structure and the organization. It is an arrangement tool serving not only to the borders and soil, but also shapes social norms [6]. Color and material technology of the wall is correlated with the construction technique, ideological, intellectual and historical approaches.

Primitive configuration of the wall has been converted into a complex structure today in relation with the social needs and change in aesthetical desires. The wall bears "inhibiting" and "restricting" feature. The user realizes that s/he encounters an obstacle when s/he first perceives the wall and thereafter, defines his/her behavior by interpreting this limit or obstacle [7]. According to Heidegger, the wall does not stop things due to its bordering feature, but initiates existence of other things along with itself as specified by ancient Greeks. Closure-openness, start-end, function, texture, surface, thickness-fineness, horizontality-verticality, concavity-convexity of this border define characteristics of the wall [8]. Walls may either create a closed space within itself or ensure spatialisation wherein the interior and the exterior are configured by opening of the wall to its surrounding via its cavities. Wall cavities are door and window; and the sill between the interior and the exterior [6]. The wall can manage atmospheric conditions with its cavities and define the relationship to be established with the external environment via its permeability, texture and material. In physical sense, the wall might act as a barrier to vision, hearing, touching and smell. Conceptual walls like "light wall", "sound wall", "odor wall" and "visual wall" draw a line between different spaces in relation with the designer's opinion. Any wall or façade placed within the topography or structured environment by using different materials offers strong boundary sense [5].

The wall separating the interior from the exterior is the first place where people start their visual and sensory communication with the buildings. Humans can touch the building even if they do not enter inside. Therefore, external surfaces belong not only to the building itself, but also to the region they're located and the society of that region [9]. The walls as external surface of the building were and are still used as a communication means and constitute one of the structural layers of the city. They undertake significant tasks in terms of visual integrity or silhouette of the city. Impact of the building's external surface on the texture of the city can be great, which, in turn, might determine the economic, political, social and architectural value of that city [9]. The walls are the separators of the spatial spaces. In this context, the walls might be used as "fully separating wall" or "connecting" walls to ensure continuity. They further provide internal and external transition between the spaces. If the intention is to separate the environment and the space, fully dividing "solid, infilled walls" are used. These walls ensure visual, tactile, audio, light, thermal privacy [10]. When specific-shape parts are taken from the surface of the filled wall or cavities with regular geometry are added, the wall has "openness". These cavity walls contact the external environment and enlarge the space rather than separating two spaces from each other. Since windows and doors connect two extension parts divided by the wall, they justify the wall. In terms of urbanization, walls separating the communities from each other can be classified in different groups:

* Walls ensure security and separate recreations for "the communities with different standards of living".

* Different border-wall in "elite societies" represents the prestige, creates and protects secure space in terms of the social status.

* The fear of crime and existence of foreigners in "security priority areas" are significant factors for the construction of these walls.

First two walls are built to maximize the life within the interior space; whereas, third wall ensures physical and social security [11].

2.2. City-Visual Communication-External Wall

"Please respect the walls! A few superimposed stones and elevated wall parts gathered people inside. People stand in front of, near and on the wall and are positioned according to the place they stand. Thereafter, a giant architectural history was initiated." (L. Corbusier, [12])

