

## **AESTHETICS AND FUNCTIONALITY IN PUBLIC BUILDING DESIGN**

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**Abstract:** This paper examines the basic principles of integrating aesthetics and functionality in public building design. Successful examples are analyzed where the harmonious combination of these two aspects leads to the creation of not only beautiful but also practical spaces. The challenges that architects face when developing projects are also discussed, including requirements for sustainability, accessibility and social responsibility.

**Keywords:** architecture, aesthetics, functionality, public buildings, design, spatial planning, user experience, sustainable development, social responsibility.

## **JAMOAT BINOLARINI LOYIHALASHDA ESTETIKA VA FUNKSIONALLIK**

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**Annotatsiya:** Ushbu maqolada jamoat binolarini loyihalashda estetika va funksionallikni birlashtirishning asosiy tamoyillari ko'rib chiqiladi. Ushbu ikki jihatning uyg'un kombinatsiyasi nafaqat go'zal, balki amaliy joylarni yaratishga olib keladigan muvaffaqiyatli misollar tahlil qilinadi. Loyihalarni ishlab chiqishda arxitektorlar duch keladigan muammolar, jumladan barqarorlik, qulaylik va ijtimoiy mas'uliyat talablari ham muhokama qilinadi.

**Kalit so'zlar:** arxitektura, estetika, funksionallik, jamoat binolari, dizayn, fazoviy rejalashtirish, foydalanuvchi tajribasi, barqaror rivojlanish, ijtimoiy mas'uliyat.

## **ЭСТЕТИКА И ФУНКЦИОНАЛЬНОСТЬ В ПРОЕКТИРОВАНИИ ОБЩЕСТВЕННЫХ ЗДАНИЙ**

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**Аннотация:** в данной работе рассматриваются основные принципы интеграции эстетики и функциональности в проектировании общественных зданий. Анализируются успешные примеры, где гармоничное сочетание этих двух аспектов приводит к созданию не только красивых, но и практичных пространств. Также обсуждаются вызовы, с которыми сталкиваются архитекторы при разработке проектов, включая требования к устойчивости, доступности и социальной ответственности.

**Ключевые слова:** архитектура, эстетика, функциональность, общественные здания, дизайн, пространственное планирование, пользовательский опыт, устойчивое развитие, социальная ответственность.

Designing public buildings is a complex and multifaceted process that requires architects to consider various aspects that affect the quality of the urban environment. Aesthetics form the first impression of a building, create an emotional connection with users and contribute to the formation of the identity of a place. At the same time, functionality is responsible for the practical use of space, its comfort and convenience for all categories of the population.

Modern public buildings, such as libraries, theaters, cultural centers and schools, must fulfill many functions: they serve as places of meetings, learning, creativity and recreation. These buildings become centers of social activity and interaction, making important not only the external appearance, but also the internal organization of the space.

In the context of rapid urban growth and changing socio-economic reality, architects must develop projects that combine aesthetic appeal and high functionality. For example, in modern library complexes, it is important to create comfortable reading areas and places for working in groups, as well as creating accessibility for people with disabilities.

Thus, the purpose of this study is to analyze how architects find a balance between aesthetic and functional aspects when designing public buildings.

We look at different approaches and methods used in practice, as well as examples of successful projects that show how the effective interaction of these two components can lead to the creation of unique and vibrant public spaces. Understanding these relationships is the key to creating buildings that are not only beautiful, but also comfortable and useful for society.

Functional principles of public building design.

In the design of large public buildings, public and public shopping centers, which are characterized by a large number of different internal spaces, it is recommended to divide them into zones of groups of homogeneous buildings, which is called functional zoning, that is, based on the commonality of their functional purposes and internal relations.

Public buildings are intended for temporary living of people in connection with the implementation of various and diverse functional processes of recreation, life and work - education, sports, entertainment, shows, food, medical care, trade, management, etc.

According to their purpose, public buildings are divided into different types - educational, catering, entertainment, medical, etc. The main tasks of public buildings:

- 1) creation of conditions for various types of communication and communal services for residents of cities and villages;
- 2) provision of daily, periodic and episodic needs of the population (rest and recreation, personal

consumption of goods and services, spiritual needs).

The functional structure of public buildings consists of three main parts: recreation and health, utility and production.

The premises of the building must be fully compatible with the processes carried out in it. Compliance of a room with a certain function is achieved only when optimal conditions for a person are created in it, that is, the space corresponds to the functional and technological process carried out in the room.

The sum of all elements and conditions describing functional and technological processes determines the spatial organization, dimensions and forms of buildings and structures.

Each type of public building is characterized by its own functional and technological process, based on which certain design requirements are imposed.

Thus, the functional-technological process is the implementation of the main function of the building in time and space, in which it is divided into a system of main and auxiliary functions at all spatial levels of the building (Fig. 2).

Functional-technological processes can be general and private.

General functional processes - various types of service, labor and household activities of people located in all types of buildings. Certain functional processes are characteristic of only one specific type of human activity (medical and health care, education and upbringing, etc.).



