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Medeu sports complex: A representation of the image philosophy in Kazakhstan

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Abstract

This paper has an objective to reveal and analyze the stages of development of Medeu sports complex. Medeu is a high-mountain skating rink located in Almaty, Kazakhstan, East Asia. It is a venue for worldwide international competitions in ice-skating. The article studies the impact of different time periods on the stadium functioning, its history of changes. The problems that occurred during the operation of sports complex, as well as future prospects for its functioning are observed. In order to implement the specified objective, various methods and principles of research study were applied.

Keywords: Sports stadium, Katsev, Almaty architecture, Interior design.

Complejo deportivo Medeu: una representación de la filosofía de la imagen en Kazajstán

Resumen

Este artículo tiene el objetivo de revelar y analizar las etapas de desarrollo del complejo deportivo Medeu. Medeu es una pista de patinaje de alta montaña ubicada en Almaty, Kazajstán, Asia Oriental. Es un lugar para competiciones internacionales mundiales de patinaje sobre hielo. El artículo estudia el impacto de diferentes períodos de tiempo en el funcionamiento del estadio, su historia de cambios. Se observan los problemas que ocurrieron durante la operación del complejo deportivo, así como las perspectivas futuras para su funcionamiento. Para implementar el objetivo especificado, se aplicaron varios métodos y principios de estudio de investigación.

Palabras clave: Estadio deportivo, Katsev, Arquitectura de Almaty, Diseño de interiores.

1. INTRODUCTION

Cultural and entertainment architectural structures are objects that carry the artistic meanings of the historical era. Similar to a time machine, architectural objects are able to transfer the viewer to another world of beauty and convey past cultural values. Currently, the key task on the agenda is to preserve the cultural and entertainment monuments of past years. It is important that they not only have initial functional value, but also include modern trends in the design of internal spatial solutions of cultural and entertainment facilities.

The category of entertainment buildings includes concert halls, theaters, museums, cinemas and sports stadiums. The concept of

“entertainment” defines social and cultural significance. In the article by A. A. DAVYVOD (2014) the concept of “entertainment” is explained through the study of the very concept of “entertainment” and its origin. Using the example of this article, it is possible to state that sporting events and competitions laid the beginning for this definition in the cultural society of antiquity. From the above it follows that the stadiums in ancient times already had a cultural and entertainment purpose. They became social objects and could exert a psychological, political and cultural-educational influence.

At the beginning of the 21st century, sport performs a wide range of social tasks around the world, such as improving the health of the population, distracting young people from the negative impact of the peers, meeting the demand for entertainment events, forming patriotism and moral education of the individual, gaining multi-dimensionality and leaving no one indifferent. In the existing sports terminology, such concepts as mass and professional sports (high-performance sports) have been established. Thus, amateur sports offer opportunities for millions of people to improve their physical abilities, strengthen and restore health, resist the harmful effects of industrial production and solve the problems of everyday life (SHUMEYKO et al., 2017).

The development of physical culture, the appearance of various games and wrestling in everyday life necessitated the construction of special structures, and new structures, in turn, had an impact on the progress of sports and physical culture (SHIPILOV, 2009). The most

important condition for the construction of new and reconstruction of existing sports facilities is the possibility of their multifaceted functioning after major sports events. One of the directions of development of sports facilities is the construction of multifunctional sports and training complexes. Combining different functions (sports and training, cultural and entertainment) in a single construction is the most significant topic in modern architecture (FEDOROVA, 2012).

The progress of construction engineering, the invention and use of new materials for construction has led (as it was in ancient times) to many changes in sports facilities, which mainly affected the forms of indoor structures, as well as the design of special components, such as towers for diving. In terms of functionality, modern indoor sports facilities have mostly retained features common with ancient structures. For example, the system of ancient Greek sports facilities, especially of the Hellenistic period, is very similar to modern sports facilities (KARATAEV et al., 2014).

The technology of implementation of sports events and the need for universalization of structures lead to the appearance of stadiums with transforming elements. Over the past decades, much has changed in the field of architecture, new technologies and materials in construction have appeared. The structure of the building has become more sophisticated in functional zoning. The wide variety of sports held in one stadium makes them even more effective. If until the mid-twentieth century stadiums were designed based on the requirements imposed only on a particular sport (similar in size and venues), today stadiums are built with complex and expensive structures so that arenas can be transformed for different

sports (using technical means to implement the transformation and ensure the cost-effective operation of a complex and expensive structure). Reducing or increasing the space, the ability to move along its axis both vertically and horizontally, the ability to turn over – all this allows optimizing the use of sports facilities (FEDOROVA, O. V. 2012).

