

## EVALUATION BODY-SPATIAL PARAMETERS OF UNDERGROUND OBJECTS

**Y. Alekseev**

Search urban resources and effective methods of construction associated with spatial organization, providing intensification of use of the urban area and compensating the deficit. Such territorially-building resources (TBR) are elevated territory (ET), objects in natural underground space (the «Underground Area»), open spaces between houses in the existing buildings (potential territorial resource – PTR), which represent a significant spatial reserve for the implementation of urban planning. Presents the layout of the TBR and its implementation in the existing buildings; schemes to three-dimensional solutions of underground premises, buildings, structures and density the interaction of ground and underground buildings; the mathematical expressions for calculating areas of land and underground buildings, the land area required for construction, the required area of land, volume of underground premises, buildings, constructions.

**Keywords:** Underground facilities, buildings, structures, multi-building resource, an underground urbanistica, the density of underground construction.

## ARCHITECTURAL AND ARTISTIC EDUCATIONAL SPACE OF THE FUTURE

**N. Metlenkov, E. Koneva**

Ways of developing an education, including architectural, are defined by today's transformations in this field both meaningful and formal transformations. Meaningful transformations are conformed the idea of Russian integration into the European education area. Formal transformations are based on the idea of bipolar structure: "centralization" and "decentralization" of educational field as well as higher architectural education.

**Keywords:** educational field, architectural education, meaningful transformations, formal transformations, centralization of education, decentralization of education.

## THE REGULARITIES OF EVOLUTIONARY DEVELOPMENT OF THE BELGOROD REGIONAL SETTLEMENT SYSTEM

**M. Perkova**

The study examines the regional settlement system in the aspect of the interaction between Economics, sociology, geography, urban planning and development control system territory. A dedicated subsystem of the regional system of settlement (natural and historical-cultural frame, transport, economy, population). The dynamics of the historical development of the subsystems and their interaction are considered on the example of Belgorod region, which is a regional settlement system. Was the calculate and display trajectories of the evolution of the subject of the Russian Federation – Belgorod region and formulated regularities and dependencies of its development. By comparing the rate of change of indicators of the number and diversity found that the trajectory of evolutionary development of spatial, social and economic characteristics of the phase transition from quantitative transformation to a phase of structural change.

**Keywords:** regional system of settling, a natural frame, the socio-economic frame, the spatial characteristics, the trajectory of evolution.

## THE ARCHITECTURAL CONCEPT OF THE MEMORIAL TEMPLE IN THE ANCIENT MOSCOW MONASTERY

**S. Ilvitskaya, D. Ilvitskii**

The article is devoted to traditions of the Russian monastic architecture and carrying out open architectural competition on the concept of the new temple of New martyrs and Confessors Russian in the Moscow Sretensky monastery. Orthodox monastic ensembles and temples are keepers of spiritual and historical memory of a place and at the same time art and cultural heritage of the country and the people. The architectural concept of the project of the memorial temple which won competition is opened.

**Keywords:** traditions of the Russian monastic architecture, open architectural competition, concept of new Temple–Monument.

## "IRKUTSK SLOBODA" / 130 QUARTER FIFTH YEAR OF OPERATION

**M. Markuscha**

Describes a rare for Russian experience of the revival of historical environment – implemented project regeneration wooden buildings in Irkutsk, which combined: restoration, reconstruction, regeneration, recovery of historic buildings, new construction, including underground systems engineering equipment and territory etc.

**Keywords:** regeneration, environmental, historical buildings, wooden architecture.

## PARADIGM PARAMETERS OF ARCHITECTURE OF POSTINDUSTRIAL SOCIETY

**R. Shangareev, N. Metlenkov**

The article is devoted to paradigm parameters of architecture of postindustrial society in the postmodern period, which were identified through comparative analyze with paradigm parameters of architecture and culture of industrial society in modernism.

**Keywords:** Industrial society. Postindustrial society. Modernism. Postmodern. Personification. Decentralization. Complexity. Self-development.

## **PROJECT CONCEPT FOR FORMATION OF THE STRUCTURE OF SPECIAL ISLAND SETTLEMENTS IN THE RUSSIAN ARCTIC**

**I. Sarkisova, T. Sarvut**

The article analyzes methods for typological structuring of special island settlements within the waters of the Russian Arctic, which is aimed to ensure required comfort and safety of living, working conditions for an industry, development of transportation system and information support.

**Keywords:** sustainable development of the Russian Federation Arctic zone assimilation; innovation principles for shaping the list of autonomous settlements objects; modular cell as an element of creation of blocks of various purposes objects (residential, public, technical, etc); system of actions to ensure safety of living and work of settlement's population; identification and utilization of alternative energy resources in particular climate conditions of the Russian Arctic.

