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Sign and Symbol in Architecture

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ABSTRACT

Signs and symbols are of issues which are widely discussed in post modern architecture. In the present study, the characteristics of sign and symbol from past to present as well as the necessity of their application in art works and other human activities have been explained. In this study, signs and symbols in meaning and perception category are classified and their importance and role are introduced with examples selected from primary human life to invention of language, from Assyrian architecture to Classical architecture and Greek myths. Then, first Christian, Romanesque and Gothic religious buildings examining social, economical and political changes are referred and their relation with signs and symbols till contemporary architecture is investigated.

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INTRODUCTION

Signs and symbols have different characteristic in different scopes of human activities. Basically, contexts and mediums indicate these differences. In architecture, context is created by the needs of constructors and users. Constructors, from the most primary cottage to modern buildings, seek to create a shelter and protect residents against the external factors. Residents have benefited from protecting against the external factors such that these physical needs have been existed between two groups in the form of conversation and it has been always in favor of both groups. Conversation means is provided through a medium which in architecture includes physical distribution of floors, walls, ceilings, openings, structures, and physical characteristics of materials and surfaces. Each of these components may be used by constructor for expression or conversation. Mutually, users may experience these elements as the means of expression or conversation. When specific elements are frequently used as the means of expression, the function of sign or symbol can be attributed to them. Therefore, in addition to physical function, they are used to explain or interpret something or a specific goal is perceived from their presence. Such a close relation between physical and expressive characteristics in architecture gives a specific place to signs and symptoms. In literature, music or painting, for example, medium has a less spatial characteristic; so, expressive components are obviously dominant. In architecture, a wall is really a barrier or a constrainer of ceiling before having any meaning and this meaning is mostly placed in accordance with its physical function. Such a relation between physical and expressive function is established through psychological tendencies of constructors and users. A constructor who builds the wall to create a barrier or constraint the weight of ceiling will emphasize on one of these two roles in the way of construction. User who is not sure that how he/she should perceive which wall will search for some symbols to disappear his/her doubt. The instances similar to such an issue can be searched not only in other arts but in social interactions of human. The relation between constructor and user is like the relation between two people meeting each other. Often, a person intends to influence other one and the other person seeks some signs to recognize that effect. A fist refers to attack and addressee will interpret it as attack. As a fist is the means of attack, a will, before being the sign of the separation of indoor and outdoor, has performed such an act (attack).

Indication:

Always, buildings have been constructed to meet those needs and beliefs of an individual or a group which have not been met through any other way; buildings have been also constructed to indicate the relation between an individual or a group and others. Undoubtedly, sign and symptoms existing in the buildings are the extensions of simple and more explicit signs and symbols which are used by individuals and groups to express

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their meaning and converse with others. The oldest buildings, in addition to be valuable as a structure, have been valuable as a sign. In a primary cottage, ceiling and walls have been the signs of refuge; the beams within it have been the signs of strength, the way in front of it is the sign of openness, and its door and threshold is the sign of the controlled access. A perspective of a single cottage indicates the sense of security and a perspective of a group of cottages indicates the sense of social interaction. The fence around the cottage is the sign of security and the oven within it is the sign of warmth. Observing the space within the home and entering it creates a sense of happiness and comfort for residents and a sense of fear and hesitate for strangers. People who provided the materials of these cottages were informed about the importance of their work as much as supervisors and residents did. These buildings have been necessary for the identity of residents and community as much as they did to revive persons and society. If these building have been weak and destroyed, they have been considered as a threat for such identities. Therefore, architecture has primarily attempted to conceptualize such ideas which are necessary for human existence. Mostly, cottage and village not only have conveyed the concepts related to residents but they have been the constructor of those concepts. Similarly, regarding the recent nomadic tribes, the type of a building or a part of a construction has been regarded as the symbol of an individual in the scopes of gender, social role and etc. Primary cottages which have presented the first architectural expressions had the same function. Certainly, the shape of a building or a group of buildings has been often perceived as an expression of the relation between individuals or their extraordinary relations.