Nowadays, as a result of the invention of new technologies, there is a rapid change in the needs that determine the use of sports buildings and structures by people. There is a need to design architectural objects that are capable of certain transformations. Modern sports facilities are characterized by alternating purely sports and sports and entertainment events, which requires providing comfortable conditions for these events, taking into account environmental, seasonal and climatic influences. In recent years, especially abroad, stadiums are mostly built with complex and expensive structures, so that arenas can be transformed for different sports – using technical means to implement the transformation and ensure cost-effective operation of the structure. It should be noted that the adaptability of a sports facility becomes an integral part of the modern architecture of sports facilities (YANKOVSKAYA, & FEDOROVA, 2013).

Advanced trends in sports engineering (PIMENOVA, & SHUMEYKO, 2016) determine the desire to bring the levels of objects for professional and amateur sports closer together, up to combining them into complexes. Against this background, the elements of maintenance, management and engineering support require special attention. The most likely solution to this problem is the building of multifunctional sports centers that fully meet the needs of professional and amateur athletes, and

will be attractive not only for athletes, but also for everyone who wants to take advantage of the opportunities of various public, leisure, recreation and entertainment complexes (SHUMEYKO et al., 2017).

Due to the huge number of sports, there are also many requirements and standards for sports facilities. It is necessary to take into account not only the norms of architectural structures and climatic conditions, but also the harmonious combination of the structure with the general, previously created environment, which contributes to the development of culture not only in sports, but also in society. Moreover, it is extremely important to take into account the beneficial effect of the atmosphere inside the building and impression it produces on athletes and spectators. In the correct interaction of all factors lies the significance of architectural creativity and philosophy for such a multifaceted area as sports (SUDAKOVA et al., 2018).

Sports events have always required specially equipped venues for their performance. Previously, such places served as large arenas and amphitheatres, such as the Colosseum. They were built in such a way that from any place in the amphitheater you could see what was happening in the arena, and had mostly an elliptical shape. Nowadays, such arenas are replaced by stadiums. The rapid development of sports has also inspired architects. This has had a positive effect on the shape and design of stadiums. A huge number of innovations in the construction of sports facilities were introduced only in the last few decades of rapid development of sports (DRUCHININA, 2017).

The structure of any modern sports facility includes basic, auxiliary, technical, economic, administrative rooms and components for spectators (BURLAKOV, & NEMINUSHCHIY, 1997). The main structures are the center part of sports facilities and are intended for the implementation of sports and training, recreational and competitive activities. Auxiliary sections, that is, changing rooms, wardrobes, showers, restrooms, instructor offices, buffets are designed to serve athletes and ensure the operation of the sports complex. Sections for spectators consist of stands located near the main element, and additional compartments for spectators. In turn, the main structures are divided into open air, and indoor ones (SHUMEYKO et al., 2017).

As was noted in the work by BELONOSOV (2009), in relation to the urban environment, the maximum involvement of natural elements creates a favorable background for the entire system as a whole. The components of the garden and park environment in all their diversity (landscaping, winter gardens, decorative fountains and pools, hardscape elements, etc.) not only complement the aesthetic and visual comfort, but also actively participate in maintaining a favorable microclimate in all objects of the system. This subsystem also has a predominant influence on the architectural formation of natural sports complexes, such as winter and summer sports centers (alpine skiing, skiing and biathlon, auto- and motocross races, racetracks, golf, etc.). A separate issue of feedback between the sports environment subsystem and the nature subsystem is the environmental issue of exploitation of natural resources, landscape objects and territories.

2. METHODOLOGY

As the paper aims to reveal and analyze the stages of development of Medeu sports complex, various methods and principles of research study were required. The historical method made it possible to assess the development the Medeu sports complex. The principle of scientific justification made it possible to reveal the justified steps of the process of development of the sports complex as an important part of the promotion of healthy lifestyle and sports in the Republic of Kazakhstan. The historical-comparative and problem-chronological methods as well as general scientific methods of induction and deduction enabled to study the historical phenomena underlying the development of Medeu sports complex. The study is drawn upon various works and articles related to the architecture and in particular to the architecture of sports facility itself (VOSTROVA, 2012; AYDARBEBKOV, 2018; KOZLOV, 2015, “The history of the Medeu rink,” 2015).

