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Water Fountains in Environment Transformation Correcting

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Abstract. The article provides information on the means and principles for adjusting the process of the urban environment transformation. The interest in the topic is caused by the fact that the surrounding artificial environment is turning into a dangerous factor in the mechanism of human visual perception which requires immediate, effective intervention in the adjustment of the existing modern buildings. The paper considers the correction with the help of new dominants, small architectural forms, in particular, water fountains. Fountains are an important part of the measures to create a comfortable, environmentally friendly urban human environment. Their planning and functional links with the system of streets, squares, traffic arteries can create the urban plan basis.

Keywords: Organization of space, adjustment, emotional and artistic climate, urbanization, dominant, water fountain, integration, environment transformation.

1. Introduction
The urban comfortable social environment is an important and decisive component of the city's culture. In modern cities, many public spaces do not perform their functions fully and lose their significant role due to their unattractiveness, ill-thought and disorganization. The main process, such as changing public spaces, namely, changing areas, streets, dotted buildings, cutting down green spaces has become one of the main phenomena in the urban environment of the modern city. The comfortable environment, co-scale to humans, is lost in the past, as well as the communication with nature. Therefore, transformation of the urban environment is becoming a topical issue.

Important moments capable of forming a substantial and emotionally rich city environment are open architectural spaces with small architectural forms that will fill the deficit of cultural territories and functional zones that embody the integration potential of space with the predominance of a universal function [1-3]. Methods of correcting the process of transforming the environment in architectural design with the involvement of small architectural forms such as water fountains give a socially-functional, imaginative and expressive environment to these spaces, according to the status of the territory in the city structure.

2. Main part
The environmental design consists of the interaction of compositional and harmonization studies, representing the two sides of a single creative process. The corrective process of the transformation of the environment is a partial correction in the principle of arranging decisions, elaboration and completion of the compositional scheme accepted for execution. Transformation of the object-spatial system that has developed in nature or in the project, giving it new visual, and therefore emotional
qualities and states. At the same time, the main tasks are solved - composition and harmonization of the environment.

There are two ways to develop this process. The first way specifies the chosen composition idea, the second means its very basic substitution.

Means of the adjustment process:

- potential of filling elements, which form primarily information indicators. The appearance of this group of funds is active, often they "outweigh" the role of its other components in the appearance of the environment;
- finishing materials, purely decorative features. Interleaving colors, textures, drawing partitions, etc.;
- decorative component - jewelry, art-design items, the appearance of functional necessary items. Its embodiment is the line of formation of the environmental situation;
- functional process, can create completely new conditions for the perception of visual images that used to work in other emotional and functional circumstances;
- new dominant is a solution common in design practice. To the existing system of elements is added a new, exceeding in strength and importance all existing, "hammering" their impact and therefore rearranging the entire order of compositional subordination;
- combining the aggregate of objects or spaces with different emotional and artistic characteristics due to a system of identical (or similar in appearance) accentual elements that generalize the "random" initial system. In this reception the "physical" volume of the introduced changes is much smaller than the total mass of existing objects. It fundamentally reconstructs the composition structure, subordinating the individual differences of the former accents to the larger "order of reading" the ensemble as a whole;
- strengthening the existing artistic scheme - development, enrichment of the existing compositional system with additional expressive means for the initial situation. This method belongs to the number of "reconstructive" methods, different methods are used: inserting new plastic elements instead of old ones, changing colors, using landscape inclusions, etc. Including - deformation, distortion of the form of images of the well-known to the spectator imaginative or tectonic constructions.

The theoretical basis of the methodology for adjusting the urban environment is formed on the following principles:

- desire for an integral image of the urban environment, combining in its spatial and temporal dynamics the expressiveness of this environment during day and evening;
- reflection of the national-cultural and natural-climatic features of the region in the shape of the urban environment;
- openness of the urban environment to further changes;
- spatial-plastic and light-color processing of fragments of the medium with a view to its further architectural improvement.

In the environmental systems, all methods of transforming composite schemes can be applied to any of their components - both architectural and design. And in a number of cases, the design principle creates more weighty consequences for the new artistic scheme than the interference with architectural properties [4].

Harmonization measures are the most powerful tool for building the emotionally meaningful design of the environment ensemble. Impressions from the elements of the equipment, individual due to the peculiarities of their function, are compared with the contrasting imaging characteristics of the architectural components.

A water fountain is an important aspect of aesthetic appeal of space, includes a set of tools and techniques for correcting the process of environmental transformation. Being an object of urban space and art, it easily copes with the role of a new dominant. Due to this, there arises a necessary environment climate that fuses the tendencies of architecture, gravitating to constancy, symbolizing
the world of ideas with flexible and wayward features of content that ultimately determines the level of "humanity" of contacts between the environment and the consumer.

