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Problems of Contemporary Arab Architecture in the Context of Globalization

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Abstract
The article deals with the problems of contemporary architecture that are connected with its composition and aesthetical component. The problems are examined in the context of peculiar national traditions and contemporary social changes in Arab countries in the context of globalization. The urgent nature of the problems of contemporary architecture in the Arab world is explained by the globalization process that complicates the issue of combining the historical and contemporary architectural environment. The pressing problems include the question of harmonious combination of architecture with natural surroundings, local traditions and social contents. The solution of such problems requires a thorough scientific analysis of the compositional means and methods that are used to create integrity in architecture, the search for a style and architectural language.
Keywords: Problems of Architecture, Globalization, National Self-Identification, Integrity

1. Introduction

In the context of universal globalization the Arab world faces numerous problems that are typical for contemporary architecture in general. One of the most pressing needs is creation of integrity in the architectural environment. A clear vision of the reasons of their appearance, distinct definition and systematization are first of all required to be able to provide a complex solution of contemporary architectural problems.

Problems of architecture and urban planning are preconditioned by the evolution of society and civilization. Architecture changes not only because new discoveries appear in science and technology or scientists create new building constructions and new methods, invent new building materials and ways of processing them. The main changes of architectural forms take place according to the modifications of human outlook in the process of social development. That is why contemporary architecture is so complex and controversial. It is based on the whole versatility and richness of historical experience, including that typical for different cultures, sciences and arts.

The compositional and aesthetical problems of contemporary architecture were studied by A.V. Ikonnikov, A. Rappaport, Charles Jencks, K. Lynch, J. Symonds, A.A. Puchkov, S.A. Shubovich, E.I. Remizova, etc. Different aspects of contemporary architecture in the Arab world were studied by Hassan Fathy, Mohammed Arkoun, V. Voronina, A.B. Rallev, Alb-Wahab, Wasef Radwan, M. al-Subah, Sh. M. Shukurov and others.

This article aims at establishing the compositional and aesthetical problems of contemporary architecture in the Arab countries. With this view the problems of compositional and aesthetical component of architecture must be analyzed taking into consideration the historical and cultural peculiarities of the Arab world. It is crucial to detect the most promising directions in creation and preservation of integral architectural environment with regard to different climatic, artistic imaginative and social features.

2. Prerequisites for the Emersion of Problems in Contemporary Arab Architecture.

In the context of globalization the all-pervading contemporary trends in architecture development, being, as a rule, Western European or American, clash with the distinctive historical and cultural heritage, local climatic, religious and spiritual rules as well as social pattern of life and aggravate their problematic aspects. In the Middle East the problems of architectural environment first became more urgent in 1960—90ies, when the process of urban reconstruction began gaining momentum in plenty of the Arab countries. It was caused by the intensification of business activity due to the oil boom, which in its turn led to a surge of sociocultural problems in the cities. Consequently, with view of solving contemporary problems in architecture as a complex it is necessary to understand the nature of their appearing as well as clear definition and systemization. This should allow finding the best ways of solving the detected problems with the help of the whole armoury of imaginative expressive means of architecture with regard to the historical and cultural peculiarities of the region under consideration.

When solving any problems of practical and material nature, each new wave of scientific and technological progress gives births to, aggravates and intensifies spiritual and aesthetical ones. These problems become especially obvious in the countries with unique manifestation of their national self-identification in architecture and with rich historical and architectural legacy. In the countries of the Arab world these issues became vital, first of all, for the capitals, such as Cairo, Damascus, Beirut, Rabat and also the largest business and cultural centres like Aleppo, Casablanca etc.

While studying the whole set of problems in architecture, they can be divided into global and professional.

Global problems include philosophical ones that are important for the whole mankind and represent the place of a human being in this world. Architecture is one of the main ways to express them.

Professional problems reflect the correspondence between the active structure of the author and the object of his/her professional influence. Each problem of architecture is closely connected with the problems of a "human factor". Besides aesthetical and functional problems the "human factor" generates social, philosophical, culturological and other kinds of issues, which are really far from architecture. In 1919 W. Gropius asked, "What is architecture? It is a crystal expression of noble intentions of a human, his aspiration and humanness, his faith and religion" (Gropius). For this reason problems of architecture cannot be studied as separated from the historical and philosophical origins of cultural formation.