## **MODERN STATES AND PROBLEMS OF STUDYING THE CONTEMPORARY ARCHITECTURE OF RUSSIA**

**I. Tarasova A. Svets**

The modern period of architecture development is presented on material of numerous scientific periodicals. There is a number of problems which influence possibility of formation of general idea about process of modern architecture of Russia. In this regard need in systematization and the data of the accumulated knowledge is represented to one of the main objectives in the course of studying of the latest domestic architecture. The sequence of studying of texts about modern architecture of Russia is offered in the paper. Stages of publications studying include the analysis of texts of scientific publications, professional periodicals and electronic resources in Internet's network.

**Keywords:** modern architecture, professional periodicals, scientific publications, problems of domestic architecture.

## **AUTONOMOUS POWER SUPPLY FOR REMOTE SETTLEMENTS UNDER FAR NORTH AND ANTARCTICA ON THE BASIS OF SOLAR AND WIND POWER PLANTS**

**R. Romancow**

A study was conducted of Russian and foreign experience in the application of solar and wind energy systems for power supply of settlements, buildings and complexes independent of the centralized power grid and located in remote areas prone to extreme climatic conditions of the polar regions. Considered methods of placement of systems of accumulation of energy in structure of buildings, and also possibility of application of polymeric covers as solar power elements. The goal was to establish the potential use of wind and solar energy systems for provide complete energy autonomy of small settlements in the Arctic and Antarctic

**Keywords:** autonomous power supply systems, solar power, wind turbines, housing for the North, Antarctic stations.

## **Kokorina E. V. «Architectural drawing as integral to the creative ability of language for professional communication: monograph»**

The monograph is devoted to one of actual problems of modern education in the field of architecture – modelling of the regularities in the creative process through the submission of architectural drawing as an integral of the creative ability of the language of professional communication. In the study the author offers a scientific approach to the study of process design and simulation at the stage of creative search. The text is accompanied by a large number of schemes, author models and drawings. It is intended for specialists in the field of architecture, educators, architects, graduate students, master students and undergraduate architectural specialties.

## **INDUSTRIAL CITY OF TONY GARNIER. CITY CENTRE AND INDUSTRIAL COMPLEX**

**Y. Denisova**

The author undertakes an integrated analysis of project of Industrial City (Tony Garnier). The topic is considered with respect to artistic, stylistic, town-planning, scientific aspects. It is doing a focus on rationale of project, amenities and characteristics of methods of planning stage design.

**Keywords:** Industrial City, Tony Garnier, pioneer, town planning, amenity, space, project.

**№10(214) 2015**

## **INTERPRETATION OF SOCIAL INTERESTS AND ORDER FOR URBAN DEVELOPMENT: CHARTER OF PUBLIC SPACE**

**Iouri MOISSEEV**

By considering the provisions of the «Charter of public spaces» that are dealing with formation and use of public spaces, along with the tasks of management and reorganization, this article deals with the social interests and order of urban development and the role that the planning system plays for its implementation. The issues that the «Charter of public space» raised are of great importance for improving the whole mechanism of the «production of public spaces».

**Keywords:** Charter of public space, urban planning analysis, theory of urban planning, urban policy, the management of urban development, public interest and social order in urban development

## **SYMBIOTIC REGENERATION OF ARCHITECTURE OF THE SAMARA VOLGA REGION**

**T.Vavilonskaya**

The article defines a criteria for defining the concept of "architectural-historical environment." The author proposes a new scientific direction - "symbiotic regeneration." Under symbiotic regeneration meant the sustainable development of architectural and historical environment, taking into account the objective and the mental picture of value, suggesting a correspondence her identity, preservation and restoration of its integrity, including by means of renovation. On the example of the Samara Volga region revealed the composition and content of the author's methodology of preservation and renovation of architectural and historical environment, considered as an effective tool for regeneration symbiotic. The author proposed a system of universals, enabling the identification of Architecture of the Samara Volga region at the regional, city, district. The author argues that the problem of preserving the integrity of the environment caused by irrelevant ratio objective and the mental (conscious) picture value.

**Keywords:** architectural and historical environment, symbiotic regeneration strategy and the priority vector of development, identification system, objective and mental value.

## **THE EVOLUTION OF ARCHITECTURAL MODERNISM**

**A. Skizhali-Veis**

The article discusses the evolution of modern architecture "Modernism", which began with the release of the first "Manifesto of futurist architecture" in 1914 until the architectural trends of the early XXI century "Eco-bio-tech". The study shows that the emergence and change of all architectural styles and trends happened simultaneously and sequentially, thanks to scientific discoveries and technological breakthroughs of a dynamic modern society.

**Keywords:** Scientific and technical progress; evolution; manifest; architectural theory; modern architecture; architectural styles; famous architects; Modernism; Futurism; Futurology; Constructivism; Functionalism; High-tech; Postmodernism; Metabolism; Bio-tech; Eco-tech.

## **PRINCIPLES OF FORMATION THE ARCHITECTURAL AND PLANNING ORGANIZATION MEMORIAL COMPLEXES**

**A.Sokolova**

The architectural environment formed for memorial complexes allows to promote the solution of several tasks: formation of modern infrastructure this objects, ensuring researches, consolidations of civil society. The purpose of work is development of the system of the quantitative and quality indicators characterizing the principles of formation architectural environments of memorial complexes.