Building groups create borders within the urban space between specific environments. In other words, the walls form borders that define urban units like houses, streets, fields, districts; thereby, sections of the urban structure are obtained [13]. Since first settlements, urban forms have provided insight into the lifestyle of the relevant place, wherein the walls have played significant role. They act both as an element of the city and one of the basic architectural elements. The arrangement provided by the architectural design is the order of life. The line drawn by them within the city determines the urban life [6].
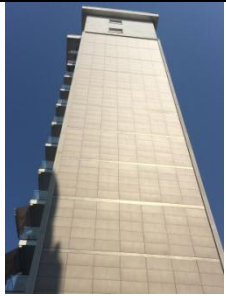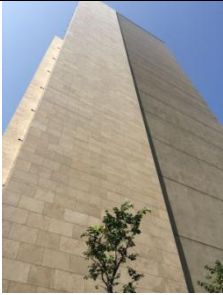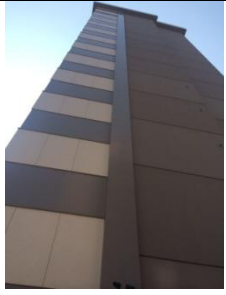
The subject of aesthetics discussed since the past periods, but only sought out in art has been a fact desired also in the nature since 18th century. After emergence of the environmental psychology in 1960s, measurability of the aesthetics has been tested with many studies and the aesthetics of the nature has been discussed in the scope of the environment aesthetics by covering the living spaces of humans (residence gardens, urban green areas, urban plans and so forth). Therefore, the aesthetics became a concept desired, searched and tested in urban space [14]. It is possible that approaches referring to the livability and visual quality of cities shall act as a determinant in the sustainability of future cities. The reason for ineffectiveness of these approaches is the fact that "Beautiful City" slogan of urbanization in 20th century could not be realized and could not find wide application area. Material values of urban structures have been extremely highlighted along with the industrialization and their dependence on individual initiatives has affected the appearance and design of cities.
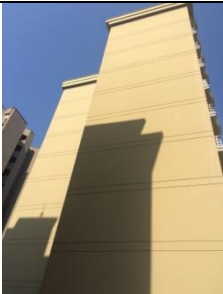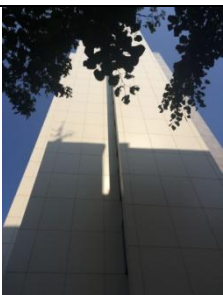
As an outcome of ill-planned and rapid urbanization, each street is similar to each other and every building located on these streets reveal uniform and bothersome appearance. However, changes in urban forms and spatial perceptions shall increase awareness on the topography and appearance of the city in relation to the livability and visual values wherein the blue sky and coldness of the city shall be counted among planning and design principles [15].

The relationship between the street and external wall contributes to the perception of the space identity by the people in perceptional and physical senses. Cavities where the life continues represent strong relationship areas. These relationships established depending on the width of streets is stronger at ground level; whereas, building facades are perceived not while walking through the street but based on neighbor relationships. A visual communication is established via the walls and the façade of the opposite building. Determinants of streets are the cavities, which integrate external walls with the interior walls to create a space, and which contact and open to the environment and outside atmosphere [6]. The wall acting as a surface maintaining the relation of the building first with the street and then the city is interpreted as 'façade' when the material and system diversification are taken into consideration. The façade emerges as the most important building element defining the architecture of 19th and 20th century apartments. Therefore, Krier (1988) [16] emphasized the external façade as the most significant architectural element with the capability of communicating while defining the task and importance of the building. "Facades" that is fundamental part of the urban design is assigned with a meaning by the urban users. Therefore, facades create the language of the city they're located in [17].

Movements aiming to develop architectural forms in the middle of the 20th century have realized space setup by creating only "functional" image regardless of the meaning given to the architecture by the tradition and culture. This process resulted in similar architectural setups as an outcome of which traditional and cultural language has lost its impact [7]. The concepts such as rationalization, standardization, cheap and rapid construction, minimalism (aiming primary requirements), mass housing set forth in parallel with the modern (Marxist) ideology have been emerged with the rapid urbanization. These concepts further caused elimination of the traditional, cultural structures and change in cultural values [18]. The criticism of the modernism is based on the fact that this relationship with the user is extremely ordinary, remained at simple meaning that should be enriched via side meanings.

3. DEFINITION OF THE WORKING AREA AND THE METHOD

"Before I built a wall I'd ask to know what I was walling in (inside of the wall) and out (outside of the wall) and whom I was like to give offence. Something there is that doesn't love a wall, that wants it down …"(R. Frost [19]).

In this study, buildings collapsed and re-constructed within the scope of the urban transformation movements in Istanbul province Kadıkoy district Suadiye neighborhood are analyzed. This study focuses on the social and visual communication of the external wall of new buildings with the neighboring buildings and street users. All new buildings within the settlement were analyzed visually where high-rise buildings with at least one cavity or slight cavity wall and with an unordinary façade (in physical and social senses) with regard to its immediate vicinity were selected. Ten (10) buildings bearing the aforementioned features were identified (Table 1). Location of these sample buildings is indicated on the map in Figure 1.