Historically the culture of the Middle East countries, which became the Arabic Caliphate in 7th-9th centuries, developed, on the one hand, under the influence of the Ancient Greek and Roman cultures, and on the other hand it was influenced by the cultures of Iran and India. Unification of heterogeneous countries in a separate state with a centralized government served as an important factor for their intensive development. It promoted convenient exchange of goods and knowledge within a large economical and cultural space that was combined with the help of a common language and ideology. However, the intensive economical and cultural development against the background of a strict governmental and spiritual power was the source of the concept of fatality. There came the idea of the absolute divine predestination that excludes any possibility for a person to act freely (the word "Islam" itself means in Arabic voluntary submission of the believers to Allah). Islam is based on the dogma of fatal predestination. The Islamic fatality can normally match the concept of the boundless will of Allah, who "creates whatever He wills" and "alternates the night and the day". Allah has limitless power over nature and person. This arbitrary rule overfills the reality with an infinite aggregate of wonders that a person is unable to comprehend.

The ideas of ancient Neo-Platonism, conceived and re-conceptualized by the Arabic Muslim culture, have been manifested in the architecture of mosques as the most symbolic architectural component of the Arab countries that expresses their collective identity.

Specific professional problems include those connected with the use of the latest achievements of scientific and technical advance for engineering and building solutions. Their harmonization with the contemporary understanding of the aesthetic expression and functional purpose of an architectural object also belongs to this category. Whereas in the developing Arab countries with their economy on the rise the former has some technical and organizational solutions, the issues of compositional and imaginative-aesthetical expression become even more pressing in the context of the unique national Arab culture.

3. Compositional and Aesthetical Problems of Contemporary Arab Architecture

Compositional and aesthetical problems in architecture appear at the very beginning of a design process, when solving certain tasks at the stage of location study. And they accompany the architect at all stages of designing and building of an architectural object. The issues that emerge the first include integration with the existing environment, preservation or destruction of the existing compositional structure, search for the optimal transport or pedestrian links with the outer environment, adjustment between the constructive and aesthetical structures of the architectural object and correspondence between the form and its functional and social contents. The problem consists in the fact that creation of anything new that lies in the immanent essence of art, in the case of architecture is connected with traditional typology that is preconditioned by the cultural tradition. The latter determines the shapes of buildings, their types and purposes, which comply with some space and volume stereotypes created by the society. New meanings and traditional forms come into conflict, which can be often sorted out only on the surface, without going into the depth of the problem.

In this connection a question appears of how the architects of a certain time period understand the essence of architectural form.

The essence of architecture for the European architects of 1920-1950ies, who belonged to contemporaries, consisted in space. For the architects of 1960ies it was the notion of "feeling of place", "identification", "personalization". Later its architecture was defined together with such terms as ecology, environment and the linguistic understanding of an architectural object, its syntax, semantics and sculpturesqueness. The essence of architecture as a material environment is slightly different for the Arab world. The best notion that helps to understand the essence of architectural form and meaning according to the national traditions of the Arab countries should be "architectural fabric", the term used by Sh.M. Shukurov in his research of the architectural form development.

He writes that "the architectural fabric of contemporary Muslim architecture must by its definition possess some formal and meaningful uniqueness" (Shukurov 2014). The architectural fabric of every individual building is characterized by its own spatial dimension that consists of numerous meshes having their own outer shell and inner contents. Architectural fabric has different dimensions, which jointly create the dynamic three-dimensional structure of contemporary architecture. In its spatial dimension the notion of "architectural fabric" in Muslim

architecture intercrosses to some extent another notion — that of the space of Sunnah. In the space of Sunnah that manifests itself in the arrangement of the architectural composition of the mosque of Prophet in Medina, A. Kahera sees an archetypical image, which is reflected in all subsequent mosques and other buildings (Kahera 2002). The universal notion of "architectural fabric" operates at the junction of theology and philosophy. Creating some space, the architect at the same time develops the architectural fabric, whose existence will result in creation of a single building or a whole town.