**Keywords:** memorial complex, architectural environment, principles of formation, architectural and planning organization, system approach.

## **FOLLOWING TRADITION, BUT WITHOUT COPYISM.**

On the reconstruction of the mooring area on the Island of Kizhi

**M.Gurari**

The balance between modern wooden architecture and traditional folk architecture has become highly relevant in the recent years as the result of the wood construction development.

The article analyzes the wooden constructions of the passengers pier zone of Kizhi Island, demonstrates the architectural space-planning decisions of the wooden constructions, designed in traditional but not imitative manner, that helps to link new constructions and traditional folk architecture.

**Keywords:** reconstructed complex, cafe, shed frame, glazing, dead pine "Kelo" and traditional folk architecture.

## **ARCHITECTURAL LIGHTING OF THE PRE-REVOLUTIONARY FACTORIES IN MOSCOW**

**L.O. Titova**

Architectural evening lighting plays a huge role in the perception of the city at night. Despite the fact that nowadays a lot of attention is given to this issue in Moscow, some historic buildings remain without attention. Thus, the industrial heritage in the form of pre-revolutionary manufactures and factories represents itself as dark spots on the map of the modern city. The cultural landscape that has such a bright "face" during the day disappears after the sunset.

**Key words:** architectural lighting, industrial heritage, pre-revolutionary factories, the spirit of place, Genius loci, cultural landscape, industrial tourism.

**№9(213) 2015**

## **THE CONCEPT OF ECOLOGICAL EDUCATION ARCHITECTURAL UNIVERSITY**

**G. Esaulov, N. Blagovica**

The article deals with the current situation of ecological aspects in students» projects. Several areas of cooperation are offered with other environmentally oriented courses: engineering courses, building construction, building materials, with the aim of full integration, starting with the 3d year and towards the final graduate design. Architectural design is seen as a research laboratory oriented towards enriching the concept of sustainable development. The concept developed in MArchI is based on the «System of

indicators for the design and evaluation of graduation projects for the degree of baccalaureate, master's or specialist's, positioned on the object of sustainable architecture and on sustainability criteria of habitat in the system of «Green building» (a rating of students' projects).

**Keywords:** ecological aspect, ecologically oriented courses, engineering, building construction and materials, integration.

## **ADDITIONAL ROLE OF ARCHITECTURE AND ART EDUCATION IN ARCHITECTURE AND THE FATE OF RUSSIAN ARCHITECTS**

### **I. Topchii**

The article analyzes the development trend of continuous architectural and artistic education in Russian schools of architecture and their role in the professional career of outstanding architects. It is concluded that in the period of planned economy from Russian architects and urban planners was formed a false idea that the initiative of the professional development of specialists coming from employers.

**Keywords:** architecture, the architect's professional development, continuing education.

## **STALIN'S HIGH-RISES: EPOCH SYMBOL AND OUR HERITAGE**

### **N. Shashkova**

The author undertakes an integrated analysis of one of the most debatable projects of the national architecture – Stalin's high-rise construction. The topic is considered with respect to artistic, stylistic, town-planning, scientific and economic aspects. The paper highlights the problems of current state and maintenance of Stalin's high-rise buildings as heritage objects.

**Keywords:** Stalin's architecture, high-rise buildings, cultural heritage.

## **THE PROBLEM OF INTRODUCING PARAMETRISM INTO ARCHITECTURAL DESIGN**

### **S. Stsesel**

The article addresses the main problems related to the implementation of architectural practice of one of the most active trends in commutative design called parametrisation. An analysis of the negative tendencies in the projects of modern architects who are developing this trend is carried out. The article argues for the fruitlessness of the attempts of adjustment of some theoretical positions offered by the parametrisation ideologists in real design work. At the same time the doubtless benefits which parametrisation offers and possible prospects of its future development are emphasized. The author believes that professional requirements must be changed for specialists who work in this method which features significant complexity of design methods. The article develops the position according to which the parametrisation is to consider as a method, rather as the architectural style.

**Keywords:** architectural design, parametrisation, architectural design, parametrisation, parametricist manifesto.

## **№8(212) 2015**

## **ARCHITECTURAL DESIGN OF SCIENCE-TECHNOLOGICAL BUILDINGS & COMPLEXES DEDICATED TO INNOVATION WORKS IN FOREIGN COUNTRIES. SOUTH KOREA**

### **I.V.Dianova-Klokov D.A.Metanyev D.A. Khrustalev**

In the article some specific examples of science\technology buildings dedicated to innovation works (a main type of construction in university campuses, technoparks, innovative clusters) are reviewed. 15 buildings (and their complexes) erected and proposed in the South Korea are described and illustrated. Intended for scientists, architects, students and teachers of the Architectural Schools.

