

Scientific articles implemented in 2018-2023 (by years)

1) **T. Chigogidze.**

The modern paradigm of designing perspective green construction in Tbilisi;

2018 (8-9), Problems of Architecture and Urban Planning today; Scientific and Technical Magazine, Technical University, Tbilisi; ISSN 2233-3266.

Annotation: The urgency of the issues of green construction undoubtedly. We discuss this problem in a syncretic aspect characteristic of architecture, since the main objective of architecture is the qualitative improvement of real estate i.e., quality management. In general, our area of interest is one of the four components of real estate - an accentuated study of perennial green spaces.

Obligatory criteria that must be taken into account: ethical, legal, technical, economic, environmental and aesthetic in the development of real estate, development, transactions, etc. are tools for regulation and production and creative activities. The design, including the photorealistic implementation of green building, should be based on a catalog of perennial green plantations announced by the Municipality.

2) **M.Gambarashvili (Gagadze);**

"Use of environmentally friendly, natural materials in architecture";

2018 Technical University of Georgia _ Open International Scientific Conference "Collection of Theses";

Annotation: In 1993, the "Declaration for a Sustainable Future" was adopted at the International Congress of Architects, where the essence of sustainable architecture is established. main components, including the use of environmentally friendly building materials. The report describes the characteristics of environmentally friendly building materials and discusses their properties, as well as examples of their use in buildings.

3) **M.Melkadze;**

The academic space of architecture - the phenomenon of thinking personification;

Publishing House "Technical University", Tbilisi, Scientific and technical magazine " Problems of architecture and urban planning today"; 2018; ISSN 2233-3266.

Annotation: The aim of the report is: • To implement fixing of two spaces of architectural activity: creative – practical and the academiccreative conceptual points and to solve phenomenon of their interaction. • To find out the place of architectural scientific base in academic space of architectural learning, which will give us an opportunity to evaluate phenomenon of talent and experience of creator-personality with scientific instrumentalities. • The anatomy of the creative process. The cornerstone of our teaching method is: the analysis of the conceptual side of architectural thinking and its disintegration into cognitive vectors of the creative part of architectural work. –word and meaning - text and line, formation of thinking as a philosophical-poetic text-essay -and hereafter - essay - text - in installation, which represents a spatial projection of meaning – which is our method and resulted searching space. Talent can not be measured, but it is possible to put the young man right on the road by scientific analysis of pragmatic side of architectural creativity.

4) **Berekashvili K.**

Composite connections of Tbilisi natural-cultural landscape

Publishing House "Technical University", Tbilisi, Scientific and technical magazine " Problems of architecture and urban planning today"; 2018; ISSN 2233-3266.

Annotation: Natural characteristics cultural landscapes flora, topographic and geologic structure of the city are more important than often urban architectural design that's why in the time of designing the architectural ensemble's demanded in detail study landscape situation its element of visual character and completely inclusion in the townscape context and in urban architectural design.

5) **Beridze L.**

Tbilisi Future: Sustainable Development or Crisis ?

Publishing House "Technical University", Tbilisi, Scientific and technical magazine " Problems of architecture and urban planning today"; 2018; ISSN 2233-3266.

Annotation: There is discussed that the difficulty in urban development in Tbilisi is to say the crisis situation and the steps taken to take this negative process to the sustainable development. Tbilisi's problems are closely linked to the general situation in the architectural-building sector. There is analyzed the situation in detail and offered recommendations to improve the situation.

6) **M.Javakhishvili, B.Tinikashvili;**

Learning of Urban Problems Using International Experience in Educational and Scientific Institutions (On the example of 1997-2002 Avlabari student competition);

October 3 Tbilisi 2018; the First International scientific-practical Conference Proceedings.

Annotation: The report discusses the bioclimatic architecture principles in folk architecture, in the works of F. L Wright, Louis Kahn, L Helpin (beginning of the twentieth century) and also in the works of modern architects who have implemented new technologies The planning methodology defines bioclimatic approach as a basic criterion for house design. The place, environment and orientation determines how to provide better protection and better use of natural conditions (sun energy, wind and heat sources). To confirm the foregoing this article presents examples of foreign architecture - modern bioclimatic houses which use high technologies and are based on the ecological principles.

7) **M. Davitaia,**

„Code of Nationality (Countrywide) in Georgian Contemporary Architecture“,

Gtu Architecture, Urbanism and Design Faculty science conference magazin N8,9, ISSN 2233-3266, 2018, p. 52-67

Annotation: Starting from 60s of XX century due to the monotony of modernism it became actual in different countries architecture to find the ways how to keep special and unique achievements and find the ways of further development. Problem of national identity was especially actual for countries with deep and great architectural traditions, which regardless the many obstacles during the process of globalization managed to keep it. What's going on with this in Georgia? During the last years we can see the different approach of Georgian architects: part of them are working to keep national individualism, independent thinking, deeply diving in regional achievements and traditions, when other part of architects are disavowing local traditions, signs and symbols, particular elements or national properties. In this article considered and discussed those architects attitude which are respecting national traditions in architecture and using its codes and signs modern variations in their works.

8) **M. Davitaia, I. Zaridze,**

„The history of Establishment and Development of Ceramic“,

Gtu Architecture, Urbanizm and Design Faculty science conference magazin N8,9, ISSN 2233-3266, 2018, p. 44-52

Annotation: In the issue there are revised the stages of prehistoric period of the ceramic master development. The origin stage of the development of the ornament in the world art and the development of applied art- to the special sphere of the art activity. The technical and technological processes of the production of the first clay work pieces. The history of the development of the pottery in Georgia is revised in –VII-VI centuries B.C. and the ceramics as the artifact is an indicator of the ancient culture and traditions.

9) Dzidziguri M., Meskhi M.

„About one of Tbilisi's urban problems (On the example of Sololaki)“

Modern problems of architecture and urban planning, scientific-technical journal No. 8, 9, 2018, ISSN 2233-3266 Technical University of Georgia, Faculty of Architecture, Urbanism and Design <https://gtu.ge/Arch/Pdf/publications/edition%208,9.pdf>

Annotation: The green spaces in the modern city ecosystem are of great importance as for the development of architectural landscape of the city, either for the development of human communication. Regrettably, due to the rapid growth of unregulated constructions, there is a decrease in the number of places for human relations and greened multifunctional squares. The priority becomes to fill up free space with buildings for developing businesses. This problem is particularly painful in historical areas. In this regard, the article discusses Sololaki's example. Conclusions relate to the analysis of the

research results of the current situation in the district.

10) Maisuradze M., Abashidze T.

“Hybridism - The problem of a modern city, or the best solution for solving problems”

Modern problems of architecture and urban planning“. Scientific and technical Journal № 8,9 Tbilisi 2018; ISSN 2233-3266

Annotation: There is considered the theme "Hybridity", as the city's infrastructure development and its results. On the one hand, "hybridity" in urban environments often creates collage and negative attitudes, and on the other hand, creates structural relationships of interesting forms between objects, something new, solving some global environmental, infrastructure and social problems.

10) M. Maisuradze; G. Lotshvili;

The building code in the USA and parallels with the challenges of the urban processes of the capital of Georgia - Tbilisi.

American Studies Issues #7; Ivane Javakhishvili Tbilisi State University Publishing House; ISSN 1512-1585; Tbilisi 2018.

Annotation: In many of the world's most developed countries, there are some interesting experiences of urban security, buildings and security, and the United States has a special place. The article comprises the analysis and analysis of the specifications of some parts of the buildings-structures legalized in Georgia and the United States. Under market economy conditions For Tbilisi, as the country's capital, the urban experience of US cities includes many interesting and interesting material that allows us to define similarities and differences. Comparison and analyzing some parts of the building-structures codes in the United States and

Georgia, by parallelization, is possible to identify certain characteristics of the similarities and differences in the challenges of the urban processes of Georgia. Analysis gives an opportunity to consider one of the necessary factors for regulating urban processes in Tbilisi, including the study and analysis of individual peculiarities of local space-planning structure and identification and priority of priorities.

12) **Marine Maisuradze, G. Lotishvili;**

Urban challenges, Tbilisi reality and problems.

Modern problems of architecture and urban planning“. Scientific and technical Journal № 8,9 Tbilisi 2018; ISSN 2233-3266

Annotation: The article includes an analysis of some parts of the codes of the building structure legalized in Georgia. In a market economy Using parallels in Tbilisi, examining the individual characteristics and priorities of the spatial planning structure, to identify similarities and differences in the challenges in urban processes in Georgia.

13) **Pailodze N., Abesadze N.**

THE KNITTING OF ORNAMENTS IN KNITWEAR

Norwegian Journal of development of the International Science

ISSN 3453-9875, N20/2018 VOL.I, Iduns gate 4A, 0178, Oslo, Norway, email: publish@njd-iscience.com

site: <http://www.njd-iscience.com>

Annotation: Analyzing the history of folk costume and considering a modern costume, we can conclude that in any modern costume, the features of the people's and national should be manifested. The color solution of the ornament on the surface of the knitted fabric is associated with the structure of the fabric. In work the analysis of knitted weaves is carried out, the use of which enables the production of knitted fabrics with national motives.

14) **Lia Lursmanashvili; Tamila Kudava.; Lia Kapanadze**

Developing new formulas for calculating the area of leather clothing detail and proving its reliability

Proceedings of International Scientific - Practical Conference

“Science and Innovative Technologies” Volume I Akaki tsereteli State University Kutaisi 16 November 2018 .

ISBN 978-9941-484-06-3

ISBN 978-9941-484-05-6

Annotation: For the rational use of leather, it is necessary to accurately determine the area of the main details in order to be able to select the optimal options for the placement of patterns and to minimize waste between

patterns. In order to optimize time, it is advisable to use the area calculation method for each detail of specific products. A woman's coat made of natural leather was selected as the research object.