3. RESULTS and DISCUSSION

3.1. The Past (1850-1991)

The name of the skating rink has a peculiar significance in the history of the development of the city of Verny, now Almaty. It was named after outstanding figure of the Maloalmatinskaya district – Medeu Pusurmanov (1850-1908). On the site where the Medeu hotel was built, there were several houses of Medeu Pusurmanov. He was a

proactive man and admired the nature, creating numerous gardens and encouraging people to improve and green the city. Medeu Pusurmanov was characterized by kindness and generosity and to this day it is reflected in the image of the city of Almaty (Fig. 2).

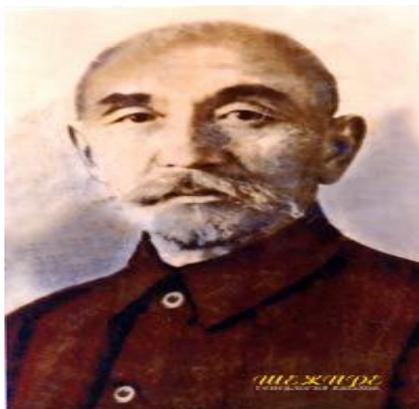


Figure 2: The portrait of Medeu Pusurmanov

After Medeu's death, the Forest school (Lesnaya shkola) was located in his house. In 1920, the military commissioner of Semirechye (Zhetysu region) Dmitry Furmanov issued a resolution on the construction of a koumiss resort in the building of the Forest school, which opened ten years later (Fig. 3). In 1949, this area was chosen for the construction of a skating rink for training Soviet skaters. At an altitude of 1691 meters above sea level, the rink had no architectural structures, but was popular among fans of winter sports and worked in this way for 19 years.



Figure 3: Koumiss resort in Medeu mountain area (1929-1930)

The basis for the construction of the Medeu complex was the development of sports games of States. The first thing that the designers paid attention to was the weather conditions in the high-altitude area of Medeu, which allowed to preserve the ice rink in its natural environment. A special feature of obtaining ice was the quality of mountain river water of Malaya Almatinka, which provided a high sliding speed. The area of the artificial ice field is 10500 m². Due to its popularity among domestic and foreign skating enthusiasts and professionals, the Medeu skating rink attracted the interest of the USSR Government.

In January 1970, the Presidium of the Council of Ministers of the USSR adopted a Resolution on the construction of an artificial skating track in the Medeu area. The project was so large-scaled that even correspondent posts of the newspapers “Sovetsky sport”, “Komsomolskaya Pravda”, “Alma-Ata” were to report from the scene

of events. The work on creating a skating rink in Medeu was regularly covered in the newspapers “Pravda”, “Izvestia”, “Kazakhstan Pravda” and other publications.

The author of the project was academician of the International Academy of Architecture of the East, honorary Professor of Kazakh Leading Academy of Architecture and Civil Engineering Vladimir Katsev (1929-2013) (Fig. 4). He used to approach design of any building in a creative manner, because he considered architecture a real art. It was important for him that the artistic image of an architectural building is a part of the environment in which it exists.



Figure 4: Vladimir Katsev, 1957

Vladimir Katsev told in one of his interviews:

The news spread around the world that the Soviet Union is planning to build a unique high-altitude ice rink. The prestige of the State was at stake. To be honest, I was very worried, I

didn't get enough sleep, and my appetite was completely gone. But I did not give up and believed in my strength. I am proud that numerous records have been set at the Medeu rink (BRUSILOVSKAYA, 2014).

At the time when the current Medeu site was just a skating rink, he saw a composition of mountain ranges and a dam that linked two mountains and could become an element of the architectural solution of the facade of the complex. To use the idea of including the natural landscape would be the most correct solution, so that the architectural project could merge into a single whole with the beauty of mountain nature.

All the landscape conditions were taken into account, and this is reflected in the fact that the western, southern and eastern stands were installed at different points of support having the equal size at the same time. This technique allowed the stadium to fit seamlessly into the mountain terrain and show the skill and professional design of the architects. Following the traditions of stadium construction and the landscape possibilities of the mountainous area, the architects tried to recreate the sports complex taking into account the historical experience.

The main material for the project was concrete, and the seismic peculiarity of the region made its own adjustments – the construction was monolithic, with a stable façade (Fig. 5). The project itself has a horseshoe shape, which was chosen purposefully. Based on the research of D. V. Kozlov in the article “The Origin of the Shape of the

Greek Stadium”, the horseshoe shape is associated with various phenomena: the natural landscape, rituals, theater architecture, and action, this shape refers to the symbolic form of the Greek stadium.



Figure 5: The façade of the Medeu sports complex (2019)

The outer walls of the stand have emphasized relief divisions and very simple, but strong and expressive plastics in its cross-section, which undoubtedly characterizes brutalism. Reinforced concrete structures made it easy and practical. Along the stands in the exterior, emphasizing the horizontal line and combining several windows, wooden boards were used, and create a warm color scheme and bring the concrete structures closer to the natural environment. Thanks to the wooden cladding, the project does not look excessively massive and creates an atmosphere of comfort.