These buildings were evaluated with regard to their location within the street/streets they're located in by considering the following items;

* Social impacts emerged in terms of their visual effects on short-term differing users and permanent neighborhood users in the vicinity,

* Impact of physical visual characteristics of each building on the immediate vicinity.

Figure 1. Locations of sample buildings are marked on the map.

Table 1. Sample Buildings

Sample No	Image of the Building	Sample No	Image of the Building
1		6	
2		7	
3		8	
4		9	
5		10	

Evaluatıng the fındıngs

The findings are discussed under two headings:

- Social impacts of the building on the near neighborhood,

- Questioning the physical properties of the building.

4.1. Social Impacts of the Building on the Near Neighborhood

The outer face of the building is in contact with the near surroundings and has a strong social impact so that their communication features have effect on the neighborliness, trust, sense of belonging; whereas, their color, texture and shape create visual aesthetical impact.

The social effects created due to use of at least one non-cavity/slight-cavity wall (equivalent to a wellhole) as the exterior wall design of a newly constructed buildings in the study area were evaluated under following titles:

* Alienation,

* Visual communication health,

* Visual culture,

The first effects identified are the harbinger of a new formation and change in the present texture. However, this formation has growth potential. The distribution of newly constructed buildings to the settlement texture is not homogeneous. Old and new buildings are located side by side. The number of new buildings will increase even more in the next few years. This is an indication that if the first problems are not controlled, they can grow.

Alienation;

The immediate vicinity of a building consists of neighboring buildings. The word neighbor describes the people who live side by side or the people living in buildings in certain proximity. Neighbor evokes humanitarian concepts such as solidarity, mutual aid, coexistence, love and so on [21]. However, the neighborhood firstly starts with healthy communication and develops. This communication particularly begins with windows and doors on the buildings' surface which faces the neighbors. It develops with lights, people sitting in front of the window, perceiving and responding to the movements of life by neighbors.

Today, neighborhood has begun to lose its positive meaning dramatically due to factors such as population movements, settlement, urbanization and belonging which are caused by rapid and uncontrollable development. Humans have reduced their relations with the outside or have been forced to reduce due to physical conditions (non-cavity walls) [21]. Nearby neighbors are defined as 'others' or 'somebody'; the use of expressions of indifference in the form of 'some going out, some coming in', 'there is a resident, no one can be found, someone must have entered again' [22] are increased and the individual begins to be abstracted and alienated from the surroundings.

As Alkaya, T., stated, "In the relation established with the building opposite in the private area, a visual communication is established through walls, facades. They are the spaces before the walls that determine the streets. The outer walls are the elements that connect the inner walls and create the space, touch the environment, the outer atmosphere," [6].

In the urban environment, walls carry adjectives such as transparent, opaque, regular, irregular, hard, soft, specific and indeterminate. However, in community life, there is no strict limitation of life boundaries outward. The use of opaque walls is sufficient only when safety is important [10].

The outer walls, which are free of voids and much higher than the existing texture, generally do not provide equal conditions for the establishment of the internal-external relationship; inequality, superiority-inferiority, loss/profit relations can be considered differently as loss, profit, superiority and humiliation according to different people. Very rarely, equal conditions can be established for both sides by the wall [6].

Especially the basis of visual changes in cities should be sought within the process-related population growth, rapid settlement, incompatibilities between the designs of people in different socio-cultural structures. As a result of migrations to the cities, feeling of "owning" but "disapprobation" of the people living and eventually not trying for aesthetic pursuits, efforts are emerging as factors that speed up this change [20].

The state of being fully separator of the non-cavity walls, which are not the product of any thoughts, evoke the prison walls. One of the theories of the 1800s about how prison walls should be is: "... the outer walls of a prison should be made in a heavy and dreary style, this should offer mixed feelings of fear and distress to the person looking at them"[23]. The walls of these buildings carry "steepness" and "impassability" images to provide security. In the building types having these images, the material that the massive wall identifies is stone. Stone already has features of "weight", "closeness", "addiction to the world" and "immovable" which are hidden in the form of a massive wall [23]. It is then necessary to question the differences between heavy, stone-covered walls and prison walls and the form of communication imposed by the designer.