The calculation formula of the area obtained as a result of the research allows to quickly and accurately determine the area of any size for the details included in the selected model.

15) **M. Maisuradze, Lia Kesanashvili**

Some issues of the formation of the modern trend of the natural landscape in St. in relation to Tbilisi

“Modern problems of architecture and urban planning” N8-9; Tbilisi 2018

ISSN 2233-3266

Annotation: Discusses the formation of the natural landscape surrounding it in relation to the city of Tbilisi and the formation of the spatial-planning structure and architectural appearance with modern reality. How the natural landscape and the special environment of the spatial development of the city determine Tbilisi's historical urban design.

Prospects of using information technology in landscape design.

16) **N. Imnadze, G. Kvitsinashvili**

“Protection cultural heritage and architectural development nearby territoris research on the Example of Ikalto Academy and Grammy Monastery Complexes”

Modern problems of architecture and urban planning“. Scientific and technical Journal № 8,9 Tbilisi 2018; ISSN 2233-3266

Annotation: The aim of this article is tourist architecture research, which was created nearby area Gremi monastery and Ikalto academy in Kakheti region. The topic is relevant, because to Portray the cultural heritage what should be the new architecture for develop and do not Break visualized perception. Today, this issue is importance in terms of globalization to represent identity of the country. The Architecture, spatial-volumetric structure and attitude towards the environment Ikalto and Grammy monasteries is different from each other. Accordingly both of them require individual solutions, It clearly revealed during the reserch. However, in both cases there is a contextual attitude, which gives to architect the creative freedom to preserve the hidden or obvious qualities of the place.

2019 w.

17) **M. Pochkhua, N. Imnadze, O. Mchedlishvili, G. Gabunia.**

Participatory Urban Planning with the Tool of Smart Systems“.

Modern problems of Architecture and Town Planning ,Scientific and Technical, 2019, N11, ISSN 2233-3266.

Annotation: The goal of present article is to research citizens' engagement in urban processes and to develop the right strategy in this regard. The result of scientific work of project team (Faculty of Architecture, Urban Planning and Design, GTU) is given and integrated in three projects:

- Mobile Application;
- Municipal Account;
- Smart Separation System

Results are directed towards the implementation of complex principles of sustainable urban development.

18) **Beridze L.**

Calculation of the geometric coefficient of natural lighting visual-spatial Method,

Modern problems of Architecture and Town Planning ,Scientific and Technical, 2019, N11, ISSN 2233-3266.

Annotation: To properly plan buildings and construction development, it is necessary to have a well-designed system, based on proper regulatory parameters, for calculating natural lighting. Natural lighting of buildings is determined by the particular unit of

measurement, which is called the coefficient of natural lighting (KEO).

To calculate the KEO, it is necessary to first determine the value for geometric coefficient of natural light. For this different methods and graphs are being utilized around the world. The article discusses existing methods used in different countries and analyzes their positive and negative sides.

In Georgia, the visual-spatial graphic method of Professor Levan Beridze is utilized, which is free of any major shortcomings and is able to solve a wide range of tasks.

The article, based on specific example, shows the method of calculating the geometric coefficient of KEO by the visual-spatial method of Levan Beridze.

19) **Kiknadze Z., Maisuradze M., Kesanashvili L.**

Application perspectives information technologies in landscape design.

Modern problems of Architecture and Town Planning ,Scientific and Technical, 2019, N11, ISSN 2233-3266.

Annotation: The development of modern planning methods enables to implement and utilize new technologies and this is expressed through the shift from traditional design to innovative, focused on multimedia modeling; transition from symbolic, emblematic marks, therefore annotative modeling to photorealistic visualization and so-called informative modeling.

20) **Melqadze M.**

“The Missing Phantoms of the Field”;

Modern problems of Architecture and Town Planning ,Scientific and Technical, 2019, N11, ISSN 2233-3266.

Annotation: The purpose of the report is, in terms of existing social and economic situation of our country, to review both architecture as a field in general and city planning as one of the foundational directions for architecture. The difficult social and economic situation, since the beginning of the 90s of the 20th century, left its own mark on our profession and it is especially reflected in the dynamics of city development. In this context the circumstance should be taken into account, that city planning innovations are economically hard to be dealt with not only in our country, but for all countries they were and are one of the main keys for solving economic and social problems, which is economically heavy burden to carry. The evidence of these words will be the description of both, the idea of the New York Civil Center foundation and its further conceptual formulation. According to above said, the given topic will be discussed in report with following subchapters:

1. Preamble - Actuality: there are discussed both the existing social problems of our country and associated human migration fields, including issue of architecture development;
2. Historical excursus: dynamics of city planning ideas' (Paris, New York) in the context of formulating legal documents, among those in architecture;

3. Argument: an idea and a concept, as a role of the unifier in an urban space development and establishment;
4. Conclusion: the function and the role of so-called lawmakers of city planning, as in the minimalization process of important vector of architecture.

21) Chachava N., Lekveishvili N., Lekveishvili M.

“The importance of modern digital technologies in the context of architectural memory”.

Modern problems of Architecture and Town Planning ,Scientific and Technical, 2019, N11, ISSN 2233-3266.

Annotation: The problem and topicality of the issue is the importance of keeping trace of architectural monuments as a cultural and engineering heritage (risk of loss), one of the important means of resolving them is to pinpoint and document them. The advent of digital technologies has created unique opportunities to capture dynamic changes in the timing of monuments, to rank information, to conduct detailed research and to provide three-dimensional structural analysis of the monument. Digital technologies are in the process of development and require sophistication in terms of both usage and information processing. This problem arose when working on large architectural complexes. On the example of Vardzia and Gelati Large Complexes, the methodology of working with large database and working guidelines and data processing recommendations was developed.

22) T. Chanturia

“Architectural features of the XIX century Tbilisi buildings”.

Modern problems of Architecture and Town Planning ,Scientific and Technical, 2019, N11, ISSN 2233-3266.

Annotation: The issues of the architectural evolution of the housing stock of Tbilisi during 5-6 decades of the XIX century are discussed. Also, sequential changes in housing forms, compositions and details, regarded to uniting with Russia (1801) and the social order alteration. It discusses the views on construction dates and architectural characteristics of houses from the old city, the remarks regarding reconstruction and regeneration methods.

23) Bostana Shvili D. Salukvadze T.

About the musicality of different fields of ART

Modern problems of Architecture and Town Planning ,Scientific and Technical, 2019, N11, ISSN 2233-3266.

Resume: This article refers to the musicality of different fields of art, as are: painting, poetry, architecture, sculpture, choreography. Musical art as unifying the essence of each of these fields. Source of beauty and harmony, based on the natural aspiration of art.

24) N. Khvedeliani;

"Rehabilitation issues of the national parks of Georgia";

GTU; Scientific and technical magazine "BUILDING"; # 1(50), 2019; ISSN 1512-3936.

Annotation: The theme aim is to develop the National Parks in Georgia, discuss problems and opportunities for visitor services, creation of organic and architectural objects with nature and natural resources. The ultimate goal is to ensure efficient management of the National Parks and the guaranteed development of local territories.

25) N. Khvedeliani;

"Reconstruction issue of a student dormitory and it's surrounding";

GTU; Scientific and technical magazine "BUILDING"; # 1(50), 2019; ISSN 1512-3936.

Annotation: The aims of this study are renewal student dormitory, adoptions of building for disabled people, using natural resources and the creation of energy efficient residential area. The final goals are an arrangement of local.

26)N.Khvedeliani;

Rehabilitation issues of Tbilisi National Park;

Publishing House "Technical University", Scientific and technical magazine "Modern problems of architecture and urban planning"; # 10, 2019; ISSN 2233-3266.

Annotation: The theme aim is to develop the National Park of Tbilisi, discuss problems and opportunities for visitor services, creation of organic and architectural objects with nature and natural resources. The ultimate goal is to ensure efficient management of the National Park and guarantee local residents.

27) M. Davitaia, I. Zaridze,

„Influence of oriental type tileworks on formation of art and aesthetic views of western European ceramic tiles“,

Gtu Architecture, Urbanizm and Design Faculty science conference magazin N10, 2019, p. 50-58

Annotation:The aim of this article is to provide an outline of the historical developments in the production and use of tiles in Europe, from the medieval origins to the present day. The subject is itself vast but made more so by the fact that it cannot be meaningfully discussed without reference to the history of ceramics, to architecture, to design, and to the panoply of political, cultural, social, economic and scientific forces that shape how and where we live.

28)M. Davitaia,

“National Features of Georgian Architecture in Contemporary Reality”

the International Scientific Conference “Architectural Heritage and Modern Society”, Baku, April, 23-24, 2019, p. 90-101

Annotation: Starting from 60s of XX century due to the monotony of modernizm it bacame actual in different countries architecture to find the ways how to keep cpecial and unic achievments and find the ways of farther development. Problem of national identity was especially actual for countries with deep and great architectural traditions, which regardless the many obstricals during the process of globalization managed to keep it. Whats going on with this in Georgia? During the last years we can see the different approach of Georgian architects: part of them are working to keep national individualism, independent thinking, deeply diving in regional achievements and traditions, when other part of architects are disavowing local traditions, signs and symbols, particular elements or national properties. In this article considered and discussed those architects attitude which are respecting national traditions in architecture and using its codes and signs modern variations in their works.

29)Dzidziguri M., Khundadze E.