Picture. An example of a public building project

Each public building has a main functional-technological process and secondary (auxiliary) processes.

Functional processes in universal public buildings differ in the sequence of implementation depending on the purpose of using the buildings.

Each process has its own internal characteristics arising from the nature of the action, the number of participants, the necessary equipment and furniture. All this affects the determination of the dimensions and spatial organization of the building form.

One of the important tasks of architectural design is to bring the functional and technological processes that take place in the building into a specific system. First, it is necessary to analyze the functional and technological processes and their conditions, establish the sequence (order) of these processes, on this basis determine the relationship between individual rooms or their groups, and then determine the composition scheme of the entire building.

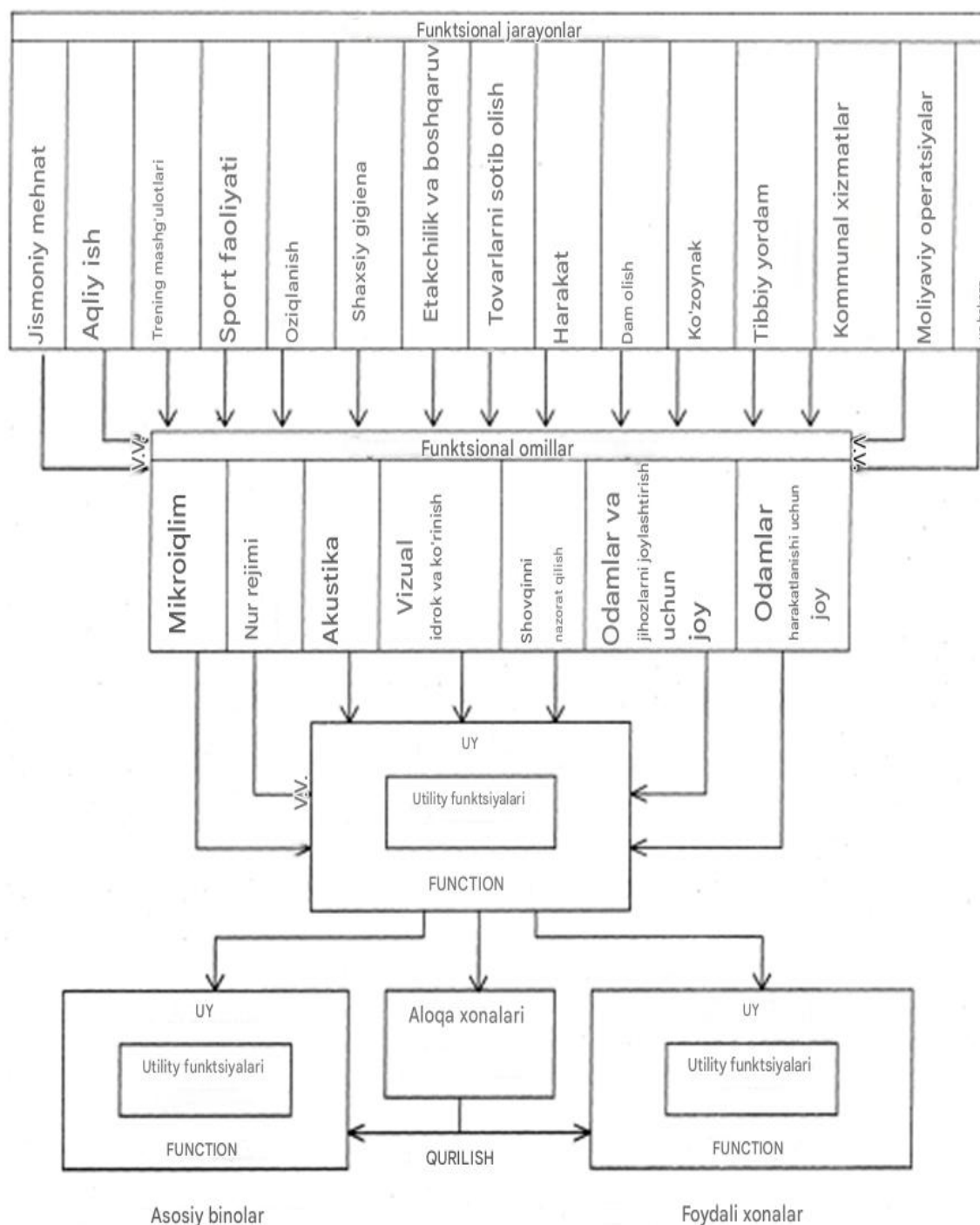
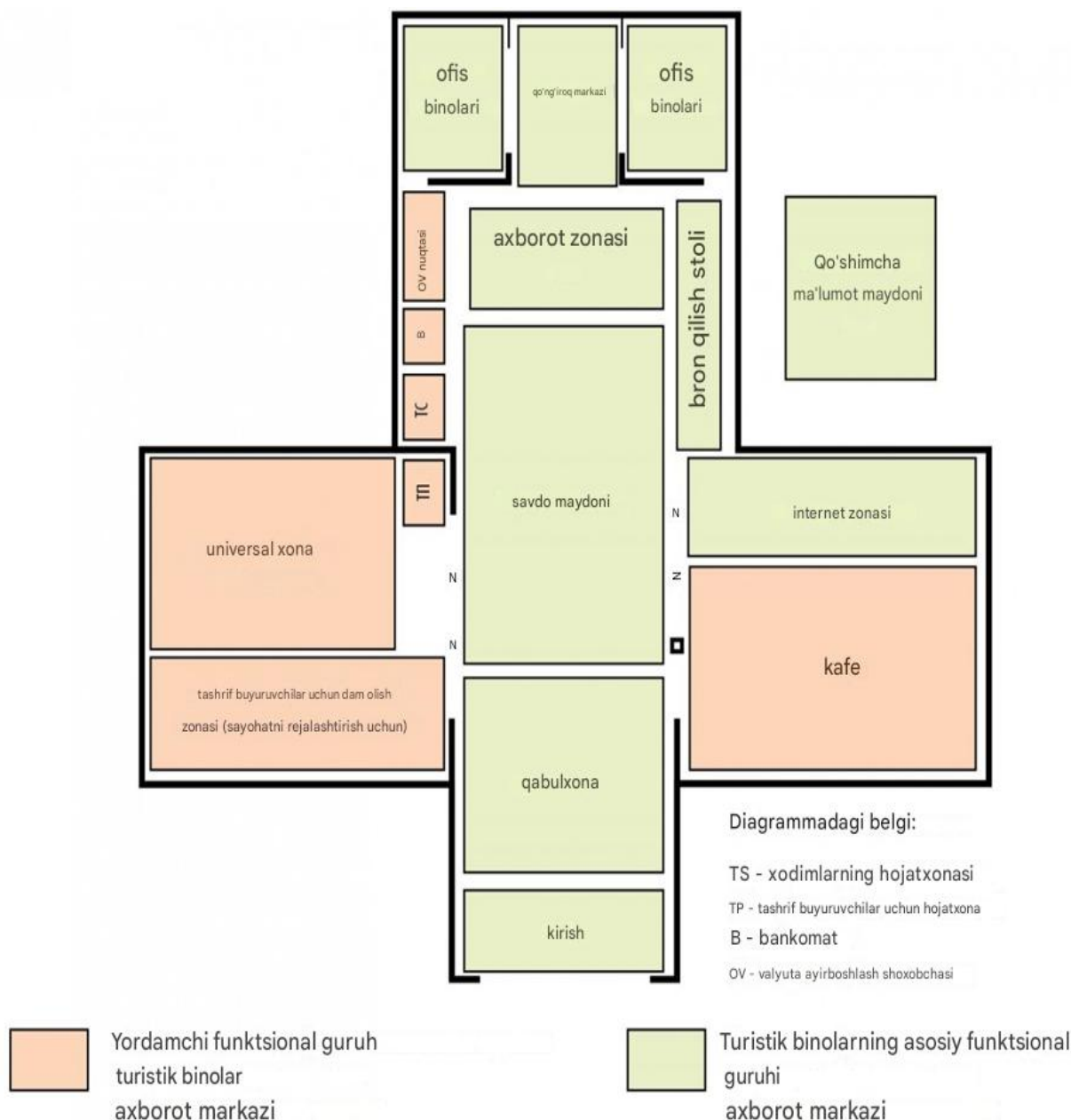