Alienation in the field of work in the context of the effects that can be created socially by designing the outer walls without cavity; findings found regarding the concept of the reduction of neighborhood relations;

The manner of addition to the existing texture of the buildings, which need to be rebuilt for various reasons, realized / is realized without designing the current or future state of the texture. This situation can be observed, especially with the effects like the coexistence of old-new buildings with scale difference (very high-low) in the texture, disregarding the microclimate conditions (wind, covering the sunlight, staying in the shadow area), social and psychological dimensions (alienation, individualization, disappearance of sense of belonging). One of the most important of the above mentioned and further increased negativities with new settlement is the change of the visual communication of the new buildings with street users and neighboring buildings.

When at least one outer wall of the building is completely without cavity (example 3, three (3) walls of the building without cavity), the building reduces its association with the street or neighbor and it abstracts and customizes the interior. Buildings are more individualized; they are not included in the city life and create their own internal space. The non-cavity wall never communicates with the neighboring street abd shows that it has no philosophy in design with high and heavy expression, creating a completely distinctive border with the neighboring street and other buildings. Human attitudes are not observed in the dimension and design of the walls. Non-cavity wall with its full separator role can get a scary and brutal identity when the outside cannot go in and the inside cannot go outside. This feeling becomes even stronger with the use of heavy materials (stone) in the wall coverings.

In the use of materials for exterior wall coating, the lack of search for light-shadow, recess-protrusion makes you feel like wall surfaces are not designed over any idea, which is also obvious when it is considered that standard, as well as maintenance friendly products are selected for this purpose.

The neighboring building to the void-free building experiences both material and spiritual damages. Landscape is high and it is a heavy wall, the economic value of the neighboring building is determined by the non-cavity wall. Streets, which have a border with the non-cavity walls, are more lonely and insecure; because it is unlikely to prefer these streets as they are not alive and secure.

So if a wall has cavity/slight cavity then how can visual communication be established with the neighboring street, building and outdoor users? While it is a separate research topic why a building element such as a non-cavity wall is of interest to designers, for the effects of such an approach on the environment which may be said "for now" are:

* Alienation of external surfaces - individualization,

* The necessity of redefining the concept of neighborhood,

* Uniformity of outer surface design, mediocrity and having no idea,

* The necessity of reconsidering the form of visual communication of our architects.

* The design should be done with the consciousness that the visual culture must have a content that might be left to the future generations.

These negative signals point to the beginning of three major problems, essentially "for now"; alienation, communication health, and the change of visual aesthetic culture.

Visual communication health;

The change of the shape of visual communication affects the physical structure of the environment adversely, prevents some functions from being performed; but, more importantly, can lead to indirect psychological effects on the individual. Although these often do not create a physical barrier, they can be pushed into the subconscious and leave negative marks in certain dimensions, depending on the perception capability of the individual. In some people, sudden reaction and behavioral disturbances to the physical environment are defined as "psychosomatic fatigue" and are caused by some kind of visual interaction [24].

In the study which was about the ground floor facades, Gehl [25] divides the facades into two as active (which has diversity on the facade and which has various doors, which has a visual relation between interior space and outdoor space, has various functions) and passive (uniform façade with slight or no cavity, facade with few or no functions). By examining the effects of these two facade types on the human activities as the level of people's perseverance, head turn and activity level, it is found that the actions in front of active facade were seven times more than those in front of passive facade [25].

Ellard, the professor of psychology at the University of Waterloo who was investigating the effects of Gehl's work on human health, stated that the physical environment affects a person's biological functions such as heart rate and cortisol level and "the correct design of a street is a matter that concerns public health beyond the real aesthetic" [26].

Communication of the building via its exterior wall design makes the surrounding area alive or lonely. The spaces left in the outer shell of the building, determines the time for the individual to pass on the bounded roadside [27]. People feel confident and happy when communicating with vibrant and lively areas and hence, spend more time. Impermeable walls that do not communicate with the streets isolate the surrounding area, desert it and cause unreliable areas.