“The phantom of the Sydney opera House”

Modern problems of architecture and urban planning, scientific-technical journal No. 10, 2019, ISSN 2233-3266

<https://gtu.ge/Arch/Pdf/publications/jurnali%202019.pdf>

Annotation: In the year 2003, Jorn Utzon received the Pritzker Prize, previously he received the prize of the Royal Institute of British Architecture. It can be said that the world architectural community was late, yet it still “recalled” this recognition to him. However, this was not enough to firmly link the name of Utzon to a specific movement, or more or less influential generalizing practical experience, from an ideological and methodological standpoint. Presumably, the objective reason behind it is the introverted method, which is seen in his later projects. In most of the above projects the author seems to be fascinated by the inner drama of the architectural work, holding his own path and not being disturbed by the necessity for compromise with regard to blinding populism. The nature of the subjective factors does not allow for a definite discussion of this topic, but it’s interesting, that the resonance of the most famous work of Utzon caused a certain reverse effect - distancing by colleagues, because of the pop recognition of this building. This factor very often represents the obstacle for architects in assessing Sydney Opera and the high professional dignity and merit of its author.

30) M. Dzidziguri

“About several units built in the beginning of the second half of the 19th century and the beginning of the 20th century in Tbilisi Botanical Garden”

Modern problems of architecture and urban planning, scientific-technical journal No. 11, 2019, ISSN 2233-3266

<https://gtu.ge/Arch/Pdf/publications/gamocema-%2011.2019.jpg.pdf>

Annotation: In 1899-1917, during the period when Adolf Christian Rolloff was in charge of the Tbilisi Botanical Garden, the garden became a major research center in Caucasus. A lot of units were built on the territory of the garden, including: dwelling houses of workers, the museum, the nursery, the herbarium and other buildings, as well as decorative pools with statues. The article presents an architectural - historical study of the museum and the nursery for the purpose of their reconstruction, on the basis of studying historical materials and assessing their condition during the study, as well as identifying the statues of decorative pools and comparing them with originals according to historical photographic material.

31) Dzidziguri M., Kvachadze N.

„Mosques of Adjara “Jame” as monuments of Georgian wooden architecture“

Modern problems of architecture and urban planning, scientific-technical journal No. 11, 2019, ISSN 2233-3266

<https://gtu.ge/Arch/Pdf/publications/gamocema-%2011.2019.jpg.pdf>

Annotation: The wooden mosques of Adjara are similar to typical houses spread in this region. These unique and important monuments are examples of Georgian wooden carpentry. According to scientific literature, most mosques are built in XIX-XX centuries by local or invited Laz masters. “Jame” with their architectural form and decorative systems clearly demonstrate the complete picture of the continuous development of the Georgian wooden carpentry traditions, which is an interesting example of artistic form’s unique transformation. The fundamental research of the mosques will reveal the strength and firmness of the architectural form or fine arts traditions that are precisely associated with the national origins.

32) Lia Lursmanashvili, Lela Gergeshelidze

Issues of the research of Preconditions for the establishment of the Georgian National upper clothe „Chokha”

International Scientific Conference “Culture and Art in Contemporary Context” Conference materials

Batumi 2019; The Batumi Art State Teaching House, 2019 ISBN 978-9941-9519-0-9 info@batu.edu.ge

Annotation: According to Georgian written sources, the term "Chokha" is met from the 9th century. During the research, as it became clear, the term "Chokha" was used for the upper garment and “Chokha” wool for both monks and nuns from the 9th to the 18th century. Later, particularly in the 18th 19th centuries, it was meant to describe not only the clergy’s garment but also for the secular attire. It is noteworthy, that term “Chokha” was used for both men’s and women’s upper clothes. Research deals with the basic types of both the clergy’s and Georgian national upper clothes - "Chokha", their constructive peculiarities and comparative analysis.

33) Pailodze N., Abesadze N

ANALYSIS OF THE KNITTING KNITWEAR PROCESS BY PRESS NETWORK

Norwegian Journal of development of the International Science

ISSN 3453-9875. N32/2019 VOL.1. Iduns gate 4A, 0178, Oslo, Norway . email: publish@njd-iscience.com

site: <http://www.njd-iscience.com>

Annotation: The process of knitting press- weft weaves knitwear was analyzed. The dependence characterizing the relationship between the threads length in a loop and independent variables was found. There were defined the limits of variation of the tension of the weft and ground threads. The influence of threads length in the loops of the ground and weft yarn on the threads tension of different systems was researched by using of mathematical methods of planning and processing of the experiments results. A lot of mechanisms and facilities of modern technology are used for producing knitting fabrics. The main reason of them is creating certain length of threads in loop. The study of processes of looping and threads properties were held preliminarily.

34) L. Lursmanashvili, N. Dolidze, Q. Cirkadze

SOI: 1.1/TAS DOI: 10.15863/TAS; International Scientific Journal **Theoretical & Applied Science**

p-ISSN: 2308-4944 (print); e-ISSN: 2409-0085 (online) **Year: 2019 Issue: 05 Volume: 73**

Published: 25.05.2019 <http://T-Science.org>

Abstract: The purpose of the study was the detection of violations of posture of children's population of Georgia. To match our purpose an anthropomorphological study of children of primary and secondary school age and adolescents was conducted. Our study revealed that the violations of posture are more frequent in children at age of 6 to 13 years. Timely detection of the problem is of great importance for the prevention of further complications and scoliosis, today’s most common disease in the world. As a result of the study the cases of violations of posture were determined and their quantitative characteristics were identified. Received data suggests the need for a mass anthropomorphological study of the children's population of Georgia. The results of the study will be used to design corrective means in order to eliminate violations of posture.

35) N. Imnadze

Architecture in Tbilisi

“Modern problems of architecture and urban planning“. Scientific and technical Journal №10. Tbilisi 2019; (peg .52-70) ISSN 2233-3266

Annotation: In this work is analyzed the current architectural developments, which is make up the modern city's image, show novelty and the architects spatial attitudes towards the city. The research, which was based on analyzes of existing situation has been established in three fields: Scenario, Transformation and Regionalism.

36). **N. Imnadze, N. Chachava, M.Lekveishvili, N.Lekveishvili**

“Peculiarities of 3D laser scanning and the big data documentation on the example of Vardzia and Gelati Complexes shaping and mural painting”

Materials of the international scientific conference: architectural heritage and modern society. Baku.2019; peg.123-129. ISBN 978-9952-37-229-8

Annotation: The article highlights the problems and priorities of 3D laser scanning method in architectural Heritage Documentation on the examples of Vardzia and Gelati large complexes, their shaping and mural painting analyse. There were presented difficulties for the case of Big Data investigation and special approach for 3D Laser Scanning works. The large architectural and mural painting complexes were investigated by the way of specific, initial environment preparation in each stage of survey - site preparation part, shooting, data survey, modeling, exploring and drawing platform. The article contains the description of data registration strategy in choosing the appropriated registration system and definition of their combination in order to get complete and registered point cloud Data. For this case the methods of cluster and comparative analyze were used. As a result the recommendations for general specifics of big data laser scanning, electronic and digital database, preparation of documentation system and search engine was developed.

2020

37) T. Chigogidze. L.Latsabidze.

Modern church architecture in Georgia;

2020(12), Problems of Architecture and Urban Planning today; Scientific and Technical Magazine, Technical University, Tbilisi; ISSN 2233-3266.

Annotation: The article briefly discusses the main trends, problems and attempts to solve them in modern Christian architecture, in Georgia and in the Orthodox world as a whole. The emphasis is on the essence of Christian church architecture itself and on traditions that fully determine its specificity. In the article discusses the design of the Church of the Holy Trinity in Tbilisi as the largest and most traditional Christian religious building, built at the same time using modern technologies and materials, using examples of modern Georgian Christian church architecture.

38)Bostanashvili D.

Erased architectural heritage of XX century Tbilisi

2020(12), Problems of Architecture and Urban Planning today; Scientific and Technical Magazine, Technical University, Tbilisi; ISSN 2233-3266.

Annotation: There are buildings, that no longer exist. Those, which during their short lifetime attracted little attention of the public and had not been part of some significant historical events. The date of their constructions is so recent, that it can hardly be termed historic. Recently built buildings rarely get a chance to be evaluated, or appreciated. Therefore, it is a duty, that architectural community maintain the memory and stories of the “insignificant” buildings. The paper consideres three cases (“Tbilisi Univermag”, “Tse-Kavshiri” building, Dentistry clinic on K. Abkhazi street) that belong to twentieth century and became victims of politics of replacements that originates in total commercialization of urban

space. Why do the demolished buildings deserve attention? The paper sets two points of departure: first is the significance of heritage in architecture and what deserves the status of heritage. Does “socialist architecture” carry cultural values, that must be appreciated? Secondly, the topic discusses the ongoing process of replacements of original architecture with anonymous global corporate architectural imagery and urban spaces that function exclusively, as commercial points of attraction. The paper examines ideology behind this process.

39)Melkadze M.

Shadow and light

2020(12), Problems of Architecture and Urban Planning today; Scientific and Technical Magazine, Technical University, Tbilisi; ISSN 2233-3266.

Annotation: The purpose of our article is to reveal the concrete vectors in human creative thinking, where shadow and light play an active role in shaping the coordinate grid generator of linguistic systems, both in literature and in spatial-architectural thinking and in pedagogical practice.

40)Frangichvili v.

The concept of urban planning in Batumi

2020(12), Problems of Architecture and Urban Planning today; Scientific and Technical Magazine, Technical University, Tbilisi; ISSN 2233-3266.

Resume: The main purpose of the Batumi research was to determine the correct conceptual directions for the strategic development plan of the city. The Batumi agglomeration process should be incorporated as a result of the reconstruction of the existing planning structure within the city's historic zone. The city's "infantry zone" will be dedicated to hiking and cycling streets and environmentally friendly public transport. In particular, the "infantry zone" includes priority trams (on King Parnavaz Street), as well as cycling and public transport. As for the locals in the "historic zone" vehicles entering the zone, they may benefit from the "Bar-Nations Regulation". Adjustment of remote control barriers arranged at the entrances of the streets (down to the barrier road level)St. The so-called “urban development vision” of Batumi is naturally observed. A "green approach" to city planning and management.