Historical Instances:

As the instances carefully studied, it can be referred to Dugun villages in which entire the community has been organized in such a way that they indicates the relative role of men and women. The houses of men and blacksmith's craft have been placed at the same end and in their positioning, an analogical comparison with human body can be seen, indicating the ambitious presence of men (Griaule, 1994) (see Figure 1). Using the relation between architecture and human body, as a key for expressive function, is a repetitive theme in all cultures, reflecting the belief that responding to building is directly related with responding to human. Since extracting meaning from motifs of wooden beams of primary houses, as the most frequent evidence for primary architecture, is difficult, better evidences can be extracted from strong buildings and written works by the advent of primary cities. These evidences show that expressive power of architecture has been increased to respond to the increase of social pressures. In the space of cities of Mesopotamia and any other place, the need of making the role and place of individuals and institutes distinctive seems necessary. The amount of decorations shows the amount of residents' welfare; the amount of the design's complexity shows the amount of construction's skills, and the amount of amount of construction accuracy indicates the precise supervision. If a tower has indicated the power of governance and defense, the increase of height and number of towers, thus, shows more power for the governance. Regarding taller and thicker walls, the same principle is true. Greater pyramids have indicated more power in any area and greater temples have shown more proximity to heaven and Gods. When buildings have been more complex, the meaning of signs has been discussed. The first Erisham, the king of Assure, called his gate as "the god of protection", his lock as "be strong" and his threshold as "be aware", respectively [8]. According to the Old Testament's belief, Solomon temple has been two columns in entrance and one of the columns was Iachin (the power is his) and the other one was Boaz (he will be immortal) (I Kings 7:21). In some countries such as China in which social and architectural conditions have been mostly instable, symbolic systems have been highly developed. These signs were familiar as much as general information. Confucius criticized citizens who decorated their houses' columns and capitals which belonged to a higher social class. Some books related to ethics field, such as Li Chi, have classified these items: "the columns of lords' houses are red; the columns of the Feudal houses are blackish; the columns of high officials' houses are green-blue, and the columns of other gentlemen' houses are yellow". Chun Chiu was a Chinese educated and scholar. As he stated, "the beams of Lord's tomb should be sharpened, planed and then polished with stone; the beams of princes' tomb should be sharpened and planed, and the beams of other gentlemen' tombs should be only sharpened [16]". Up to the advent of the first millennium, the role of architectural signs and symbols was well perceived from China Sea to Mediterranean Sea. Everything previously experienced unconsciously was then used though legislators and officials seeking to use every tool to establish or change social roles consciously. In spite of this unconscious and inherent nature, people's response to architectural forms guaranteed their power. In the world of ancient Greece and Rome, responses became more conscious through gradual awareness of people about the mechanism of effect and conversation that power was based on which. Homer compares a trained military group with a strong wall (Iliad XVI/212-15). Then, strong walls become the important components of cities and brick arranging of all the walls is discussed with a new view. Iphigeneia' dream in which he saw his brother in the form of a column was interpreted by Euripides as "the sons are the columns of the home" (Iphigeneia in Tauris) and columns found an important role in architecture more than any other time. Simultaneously, young men of the city became important. Such a generalization of column's meaning decreased the symbolic value of such forms and replaced custom with sign. In Egypt, some columns were decorated by palm and papyrus which were the symbol of residents' welfare and lands' fertility. On some columns, images of Osyrous, as the symbol of