Figure 2. Architectural solution of the functional-technological process of the building (according to V. M. Predtechensky).



The functional diagram provides information about the structure of functional connections of the object and the sequence of functional processes that occur, it reveals the functional content of the architectural object (Fig. 3). In the next design process, the transition from the functional scheme to the planning scheme is carried out.

[illegible]



**Figure 3. Examples of functional placement**

Summary.

Public buildings and their complexes are artificial environments where one or more processes of people's social life take place; This is a space limited by construction structures designed for short-term or long-term residence of people and their protection from the effects of natural factors. The main factor, the basis of the space planning solution of public buildings and

structures is the functional purpose, i.e. social activity of the person for whom the building is built. As a single cycle, any process has its own characteristics, depending on its functional and technological nature, the number of people involved in it, the necessary amenities, equipment, furniture and, in general, the organization of the interior space.

When designing large public buildings, public and public shopping centers, characterized by a large number of different interior spaces, it is recommended to divide groups of homogeneous buildings into zones, which is called functional zoning, that is, based on the commonality of their functional purpose and internal relations. Public buildings are intended for the temporary residence of people in connection with recreation, everyday life and the implementation of various and diverse functional processes of work in them - education, sports, entertainment, shows, food, medical care, trade, management, etc. According to their purpose, public buildings are divided into different types - educational, catering, entertainment, medical, etc.

A study of the relationship between aesthetics and functionality in the design of public buildings has shown that successful design requires careful balancing of the two aspects. Aesthetics not only attract attention and create a positive first impression, but also create an environment that promotes social interaction and cultural identity. Functionality, in turn, ensures the practical value of buildings, meeting the needs of users and adapting to changing conditions.

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