Observation findings on visual communication generated as an outcome of use of non-cavity external walls in the study area are reduced number of short-term users in the vicinity of buildings and change of the path by the pedestrians due to lack of activity, and the complaint of the permanent user about this visual problem. As already mentioned in the research no health problems were identified. However, the rapid increase in this type of settlement is tells that health problems due to visual communication will begin in the near future. To give an example; the newly constructed building adjacent to the new building constructs non-cavity facade as this side faces the non-cavity wall of other building. The facades of buildings facing each other are made up of completely void-free surfaces, communication is completely cut off.

Visual Culture;

Societies have developed aesthetic perspectives with their own cultures. The individual evaluates their surroundings with their own visual culture. This is the visual data of the surrounding area where the underlying data are generated. Architecture is only one of visual data.

Cündioğlu D., [28] made the following statement in his book Architecture and Philosophy: "For a long time, when I looked out of the window, I had to see a half-green painted and half-red painted tavern; these colors were an irresistible source of suffering for my eyes. Baudelaire is right while saying that at the root of most of the sufferings we suffer, there is something to 'stay forced to see'. A kind of far-fetched testimony. You have no right not to see. You are desperate. You will absolutely see. The main problem is getting used to the ugly, looking at it, getting accustomed to ugly... Failure to recognize when we encounter beautiful and/or to have a look that is ugly enough not to recognize beautiful! I am speaking clearly, the essence is not aesthetic, but an ethical nature. "As you can see, Cündioğlu describes the formation of the visual culture very well.

The changing visual expression of the buildings can be discussed depending on the ongoing regeneration movements with great acceleration starting in Kadıköy district due to various reasons. When the new structuring movements are subjectively evaluated in the texture, they can be defined by many different concepts such as incompatible, unbalanced, unscaled, uncertain, and non-aesthetic. These results can be said directly by making a simple comparison between the current and new constructions. However, after a while, such actual comparison environments shall not be available as soon as existing buildings are quickly replaced with new buildings and erased from the memories. Then only new structures will be able to create data in the formation of visual cultures for the younger generation!

4.2. Questioning the physical properties of the building

New buildings are added to an existing texture. However, the mode of addition affects and changes the livability properties of the texture. In this study, the physical effects of the exterior wall of the building with or without cavity on its neighboring areas are assessed in terms of material use, ground floor- garden and street relation. The impact of the buildings (in Table 1) studied in the study area on the street texture nearby, has been tried to be examined in the context of the main and sub evaluation criteria determined by adapting the evaluation criteria used by Gehl [25]. These evaluation criteria are given in Table 2.

With the aim of being able to define the form of visual communication with the street texture where the non-cavity walls are adjacent, scale, permeability, function and other properties as the main evaluation criteria were questioned with various sub-criteria.

Table 2. Criteria based on which the impact of sample buildings on the current street texture is analyzed [25]

Main Evaluation Criteria	Sub-Evaluation Criteria	Explanation
Scale	Rhythm	Availability of horizontal-vertical movements due to recess-protrusion/cavity relationship on the external wall surface
	Ratio	Ratio of the neighboring street with to the building height
Permeability	Cavity Rate	Existence of cavity on the external wall (excluding stairs window)
	Active Façade at Night	Whether the inner space which the cavity is adjacent to is used or not (whether these spaces are lightened at night with regard to the cavity ratio and hence, whether the external surface becomes active at night)
	Active Façade at Daytime	Whether the buildings are alive/or not in relation to use of the ground floor (availability of playground for children in the garden, use of the garden by adults)
	Smell	Whether the cavities have relation with the street (communication via transfer of food smell to the street and street smell to the house)
	Material use	Whether surface properties of the external wall are different (interesting façade design)
Function	Change in Function	All buildings are used for residential purposes. Whether any change occurs due to level of the ground floor activity
Other Properties	Climatization	Whether the sun and wind impacts of the building on its immediate vicinity are positive
	Lightening	Whether the building has lightening arrangement except for the municipality's street lightening which may affect the street
	Traffic	Means the pedestrian and vehicle traffic in the immediate vicinity of the building. Whether these roads are available or not

According to the evaluation results, following findings have been obtained in the immediate vicinity of the non-cavity/slight cavity walls of new structures;

Scale Factor/Rhythm; Any recess-protrusion is not available or slightly available, and insufficient recess-protrusion exists on the external wall surface. The whole wall has non-cavity or slight cavity design. Slight cavity means the voids opening to the small wellhole. Any movement is not available horizontally and vertically. The rhythm criteria have not been observed within any sample buildings.