dead and grave, were put. In Greece, columns had a stripped vertical shape that just like young men of community, protected home or temple and were identical and regularly arranged (see Figure 2). In Rome, custom was mostly important for known elements. For example, a triangular dulcimer, as one of the indicators of temple, indicates the dominance (De Oratore 3, 46, 180); it was gifted to Julius Cesar to hang it on his house's ceiling (Florus 4, 2). Generally, stair and platform of temple had an identical indication. New concepts were adopted for new elements such as dome, arc and the wall of church's Apse which were easy to build in Remain architecture. Arc referred to heaven and victories, with a specific emphasis in temple and the view of palace and triumphal arch. Dome, as an image from heaven, was appropriate for houses and tombs. Dented niche which centralized light and were similar to arc and dome were of interesting elements for kings just like sculptures of Gods. Using architectural tools by Roman linguists to recall the past could play an important role to reinforce architectural tendency as a system of signs to express various concepts. By the advent of Christian, architecture and specially the architecture of religious constructions was changed in their classifications. Buildings were considered equal to other material issues and the only new function, i.e. the system of metaphors, could make it important. In the building of church, the phrase and terms of Bible or other religious characters, religions deeds and sermons were used. Church, principally, was a place that had replaced emperors' tyrannies with divine principles, promising salvation. Entire the building or at least, the place of the Eucharist custom, with the walls decorated with jewelries and a lamp in its center, was considered as a context for Jerusalem. Jerome considered a real temple as human soul; therefore, church needed various and big doors and windows such that Paoli Nous stated that the Christ can be present there [7]. Columns which obviously referred to substance, in the groups of twelve indicated twelve Apostles to protect entire the building. In the book of Acts, Paul stated that living twelve Apostles protect the church (Galatians 2:9). The arch that distinguished the yard from the place was considered as the symbol of a triumphal arch on death [12]. The experience of the religious architecture which was placed in the most important architectural classification one thousands later has been created by priests and religious scholars. Buildings were constructed in accordance with their perceptions. The first buildings of Christians used the architectural forms common in the Roman Empire but after Karolinjian's period, more changes occurred in this area. By negating cities, culture approached priory and by the collapse of material world, monks created a new reality in their mind which was inspired from studying Bible and the votes of abbes. In the northern Europe in which real quantitative buildings were rare, some writers such as Alkin in York brought new concepts from the Old Testament and Bible-based critiques were a base for totally new perceptions from the behalf of some people like Hrabanus Maurus. By adopting some reflections of some buildings such as Solomon Temple, all architectural elements of Maurus obtained a legendary importance. The door was the Christ; the columns were the twelve Apostles or the protectors of the church; the base of the columns was the Bible and so forth (Hrabanus Maurus: cols 403-405). Gradually, such perceptions influenced new wave of building church. The plan of buildings was formed from important numbers in which three indicated trinity; eight indicated salvation; twelve indicated the twelve Apostles and in the same way, the other holy numbers were the symbol of Christian concepts. Regarding appearance, since power was of the twelve Apostles' characteristics, piers were gradually replaced with columns. Later, two walls of Church were interpreted as the symbol of the clergy and ordinary people, their contact point was in transverse arches of the church's center. The head stone was the symbol of the Christ [12]. Out of these elements, decorated doors and windows and compound piers and arches created a kind f architecture which is currently called Romansk. By reviving economic life in Europe, the only issue considered Christian immense buildings was their contrast with Materialism. The most important agents of these values were the theologians of the 12th and 13th centuries of Paris School. A new architecture was formed around Paris and it seemed that this new architecture defended itself by minimizing its material presence and intensifying the legendary importance [12]. This architecture was later called Gothic. To minimize materialism, the volume of walls was decreased and load bearing bases were changed into the fine vertical load bearing elements. Even for specifying such a legendary importance existing in the twelve Apostles' sculptures of columns and openings, using semicircular arches which were used in Roman's period was avoided. The masses created in the common point of capitals and vaults are currently decorated in the form of branch and leaf, leading to a lighter appearance and the increase of churches' liveliness [12]. The church of Saint Chapel in Paris (1246-1248), in which new construction method was well manifested, became an instance for the churches of Europe (see Figure 3). Developing new architecture, firstly in the 15th century in Italy and later in the 16th century throughout Europe, was simultaneous with the transfer of economic-political power from religious group to secular group, leading to the creation of new tendencies in architectural concepts. In Florence, Gothic, with the penetration of the style of the northern Germany and Milan, was accompanied with local Romansk and totally circular Roman arches belonging to the early periods of the independence of Italy. In this time, political institutes were also revived. Previously, towers were the symbol of the greatness of competitor families. In this period, also, some people like Medici made use of new architectural forms for their political purposes in a more complex way and such an issue is evident in the works of some theorists like Alberti (1458) and Filart (1460-64). Materials, decorations of columns, doors and windows were used in personal buildings to characterize houses of people with different social classes and activities. The rows

of arches, columns and windows arranged in a firm geometry indicated the respect to a law, order and image of a community in which new economic-political instabilities were tested. The accuracy of the design, details and accordance of Tuscan and Roman monument explained national and local honor and influential experiences. In 1545, Sir Liu depicted some contrast images; one of the images showed the tragic scene of naturally classic instable order of high classed of community and the other one showed the comic scene of uncontrolled actions of low and average classes of community (see Figures 4 and 5).