**Keywords:** Innovations, science\technology buildings & complexes, multi-tenant buildings, science/business hotels, sustainable architecture

## **ARCHITECTURE AND TOWN PLANNING FEATURES LATEST, INNOVATIVE INFRASTRUCTURE ARISING IN MONO (ON THE EXAMPLE OF THE CITY TOGLIATTI IN THE SAMARA REGION)**

### **E.A. Akhmedova M.V. Solodilov**

The article examines the international experience of architectural and urban unit of special zones, areas and facilities aimed at modernizing the major industrial centers and is considered domestic practice of building special economic zones and industrial parks on the example of the city of Togliatti.

**Keywords:** technology park, technology development zone, special economic zone, innovation infrastructure, industry town

## **PRINCIPLES OF DEVELOPMENT, FOCUSED ON THE MASS TRANSPORT, IN PLANNING FOREIGN HUBS**

### **D.N. Vlasov**

The article overviews the using way of Transit Oriented Development (TOD) principles in transport planning designs on real foreign examples. On the basis of analysis of modern literature sources the author determines main TOD conditions. The analysis of concrete planning designs provides the evaluating of all advantages and disadvantages, as the result were introduced motions how to use them in transport planning documentation during the design process of key elements of transport structure - public transport transit hubs.

**Keywords:** transport transit hub, sustainability, Transit Oriented Development (TOD), public transport, passenger.

## **APPROACH TO URBAN PLANNING OF THE COAL BASIN**

**Yu. A. Alekseyev N.A. Samoylova**

Proposed accounting the specific features of coal basin and the scheme of compromise the interests participants of urban planning and compromise opportunities areas. Generalize and systematize the state of the problem of urban planning in the coal basin Kuzbass. Justified conditions, factors and procedures for the formation in the form of administrative-territorial formations of the urban planning of coal mining. An algorithm for determining the border urban planning of coal mining.

**Keywords:** urban planning, the formation of the subject of urban planning, the formation of the urban boundaries project, the border urban planning of coal mining.

**№7(211) 2015**

## **THE FORMATION OF THE SPATIAL STRUCTURE OF VOLGA EMBANKMENTS (on the example of Nizhny Novgorod and Samara)**

**A.L. Gelfond E.A. Akhmedova**

The article examines the architectural processes of formation of public spaces of the Volga embankments. The features and patterns of their architectural and urban development are analyzed on the example of two of the largest Volga cities – Nizhny Novgorod and Samara. Analyzing cultural landscapes of the Volga basin, identifying their common and specific features, the authors examine the embankments from several positions: as the main facade riverine cities, as a border territory between the natural and built environment, as ensembles of multi-temporal land, as a space of communication and social activity. The latter position is more in detail described in the article in the context of the integrated urban planning, landscape and historical-cultural analysis as well as analysis of current projects for the development of riverine areas as a potential public spaces. The article is illustrated with author photos.

**Keywords:** public spaces, promenades, architecturally-town-planning formation.

## **SUSTAINABLE ARCHITECTURE AND SPACE FOR INNOVATION WORK**

**I.V. Dianova-Klokov D.A. Metanyev**

The article is devoted to problems of sustainable development and certification of office and science-research buildings dedicated to innovation works in aspects of the “Sustainable Architecture” and “Passive Energy Design”. Some examples of sustainable buildings erected in Russia and foreign countries are described and illustrated. Intended for scientists, architects, students and teachers of the Architectural Schools.

**Keywords:** sustainable architecture, innovation science research, certification, passive energy design, efficiency.

## **INCUBATORS AS AN IMPORTANT COMPONENT OF THE INNOVATION INFRASTRUCTURE**

**D.A. Khrustalev**

The article describes entrepreneur start-up buildings in the aspect of innovation infrastructure development. Some examples from worldwide practice are shown. The necessary architectural features for that type of buildings are named and represented. Intended for scientists, architects, students and teachers of the Architectural Schools.

**Keywords:** innovations, science\technology multi-tenant buildings, incubators, architectural design.

**№6(210) 2015**

## **THE CONCEPT OF THE DEVELOPMENT OF MOSCOW CONURBATION COMPETITION AND ITS INFLUENCE ON THE MOSCOW TERRITORIAL PLANNING**

**S.B. Tkachenko**

This article discusses and systematizes the main project ideas developed in 2012 in the framework of the international competition for the Concept of the development of the Moscow Agglomeration. The author's assessment of the impact of the competition on the urban policies of the city and the formation of the territorial planning documents was made. Results of the competition had a significant influence on the ideology of the spatial development of Moscow, but the urban ideas of the strategic bank is not claimed in full, due to the lack of a systematic approach in the management of the town-planning development.