The main facade has a wide and extensive multi-tiered ramp, extending towards the main entrance to the rink, giving a monumental

and dynamic tone to the overall composition. The line of ramp is continued by a staircase made of red granite, much narrower in width than the ramp. On its opposite side, there is another staircase located almost symmetrically. This arrangement of stairs follows the lines of two mountain ranges in the general landscape, they end at the line where the skating rink is located, and in order not to lose this emphasis, and the architects repeat the movement of the lines in the position of the stairs directed to the eastern and western gates.

The wall, which is adjacent to the stairs, is faced with large granite rustication and resembles the flat line of the dam, located behind the complex. The exterior of the facade wall is completed by a 260-m² stand decorated with a relief panel with two competing skaters moving towards the entrance door, as if inviting the viewer to join them. The authors of the bas-relief are the artists Ya. Nimets and V. Konstantinov. In order to further enhance the monumentality, Katsev made one of the pillars of the lighting masts, so that it began to play the role of a tower in the composition with the inscription “Medeu”. The edge of the pavilion wall between the panel moved to the right and the tower on the left is filled with flagpoles: the flying flags added a dynamic element to the architecture, as well as the figures of people ascending the stairs (BRONOVITSKAYA, 2018).

This decoration was different from the dictated standards and transformed the project into a monumental artistic image. The ramp is also actively used as a canopy, which used to encompass souvenir shops, ticket offices and sports equipment rental. The stadium stands

are divided into two tiers, only the north stand consists of one tier. They are divided into 23 sectors and were originally designed for 10500 spectators, but due to reconstruction in 2004, this number was narrowed down to 8100 seats for spectators.

In the lower and Middle Western part of the stand, there is a fitness center and a hotel with 480 seats for guests and athletes. At the top of the stand there are seats for guests of honor. A separate entrance becomes a continuation of the northern part of the stand, where the administrative complex is located. Unlike the west stand, where the ice field coincides with the level of the ground floor of stands, in the east stand the ice field level corresponds to the fourth floor of stands, which have six entrances to the ice field. This level contains locker rooms for four hockey teams, a hall for athletes, buffets, and all the rooms of the judging panel (NAZAROV, 2014).

The ice arena consists of three tracks with a width of 5 m and the middle part of the field. Each track has its own sports functional purpose, for example, two outer tracks are intended for speed skating competitions, as well as speedway on ice. The third track is designed for warm-ups, and in the center of the 112 x 70 m field, games of ball hockey and figure skating hold place. The Medeu high-altitude skating rink has become a favorite place among international athletes and the way they speak of it explains the main advantages of the rink. Yevgeny Grishin, the Honored Master of Sports and four-time champion, say the following: “If there’s a skating paradise on earth, it is the Medeu. I have run on all the famous ice rinks in the world: in

America, in Europe, in Asia. I set records in Squaw Valley, Cortina d'Ampezzo, Davos, on "Bishlete" and I can assure: Medeu is the best of all rinks.

Konstantin Kudryavtsev, the Honored Master of Sports and Merited Coach of the USSR, the senior coach of the national team of speed skating, states the following:

- Just as two decades ago, Medeu will help speed skating to reach the forefront in the shortest possible time. Fred Anton Maier, the Olympic Champion, World Champion (Norway), gives the following appraisal: "Medeu is priceless. It is the best I have ever seen, and I have experience with the most famous ice rinks on all continents. The complex included the Medeu hotel, which was later demolished to build a new one, but this never happened. The hotel project consisted of three independent pavilions of different numbers of storeys, with a spatial solution in the form of a trefoil. They would have different functional purposes (Fig. 6).

4. CONCLUSION

The article comprehensively examined the history of development of the Medeu sports complex as a cultural and entertainment architectural structures in terms of the last carrying the artistic meanings of the historical era. The article stressed that the key task is to preserve the cultural and entertainment monuments of past

years. It is important that they not only have initial functional value, but also include modern trends in the design of internal spatial solutions of cultural and entertainment facilities. The Medeu sports complex annually attracts numerous tourists and welcomes worldwide famous and beginning athletes and sports professionals to set new records and showcase their talent while enjoying the breathtaking view of the mountain ranges of Zailiyskiy Alatau. The article disclosed the deep cultural importance of the Medeu stadium and highlighted the importance of preserving of such cultural heritage and its further development in order to promote the sports and cultural activity in the country.

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