At the dawn of civilization, the man and water were simply side by side, coexisting. Accordingly, the attitude of people to water was utilitarian. Water was conceived as part of the surrounding world, a means for quenching thirst, ablution, rest. Water was a transport and military artery, a source for watering fields and a hunting place. For the first time, fountains appeared in ancient Greece and had nothing to do with aesthetics. They served as sources of drinking water, cooling and humidifying the air, using underwater rivers, keys and natural differences in the depths of water.

Later this led to a powerful development of the fountain architecture. With the development of civilization, water has become a source of beauty in architecture. Fountains by right began to be an essential element and a powerful spatial emphasis in the architectural ensemble of cities. Examples of such fountains are the complexes of the Versailles Palace, Peterhof, the Roman Trevi Fountain (Figure 1). Each country is a kind of ensemble of arts, a grand ensemble of cultures or a cultural monument [5].

![Trevi Fountain in Rome.](TRIP@PLANET.RU)

In the twentieth century, with the unrestrained growth of urbanization and the development of science and technology in cities, the question of the incompatibility of the architecture of the past with modern transport and engineering communications, with sanitary and hygienic norms, with the need to divide or merge the architectural territories and the requirements of town planning is increasingly emerging. In cities there has developed a serious threat of a break in the historical and architectural chain. With disappearance of the historic part of a city, with destruction of architectural monuments, it becomes clear how important the whole urban environment is, which is now seen as a substantial, emotionally rich monument to town planning. The development of urban culture occurs as a result of the improvement of the person himself, his living conditions, changes in the way of life, and as a result of a corresponding change in the material environment and the object-spatial environment [3,6].

Carrying out the comparative analysis of architectural design of different epochs, an acute shortage of the architectural and artistic approach in the modern city, which gave rise to a mass preference for the architectural heritage, which was filled with human content, began to be perceived as organic and natural, was identified.

In old cities, open spaces with small architectural forms such as galleries, atriums (inner courtyard), columns, water fountains, were part of urban architectural solutions (Figure 2). In the old streets a special, viable for comfort architectural space was observed. The visual environment filled with a variety of visual elements looks festive, solemn, each house has a "face" reflecting the style and originality of time [7-9].
Massiveness of the visual impact through color, shape, material, light and water improves the social and physical state of a person (Figure 3). The most important role in the environment is the decorative component - jewelry, art-design objects, the appearance of functionally necessary items, ornaments on the enclosing surfaces. Often it is its embodiment that makes up the general line of the formation of the environmental situation, and relatively independent of the functional purpose of carriers of decorative origin [1-2]. In the urban environment, visual comfort is based on a small architectural form like a fountain.

Fountain as a powerful spatial accent, planning center, plastic and the water dynamics of which connects the artificial environment with the natural, complementing each other is a necessary element of the design of the architectural environment. It is able to play an invaluable role in the process of transformation of the environment.

Considering the modern model of urban construction, we are faced with the uniformity and monotony of the order of shaping in the urban environment. It is reinforced by a concrete or glass faceless simple model of behavior, of the same color with the predominance of right angles and lines, contributing to the "visual pollution" of the city. Concrete large-panel housing construction in the cities of Russia accounts for about 60% of the volume of construction, it has become massive and largely determines the face of the city. Often, with the modern construction of sleeping areas, there is an "orphan" space, unsupported, with a lack of proper communication with public space and support of architectural communication (Figure 4).
When comparing, it is clear that the most homogeneous architectural object in the ensemble with the "living system" - a fountain, will create harmony and an artistic image of the spatial environment [1,10].

3. Conclusion
Formation and transformation of a comfortable urban environment is impossible without a serious scientific justification, precise planning. Considering the means of the process of adjusting the transformation of the environment, the principles of their work, as well as the types of visual impact, the comparative analysis of the origin and development of the urban environment was carried out. The economic and social growth of urban life leads to an increase in information and communication of the city [4]. Cities are expanding, changing public spaces, changing streets, squares and historical and architectural heritage. The change of all this comes from the preferences of society and from the lack of attention to the cultural heritage of cities. In this regard, there is a disruption and discomfort of a holistic vision of the spatial environment. With the expansion of cities and the construction of new areas, the aesthetic and functional scale is disrupted. There appears a lack of visual and aesthetic properties and connections of urban spaces, and the comfortable living environment in the city disappears. New inclusions can, replicating the prominent features of existing components of the complex, create the community of the new system using the old one; can, by introducing an active alternation of new forms with a variety of the former, transform a disorderly cluster into a single rhythm; can "calm down" the high-altitude differences in small add-ons, create a common level of saturation with details and divisions among different façades, etc. [11-13].

Comparing the time layers of the formation of urban space, it is possible to conclude that to change, providing for adjustments in the architectural layout, filling with various architectural objects of visual impact is necessary (Figure 5). As the socio-functional and historical-cultural potential of space is determined by the evaluation of its main functions in the past, in comparison with the existing situation and the prospect of transforming this role on the basis of analysis of the compositional-planning principles for the formation of centers of historical cities and the structure of the environment [13].

Figure 5. An example of environmental transformation with a fountain.

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