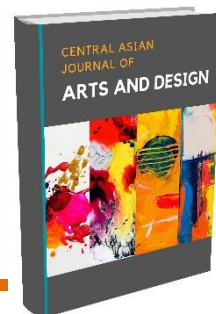




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INNOVATIVE SOLUTIONS FOR ORGANIZING THE CONSTRUCTION OF MULTIFUNCTIONAL SPORTS FACILITIES

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Annotation: The article provides detailed information about the modern types of multidisciplinary sports facilities, their architecture and innovative solutions, as well as the requirements and proposals for modern sports facilities.

Key words: sports complexes, urbanization, interior, design, sports, physical education, sports, sports stadium.

Introduction. The most important role of physical culture in developed countries is now highly appreciated by both governments and society itself. Large-scale programs have been developed to stimulate the development of physical culture, sports and a healthy lifestyle. Programs are being implemented to create physical culture and sports facilities for these activities.

The network of physical culture and sports facilities is considered the most complex, extensive and diverse among all other public service systems. It is an integral part of all the structural elements of populated areas, from the very initial steps to the largest citywide and suburban facilities, Olympic complexes. Sports facilities are designed for 160 kinds of sports and active leisure. Physical culture and sports facilities are used by all age and social groups of the population, from toddlers to retirement age, from absolutely healthy athletes to the disabled, from residents of rural areas to the population of the largest cities.

Physical culture and sports facilities are distinguished by a variety of forms of ownership: they can be state-owned, including unitary enterprises, joint-stock companies, private, etc.

The network of physical culture and sports facilities is the most capacious in terms of territory: the largest sports complexes have areas exceeding 100 hectares. In addition, it is closely connected with resettlement and transport services. Physical culture and sports facilities are a constantly changing system, inextricably linked with the development of society. Social changes taking place in society bring to life

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new types and forms of sports, recreation and leisure activities. There has been a clear integration of cultural and sports activities with an increase in the share of active leisure. Various groups of the population are involved in classes, various forms of family leisure are developing, the importance of information classes and communication, mass events is increasing. Parallel to this, elite sport is also developing, which puts forward new levels of requirements for physical culture and sports facilities.

The purpose of my work is to gain knowledge in the field of organizing the construction of sports facilities.

In accordance with these changes, typological features of physical culture and sports facilities arise:

- sports and technological parameters of the places where classes are held are changing;
- the share of universal, multifunctional premises and structures that provide the possibility of transforming premises is increasing;
- the composition of facilities is expanding at the expense of premises for sports and recreation, entertainment and club activities;
- the interconnections of indoor and outdoor facilities are strengthening with their wide use for new non-traditional types of active leisure;
- the accessibility of physical culture and sports facilities for the disabled is ensured, the facilities include specialized halls and rooms for their classes;
- specialized sports centers are being developed: skiing, sailing, equestrian sports, etc.;
- the comfort of buildings, their interiors and the external environment increases; more and more attention is paid to the attractiveness of the architectural appearance of sports facilities;
- there is an increase in the construction of indoor structures instead of outdoor pools, stadiums, skating tracks.

A sports facility is a specialized facility that provides mass health-improving physical culture classes, educational and training work and a person.

Typological features of physical culture and sports facilities. In accordance with these changes, new typological sports competitions are emerging. Sports facilities are divided into main, auxiliary and facilities for spectators.

The main facilities are intended directly for physical culture and sports, auxiliary facilities - for servicing athletes and participants in competitions. These include cloakrooms, showers, massage rooms, saunas, judges' rooms, and rooms for accommodating various services. Facilities for spectators include stands, pavilions, foyers, buffets, and bathrooms.

Depending on the functional purpose, separate (for one sport) and complex structures (several structures united territorially) are distinguished. The complex facilities include the school sports ground, which also includes a school sports core with benches for spectators.