**Keywords:** urban planning, town-planning, competition, general plan, Moscow Agglomeration, Big Moscow

## **THREE HEROES IN RED SQUARE. THE PROJECT OF THE COMPLEX OF BUILDINGS OF THE PEOPLE'S COMMISSARIAT FOR HEAVY PRESENTED I. LEONIDOV FOR THE CONTEST 1934**

**M.N. Gurari**

Analyse the similarity between the composition of the NARCOMTYAZHPROM complex (the Building of the People's Commissariat for Heavy Industry, 1934) by Ivan Leonidov and the patterns of the natural and urban landscape of historical Moscow. The author finds an analogy with the compositional structure of the famous

icon of the Trinity by Andrei Rublev; identifying common semantic symbols of NARCOMTYAZHPROM as an institution for defense, shield, he offers concrete symbolic description for each of the complex' towers.

**Keywords:** Ivan Leonidov, NARCOMTYAZHPROM complex, towers, urban patterns similarity, three-dimensional structural similarity (voluminosity), semantic similarity, composition, Trinity, unity, shield.

## **COLOURS OF THE CITY. THEORY AND PRACTICE**

**A.V. Efimov N.G. Panova**

At present, the consideration of the subject relevant to refer to the problems and prospects of development of the recommendations of color formation of the urban environment. The authors reviewed the content and sequence analysis of the main stages of the formation of color design of the city. The article highlights the importance of polychromy, as a factor in the formation of color identity of the city, the analysis of features of colors in the built environment. The factors affecting the color image of the city: climatic conditions, historical architectural polychromy, space-planning features, color culture, design tools.

**Keywords:** architectural environment, volume-spatial form, color, coloring, language, culture, architect-designer, formation.

## **ARCHITECTURE AS A LIVING ORGANISM**

**D.A. Smirnov**

This article is a review that talks about a number of modern architectural trends and technologies of building, to which you can apply the concept of «living architecture». Still here are examples of interdisciplinary collaboration of architects and designers with experts noncontiguous areas of science, with a description of their joint projects.

**Keywords:** arbor-architecture, smart materials, 4D print, protocell.

**№5(209) 2015**

## **S.V. KAPACHINSKY: FROM FOLLOWING THE CREATIVE METHOD OF A.S. NIKOLSKY TO THE PROFESSIONAL SUCCESS**

**N.S. Saprykina**

Creative method of S.V. Kapachinsky, who was the famous Yaroslavl architect, was formed during his studies at Leningrad Civil Engineer Institute. There he was guided by A.S. Nikolsky, an outstanding architect of the Soviet Union. The article includes an analysis of student works and contest works made by S.V. Kapachinsky during his studies at the Institute under the guidance of A.S. Nikolsky. These works were created at the studio of A.S. Nikolsky, where S.V. Kapachinsky was studying the basis of architecture and working on his scientific and experimental projects.

**Keywords:** S.V. Kapachinsky, A.S. Nikolsky, architecture, architect, creative method, architectural idea, architectural design, student and contest works, scientific and experimental projects, professional skill, 1920 years.

## **SOCIAL AND TOWN-PLANNING ORGANIZATION OF CHILDREN'S HABILITATION CENTERS AT THE RESORT-RECREATIONAL AREA (ON THE EXAMPLE OF INTERNATIONAL CHILDREN'S CENTER ARTEK)**

**A.M. Bazilevich N.V. Kasper**

The article proposes an integrated approach to the formation of recreational areas, recovery, areas for health improvement, additional education for a ll children, regardless of their health status (except dangerous to others). Authors examined in detail the specific requirements to create a functionally complete, safe, comfortable, barrier-free architecture and town-planning environment for group of children up to 7 years with disabilities, who need habilitation. At the conceptual level, authors suggest directions to improve social and town-planning conditions of large recreational facility to solve tolerance problems and create equal opportunity for all people. Also they prove the need to within the ICC «Artek» independent zones - «Alternative Borough» («AB») with the habilitation center. At the town-planning level, location a nd functional planning scheme of «AB» a re offered using the author's method of modulating relief in defining the limits and planning area. The article specifies rules of the calculation of medical, psychological, educational, social, creative branches for children with disabilities and their required areas. At the architectural level, the article presented a variant of project proposal of the comprehensive care center for disabled children with habilitation center, with the necessary typological elements, scale, children's activities, their psychological features, natural environment and the architectural tradition of Artek.

**Keywords:** children with disabilities, accessible environment, recreational facility, children's habilitation center, ICC Artek, the principles of placement of service facilities, zoning, planning and development of the territories, the module of natural space.

## **THE PECULIARITIES OF TOURIST SERVICES OBJECT DESIGN IN THE HISTORIC ENVIRONMENT OF CENTRAL ASIA**

**D.M. Bayramova**

Article is dedicated to the design features of tourist complexes in the historical district and dry hot climate conditions on the example of diploma project "Cultural and touristic complex, city of Merv, Turkmenistan." Actuality of the theme underlined by the wide potential of development of the tourism industry in Central Asia with the unique natural resources, ethnic features, archaeological sites. The purpose of the article is

searching for new forms of human acquaintance with culture – archaeological values, human communion to the historical monuments of the past. Scientific novelty of the research is to develop scientifically grounded recommendations for designing of tourist facilities in the climatic conditions of Turkmenistan that improve the socioeconomic efficiency of buildings and tourist complexes in the region.