"Architectural fabric does not break down into a sequence of formal coloured or light images and semantic units. No, architectural fabric always has an individual and integrated nature. Its integrity, continuity are the crucial features of architectural fabric, though it can by no means be excluded that within this continuity some important examples of discontinuity are also required, for instance, when transferring from the theological concept of a cave to the theological concept of water in architecture", stated Sh. Shukurov (Shukurov 2014). So, the notion of "architectural fabric" as a specific feature of the Arab artificial environment allows explaining the problems of formations of forms and meanings in Islam architecture. It is also the initial point for creating an integrated environment.

3.1 The Problem of Environment Integrity

In its turn environmental integrity as a key problem of the theory and practice of architecture is closely connected with the issue of forming integrity of different scale levels of architectural environment and determining the role and type of inclusion of new buildings in the architectural and natural context of environment that is historically developed.

The problem of integral union between natural and artificial environments includes also the issue of the relation between regularity and picturesqueness, which in urban planning always reflects the ideology of the age. According to K. Lynch, regularity of the urban-planning structure is related to strict regulation of population life, expansion or colonization of other territory. K. Lynch correlates picturesqueness and freedom in structure with naturalness that is typical for autonomous population, territory utilization, harmony between a human being and the world.

The complexity of picturesque structures can be studied from two points of view — either as a metaphor of harmony between a person and the world or as chaos; whereas regularity is always the result of orderliness, logic and simplicity, even violence against nature, to some extent. These postulates are given in the works of K. Lynch, A. Ikonnikov and others. Aesthetical integrity of architectural and spatial environment of the city consists in integrity of its fragments. Having absolutely different structures, both regular and picturesque, these fragments reflect the poly-aspect functions of such a complex unit as a contemporary city. Strict regular structures that create the urban frame must add the regulating principle in the complexity of urban life. And picturesque fragments (groups of dwelling houses, yards, blocks, interior forms), in their turn, join to create a single unity with the person perceiving them. For this reason the solution of the problem thathow some structures of different aspects in the city can be united in a compositional and aesthetical unity, becomes more urgent for the theory and practice of contemporary urban planning.

Fig. 1. Ancient City of Damascus

Historical examples of cities in the Arab world, such as Mecca, Kuwait, Riyadh and others are nice samples of their integrated system. Though their historical parts look chaotic, certain regularity in urban planning is obvious. Mosques, domed trade squares and a dominating citadel called Kasbah are the joint moments. The main task of street laying is to connect these joint moments with the city gates that, as a rule, were situated according to the cardinal directions or shifted towards some external gravity points or landscape peculiarities. Being free of wheeled vehicles, the streets could bend unrestricted and create shadows that are vital in the context of a hot climate. Such a city is developed like carpet. It consists of closed and adjacent meshes that appear around their own spatial nucleus — a yard or garden. So, the monocentric character of a traditional city possesses the features of an integrated system, where some intertwined primary and secondary elements can be detected.

Fig. 2. Street in New Damascus

Contemporary oriental cities can be broken down into some heterogeneous elements. Remment Koolhaas spoke about this in his lecture in Sharjah in 2009: "Dubai seemed the epicenter… of eccentricity, I was overwhelmed by dubious feelings. The idea of the city centre seemed to have turned almost a caricature, where there is no harmonious unity but individual pieces of the city, which looked like a patched blanket" (Koolhaas 2009). Sh. M. Shukurov noted that "Contemporary architectural fabric covers plenty of cities with its continuity… And such cities, though possessing their own uniqueness, lose their identity and history" (Shukurov 2014). That is why it is very often said now that the traditional principle must be kept in contemporary Arab architecture.

All attempts to revive Arab traditions in architecture and urban planning are accompanied by the study of a set of problems

3.2 The Problem of Unity of Architectural and Natural Environments

One of them is the problem of unity of architectural and natural environments, which consists in the attitude to nature and relations of the person with social and natural environment. This problem appears each time anew and must always be solved individually, taking into consideration the factor of human and time. Its compositional solution contains three options: domination of architecture over nature, meaning domination of human over environment and even the Universe or equality of person and god; equality of nature and architecture, where the latter is only the natural origin; subordination of architecture to nature according to certain ideological values of social environment (Ancient Japan, Ancient Egypt). In the Arab world and its traditional architecture there is a strong interrelation between natural and architectural environment. Architecture remains flexible and reacts keenly to the environment. It hides from the hot sun as an unfavourable factor and opens itself to the favourable environment, i.e. the sea.