Scale factor/Ratio; A huge disproportion exists between the new and former constructions (height-width). The new scale is not capable of contacting the human scale easily due to its size. The building height is defined regardless of the street width. As for the ratio of the street's width to the building height, the common result is 1/2, which means that the higher the building, the more the sense of closure is (Figure 1).

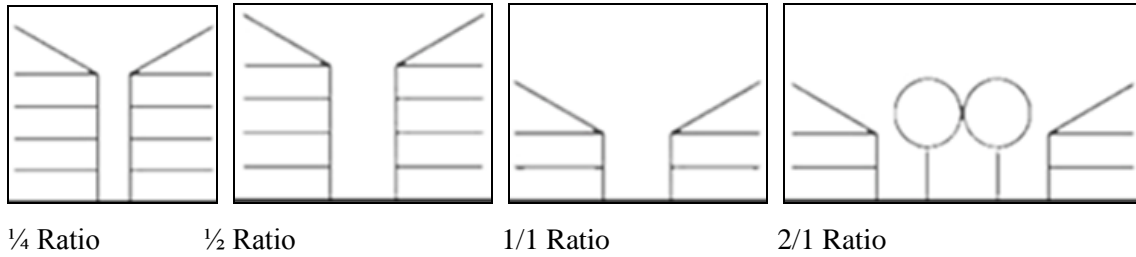¼ Ratio   ½ Ratio   1/1 Ratio   2/1 Ratio

Figure 2. Ratio of the street width to the building height [29]

Permeability factor/Cavity ratio: Since the façades having cavities/slight cavities (the void cannot communicate as it is located at wellhole), the external walls of these buildings are accepted as non-cavity walls. Therefore, they are impermeable based on their fully separating wall position. The criterion of cavity ratio has not been observed in any building.

Permeability factor/Active façade at night; Due to their non-cavity structure, these walls are not active at night. The space adjacent to the wall with slight cavities is generally the wellhole. These facades are not active at night as they're not neighbor of a livable space and stairs are not used (due to the elevator). The criterion of being active façade at night has not been observed in any building.

Permeability factor/Active façade at daytime; The ground floor/garden floor which the non-cavity/a slight cavity façade is adjacent to is not used. Any game or sitting unit has not been put to create activities in these areas. Any active utilization and any indication thereof have not been observed. The criterion of being active façade at daytime has not been observed in any building.

Permeability/Smell: Any smell interaction affecting the livability and use of the street and residence has not been observed. The smell criterion has not been observed as a means of communication in any of the buildings.

Permeability/Material usage: Facades observed do not have interesting or different feature. As for coated façades, materials with same color and same size are applied in same direction. Full repetition has been observed. The surface has static effect. While some buildings' three facades have stone coating, any coating was not applied to the non-cavity wall surface whereon plastering + painting was applied. In terms of material usage, any different design, surface difference and recess-protrusion were not seen, except for direct use of the material as an industrial product.

Function/Change of function: The façades of the sample buildings do not interact with their surroundings. All these buildings are used for residential purposes wherein the purpose of the ground floor is same. The ground floor opens to the garden through a different façade. Therefore, the function remains same throughout the wall height. Full wall impact can be observed. Any change in function was not found in any of the sample buildings.

Other properties/Climatization: These high buildings leave the adjacent units within the wind protected area and shadow in relation to the sunlight angles and upwind direction. They prevent direct sunlight. Sample buildings deprive surrounding buildings of sunlight during different daytimes in relation to the sun's angle of incidence. A different study should be conducted to identify complete effect. It is possible to explain visually that close buildings have restricted use of wind and sun effects.