41)Chachava N.,Pailodze N., Khoshtaria T., Abuladze K., Lekveishvili N.,

Nahrendorf G.

The Role of Green Architecture in the Hospitality Industry

2020(12), Problems of Architecture and Urban Planning today; Scientific and Technical Magazine, Technical University, Tbilisi; ISSN 2233-3266.

Annotation: In recent years, serious environmental pollution caused by the global climate change, aggressive impact of the urbanization process has created a real threat to humanity to destroy the living habitat. The responsible attitude to the natural environment is widely used in world economic policy, as a key factor of the urban and regional sustainable development of the countries. This article is the attempt to learn, classify and systemize the factors identified in frames of the EU project EcoMode - examples of best practices for EcoHotels, and link them to the environmental design of hotels and engineering projects.

This approach will contribute to the development and implementation of the principles of environmental, sustainable architecture in the hospitality industry.

42)Dzindzibadze P., Tkemaladze N., Machaidze E.

Didi Digomi. One specific model of urban development in Tbilisi

2020(12), Problems of Architecture and Urban Planning today; Scientific and Technical Magazine, Technical University, Tbilisi; ISSN 2233-3266.

Annotation: There is discussed the current state of the Didi Dighomi planning district and the difficulties associated with its growth. The effective development of this vital part of Tbilisi will largely depend on, to what extent will we be able to drive the growth of the district in the right way, given the current construction activities, whether small or large mistakes that have been done.

43)Imnadze N., Vardosanidze G.

Architectural heritage - environment and modern society

2020(12), Problems of Architecture and Urban Planning today; Scientific and Technical Magazine, Technical University, Tbilisi; ISSN 2233-3266.

Annotation: There is analyzed the buildings in Tbilisi built in the 20th century 1970s and 1990s. Objects that create a new form of dialogue with the environment, however, the society did not recognize values in them. That is even revealed in the processes, that take place around them. Research shows, that the buildings of this period require critical apprehension. We tried to find out what their place in urban environment in 21st century. Whether they remain in memory, or a new history is created for them. In a short article we tried to identify problems, which clearly show the changes of today's era and society.

45)T. Chigogidze.

Online Teaching Under COVID-19;

2020(13), Problems of Architecture and Urban Planning today; Scientific and Technical Magazine, Technical University, Tbilisi; ISSN 2233-3266.

Annotation: The article analyzes the role of the pandemic in architecture and design, as well as the expected favorable changes that can make our lives better. We shouldn't expect results right away, time will tell.

46)M. Pochkhua, N. Chrelashvili.

Design practice for Children and Adult Rehabilitation Center.

Problems of Architecture and Urban Planning today; Scientific and Technical Magazine, 2020, N13, ISSN 2233-3266.

Annotation: Presented article deals with the practice of designing rehabilitation centers for people with disabilities on the example of one particular clinic called "Ken Walker University Clinic for Medical Rehabilitation". The paper briefly discusses the reality of Georgia about the existence of medical and rehabilitation centers for people with disabilities. Based on statistics, the number of people with disabilities is presented. The current situation of the country and the need for the similar rehabilitation centers are also discussed in the paper. Finally, the project for people with disabilities (started last year and almost completed) is presented, which is fully equipped with all the essential items for people with disabilities.

47) V.Pirtskhalava.

"The Role of Boundary Structures in Creation of Proper Housing."

#12 2020 №. Modern problems of architecture and town planning; ISSN 2233-3266.

Annotation: This article is intended to justify the importance of proper housing for people. We formulated five main components of proper housing and researched each one of them in detail and compared modern and ancient building traditions. We also compared the international experience to modern Georgian methods. Based on the analysis we concluded that humanity is in constant search of innovative methods of construction and creation of housing. In the last part of the article, the standard ways of energy efficiency evaluation of materials are put to question and several weak points are revealed. We also analyzed the economical impact of using energyefficient materials for facades on modern Georgian construction costs.

48) **G.Salukvadze. D. Akhvlediani.**

Regarding the Strategy of Sustainable Urban Development of Highmountain Settlements of Georgia;

Publishing House "Technical University", Scientific and technical magazine "Modern problems of architecture and urban planning"; # 13, 2020; ISSN 2233-3266. DOI: <https://doi.org/10.36073/2233-3266>

Annotation: Resume The purpose of the article is to define the strategy of sustainable urban development of the territory of a high-mountain settlement through the interconnection and effective use of both natural and climatic conditions and resources of rural settlements. The basis of urban development of the territory is the spatial organization of the territory, i.e. altitudinal belt structure of the territory, where each belt has its corresponding urban planning solution.

49) **G.Salukvadze.**

Pandemic and town building;

Publishing House "Technical University", Scientific and technical magazine "Modern problems of architecture and urban planning"; # 13, 2020; ISSN 2233-3266. DOI: <https://doi.org/10.36073/2233-3266>;

Annotation: There is discussed the relationship between the pandemic and town building, the current challenges, which in the near future implies a more reasonably balanced development of the territory of Georgia through the implementation of guided agglomeration, in the format of a unified state space.

50) **N.Khvedeliani;**

Parkitecture as an architectural style of national parks;

Scientific and technical magazine "BUILDING"; Technical University of Georgia, Faculty of Construction; # 1(54), 2020; ISSN 1512-3936.

Annotation: The purpose of the topic is to review the architectural style in national parks. There are discussed the principles of the style and the idea of its creation, what is the purpose of developing this style in national parks. The ultimate goal is to create and develop attractive architecture in national parks, close to nature and the environment.

51) **N.Khvedeliani;**

Architecture and design of national parks. Their role and place in the history of countries;

Publishing House "Technical University", Scientific and technical magazine "Modern problems of architecture and urban planning"; # 13, 2020; ISSN 2233-3266.

Annotation: The conference discusses the importance of protected areas and national parks, the criteria and objectives of creating national parks. The role of national parks at the international and national levels. The role of architecture in relation to national parks. Discussion of the needs related to visitor services, creation of interesting and organic architectural objects with nature. In the national park it is necessary to create various facilities that will create comfort for the visitor. I'm talking about a specific style for national parks, called "Parkitecture", the principle of style and history.

The last part of the topic discusses Georgian national parks and their current state. The main goal is the effective management of national parks and the guaranteed development of local areas. The development of national parks serves to protect the national natural heritage of a given country.

52) **T. Chubinidze;**

"Accents incompatible with Tbilisi"

Scientific and technical magazine "Modern problems of architecture and urban planning" N 13.- – 2020
Inappropriate accents with Tbilisi

Annotation: The article discusses the emergence of unusual features for the characteristic architecture of Tbilisi, in particular, the distinction between buildings built or reconstructed in the current and recent past with domes finished with domes or towers. At the request of the customer and with the consent of the architect, the buildings crowned in this way are mostly not remarkable and emphasized, due to their content and location. The newly erected domes and towers are irrelevant and in conflict with the environment and are undeservedly used as a visual orientation, to divert attention from them, which is intended only for seductive effect and beautification. But when their numbers increase in a limited urban area, they intensify unwarranted perceptions, causing boredom and spectator fatigue.

53) Chubinidze T.

“Different perception of heritage: Tbilisi, Rustaveli avenue N 7”.

Technical University of Georgia - Proceedings N 3 (517) - Quarterly edition. Article co-authored with N. Shavishvili, TB. 2020.

Annotation: According to the authors of the article, pseudo-styles mix and dubious stylistic priorities of the new building of the Museum of Fine Arts on the central thoroughfare of Tbilisi at 7 Rustaveli Ave., deserve a healthy dose of sound criticism.

In 1868, arch. O. Simonson built on this site court chambers, which in 1874 by arch. A. Zaltsman was rebuilt for the hotel "Orient"; later the building turned into an Intourist hotel. In 1977 the House of Artists settled in the building, but in 1991, as a result of the Tbilisi War, the former hotel was completely destroyed. Recently the Museum of Fine Arts was completed on this site according to the project by arch. Archil Kurdiani (Jr.). The new building is decorated with an abundance of decor, traces of various historical and cultural precedents are visible, among them the most prominent is the Venetian architecture of the Palazzo Ducale. A huge statue of a bronze eagle rises above the central entrance of the richly ornamented main facade along Rustaveli Ave. The facade that faces Gudiashvili Street is radically different. It uses modern materials - glass, metal, the shapes are geometric and minimalistically solved, while the other two facade are a mixture of Art Nouveau, Baroque and others, in some cases - of unknown styles.

In its time, the building permit issued by the city authorities for the construction of this building provoked a critical reaction of the majority of experts and the public. In their opinion, the construction of a new building introduced a discord into the development of the avenue. Positive ratings were in the minority.

For the authors of the article, a completely modern and bold solution would be more appropriate for this site, a new word in the stylistic diversity of the Avenue, which would not oppose the context, history and public opinion, for the architect's duty is to respect the urban past, when he deals with it in the process of a new building design.

According to the authors of the article and other critics, such controversial interpretations at culturally significant urban interchanges should not be carried out without international architectural competitions.

