



"SAMARKAND ASTANA (AIRPORT) WHICH HARMONIZES THE PAST AND THE FUTURE"

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Annotation: *The article focuses on the use of antisupermatism (abandonment of the matchbox) in the design of modern buildings in order to further develop and shape today's architecture. Principles of design of architectural complexes using nanotechnological products with the use of unusual products on the example of the new airport building in Samarkand illuminated.*

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Despite the fact that the term nanotechnology has been introduced to science for half a century, it has made great progress. Nanotechnology is a complex of methods and methods used in the study, development and use of structures and systems made of very small elements with a size of 1 to 100 nanometers, aimed at creating products and objects with completely new chemical, physical and biological properties and qualities. Today, the development of nanotechnology is causing great changes in human development. Because they are expanding the natural capabilities of people. Scientists define high indicators in the fields of development of nanotechnology around the world as 2015-2050. So the future offers a new life controlled on the basis of nanorobots, such robots have the ability to create new robots from themselves, and humanity will carry out its activities with the help of these robots. With the help of nanotechnologies, it is possible to protect architectural objects from viruses, protect the environment and use natural resources. These are energy-efficient coatings and nanoproducts used in the facility. The development of nanotechnology will fundamentally change the life of mankind and serve its future. Nanotechnologies make it possible to create cheap and high-quality products in any sector of the national economy. With their help, we can save time, spend less, and have a lot of material wealth and pleasures.

Nanotechnology has the potential to throw off modern technology as we know it. This means that the adoption of modern technologies without nanotechnology can somehow provide fifty years of development. The development of nanotechnologies in the 21st century is determined by the emergence of new highly durable and, at the same time, light nanomaterials.

At present, nanotechnology is more widely applied in military affairs, electronics, biology, medicine, energy, environmental protection, and material science. But a promising field of nanotechnology use includes architecture and construction. Currently, nanocomposites, nanocoatings, steel cables, mesh structures, nanowires,



cement, ceramics, metal alloys, plastics, varnishes and many other materials with excellent properties are being developed using nanotechnology.

The projects and structures created on the basis of these nanoproducts are very different from modern materials due to their indefinite service, high strength, energy efficiency, self-control and, most importantly, ecological cleanliness. Although such projects are currently being created only in foreign countries, it has been achieved that they will also be created in Uzbekistan.



On March 18, 2022, the new terminal of Samarkand International Airport was opened. Our president of additional terminal design Sh. M. Based on Mirziyoev's requirements, it was necessary to embody the integrity and synthesis of past and future architecture. The designer (Turkey's cyclops campaign) first deeply studied the scientific development of the era of Mirzo Ulugbek, and based on this, the building of the terminal was built in the form of an open book, which became the symbol of the great scientist Mirzo Ulugbek's masterpiece "Zizhi Jadidi Koragoniy".

Nationality, science and modernity are perfectly combined in the building. Science, which is the basis of our nation, is shown in the design of the building in the form of a book, and you can see a beautiful example of the location of the stars on the roof of the building, which on the one hand indicates that Mirzo Ulugbek was a great astronomer, and on the other hand, defines the aesthetics of the building at a higher level. Such harmony can only be designed and created on the basis of nanoparticles. The construction works were carried out by the contractor "Enterengineering" based on the architectural solution created by the Turkish design and engineering company "Kiklop", and the management of the airport was entrusted to the foreign company "Air Marakanda". The airfield was equipped with modern radar and lighting. As a result, the lights of the airport were visible in the sky from a distance of 50 km. This is an opportunity available in very few airports in the world. Nanoparticles on the roof of the building also collect solar energy during the day and provide electricity to the entire building.

Nanotechnology remote sensing of the physical and physical condition of a person and moving structures based on it are installed in all input-output parts of the complex. This is such an experience for Uzbekistan that not only a new airport was built here - although this is also a rare phenomenon for Uzbekistan, using the experience of countries based on market principles in attracting investment for development.



The main goal of the creation of this airport is to provide services to passengers at European and world standards. Ensuring that those flying in and out have all the world-class amenities and have a peaceful time. The latest technologies are used in the terminal building. Nanotechnologies are used in the luggage system and check-in system. This new building will be an important transport node serving to further improve the tourism industry in Uzbekistan.

In conclusion, it can be said that nanomaterials are widely used not only in other fields, but also in the field of architecture and construction, and this process brings the memory-artistic styles and volumetric spatial images of the 21st century architecture to realities rich in aesthetic qualities and makes unprecedented new evolutionary turns in architecture.

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