**Keywords:** cultural and touristic complex, Central Asia, climate, tourism, hotel, archaeological sites.

## **THE PRINCIPLES OF DESIGN OF BUILDINGS WITH PASSIVE SYSTEM OF SOLAR HEATING FOR CONDITIONS OF UZBEKISTAN**

**M.M. Zakhidov**

Article is devoted to the principles of design of buildings with passive system of solar heating which differs from design of usual houses radically. In helio houses power efficiency of solar heating is in direct dependence on the space-planning building, thereby the architect plays a key role in the rational solution of solar heating. The factors influencing the spaceplanning solution of the building with solar power supply and its placement in the territory of a site are revealed. As optimization of architectural and constructive decisions on ensuring necessary thermal stability of the building and cut in expenditure of energy on heating, reduction of heat receipts in the building during the summer period, the Requirement to the planning scheme on optimization of technology of passive solar heating and town-planning requirements to design of a rural housing estate with solar houses.

**Keywords:** energy saving, solar heating, architecture, passive system of solar heating, the solar house.

**№4(208) 2015**

## **THE FAR NORTH – ARCHITECTURE – ARCHITECTS**

**K.A. Lytkin**

This article presents findings from what we believe to be the architecture of the Far North. It gives a retrospective and contemporary view of Yakut architecture peculiarities and tells about the architects, the creators of this architecture. The logical structure of the report is built with the desire to generalize local research issues into a single storyline. The article outlines the historical and contemporary development of Yakutsk, the capital of our republic. It gives information about life and work of the northern architects. There has been a limited research of architectural and urban aspects of the Far North modern architecture and its role in the socio-economic development of the Republic Sakha.

**Keywords:** the Far North, historical and architectural aspects, northern architects, contemporary architects of the Republic Sakha (Yakutia).

## **THE HORSESHOE-SHAPED STADIUM IN THE SPORTS ARCHITECTURE OF THE TWENTIETH CENTURY**

**D.V. Kozlov**

The article is devoted to the problem of horseshoe-shape Greece stadium revival in XX cen. This is a special branch in a sport architecture which is characterized as the traditionalism. Horseshoe-shape stadium took its place in USA, North Europe, Germany and USSR. This is the area of Greece model distribution.

**Keywords:** sport Architecture, Stadium, Heritage of Antiquity, Horseshoe-shape Stadium.

## **TYPES OF INTERACTION OF ARCHITECTURAL AND WATER OBJECTS. SYSTEMATIC APPROACH**

**E.S. Bakushkina**

The results of the development of the systematization of different types of the interaction between water and architecture have been presented in this article. Categorized by Aron Betski, four fundamental characteristics of water element presented in architecture, are provided. These characteristics have been included into the developed general systematization. There are three approaches lying in the foundation of this systematization: functional, contextual and conceptual.

**Keywords:** environmental approach, architectural space, water element, interaction between water and architecture, scenario decisions.

## **THE MODERN CONCEPT OF MEMORIAL RECONSTRUCTION IN CHURCH ARCHITECTURE**

**P.V. Sergeev**

The article is devoted to the author's project of a memorial reconstruction of the biblical and historical complex. The basis of design based on the idea of development of temple architecture in the context of Bible stories (Noah's Ark, the Tabernacle, Solomon's temple, the Church of the Holy sepulchre, St. Sophia Cathedral, etc.). The spatial and temporal nature of perception architectural and artistic composition reconstructed temples, monuments presented in the form of virtual reality (VR objects, VR-panoramas) and computer animation.

**Keywords:** modern concept, memorial bible and historical complex, Noah's Ark, Skiniya, temple of Solomon, Church of the Holy Sepulcher, St. Sophia Cathedral, «space-time» composition, objects of virtual reality (VR-object, VR-panorama), computer Animation.

## **THE ROLE OF ARCHITECTURE IN THE DESIGN ENERGY EFFICIENT BUILDINGS WITH SOLAR HEATING**

**M.M. Zakhidov**

The article is devoted to the architectural use of radiant energy of the Sun for heating buildings in Uzbekistan. Based on the positive results of the pilot studies dealt with questions about the role of architecture in the development of energy-efficient and feasible projects of houses with passive solar heating system economically. The main feature of solar homes need to improve heat insulation in building and using from the battery heat to stabilize temperature discontinuous solar heating. In designing energy-efficient buildings with passive solar heating system energy-saving role is determinant of architectural solutions. In rural houses, thanks to special architectural and planning solutions to efficient use of solar energy, energy consumption for heating is reduced more than 5 times on 3-th level of thermal protection, and 10 times concerning a base version of the project.