54) M. Davitaia, N. Barnabishvili,

"The Church of the Holy Seal",

The scientific-technical journal "Building" N2(55), ISSN-1512-3936, 2020. p. 125-129

Annotation: The topic of our research is scientific investigation of The Church of the Holy Seal and its historical development and find out approximate date of the church construction. The work is divided into three main parts: the introduction, the main part (which from its side consists of chapters and sub-chapters) and the conclusion. The authors have used various sources from archival documents, books and periodicals. The

Church of the Holy Seal, built with bricks and located in Zemo Kala, has been a subject of dispute between the Georgian Orthodox Church and the Armenian Gregorian Church for years. According to the Georgian historical sources the royal palaces and residences were situated in the neighborhood where so called the Church of the Holy Seal is located. During the study it was found out that the church is mentioned with the name of Ste Croix by Jean Chardin in his travel book in 1671, where the sketch of Tbilisi is painted by Grelo. We can suppose that the year of 1703 (under the reign of Leon, Father of Vakhtang VI) indicated on the tympanum of the northern entrance of the church as the date of its building may be the year of its fundamental restoration rather than construction. The church was functioning until 1936. Then it was changed into macaroni factory. During some periods the church was used to store decorations by Shota Rustaveli Theatre. In the 1960s the Church of the Holy Seal was transferred in the ownership of the Public Library and it was used as a book depository. Currently the Church of the Holy Seal is in poor conditions. Because of several fires, rains and earthquake the building of the church is highly damaged. The territory surrounding the church is full of uncontrolled buildings. According to sources, the skull of St. Andrew the Apostle there was in the church. It is important to mention that icons in the church were worshiped by both the Orthodox and Gregorian believers in the past. As the church is mentioned with the name of the Church of the Holy Seal in the beginning of the seventeenth century, we can suppose that there was an Orthodox church here in the sixteenth century which was later destroyed for various reasons or was fundamentally altered and renamed as Surb N(i)shan, and we suppose that the church existing today belongs to the middle of the seventeenth century and not the eighteenth century.

55) **M. Davitaia,**

Architectural and Graphical Associations Method in Context of Architectural Design Paradigms,

Gtu Architecture, Urbanism and Design Faculty science conference magazin N13, ISSN-2233-3266, 2020, p.125-129

Annotation: In Article considered theoretical and methodological principles of graphical compositions based on performance of associations. During the teaching of academic subject Themes of Architectural Discourse in International Architecture, we are using several methods of creative associations: graphical, which is important in terms of possession of compositional means, Collage: association completed through any architectural program; Panoramic, which is based on French architect Dominique Perrout principle: Destroy to Build New and means to cut out from the panoramic view the existing building and incorporation in same place the new building considering the context; association on expression and method of architectural analysis.

56) **M. Davitaia, N. Barnabishvili,**

"Formation and development of the resort Tskaltubo",

arch. Collection of scientific conference of the Faculty of urbanism and design, "modern problems of architecture and urban planning" online conference covid-19-challenges in architecture, N13, ISSN-2233-3266, 2020. p.36-45

Annotation. The aim of this article is to discuss the development and formation of a medical-recreational resort - Tskaltubo.

The article begins with a previous history of the development of the health resort. In the article we talk about the first written information about Tskaltubo, articles published in Georgian and foreign press or scientific literature, useful properties of medicinal waters and scientists who have done a lot of work and conducted many chemical analyzes to find useful properties in these waters.

The analysis revealed that the population had knowledge about the healing properties of Tskaltubo waters since ancient times. These waters, the unique geographical location of the resort, the landscape and the climate contributed to the formation of Tskaltubo as a medical-recreational resort. Every epoch and historical event has left an indelible mark on the development of Tskaltubo. In recent years, there is a special interest in the medical-recreational resort Tskaltubo. Our goal was to come up with materials about Tskaltubo. In the process of research we have found and processed plenty of books and articles. The material presented in the review of

historical sources and literature discusses the mineral waters of Tskaltubo and the way of forming Tskaltubo as a resort through them.

57)Asatiani N.

Kashueti.

Publishing House "Technical University", Scientific and technical magazine "Modern problems of architecture and urban planning"; # 13, 2020; ISSN 2233-3266.

Annotation: In 1946, when the catholicos-patriarch of Georgia asked gudiashvilito paint the kashueti altar, Mr. Lado, despite the enormous risk he agreed without hesitation.gudiashvili's decision was conditioned by his love of making copies after famous expeditionsand his great desire to "create" himself to paint the temple, and the mastery of an artist with extensive experience working with miniatures, which perfectly helped mr. lado work on the altar of kashueti temple. At first, mr lado began to make the most difficult sketches and the sketches under the huge interior space of the temple and under the ceiling of an inconspicuous high arch, working all day long from the beginning. The artist abandoned both oil painting and the old method of painting with tempera. He started working with ancient recipes for herbal dyes. Painted in the hardest of encaustics with hot, boiling colors. I was in the air for nine months on the scaffolding, there was blood flowing from my nose.

58)Beridze L.

Legislative-normative base for design of energy efficient buildings ..

Publishing House "Technical University", Scientific and technical magazine "Modern problems of architecture and urban planning"; # 13, 2020; ISSN 2233-3266.

Annotation: There is discussed the basics of sustainable development of a society and, as an integral part of it, the formation of sustainable architecture. Sustainable architecture is presented as a combination of interconnected components and a list of these components is given. The main part of the article is dedicated to the most important direction of sustainable architecture - "energy efficiency of buildings". It includes a set of rules and technologies based on energy efficiency legislation, normative regulations, and population involvement. The article briefly reviews the history of the formation of energy efficiency of buildings, outlines the requirements of the Energy Efficiency Law, the fulfillment of which is necessary to make the building "energy efficient".

59)Vardosanidze L.

"Water Is Life, Sanitation Is Dignity!".

Publishing House "Technical University", Scientific and technical magazine "Modern problems of architecture and urban planning"; # 13, 2020; ISSN 2233-3266.

Annotation: Against the background of the radical liberalization of the discussion on socially significant problems, the most important achievement of European civilization – public sanitation and individual hygiene - remains taboo in modern Georgian society. The article emphasizes that in addition to the backward sanitary and hygienic practices of the population, the problem in this area rests on the glaring lack of water supply and

sewerage systems - especially in medium-sized cities and villages, as well as in educational institutions. A systemic solution to this problem has acquired unprecedented relevance in the fight against the COVID-19 pandemic. In this context, the article provides a brief historical retrospective, as well as an overview of the state of the art and "best practices" on a global scale. It is proposed to reorient the priorities of state socioeconomic and regional policies in favor of a systemic solution to the urgent problem of water supply and sewerage in settlements. The announcement of 2021 as the Year of Water and Sanitation proposed by the author will contribute to the actualization of this goal.

60)Imnadze N.

Free Space for Connection (Architectural analysis during the pandemic)

Publishing House "Technical University", Scientific and technical magazine "Modern problems of architecture and urban planning"; # 13, 2020; ISSN 2233-3266.

Annotation: Today, overcoming the pandemic is an important problem for the whole world. Fear of illness and care for people's health have created difficulties such as: limited personal contact. Protecting the social distance and consequently overcoming the inconvenience caused by restraint from physical contact and getting used to the virtual relationship with it, activating the consumption of social networks, producing work remotely and adapting to the multicast computer screen. New paradigms have been emerged spontaneously, as a reaction: the face mask, the distance, the threshold, the 81 digital. In the context of digital dominance, when networks become important, we need to find a way to protect the relationships that make up By physical contacts. What did the pandemic have effect on humans? Pandemic and inventive. An alternative space Search for a relationship. Most of all, a person loses contact with another person and integrates into the environment, but instead strengthens the feeling of support. The most impressive action that has shaken the whole world is to convey emotions to each other in different ways and express support without leaving home. An alternative space must be created for this. The architectural form of the building is familiar to everyone, such as the balcony, terrace, roof, exterior wall. Today, alternative spaces for communication are being created here.

61)Melkadze M.

Esprit Nouveau - a new soul (in architecture) - in the reality of Covid-19 .

Publishing House "Technical University", Scientific and technical magazine "Modern problems of architecture and urban planning"; # 13, 2020; ISSN 2233-3266.

Annotation: New Reality - "New Soul in Architecture" - in this world-wide disease - it appears as a proverbial statement - "Some plagues are beneficial." Is it cynicism? -No. It is a statement of fact! Sometimes society needs to face some cataclysms to see the elementary reality. What are these truths? On the one hand it is scientific-research and on the other hand it is natural "Truth". 1. Scientific-research: a). Bio-climatic Analysis: b) Regional phenomenon of confusing radiation: c). Properties of solar heat radiation; d) the above mentioned vectors including City formation and Creator factors. 2. Natural Science: All components of the natural environment: orography, solar heat and radiation, air transparency, biosynthetic processes, etc. All of the above mentioned factors are gathered in the space of the Imperative Fiftyfirst-41-Resolution of our architectural community. recent years, have brought our architectural community into the space of the Imperative Fifty-first-41-Resolution. What do I mean? All the nuclei of architectural solutions, including - a) Spatialarchitectural - urban planning - with space - and spatial planning - with technology. 1. Since 2001, the city-planning situation has begun. There were adopted the new regulations called a zoning document. These documents have been degrading for a long time and as a result we have obtained a destructive anthropogenic-urban space, in the form of a network of unlit and unlit streets and inner yards. 2. Based on a number of unreasonable requirements of Resolution 41, the internal planning structure is radically changing (including demand for the second - evacuation ladder, etc.). If we look at the multi-storey-multi-apartment house projects created 88 during this period (real design, student courses), we will notice the harmful trend of unilaterally oriented apartments! The above mentioned result of the resolution contradicts all the conclusions of regional scientific research – including the fact that in our region, there should be only permeable apartments. It also contradicts all historical provisions of international level – including fundamental research -Bauhaus School- Group Studies on Sanitary Regulations for Architectural Planning! Conclusions: The Resolution # 41 will reduce lighting. Both in the floor stairwells and in the interior space, by cancelling the stairs, which will increase the building area of the buildings. 1. Now briefly about solar heat radiation. Solar heat infrared radiation creates vitamin D in the human body. According to recent research on covid, it turned out to be one of the most protective mechanisms for human health. 2. An effective way to prevent this infection is to ventilate the space of the apartments! 3. All of the above underscore the view that the limitations of Covid-19 prevention will give us a chance to bring

back to architecture the genetic code for creating a healthy environment as well as reanimate previously neglected laws in the context of harmonizing both anthropogenic and natural environment.