Therefore, new classic architecture was considered across Europe since it was recognized as the main sign of power, knowledge and order by kings and princes, and national and local governments. The advent of classic architecture which has become comprehensive and undoubtedly negated the possibility of presenting expression for other values was changed and created a kind of architecture to be called Baroque. For instance, in religious buildings, transcendent clergy has been displayed for the first time in Italy by increasing meander lines, projections and dents, compressions and concentrations. In secular world, identical elements were used in palaces and governmental constructions to explain political power, especially in continental Europe in which royal courts possessed real power till the 18th century. But in England, when parliament became pervasive, such forms were not used but the evaluated rules of Paladins were applied in building with the belief that dividing power among the individuals of aristocracy system would increase their power and dominance and it would be in favor of them. In the early 19th century, applying classic architecture forms in Catholic Church or in social system of England seemed very limited for customers whose preferences were increased by personal experiences like traveling. To respond such cases, constructors and architectures gradually attempted to use other styles which were the sign of new and personal values. Fine style of Gothic was replaced with thicker instances which better could recreate a mysterious and appropriate space for deep thinking. Chinese Pagodas were also used to express sympathy with nature. From the beginning of the 19th century, the range of changes was expanded. In France, Egyptian forms were used as the symbol of death in grave yards; in England, majestic forms of Islamic architecture in Brighton Pavilion of Prince Regent were applied as an appropriate tool for his dictatorship. Towers as the sign of glory, pyramids as the sign of indefiniteness, domes as the sign of joy, congresses as the sign of protections, and colonnades for harmonic walking were built. Educated owners of buildings as well as supervisors showed their sensitivities using a wide range of signs [20]. In the following of the 19th century, the architectures and their advocates react against these prepared forms and superficial decorations and some writers such as John Ruskin and William Morris strongly criticized such superficial appearances and discrete elements of Renaissance architecture for reviving classic architecture [18]. For such critiques, only Gothic architecture was absolutely real since its external forms were not only the reflection of physical structure but it reflected internal spiritual beliefs. In France, even Viollet-le-Duc showed a decisive reaction, leading to the start of a search for finding integrity that considered structural efficiency as the symbol of aesthetic virtue. Since individual and social indices are highly related with architecture, towards the end of the century, new tendencies appeared. In England, classic forms appeared again and were advocated by people who considered these forms as the best means to explain national characteristics of order, harmony and appropriate methods while in U.S, Luis Sullivan saw an energy and life in the community that deserved towers with organic decorations. Architecture in the 20th century, other than the buildings of international movement considered as the complaint of avoiding expressing nations' changes, style and characteristics and preferred public functional needs, did not any previous variety. Le Corbusier et al. considered concrete and steel as efficient tools for these needs and prevented decorations; therefore, buildings made of beam and column became the symbol of healthy society (see Figure 6). The passage of time showed people the irresponsibility of such a society and such architecture. Up to about 1980, architectures and customers dressed with arch and this was the sign of a society which was satisfied with its past and eager to create variation. In England, it was particularly attempted to interpret human behavior in design and in this regard, Charles, Prince of Wales, presented ten commands for architectures [3]. In 1990, the range of signs and symbols was expanded more than before.

Conclusion:

Throughout the history, architectures have used metaphor, allusion, allegory, and etc. they have made use of the architecture containing concept, whether superficial or inner, to suggest concepts, messages and advertisements. Eifel Tower was constructed in 1880 and became the symbol of Paris and French culture although there were many conflicts among scholars about constructing the tower. In the first half of the 20th century, tending to pass the history and search for architecture at the level of its pure constitutes, architectures remove all symbolic decorations from the buildings. Such an act, by itself, became a sign for expressing "modernism". It seems that the Church of Le Corbusier indicating the change of his previous criteria and constructed in 1950, was designed with respect to the raised stones of Stonehenge and ancient temples as a symbol of a place for monks, prayer and sacrifice [1] (see Figure 7). In 1970, Sidney Opera House designed by Jorn Utzon became the cultural symbol of Australia. In 1977, Venturi, in "learning from Las Vegas", considered post modern architecture based on sign and symbols:

“we emphasize on image- in process or form- to specify that architecture in its perception and construction, depends on previous experiences and sensory participations and these symbolic and expressive elements may be contrast with form, structure and plan of building. Such a contrast is introduced in two main statements”.