**Keywords:** energy saving, solar heating, architecture, passive solar heating system, solar home.

**№3(207) 2015**

### **THE CLASSICAL ARCHITECTURE IN THE SUSTAINABLE FORM. INTERPRETATION IN THE CONTEXT OF GLOBALIZATION AND DIGITAL CULTURE**

**D.O. Shvidkovskiy Yu.E. Revzina**

The future architecture is hardly thinkable without sustainability — the quality that means tolerance to nature and history, to the beauty of the world in its diversity and maximum saving of resources and space. The sustainable architecture of tomorrow has much to borrowed from the classic architectural method. The basic theses of the paper are: 1) the ideas implied by the sustainability concept, were well known in the past and constitute sum and substance of the architectural classics; 2) these ideas should be interpreted in the terms corresponding to the age of globalization, multiculturalism and digital culture; 3) interpreted this way the classical ideas lay down the targets of the future sustainable development of architecture.

**Keywords:** classics, Sustainable Architecture, History, Ecology, the Origin of Building, Contemporary Art, multiculturalism, biogenesis, anthropogenesis.

### **BIOLOGICAL AND ECOLOGICAL AND ECONOMIC ASSESSMENT METHODS FOR CREATING LAWNS IN SETTLEMENTS**

#### **YUZHNOURALSKAYA NATURAL ZONE**

**E.Yu. Gerasimova I.C. Protsenko**

This paper presents comparative characteristics of methods of creating a lawn used in the planting practice of Orenburg. A detailed description of each method. represented by biological and ecological assessment of the viability and effectiveness of ways to create different types of lawns. The positive and negative aspects of each species are given recommendations for their creation.

**Keywords:** lawn grass, seeding, viability sample plots, effective, seeds, survival, decorativeness expenses cultivate.

### **THE ORIGIN OF THE FORM OF THE GREEK STADIUM. TYPOLOGY ENTERTAINMENT FACILITIES, SPORTS ARCHITECTURE**

**D.V. Kozlov**

This article is addressed to the poorly-studied subject of the sport architecture and devoted to the analysis of horseshoe-shaped (U-shaped) stadium. The spectating buildings' typology is designed on the material of plane geometry. What makes a horseshoe shape different from another archaic type - oval amphitheater - is its origin from the natural landscape. From Greek archaic to Roman age, the first stage of development reveals the process of transformation from landscape to architecture. The horseshoe shape demonstrates the stable usage in architecture even during the cultural changes, turning from stadium into hippodrome. In the XXth century the address to the heritage of the ancient spectating construction becomes a bottom line in the architecture of sport development process, while horseshoe shaped stadium appears as an important symbolic form. Its reappearance is related to the Olympic Games, archeological reconstruction of the Panathenaic stadium for the Games of 1896.

**Keywords:** sport Architecture, Stadium, Antiquity, Olympic Games, Horseshoe-shape Stadium

### **VIRTUAL RECONSTRUCTION OF THE TEMPLE OF CHRIST THE SAVIOR ON THE PROJECT A. WITHBURGH**

**P.V. Sergeev**

The proposed article is devoted to computer reconstruction of the Temple of Christ the Savior, the project A. Withburgh. The article reveals the ideological conception of the architectural and artistic composition of the Church with regard to its perception in the context of worship. Virtual reconstruction of the memorial cycle of wall paintings opens up new possibilities for the analysis of the architecture of this monument is subject to "space-time" nature of the construction of its artistic composition .

**Keywords:** computer reconstruction, memorial cycle, preliminary design, the Cathedral of Christ the Savior, a virtual reconstruction

### **CREATIVE SEARCH - KEY ELEMENT OF ARCHITECTURAL DESIGNING**

**I.S. Sarkisova**

The article reveals importance of creative search for the process of future objects' designing, of ways to graphically accommodate a concept, of the author's unique vision, of objects' composition structure and their inclusion into the town-planning process.



**Keywords:** individuality, scientific thinking, search of the idea, visual revelation of the concept, klauzura.

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## **URBAN PREREQUISITES FOR THE FORMATION OF REGIONAL CLUSTERS IN THE MIDDLE VOLGA REGION ON THE EXAMPLE OF SAMARA REGION**

**E.A. Akhmedova A.V. Zhogoleva**

This article research the processes of clustering of industry and economy in the conditions of agglomerating urbanized territories regions, identifies conditions and stage of development of regional clusters.

**Keywords:** industrial areas, the globalization of the economy, post-industrial economy, industrial clusters, innovation clusters, the Middle Volga Region, Samara-Togliatti agglomeration, urban background, clustering.

## **THE REDUCING OF THE NEGATIVE IMPACTS ON ECOSYSTEMS DUE TO THE CERTIFICATION OF "GREEN" STANDARDS**

**O.E. Astafieva I.Yu.Potapova**

Nowadays the construction industry has a significant negative impact on the environment and the existing legislation and regulations are insufficient to control and reduce the damage caused by the industry ecosystem, which requires new approaches to environmental protection. One of such approaches is the focus on ecological construction, in particular for the construction of environmentally sustainable buildings based on environmental certification, to minimize the negative impact on the ecosystem, not only throughout the life cycle of the building, but also includes the stages of design, construction, operation and demolition. This article discusses the standards applied by focusing on green building and effective tools for reducing human impact on ecosystems, and the need of the application and improvement of national environmental standards.