62)Mujiri V.

The Miracles of Christo - From Temporality to Immortality .

Publishing House "Technical University", Scientific and technical magazine "Modern problems of architecture and urban planning"; # 13, 2020; ISSN 2233-3266.

Annotation: The American artist and sculptor, known worldwide as Christo, died at his home in New York two weeks before his 85th birthday. He was the most important, bold and unique creator of his time. The couple of Christo Yavashvili and Jana-Claude de Gibeon left their own unique mark in the art of Land Art, it was the most famous couple working in this field, creating both architectural monuments and amazing art installations. In the 1960s, Christo developed the concept of empaquetage - own form of expression that brought him worldwide recognition. The empaquetage is the packaging of various items, objects with fabric, paper, polyethylene tape, and the result is the status of a work of art. Christo and Jana-Claude's projects have always been of concern to ecologists and the public, and it is especially noteworthy that this issue was very important for the authors as well, and all material that remained after dismantling, was recycled and left no trace in nature and did not harm ecology. Freedom and creativity are the most important things for Christo in art. All his projects are temporary, which itself frees the author from buying and selling his own works, which is very important for him. The cost of their interventions in cities or natural spaces was enormous, numbering in the tens of millions. Christo and his wife were themselves customers, sponsors, doing everything with their own funds and enjoying their own independence. His amazing projects were disappearing after 2-3 weeks, ceasing to exist, even though their implementation was often preceded by many years of work. Planning, preparing, and implementing such projects sometimes takes decades, bringing Christo's work closer to architectural buildings, urban planning. The packaging phenomenon obscures details, minor details, but emphasizes the main essence of the object, its silhouette, proportions and height. Christo paid great attention to the theme of interior and exterior space. Artists were temporarily borrowing, breaking, and unusually using space from the universe, where people were present on a daily basis, where each item belonged to someone or was designed where everything was subject to property laws. Their work seems to encourage people to look at the familiar space and themselves in a different way. While traditional forms of art do not involve direct human participation, Christo's projects unite people and turn them into active participants in the performance. Christo's works of art were invaluable and not for sale, was sold only what was before and after. The audience enjoyed the spectacle for free. Their work reflected their philosophy: "In order to finally disappear, you need more courage than to stay. Our projects will disappear as our childhood, our lives. They are irrational, belong to no one and obey no one. Freedom is the enemy of mastery, and mastery is the equivalent of stativity".

63)Sanikidze T.,

Lobzhanidze S. Architectural and Structural Characteristics of Oni (Georgia) Synagogue.

Publishing House "Technical University", Scientific and technical magazine "Modern problems of architecture and urban planning"; # 13, 2020; ISSN 2233-3266.

Annotation: The 26 centuries of Jewish community existence in Georgia completely differ from the conditions and relationships other Jewish communities experienced in many countries. The Jews absorbed local life and culture at once and turned Georgian into their speaking and writing language. However, they never stopped remembering and loving their homeland and more importantly, they never abandoned their religion. Therefore, Jewish synagogues should have existed in Georgia since earlier times, though their remains or

architectural structure is hardly known so far. The oldest surviving synagogues date back to the 19th and 20th centuries and are located in Tbilisi and other regions of Georgia. The study of publications (both Georgian and international) around the life and tangible cultural heritage of Jewish communities in Georgia revealed the scarcity of sources and scientific literature dedicated to the particular issue. The history and architecture of Jewish houses of prayer in Georgia is largely under researched. Therefore, it was the lack of research in this direction, which determined the need and the acute actuality of this study. The particular article analyses the architectural and artistic feature of Oni Synagogue (1890-1895). The paper includes the history, description and architectural analyses of Oni synagogue based on the research of historical documents, publications, detailed measurements and photo documentation.

64)Salukvadze G.

Pandemic and town building. Publishing House

"Technical University", Scientific and technical magazine "Modern problems of architecture and urban planning"; # 13, 2020; ISSN 2233-3266.

Annotation: There is discussed the relationship between the pandemic and town building, the current challenges, which in the near future implies a more reasonably balanced development of the territory of Georgia through the implementation of guided agglomeration, in the format of a unified state space.

65)Dzidziguri M., Kvachadze N.

„Traditions of cult architecture in Adjara and Turkey (Samsun)“

Modern problems of architecture and urban planning, scientific-technical journal № 12, 2020, ISSN 2233-3266, <https://gtu.ge/Arch/Resources/publications-2021/jurnali%20-nomeri%2012-%202020.pdf>

Annotation: The presented article deals with the traditions of wooden architecture of Adjara and Turkey (Samsun) in cult buildings. The monuments are unique in their architectural form and are visible examples of vernacular architecture. The planning structure of the Samsun mosques, the south-facing square hall, the compositional solution of the interior and the shape of the roof: the square~consisting of parallel rows, with the octagonal caisson and a rose-like shape in the center, is similar to the compositional understanding of Adjara wooden mosques. It is difficult to prove with certainty whether these mosques were built on a single "templet" or not, but the closeness between them is evident in the structural elements of the space arrangement, in the forms of roofing, in the understanding of the building decoration system. Construction techniques, aesthetic tastes, cultural features, the perception of nature, are based on the empirical knowledge and experience of the people. The preservation of building materials and construction-related terminology should also indicate unified genetic roots.

66) Dzidziguri M., Iosebidge G.

„About one problem of historical districts“

Modern problems of architecture and urban planning, scientific-technical journal No. 13, ISSN 2233-3266, 2020 <https://gtu.ge/Arch/Resources/publications-2021/jurnali%20-nomeri%2012-%202020.pdf>

Annotation: There are discussed some examples of intervention are discussed in the article carried out in the development of two streets of Gomi and Bethlehem in the medieval core of Tbilisi, the so-called lower Kala. The beauty and individualism of the streets and squares in the lower Kala is conditioned: by its specific terrain, which has a combination of steep slopes of the Sololaki Ridge and the relatively plain area, a medieval

curvilinear network of streets tailored to this variety of the terrain, which on some slopes turns into street-stairs, the terraced nature of the urban development on the sloping terrain, which opens with unexpected perspectives from the narrow streets of the lower levels, human Scope of Historic Residential Development, at the same time the structural or artistic individualism of each building, on the one hand, based on the geography and medieval morphology of the place and on the other hand, on the style of the 19th century

Tbilisi residential houses, the monumental religious buildings dominating on the corresponding street. Based on the analysis, examples of different quality and scale interventions were identified: suppression of important panoramic perspectives neglect of the existence of a historical monument and violation of ensemble hierarchy, violating the historical scale and artistic image, stylization of the aesthetics of so called Tbilisi house and ignoring the visual connections of the terrace development., using inauthentic building material. The interventions, which caused serious damage to the historical development, were in some cases due to the interest of investors in the maximum use of space, in some cases - due to improper understanding and consideration of the historical-artistic value of the district. Improving the living conditions of citizens while maintaining valuable development is a critical issue that requires a very delicate approach on the part of specialists and the public.

67) Dzidziguri M.

„Identity and Architecture“

Modern problems of architecture and urban planning, scientific-technical journal No. 12, ISSN 2233-3266; TB. 2020; <https://gtu.ge/Arch/Resources/publications-2021/jurnali%20-nomeri%2012 %202020.pdf> 2020

Annotation: There is discussed the issue of the identity of various types and scales defined

in architecture based on specific local and foreign examples. The focus is on the category of national identity. The various nature of its expression is analyzed mainly in the architectural works of different stages of post-Soviet Georgia.

2021

68) G. Tsulukidze.

History of the origins and development of restaurants in Tbilisi, 2021, technical magazine “Building”. N2 (58). ISSN 1512-3936.

Annotation: The purpose of this article is to review the history of restaurants in Georgia and specifically in Tbilisi, to provide the information gathered about them to readers, which in turn will give them an idea of the architectural evolution of the restaurant.

69) T. Chigogidze. T. Djincharadze.

The impact of the pandemic on architecture and design;

2021(16), Modern Problems of Architecture and Town Planning; Scientific and Technical Magazine, Technical University, Tbilisi; ISSN 2233-3266.

Annotation: The article analyzes the role of the pandemic in architecture and design, as well as the expected favorable changes that can make our lives better. We shouldn't expect results right away, time will tell.

70) N. Kochladze;

„Open Education and Open Educational Resources In innovative pedagogy“ (coauthor - Tsutskiridze D.),

Scientific and Technical Magazine N13 Modern problems of Architecture and Town Planning; The publishing house “Teqnikuri Universiteti”, signed for printing 09.03.2021; ISSN 2233-3266

Annotation: The modern world is in the process of radical transformations and constant changes. The current digital revolution, socio-political, economic or cultural problems require significant changes in accordance with the requirements of our time, which is added to the global threat posed by the COVID-19 pandemic. In fact, trends are being created in our reality that should adequately meet the challenges of the millennium. The authors believe that education and related theoretical and practical issues have acquired special significance both in terms of transformation and the crisis caused by the COVID-19 pandemic. The authors highlight all the main difficulties faced by the education system, including: the temporary closure of higher education institutions; Continuing education online / in electronic form; Delayed access to educational materials; Interruption of various scientific / research and student activities / activities; Complex access to the Internet and mobile devices, etc. According to the authors, in order to overcome these and other problems, special attention is paid to issues related to open education and open educational resources. Accordingly, the main attention was paid to the importance and necessity of open education and one of its components, open educational resources, their pros and cons; About one of the main factors determining openness - an open license, the 5R principle, etc. Studying and considering all these factors, as well as observing the educational processes, the authors came to the conclusion that the rapid response of governments and relevant institutions in the context of the COVID-19 pandemic actually accelerated all processes that contribute to open education and open educational resources, such as overcoming spatial and temporal barriers, improving access to e-learning materials, increasing student and teacher motivation, improving technological skills, etc. In addition, problems overcome during the COVID-19 pandemic in Georgia, such as continuing online / e-learning, creating high-quality educational platforms, the creation of a television school due to insufficient access to the Internet and mobile devices, etc., made obvious the need for distance / online learning, open education and open educational resources, as well as the need for their further development.