Contemporary trends in oriental urban planning, with their system of wide avenues unfolding to the desert, large squares flooded with southern sunlight and huge complexes with entire blocks of skyscrapers, oppose the traditional "fabric" and make the existing architectural and natural environments look antagonistic to the newly forming environment.

But the Arab culture can bring an opposite example of the continuous harmony between an architectural object and environment too. This is the architecture of a mosque, i.e. the item that was traditionally a factor of compositional stabilization in the complicated architectural fabric of an Arab city. In its traditional expression with the help of minarets (Arabic "to shine") the mosque is symbolically united with the environment, the skies and urban landscape. Social functions of the mosque as the main social centre are broad: justice was administered there, state treasure was kept, for example, in Egypt and Syria, and the collected taxes were distributed for the benefit of the poor. During wars women, children and elderly people could hide in the mosques. The first philosophical discussions emerged within the mosques too because in the Middle Ages these places became the biggest universities, where not only theology but also medicine, mathematics, astronomy, philosophy, geography, logic and rhetoric were taught. Like European monasteries in Christianity, they attracted the best and promoted science.

Fig.3. Sheikh Zayed Grand Mosque (Abu Dhabi, UAE, 2007)

The influence of Antique and Byzantine traditions manifested itself in the use of a basilica-like composition of the mosque with longitudinal naves. The basilica also served as the source for the separation of the main nave leading to the mihrab. It was built higher and wider to highlight the dominating spatial axis of the composition connected with the canonic Muslim kiblah. The yard was an important element in the mosque composition due to the climate and requirements of the ritual. A rectangular yard with a pond in the middle for ritual ablutions precedes the praying hall. Its area lit with the sun flows freely to the dark hall through the open arcades of the naves. The yard is usually surrounded with shaded arch galleries along its perimeter. Another mihrab, called anaza and situated at the side of the yard, gives an opportunity to pray outside. Initially the mosque was intended to be able to transform the form and functions. One of its properties is the ability to keep the typical qualities and

iconographic schemes, when designing a new architectural reality. For this reason a contemporary mosque can be an important link in formation of architectural environment.

3.3 The Problem of Creating Outer and Inner Environments

A condition of forming architectural unity is the problem of creating the unity of outer and inner environment. It is related to the aesthetical and functional requirements and their combination in the spatial structure of an object. The idea of interpenetration of the inner and outer or the idea of openness originated in the western architecture. A question appears whether this principle can comply with the traditional principles of Arab architecture. Some researchers point at the difference between the principle of disclosedness and that of openness, which does not mean the destruction of walls. Sh. M. Shukurov writes that "we understand openness and the principle that is the ground for the pre-image state of the art in Byzantium and Islamic world… Openness is the principle of the attitude of the art and architecture not to something beyond… but to specific perception of creativity that crosses any borders in the name of crossing them" (Shukurov 2014).

Fig. 4. Damascain home

3.4 The Problem of Creating a Compositional Plot and Space-Temporal Structure of a Building

Western trends have brought the **problem of creating a compositional plot and space-temporal structure of a building** in the architecture of the Arab Orient. It became even more pressing because of the growth of the cities. In the process of creating architectural environment the space-temporal problem appears, which is connected with the sequence of spatial structure perception and thereby with the way, how the person perceives any artistic images of architecture. The space-temporal structure of architectural objects creates a composition plot, which is preconditioned by social relations and functional needs. For this reason the space-temporal structure is formed by combining several main factors, including natural environment, social and functional structure and compositional structure. Some theoretical trends in creating the space-temporal structure draw attention to new tasks, "integrated" in the existing context of urban environment. Others ignore either natural or existing surroundings, but the composition and function always remain the most important elements in theoretical works of the architects.

3.5 The Problem of Correspondence between a Part and the Whole

The problem of creating the correspondence between a part and the whole leads to an interesting question concerning the place and role of a detail in architecture. First of all, it is connected with the problem of the "tectonic language" in architectural constructions, which reflect the idea-driven meaning and creative intention of the architect. Architect I.V. Zholtovskiy says that "the idea of a three-dimensional composition as a single organic unity that can be divided and multiplied according to some special, purely architectural laws and at the same time remains a work of art that expresses the well-being of the person, her world outlook and attitude to other people and social environment, leads us to the problem of architectural language" (Masters of Soviet Architecture 1975).