Organization of construction of sports facilities. In a modern urbanized society, the role of physical culture and sports is unique as a compensator for a decrease in physical activity, as an activity that offers a system of values that are really useful for each person, making it possible to change the depressingly monotonous lifestyle of the modern features of physical culture and sports facilities:

- sports and technological parameters of the places where classes are held are changing;
- the share of universal, multifunctional premises and structures that provide the possibility of transforming premises is increasing;

- the composition of facilities is expanding at the expense of premises for sports and recreation, entertainment and club activities;
- the interconnections of indoor and outdoor structures are strengthening with their wide use for new non-traditional types of active leisure;
- the accessibility of physical culture and sports facilities for the disabled is ensured, the facilities include specialized halls and rooms for their classes;
- the comfort of buildings, their interiors and the external environment increases; more and more attention is paid to the attractiveness of the architectural appearance of physical culture and sports facilities, which contributes to the improvement of the quality of the environment as a whole;
- there is a widespread growth in the construction of indoor structures instead of outdoor pools, stadiums, skating tracks.

Along with the emergence of many new forms and types of physical culture and sports activities that are in demand among the population (aerobics, bowling, squash, rock climbing, etc.), as well as a number of successes in Russian elite sports, the real coverage of sports and recreational activities of the population (the volume of physical culture and sports services) in the last decade not only did not increase, but even decreased. The growth rate of the provision of physical culture and sports facilities is much lower than necessary. The total number of structures does not even reach 30% of the normative; they are placed without taking into account the requirements of equal provision of the population with occupations, regardless of the place of residence and work, they are used irrationally, their composition, typology and quality do not meet modern requirements. In the light of this situation, the study of the theory and practice of world sports construction, as well as the publication of books from which one could draw the necessary regulatory, technological, architectural and construction information on sports facilities, are of particular importance.

Sports facilities can be conditionally divided into two large groups: outdoor and indoor sports facilities. The most demanded in Russia are indoor sports facilities, which have a number of advantages over open facilities: firstly, it is relative independence from climatic conditions, secondly, the possibility of using the most complex and modern technical means, and, thirdly, the possibility more flexible and efficient use through transformations (Fig. 1).

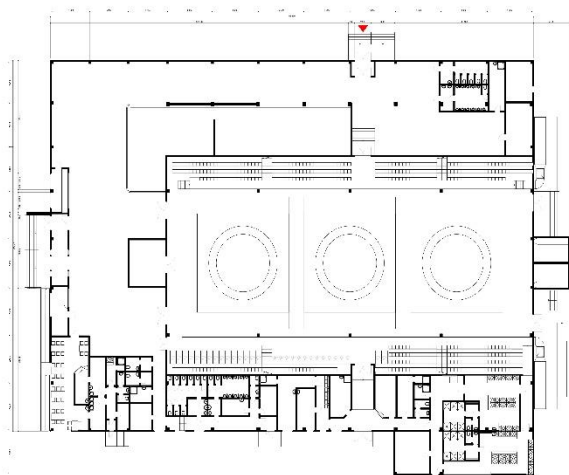


Fig. 1. *The project of the multifunctional sports complex "Poddubny-Arena" in Yeysk.*

Due to the fact that servicing the population of cities involves a stepped hierarchy of sports facilities, it is possible to distinguish groups of facilities according to urban planning:

- citywide sports facilities;
- interdistrict sports facilities;
- district sports facilities;
- neighborhood sports facilities.

In addition, there are sports facilities of industrial, suburban and green areas.

At the same time, it should be noted completely new directions in the development of the urban development theme of the formation of multifunctional sports complexes. The first is related to the inclusion of a sports facility in the structure of polyfunctional public facilities.(Fig. 2).



Fig. 2. *Multifunctional sports complex.*

Polyfunctional public complexes are a relatively new phenomenon for the Russian market, although these objects are very popular in the world. The multi-functionality of the facility allows solving several problems in one place, which contributes to the growth of the popularity of the complex among the target audience. Profitability increases due to the synergistic effect that occurs due to the mixing of areas for different purposes.

Conclusion. As a result of my work, I found out that sports facilities are a constantly changing system, inextricably linked with the development of society. Social changes taking place in society bring to life new types and forms of sports, recreation and leisure activities. There has been a clear integration of cultural and sports activities with an increase in the share of active leisure. Various groups of the population are involved in classes, various forms of family leisure are developing, the importance of information classes and communication, mass events is increasing. Parallel to this, elite sport is also developing, which puts forward new levels of requirements for physical culture and sports facilities.

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