Other properties/Lightening: In addition to the street lighting of the Municipality, some buildings use lightening units on their garden walls within their borders (sample no: 1-2-3).

Other properties/Traffic: Pedestrian way and vehicle road are available in the immediate vicinity of the buildings. Roads are used but pedestrian ways are not preferred resulting in isolation of surroundings of the buildings. All samples are surrounded with pedestrian and traffic ways.

It is revealed that approximately 90% of evaluation criteria are negative meaning that these buildings have adverse impact on the current texture of the street. Furthermore, buildings with non-cavity walls facing the street have negative effects on street users, adjacent and future buildings. As the users of the

building to be reconstructed adjacent to the building whose façade on the street side is made of non-cavity walls will not desire to see this structure, the new building shall respond by constructing non-cavity wall (Figure 3a-3b).

Figure 3a.Sample building 3 and facades of newly constructed adjacent buildings. Figure 3b. Sample building 8 & 9.

5. RESULTS

The urban transformation projects based on the "sustainability" objective and realized/planned to be realized within unhealthy urban areas (areas bearing disaster risk, abandoned industrial areas, illegal housing zones) have positive objectives/aims. Among this aims, "happiness generating architectural designs" can be counted. One of the sub-headings of the "Sustainable Societies" is "live, inclusive and safe social life" [30].

However, actual results obtained as a result of observations are not the outcomes aimed by the aforementioned objectives. Inner and external side of the wall creates unequal segments. While external walls of a building might be seen happiness generating and secure, others may feel insecure and unhappy.

Use of the non-cavity wall conflicts with the visual communication, visual aesthetic, live and inclusive, safe, happiness-generating concepts. They play determinant role in creation of the street façade of the new building and affect design behavior of remaining buildings. Streets wherein any interaction cannot be observed cause formation of urban areas lacking security, health and aesthetics measures. This matter indicates that a non-negligible, yet disseminating problem exists. Therefore, necessary measures should be taken by the local governments.

By considering the fact that the inner space functionality of any building is important in terms of the adjacent street, district or city in visual sense and shall be left to the future generations, their inclusion within the texture should be studies and relevant rules should be defined by the local governments. Thereby, the behavior and main lines of recent buildings shall be predefined.

Social and environmental impact, communication language and visual aesthetic culture of the architectural heritage are important. External walls do not only belong to the individual or the designer but also to the region and the society they're located in.

The urban transformation offers significant opportunity in terms of change. Therefore, integrative approaches should be adopted in the planning stage wherein the city-street-district-building can complement each other. Social areas can be supervised and controlled to ensure public health.

REFERENCES

[1]. Uçar, T. Görsel İletişim ve Grafik Tasarım. İnkılap Yayınevi, İstanbul, 2004.

[2]. Özer, B., İnsan Psikolojisi ve Peyzaj Tasarımı. Yüksek Lisans Tezi. Ankara Üniversitesi, Ankara, 2005.

[3]. Çakcı, I., Dış Mekanda Algı ve Mekan Tercihleri. Seminer. Ankara Üniversitesi, Ankara, 2006.

[4]. Eco, U., A Componental Analysis of the Architectural Sign/Column Semiotica, Vol 5:2, 1972.

[5]. Yavuz, B., Bir Mimari Arketip ve İletişim Nesnesi Olan Duvara Ait Yananlamsal Bir Analiz. İTÜ FBE, Yüksek Lisans Tezi, 2001.

[6]. Alkaya, T., Sınır ve Eşik Olarak Duvar. İTÜ FBE Yüksek Lisans Tezi, İstanbul, 2015.

[7]. Çolak, A., Duvarlar: Anlamsal (Semantik) Ve Dizimsel (Sentaktik) Bir Analiz. Doktora Tezi, K.T.Ü. Mimarlık Fakültesi Baskı Atölyesi, Trabzon, 2004.

[8]. Yürekli, H., Yayınlanmamış ders notları, İTÜ, İstanbul.

