

«Сейфуллин оқулары – 12: Ғылым жолындағы жастар-болашақтың инновациялық әлеуеті» атты Республикалық ғылыми-теориялық конференция материалдары = Материалы Республиканской научно-теоретической конференции «Сейфуллинские чтения-12: Молодежь в науке - инновационный потенциал будущего" . – 2016. – Т.1, ч.3 – С.253-255

EXPO 2017 IN ASTANA – “GREEN” TECHNOLOGY AND FUTURE ARCHITECTURE

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“The whole world had chosen - Astana! Therefore, holding EXPO-2017 - is at the same time huge responsibility to the whole world in Kazakhstan. We have only few years to spend a lot of preparatory work - build exhibition center, build new hotels, roads, develop the transport, to ensure readiness to receive guests. The scale of the task is grandiose”[1]. Kazakhstan does not remain aloof from global trends in the development of architecture. Two years later, the country conducts international exhibition Astana EXPO-2017 dedicated to the future of energy. But in the beginning I still like to make a small excursion into history of the new capital.

Actual construction of a new ultra-modern city - it is an effective political gesture, claiming about Kazakhstan in the international arena as a strong, a rapidly developing country. Since independence the city had changed several times not only its name but also its image. Within a short period since the end of the 1990s the city was rebuilt a number of existing buildings that have received a new, modern look. Buildings Presidential Palace and Parliament (Mazhilis) are the first examples of the new Kazakh State architecture. These buildings are converted and reconstructed objects that existed in Soviet times. Here architecture It becomes a direct metaphor for the first stage of the formation of the country's independence – again decorated facades and interiors of the reconstruction of the official buildings Soviet institutions represent a kind of symbol of the power of continuity in Kazakhstan. So, in Astana "state style" in architecture was the leading post-Soviet Kazakhstan construction.[2]

To date, the capital of Kazakhstan is a huge construction site. Nowhere else in Central Asia is not modern architecture presented in this volume in Astana. The changing nature of modern Kazakhstan architecture compared to the previous period (including typological and compositional and artistic aspects of design specifics of the case) is best It is seen in the premiere of the new architecture of the Kazakh capital. The ongoing change of the architectural paradigm also recorded most clearly in Astana - a result of the grandiose scale of construction in its start viewed the contours of a new architecture not only Kazakhstani, and may be Post-Soviet architecture in general.[3] From the first changes to the structure of the city in the middle fifties of the twentieth century., is made in line with the Soviet urban planning concepts to understand the problems of the XXI century architecture. -

All of this can be seen in architectural appearance of the new capital of Kazakhstan. The city is the formation of significant architectural ensembles - embankment on the right bank of the Ishim complex public institutions on the left shore, the complex of the new airport, a new architectural look got old.[4]

Huge volumes of construction and the appearance of new buildings are striking, but still more amazes and inspires new urban planning concept of development of the city, proposed by the Japanese architect K. Kurokawa. In implementing his ideas in Astana We faced two urban concept - "metabolic", proposed by K.Kurokawa and traditional embedded in the old general city development plan. K. Kurokawa abandoned rigid planning decisions. He identified only location of government buildings. Everything else - the city communications, network, system of recycling, residential education - must form according to metabolic developed their strategy, which considers life cycles artificial formations like biological organisms. It has completed planning forms. He laid in the project further trends growth as a system that can respond flexibly to changes. According to K. Kurokawa city's ability to organic development - this is the main town planning figure for the beginning of the XXI century. By 2030, Astana, according to architect, may be one of the most modern cities in the world with a population of 800,000 people. Ishim River is located in the heart of the city.[5]

Going back to main idea I'd start with this: before the authors, of Expo 17 project, a task arose - to create a sketch that will meet modern innovative technologies. At the same time one of the criteria is to display the main idea of the EXPO 2017 in Astana - the future Energy. In an embodiment of the fairgrounds will be used "green" technology. I found this to be a project that best fit under the overall design of the city of Astana. It is also important to work after the construction of the Expo. It's subsequent use. In anticipation of this great event, I would like to highlight three very interesting project. Which is represents only as a grand design in the form of sketches blueprints and schemes in the hands of the builder and engineers.

The first one is Manfredi Nicoletti project. "Zhelgyl" tower, in the title of which joined the Kazakh word Zhel (wind) and Gyl (flower), symbolizes the birth of a new city of EXPO 2017. The central building of the tower is covered with white glass, passing in clear glass near the functional areas. The area of the vertical axis will have a hole to reduce the effects of wind. These holes will be located wind turbines that will transform the tower "Zhelgyl" into a huge wind farm (the plant), capable of producing about 1,500 MW of electricity Astana force winds. In addition, the tower has a functional value and will serve as a viewing platform.[6]



Second is Saken Narynov's project. Exhibition Complex is called the "Temple of the Sun and the Wind", and consists of pavilions 'Sun' and the Tower of "Wind". Conceptually, the project is an exhibition pavilion in the form of six-rayed sun with a central tower, the seventh ray and EXPO-town with a body of water in the form of a crescent moon. As you know, sun - the most important component of many natural processes that depend on it all life on planet Earth. And one of the types of renewable energy of the future is the use of solar radiation.[6]



The last but not least project from the representative of the company-participant - Pedro Veiga de Macedo. Pedro Veiga de Macedo is a representative of the company Saraiva + Associados in Kazakhstan. This international organization is represented in countries such as Brazil, Colombia, Portugal, Algeria, Kazakhstan, China, Singapore and others. At the moment, the company is located in Kazakhstan for 2 years and EXPO - one of their most important projects. Saraiva + Associados project is an exhibition center with a radial system. Compliance with the green axis and the axis of the Nazarbayev University. Architectural artistic image - a modern, minimalist, restrained. Use of Science and Technology Park after exhibition period. Multi-useable building.[6]



Objects of the exhibition area will be the example of the introduction of alternative energy sources and energy efficiency. One of the key aspects in the creation is use of facilities after the EXPO in Astana. The complex will serve the residents of the capital for many years, and will become a cultural object after all. I hope that all the facilities built for the EXPO 2017 will be of high quality and progressive design.

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