71)N.Khvedeliani;

Ecotourism - Sustainable tourism in national parks and protected areas;

Publisher: Agro; Collection of scientific works "Moambe"; # 1(45), 2021, ISSN 1512-2743.

Annotation: More and more, people are trying to lead an active lifestyle. A lifestyle that promotes 'being well' and being health. For many, achieving this lifestyle means further strengthening their connection to nature.

As the name implies, we can wrongly assume that protected areas are only focused on nature conservation and do not allow human intervention in it in any way. This is not true as protected areas create the perfect environment for ecotourists.

National parks and protected areas face challenges due to the influx of tourists towards them. In addition, sustainable tourism includes the concept of visiting these areas in a way which will have the most positive impact on the environment, society and the economy. National parks also have the opportunity and potential to be guarantors of lifestyle change for the better at the regional and national levels.

72)N.Khvedeliani; For the history of drama theater named after Senaki Akaki Khorava; Publishing House "Technical University", Tbilisi, Scientific and technical magazine "Modern problems of architecture and urban planning"; #16, 2021; ISSN 2233-3266.

Annotation: On the example of the Senaki Theater, we saw how similar buildings were built and decorated in the Stalinist period. What were the peculiarities of the artistic-decorative solution of the exterior and interior. Interestingly, the building with an aggregate visual alien to the urban space of Senaki not only harmoniously blended into the environment, but also became an integral part of the urban fabric of Senaki.

73) T. Chubinidze;

"Georgian regional culture and hotel architecture"

Scientific and technical magazine "Modern problems of architecture and town planning" N 14, TB, 2021.

Annotation: In article discusses the relevance of suburban development identified during the Covid-19 pandemic. The architecture of resort services, in particular hotels and the signs used are in accordance with the individual values of the regions of Georgia, which may or may not be harmoniously integrated with the existing environment or landscape.

74) M. Davitaia, N. Barnabishvili,

"Features of the artistic-stylistic-compositional solution of the architecture of the Stalinist period in Russia (on the example of medicinal-holiday resorts)",

arch of Stu. Collection of scientific conference of the Faculty of urbanism and design, "modern problems of architecture and urban planning" online conference, N16 ISBN 2233-3266, 2021, p.3-12

Annotation: The aim of this article is to discuss the artistic-stylistic-compositional solutions in the architecture of the Stalin Period using by the example of the 4 stages of construction of the health resorts in Russia, find the examples of the similarities and differences between decorative solutions.

75) M. Davitaia, N. Barnabishvili,

Housing and other functional buildings in Fereydan,

scientific-technical journal "Construction", N3(59), ISSN-1512-3936, 2021. p.51-57

Annotation: Fereydan is a province of central Iran. In the mountains of Bakhtiari, STR. At this place 100 km away from ispaan at the beginning of the seventeenth century (1614-1617).) Shah Abbas I of Iran settled quite a large part of 200 thousand Georgians from Georgia. In the summer of 2017, I was in fereydan, Iran. I saw the houses and other buildings of fereydnites, brought them unique photographs and started research. The article presents the results of my small research. I have studied the reports that are preserved in various archival sources, books and magazines and newspapers. In the process of searching, we saw that there is scarce information that directly describes the dwelling of Georgians in fereydan. There are studies from different angles, but a thorough study on the housing of fereydani-Georgians, I think, has not been done before and in this regard, my small research is a novelty.

76) M. Davitaia,

MODERN INTERPRETATION OF ARCHITECTURAL ENVIRONMENT OF TRADITIONAL GEORGIAN DWELLING DESIGN,

"Design" department of Azerbaijan University of Architecture and Construction III International Scientific Conference "Contemporary problems of design", journal, УДК 72 (72.01, 72.03, 72.04), УДК 7 (7.01), ISBN 978-9952-37-684-5, Baku, 2021. p.280-289

Annotation: In the article the author tries to examine a single peculiarity of the traditional Georgian Architecture, which is being transferred and utilized by modern Georgian Architects in housing estates. The singularity concerns a terrace-style development and traditional type of so called "Baniani Sakhli" and their role in a living place. Determined the special "elements" of design for its modern architectural environment.

77) M. Dzidziguri, E. Khundadze

„Nonconventional architecture“

Modern problems of architecture and town planning, scientific-technical magazine No. 14, 15, 2021, ISSN 2233-3266

<https://gtu.ge/Arch/Resources/publications-2021/jurnali%20nomeri%2014-15.pdf>

Annotation: At this stage, in the framework of our study, the review of listed examples leads us to the conclusion that an installation is a full-fledged manifestation of architectural creativity. In addition, we can immediately define it and distinguish between the phenomenon of installation and the architectural installation itself. In particular, an installation can be considered to be architectural, if it is not only an areal insertion in space formation (and, therefore, is part of this space and an architectural fact based on this right), but also part of some actual architectural discourse and acts as a manifestation of authors attitude or statement in this discourse. Also, as the conclusion, it can be said, that installation and other performative manifestations are valuable parts of the practical aspect of architecture, their value is immeasurable and indispensable in enhancing imagination and professional understanding, without which real functional design would lose those categories heights that carry pragmatic human activities to the rank of art.

78)Beridze L.

The „green“ architecture of modern foreign schools

Modern problems of architecture and town planning, scientific-technical magazine No. 14, 15, 2021, ISSN 2233-3266

<https://gtu.ge/Arch/Resources/publications-2021/jurnali%20nomeri%2014-15.pdf>

Annotation: The article deals with the development of a comfortable and supportive atmosphere by creating architectural environment «green» schools. We give examples of global best practices of landscape design school grounds.

79)Bolqvadze M., Solomonishvili K.

The role of architects in the design and management of sustainable development projects in a country.

Modern problems of architecture and town planning, scientific-technical magazine No. 14, 15, 2021, ISSN 2233-3266

<https://gtu.ge/Arch/Resources/publications-2021/jurnali%20nomeri%2014-15.pdf>

Annotation: Future trends show that the need for personnel performing diverse activities is becoming especially relevant since such activities can only be performed by specialists of different profiles. The demand for high-class managers is particularly high. The Chief Architect is an outstanding profession, with responsibilities including the management of complex projects. The analytical skills of architects enable economists and scientists in other fields to manage projects of national importance and contribute to the country's sustainable development policy. The facts presented in the article point to the problems existing in the fields of development and construction of the region. There is a lack of qualified personnel in the regions. Unwanted development is taking place across the country, agricultural land is fragmented and its function is changing. Obviously, the "policy of developers" in Georgia is mainly based on obtaining their financial benefits, that is sacrificed for the ecology and identity of Georgia. The active construction of private houses does not meet modern world standards. Without a unified development strategy, without an updated territorial planning plan for Georgia, we are losing the country's potential. It is the professional duty of architects to solve these problems together with the state.

80)Bolkvadze M., Dughashvili M.

Transport infrastructure as a basis for sustainable development of agglomeration.

Modern problems of architecture and town planning, scientific-technical magazine No. 14, 15, 2021, ISSN 2233-3266

<https://gtu.ge/Arch/Resources/publications-2021/jurnali%20nomeri%2014-15.pdf>

Annotation: This topic emphasizes the necessary actions for the optimal development of the agglomeration planning structure, which means not individual study and consideration within narrow administrative boundaries, but the detailed development of a unified planning structure in the agglomeration system in the

general area, according to the capital agglomeration system, because the necessary conditions for achieving long-term changes in mobility are quality public space and urban transport. There is also reviewed the European experience of creating an agglomeration, in particular the idea of uniting Paris and its surroundings in the great metropolis, the so-called "Great Paris". In terms of traffic congestion and urban development problems, "Greater Paris" is of great interest to many other cities around the world, and we can boldly say the example of Georgia, Tbilisi, because all megacities have similar problems, primarily in transport. When President Nicolas Sarkozy gave life to this project, he said: "Collapse awaits us, we must avoid it! Paris was in a better position, than many other mega-cities, but it was obvious that the problems of organizing the capital were urgent, complex, and new. In the case of the Tbilisi agglomeration, this vital document does not even exist yet.

81)Melkhadze M., Sultanishvili E.

Authentic architecture conditioned by the climate (On the example of the UK regions)

Modern problems of architecture and town planning, scientific-technical magazine No. 14, 15, 2021, ISSN 2233-3266

<https://gtu.ge/Arch/Resources/publications-2021/jurnali%20nomeri%2014-15.pdf>

Annotation: The article discusses examples of traditional folk architecture conditioned by the climate on the example of the UK regions. Presented is a table created by me, which lists the types of folk dwellings of each specific region. The purpose of compiling this table was to systematically review and clearly show the type of housing developed over time in each specific region; We looked at the regional differences in housing types in the same era 97 These examples are presented in order to establish commonalities and differences in traditional folk architecture, which will then serve as an analytical system for generalization in regional architecture. Today's architecture, against the backdrop of its technological boom, looking for a new language of expression, looks back at traditional architecture. Because the overtaking of constructive know-how led to the cosmopolitanization of modern architectural language.