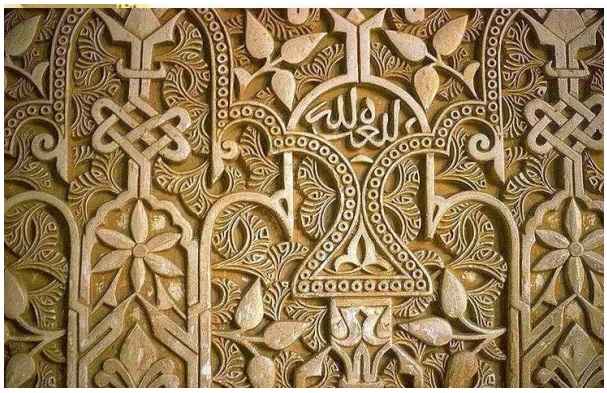

Fig. 5. Art in Qordoba Mosque

Fig. 6. Arabesco

In the traditional Arab architecture any detail has a special meaning and is crucial for understanding the artistic idea and architectural-philosophical purpose in general. A characteristic detail as a manifestation of the plastic language of architecture is an ornament. The art of ornamentation was brought to the highest degree of perfection in the Arab world, what allowed distinguishing it as a specific art form is called arabesque. The idea of arabesque itself corresponds to the concept of "the eternally continuing Universe" developed by the Islamic theologians. Arabesque is based on repetition and multiplication of one or more fragments of a pattern. The endless and rhythmical movement of patterns can be stopped or continued at any point without the integrity of the pattern being broken. Arabesque contains two internal meanings. The first is more profound. It expresses eternal movement and versatility that corresponds to the idea of Allah and is present in every repetitive and endless ornament. The second meaning is more exact: we see glorification and admiration of the world created by Allah for the person. The endless repetition of elements in their joint movement, in mass and volume, symbolizes infinity and arouses meditativeness in the person, directing her towards the depth of the Divine presence. One of the most prominent examples of this ornament is the carving on the walls of the Umayyad residential palace of Qasr Mshatta on the territory of Jordan. To a certain extent an ornament, especially calligraphic one, served as an icon, being used as an intermediary between this and that world, a small window into the space where the Almighty God is present.

3.6 The Problem of "Language and Speech" in Architecture

Contemporary architecture, which follows the Western European principles of international architecture, brings the problem of relations between a part and the whole into the Arab architecture and makes the issue of "language and speech" in architecture more urgent.

The language of architecture is objective reality for a certain social group that lives in the region. If the architect fails to use the language that can make the customer (resident) react to, the information will not be read and, consequently, understood. Such a discrepancy causes psychological discomfort in plenty of regions with numerous new complexes. Speech as a combination of individual language elements is the tool used by the architect according to the professional grammar rules. Egyptian architects Hassan Fathy and Mohammed Arkoun paid special attention to the issues of architectural language. The latter says that the language of architecture must meet the challenges of its time and cannot remain unchanged like a sculptural monument. Admitting the important role of architecture in establishing the new identity of Muslim society, he suggested that "the whole integrity of Islamic legacy should be re-thought" and the first to be dealt with should be architecture. Aga Khan conceptualized the space of oriental architecture and provided it with unprecedented, unheard-of event horizon.

He fills the space of architectural fabric with such meanings that establish new relations between the past, present and future (Arkoun 1994).

4. Conclusion

It can be stated that formulation of architectural problems and their understanding in the context of specific cultural traditions are the first steps towards the creation of a harmonious and integrated environment. “Banal designing” without any scientific base, field research and solution of general and exact problems of the existing environment in architecture always gives rise to the problem of “embodiment of an abstract architectural work in the existing environment”, which can be solved with the help of a “pseudo-scientific” substantiation of the “mosaic nature” of culture or creation of an individual trend in creativity. It does not always correspond to the traditions and architectural surroundings of a new object.

The most urgent contemporary problems of Arab architecture include the following:

- - combination of contemporary and traditional architectural environments;
- - harmonious combination of architecture with natural surroundings, social contents and traditions;
- - scientific substantiation of different compositional means and methods of creating integrity in architecture;
- - consideration of the duality of architecture based on the principle of uniting the functional, practical, compositional and aesthetical factors;

- problems of style and search for an architectural plot, language and speech of architecture.

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