[9]. Ergün, Z., Mimarlıkta Cephe-Yüzey Dönüşümü:1990'lar Sonrası Değişim Süreci. İTÜ FBE, Yüksek Lisans Tezi, İstanbul, 2008.

[10]. Gür, Ş. Ö., Mekan Örgütlenmesi, Gür Yayıncılık, Trabzon, 1996.

[11]. Blakely, E. J., Snyder, M. G., Fortress America. Gated Communities in the United States. Brookings Institution Press/Lincoln Institute of Land Policy, Washington, DC/ Cambridge, MA, 1997.

[12]. Corbusier, L., Bir Mimarlığa Doğru. Çeviren Serpil Merzi. Yapı Kredi Yayınları, İstanbul 1999.

[13]. Kepes, G., Kent Ölçeğinde Dışavurum ve İletişim Üzerine Notlar, Cogito-Kent ve Kültürü, Çeviren. Bahar Öcal Düzgören, Yapı Kredi Yayınları, 1996.

[14]. Çetintahra G. E., Çubukçu E., Çevre Estetiğinin Konut Fiyatlarına Etkisi. İTÜ Dergisi/a, Cilt:10, Sayı:1, 2011.

[15]. Tankut, G., Öngörüşler, 3. Dönem Sempozyumu ve Etkinliklerine Hazırlık Toplantıları, Metinler, Sanat ve Çevre, Ankara, 1997.

[16]. Krier, R., Architectural Composition, Academy Editions, London, 1988.

[17]. Şenyiğit, Ö., Biçimsel ve Anlamsal İfade Aracı Olan Cephelerin Değerlendirilmesine Yönelik Bir Yaklaşım: İstanbul'da Meşrutiyet ve Halaskargazi Caddelerindeki Cephelerin İncelenmesi. YTÜ FBE Doktora Tezi, İstanbul, 2010.

[18]. Gür, Ş., Ö., Cordan, Ö., Mimar-Anlam-Beğeni Kavramları, Mimar Anlam Beğeni, Yapı Endüstri Merkezi Yayınları, İstanbul, 1999.

[19]. Frost, R., Mending Wall, The Collected Poems, Complete and Unbridged, Edward Connery Lathem. New York, 1969.

[20]. Bölükoğlu H. İ., Görsel Kirlilik ve Sanat Eğitimi. Kazım Karabekir Eğitim Fakültesi Dergisi, Sayı 8, 2003.

[21]. Kargı, B., Komşu Bağlamında Üç Kısa Hikayede Uzamın Rolü. Çukurova Üniversiyesi Eğitim Fak. Dergisi, 35/3, Adana, 2008.

[22]. Bichsel, P., Katlar, Çeviren: M.Togar, Seçme Alman Öyküleri, Arkın Kitabevi, İstanbul, 1983.

[23]. Johnson, N., The Human Cage: A Brief History of Prison Architecture. Allibris, NewYork, 1973.

[24]. Özbilen, A. ve diğerleri, Araştırma Projesi Raporu. KTÜ Orman Fakültesi Peyzaj Mimarlığı Bölümü. KTü Arastırma Fonu Destekli Kod. No: 95, Trabzon, 1997.

[25]. Gehl, J., Kaefer, L. J., Reigstad, S., Close Encounters with Buildings. Urban Design International, 11, 2006.

[26]. Belle, R., Is Your Neigborhood Making You Depressed? Urban Planning Can Influence Your Health, 2016.

http://mynorthwest.com/218450/is-your-neighborhood-making-you-depressed-urban-planning-can-influence-your-health/ (Son Erişim: Ağustos 2017)

[27]. Giritlioğlu, C., Şehirsel Mekan Öğeleri ve Tasarımı, İTÜ Mimarlık Fakültesi, İstanbul, 1991.

[28]. Cündioğlu D., Mimarlık ve Felsefe. Kapı Yayınları, İstanbul, 2014.

[29]. Carmona, M., Tiesdell, S.; Heath, T., Oc, T., Public Places, Urban Spaces, The Dimensions of Urban Design Architectural Press, Oxford, 2003.

[30]. Sürdürülebilirlik Raporu. İMSAD Sektörel Araştırma Raporu, 2013.