**Keywords:** ecological certification, green standards, green building, LEED, BREEAM, ecosystems, anthropogenic impact, environment.

## **CHIEF ARCHITECT OF THE CITY OF YAROSLAVL. ARALOV VSEVOLOD SEMENOVICH**

**N.S. Saprykina**

The article provides a brief biography of the city's main architect of Yaroslavl , a graduate of the Moscow Institute of Architecture and Construction. Much attention is paid to the professional development of Aralova, showing his complex and multifaceted career . For the first time are previously unknown facts about the life and project construction architect.

**Keywords:** the city's main architect, architecture, urban planning, the Union of Soviet Architects.

## **PRINCIPLES OF FORMATION OF MODERN ARCHITECTURE WINERIES TO THE SOUTH OF RUSSIA**

**A.V. Timofeev**

Article generalizes conclusion of research of domestic and foreign experience of designing of the wine-making industry facilities. Development of the wine-making industry of the South of Russia is considered, relevance of address to this subject locates. The main tendencies and stages of evolution of architecture of wineries are considered. Classification of the facilities by the main characteristics is this: on output, urban planning placement, master plan features, types of buildings, number of stores, use of underground space, development of non-productive functions. Architectural typology of contemporary wineries are considered. Typical design and technological features are specified. The general characteristic of architectural appearance of contemporary wineries and its interrelation with a corporate style are considered. Experience of application of technologies of passive design in contemporary wineries is considered.

**Keywords:** contemporary wineries, classification of the wine-making facilities, typology of the wine-making facilities, principles of forming of industrial architecture.

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## **THE ACCOUNTING OF MAJOR FACTORS OF INFLUENCE AT DESIGN OF AQUAPOLIS. INNOVATIVE ARCHITECTURAL SOLUTIONS**

**A.V. Gureev**

Now the process of an increase in population of the planet which is followed by sharp decrease in quantity and the area of the places suitable for its activity became more active. Along with it, the current level of activity of the population continues to worsen an ecological situation and to reduce the level of a stock of non-renewable resources on the planet. One of the directions of practical activities is development and design on water open spaces of the World Ocean of places of moving of inhabitants of densely populated regions of the planet and places of production of biological and other, useful types of resources. The purpose of work is the analysis of major factors of influence on adoption of design decisions for aquapolis the innovative solutions intended for the solution of this problems.

**Keywords:** aquapolis, ecological situation, World Ocean, useful resources, major factors of influence, water resources, Russian Arctic zone, oil producing complexes in the Barents Sea.

## **THE FORMATION OF THE ILLUMINATION OBJECT BY THE EXAMPLE OF BRAND BUILDING "URAL MOUNTAINS" IN THE CITY OF PERM**

**A.I. Gladkih K.V. Sergeeva N.B. Kuryakova T.U. Zapolsky**

Perm can be called the cultural capital of the Urals. Nevertheless, Russia's largest cities attract the younger generation to a greater extent, many dwellers tend to change their place of residence. The authors believe that the creation of a recognizable branding facility would provide the initial impetus to create a comfortable and modern environment. The authors reviewed the architectural lighting as a tool for branding.

**Keywords:** branding, architectural lighting, accent lighting, media facades.

**"THE METHOD OF LOGICAL TECTONICS" I. C. ZHOLTOVSKY AND PROSPECTS MOUNTING OF CULTURE. CONTEST 1953 FOR THE DESIGN OF FACADES LARGE-PANEL RESIDENTIAL BUILDINGS. 60 YEARS LATER**

**Yu.P. Volchok**

The article demonstrates that the participants of the Large-Panel House Facades Contest in 1953 perceived it as one of "ordinary" and not even first steps along the way of industrial housing construction development. By that date it had the history of its own, and professionals of the industry believed they can forecast the trends of its distribution throughout the country. It is evident even today that most of the colleagues who took part in the contest did not understand the technological strategy implemented in the projects presented by I.V. Zholtovskiy's workshop. This is why it is still impossible to implement modern capacities of the assembling culture in Russian architecture and urban planning to the full extent.

**Keywords:** contest, open joints between panels, industrial house construction, artistic device, method, tectonics.

**COLOUR CULTURE OF THE ARCHITECT. THE EVOLUTION OF COLOR PREFERENCES IN ARCHITECTURE**

**A.V. Efimov N.G. Panova**

The article considers the factors influencing the generation and spread of coloristic culture, boundaries and the interaction between its components. We investigate the nature and the structure of coloristic culture of the architect. We investigate the evolution of color as an important component of a composite mastery, allowing to use it for developing significant architectural forms.

**Keywords:** architectural environment, three-dimensional form, color, coloring, symbolism, language, culture.