In 1980, Richard Rogers revived his customer’s feature with Lloyd’s building in London; in 1990, the future of Bilbao in Spain was changed with Guggenheim Museum of Frank Gehry. Symbolism plays role in defining place. With cultural language of common symbolism, the appearance of a house matched with what people expect from a house. A church is like what people think it should be. In this case, each of places just like each word will be called as its own symbol. Entering concepts into architecture can be led to problem in critical judgment of the work. Some metaphors, from tendency decline of Mannerism to a critique of contemporary culture, Pluralism bloom or projection structure of architectural customs may be propounded to perceive the works of Frank Gehry. Often, a certain perception about a building or a qualitative architectural set may be obtained due to the convergence of critical views and these perceptions are accepted as reality which is particularly evident in contemporary architecture [5]. Three thousand years ago, people living in Crete Island created deep cracks in rocks and made a room for their corps at the end of the rocks. Such an act was the metaphor of the wombs that the dead persons returned them. Changing the suppositions resulted by architecture expression is limited when just like the raise stones of pre-history, symbolism has been deeply rooted in human mind. Or symbolism language has been prevalent in the culture of society and perceived by all people just like the renaissance houses which are similar to temples or cottage-like houses of English workers. The language of symbolic architecture may be different from the language which has been accepted or considered by users. Although dynamism dialectic interactions create between these two elements, over time, this symbolism is accepted by public. In some instances such as Saint Peters and Parthenon, symbolism has been previously existed and enhanced up to a higher level by architect. In contemporary instances, most of symbolisms are the result of the shock of a new work; therefore, contemporary signs and symbols are highly individual and scattered.

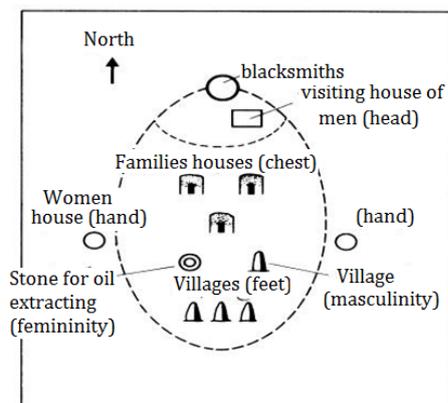


Fig. 1: The diagram of Dugun village [9]



Fig. 2: Parthenon, Athens 1804 (photograph by Onians)

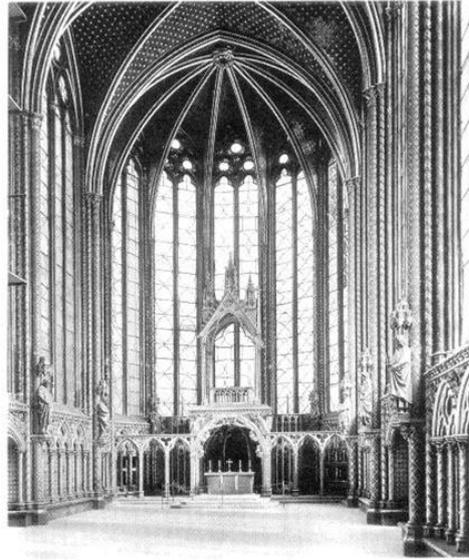


Fig. 3: The internal space of Saint Chapel Church, Paris 1830-1832 (photograph by Marburg)



Fig. 4: The tragic scene of naturally classic stable order of high classes of society (Serlio, 1545)

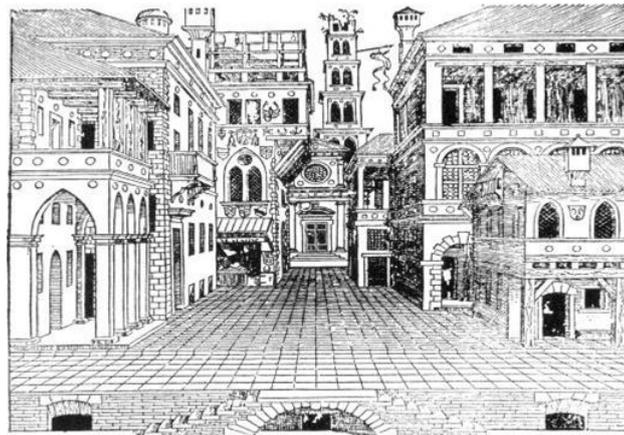


Fig. 5: The comic scene of uncontrolled actions of average and low classes of society (Serlio, 1545)



Fig. 6: The Unité d'habitation in Marseille 1957-1958



Fig. 7: Notre Dame Church, Archdiocese, 1950-1954 The work of Le Corbusier

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