

## MULTIFUNCTIONAL BUILDINGS

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Multifunctional buildings have become more common for the last years. Such buildings play an important role in the forming of urban space.

Firstly, it is necessary to know the urgent city space problems in Ukraine. They determine the main principles of forming multifunctional public buildings.

It is known the various kinds of architectural problems:

1. Irregular allocation of city infrastructure. It is more developed in the city center, but the suburb areas are not developed intensively.

2. During the soviet period in Ukraine, such areas with domination of residential function were very popular. The percentage of residential building was higher than public building. Such residential areas have many drawbacks in functions as cultural, educational etc.

3. Also there are many city space, that have no planning organization and have chaotic development.

It is known the variety of social problems that are very important in forming of multifunctional buildings.

1. The decrease of cultural level of population of Ukraine.

2. Lack of public institutions for all social groups.

3. Depressive nature of city areas.

Architectural and social problems interact with economical problems:

1. Crisis of state institutions.

2. Economical crisis.

Multifunctional or mixed-use buildings blend a combination of cultural, residential, commercial uses. Urban environment have to serve a society. Different typologies and functions of mixed-use buildings are being integrated within a range of other building types and functions, creating neighbourhoods and places where people live, work and play.

The beginning of forming of mixed-use buildings date V BC. During this period in Ancient Greece and Roma early multifunctional structures were developed. Agora, that contained administrative function and thermaes, that consisted of libraries, amphitheaters.

In the Middle Ages influence of religion on the society increased. The main public centers became scientific centers, cultural and religious structures. At the beginning of XVII–XIX centuries in Russia passages, galleries and structures with retail and residential function were developed increasingly.

In XX century on the territory of modern Ukraine zhilcombinats structures, which combine housing and services were formed.

In XXI century mixed-use buildings that consist of business-centers, housing, retail, leisure, sport, culture, education were formed. Nowadays the sustainable

development of the cities has a great importance. Modern architectural projects have to balance between nature, building and the human.

Multifunctional buildings contribute to urban sustainability. With creating of multifunctional buildings quality of housing becomes better and affordable. The density of residential structures increases. The distance between housing, workplaces, retail businesses and other destinations are reduced. People use less transport and the traffic in the city become less busy.

One of the last modern trends in architecture is the creation of green and animal farms on the base of public buildings. Here people grow fruits and vegetables, bred cows and other domestic animals. People get better access to fresh and healthy foods. The increase of density of buildings helps us to protect the nature from rapid growth of cities and to save virgin territories for the future.

Mixed-use buildings as a part of the general city plan, have to interact with current planning organization.

Multifunctional buildings have different purposes:

1. Save the public space.
2. Stimulate the city activity.
3. Interaction between user and space.
4. Create the social variety.
5. Be in a historical and cultural context.

The process of creation a multifunctional building is based on the basic methodological approaches:

1. Different functional parts of the building have to be designed according to the accepted rules.
2. Functional processes have to go inside the building separately and independently of each other. But the whole planning solutions have to provide convenient connections between all functional parts of the building.
3. Unlike specific facilities of each functional part, common and auxiliary facilities of multifunctional building can be combined.

As an design object, mixed-use buildings have to conform with general criteria of an object:

1. Recognizability.
2. Interaction between object and space.
3. Clear compositional structure.

To sum up, multifunctional buildings that are forming now are the logical continuation in the evolution of public buildings. Mixed-use buildings meet the needs in housing, workplaces, culture, leisure, education, sports. Because of strong architectural, social and economical situation in Ukraine such buildings help to increase the cultural level of population, create new high quality urban space.

Multifunctional buildings can be used in a context of integration, intensification or renovation of urban space.