82)Melkadze M., Bezhuashvili M.

Personality, technologies, epoch

Modern problems of architecture and town planning, scientific-technical magazine No. 14, 15, 2021, ISSN 2233-3266

<https://gtu.ge/Arch/Resources/publications-2021/jurnali%20nomeri%2014-15.pdf>

Annotation: The aim of this article is to manifest how the epoch and culture determine the personality, which in turn influences the formation of the system of architectural thinking, for it is the individual who is the absolute center of architectural creation... The example of Oscar Niemeyer demonstrates both, the role and responsibilities of the individual in the field of architecture, as well as all the necessary factors that contribute to the creation of a healthy and adequate architecture. The last part of the topic discusses how technological development has changed not only the architecture but also the completely creative world. Emphasis is placed on the factors that make technological capabilities a source of creative constraint, resulting in unhealthy and inadequate architecture.

83)Melkadze M.

Western-oriented breeding problems of difficult terrain [On the example of private development of Makhata ridge Nadzaladevi]

Modern problems of architecture and town planning, scientific-technical magazine No. 14, 15, 2021, ISSN 2233-3266

<https://gtu.ge/Arch/Resources/publications-2021/jurnali%20nomeri%2014-15.pdf>

Annotation: The issue of cultivating difficult terrain has always been, is and will be topical question, as the constant problem is how to place an anthropogenic environment in the natural environment without vandalizing the latter. If we discuss the mountain architecture of our country, it is divided into two vectors: 1. Fortification systems - towers and 2. Residential structures such as: Shatili, Mutso and other settlements including villages- Castles. The subject of our discussion is the private development of Nadzaladevi in Makhata ridge and its problems. - What are these problems? – The comfortable living environment for human beings. The subject of the above mentioned discussion is a slope having Western orientation difficult terrain. It is an

area with unsatisfactory bioclimatic genesis requiring creation of a specific architectural system-structure. In dynamics it will complement practical part of our theory in future - in the form of an architectural project.

84)Nakhucrishvili O., Kupatadze R.

The process of transforming Anaklia into a smart port city – theoretical basics.

Modern problems of architecture and town planning, scientific-technical magazine No. 14, 15, 2021, ISSN 2233-3266

<https://gtu.ge/Arch/Resources/publications-2021/jurnali%20nomeri%2014-15.pdf>

Annotation: A brief review of historical and modern port cities shows the potential and impact of port cities on regional development; We can conclude that functionally developed and 117 well-equipped ports and port cities play an important role in the economic prosperity of the country where it is located. Nowadays, technological development and innovation allows us to create so-called Smart cities. The concept of a smart city fits well with ports as well. There are numerous smart ports and smart port cities in the world today. However, the selection of suitable technologies and effective integration in practice remains a challenge. What can we learn from examples? Is the creation and further development of smart port city in Anaklia real and feasible

85)Salukvadze G.

On Continuing Ecological Education

Modern problems of architecture and town planning, scientific-technical magazine No. 14, 15, 2021, ISSN 2233-3266

<https://gtu.ge/Arch/Resources/publications-2021/jurnali%20nomeri%2014-15.pdf>

Annotation: There is discussed the issues related to the problems of both ecological education and ecological culture of the young generation. The importance of a system of continuous ecological education is brought to the fore in shaping the ecological worldviews for the next generation.

86)Chachava N., Nahrendorf G., Fehérvölgyi B., Czuppon V., Pailodze N.,

Kutateladze R. PROFESSIONAL AND EDUCATIONAL ISSUES OF SUSTAINABLE ARCHITECTURE IN THE HOSPITALITY INDUSTRY

Modern problems of architecture and town planning, scientific-technical magazine No. 14, 15, 2021, ISSN 2233-3266

<https://gtu.ge/Arch/Resources/publications-2021/jurnali%20nomeri%2014-15.pdf>

Annotation: The aim of the research is to study the role and the factors of architectural influence on eco-innovative business model of SMEs. in a sustainable development of the hospitality industry. The research methodology includes the use of professional experience analysis and education elements. It is based on the results of EcoMode Project of Erasmus Plus program as a strong methodological resource and a database of components and functions supporting eco-innovative business models of SMEs. The study revealed the need for close cooperation among the economic, environmental and architectural sectors to realize a successful implementation of an eco-innovative business model for SMEs. The role and capabilities of an architect in the risk management process was illustrated in this research. Architects are needed to monitor and rehabilitate the damage done to the ecological system through identifying and fixing harmful impact factors. They channel e.g. the safe distribution of functions and fluids through smart and flexible planning .

87)Khabeishvili N., Tsetskladze M.

THE ROLE OF VIRTUAL – MULTIMEDIA TECHNOLOGIES IN SHAPING THE LOOK OF A MODERN CITY

Modern problems of architecture and town planning, scientific-technical magazine No. 14, 15, 2021, ISSN 2233-3266

<https://gtu.ge/Arch/Resources/publications-2021/jurnali%20nomeri%2014-15.pdf>

Annotation: There is discussed the virtual-multimedia system in the modern city as an element of aesthetics, that creates an effective visual-communication environment. Overview of different types of graphic design content in particular, the interactive content Media Facade - a modern universal visual language, which is responsible for the aesthetic side of the 193 overall picture of the urban environment and allows the environment to create a normalization of visual culture, the formation of the information sphere. The use of media facades is described in the city, both outside our country and in Georgia. At the end of the paper, an

important conclusion was made that when involving media facades in an urban environment, the area of their use and placement, the color spectrum of the facade lights and the intensity of the brightness should be precisely defined.

88) Xabeishvili N., Edisherashvili E.

Modern trends and stages in the development of an important component of the urban environment - artificial lighting

Modern problems of architecture and town planning, scientific-technical magazine No. 14, 15, 2021, ISSN 2233-3266

<https://gtu.ge/Arch/Resources/publications-2021/jurnali%20nomeri%2014-15.pdf>

Annotation: There is discussed the stages of formation and development of an important component of the night city - artificial lighting. The capabilities of modern lighting systems and their modern trends are highlighted, which is closely related to the progress in the field of lighting. The history of our capital and the current situation is described in the context of artificial lighting. Significant conclusions have been made.

89) Imnadze N.

“Water as a source of inspiration for architectural form creation”

Scientific-technical journal "Modern Problems of architecture and urban planning", # 14,15 TB.2021 GTU publishing house. ISSN 2233-3266

Annotation: In the article is analyzed the relationship between architecture and water and influence the water on form creation in the example of Portugal architecture. The relationship between water and architecture is considered in the aspect of form creation from the point of view the formation of a new space, synthesis and dialogue. The analysis showed that the form creation under the considered buildings reflects the main idea of the architecture: interaction of tradition and modernity, connection and dialogue between the city and the environment.

90). Imnadze N., Vardozanidze G.

XXI century public space architecture formation as a spectacle for visitors

Scientific-technical journal "Modern Problems of architecture and urbanism", # 14,15; publishing house GTU; TB.2021; ISSN 2233-3266

Annotation: Public spaces - one of the most popular and actual theme in modern urban planning. Public space this is a place for meetings, relationships, holidays and various activities. Therefore, such places should be attractive. In this report we analyze public spaces on specific examples. Examples represent new types of multifunctional architectural structures, their main function is create a person-oriented public space. However, the most interesting is the design process and the method itself. The way from concept to form, which generated interest and created a sightseeing. Sightseeing as a public sphere creator, increases its importance, becomes unique. Analysis has shown, that this is one more step in the development of public spaces.

91) Tinikashvili B.

Paradigms of folk Architecture in the genetic code of modern architecture"

Scientific-technical journal "Modern Problems of architecture and urbanism", # 14,15; publishing house GTU; TB.2021 ISSN 2233-3266

Annotation: There is discussed the methodology of bioclimatic construction and structures developed by people in different regions of the world for millennia, the harmony of folk architecture, local natural environment and climate. The transmission, analysis and development of these traditions for today

generations are a tribute to nature, the environment and traditional culture, as well as an example of solving the problems of sustainable construction.

92) Maisuradze M., Nasidze N.

Some issues of space reorganization in the architectural environment

Scientific-technical journal "Modern Problems of architecture and urbanism", # 14,15; publishing house GTU; TB.2021; ISSN 2233-3266

Annotation: There is examined the architectural environment and the importance of organizing space in it, The interaction of man and the environment, the difference between place, 91 volume and space, how a social-natural system is created and how a person dominates the environment. The city is considered a human dwelling. The city is like the cradle and the pinnacle of civilization, where the most noticeable examples of material and spiritual culture of mankind have always been and are being created.

93) Dzidziguri M., Khundadze E.

“Some Features of Shaping Modern Theatrical and Musical Buildings”

Modern problems of architecture and urban planning, scientific-technical journal N16, 2021, ISSN 2233-3266

<https://gtu.ge/Arch/Resources/publications-2021/jurnali%20nomeri%2016-3.pdf>

Annotation: The architectural features of several theatrical and musical entertainment buildings of the XXI century are examined and analyzed in the article. Based on this, several important aspects of shaping various types of buildings have been identified. In these aspects, the advantage of the particular case as a conditioning factor was emphasized. Innovative technologies, features of the environment and context, the conceptual vision of the architect inspired by peculiar biological modules - these are the factors that determine the originality and individuality of the design works considered in this article.

94) Lia Lursmanashvili, Tamila Kudava

“A PREREQUISITE FOR THE DEVELOPMENT OF A NEW METHOD FOR CALCULATING THE AREA OF BASIC DETAILS OF LEATHER”

Transport and machine building №1(50)2021 ISSN 1512-3537

Annotation: The paper discusses the study of the preconditions required for the development of a method for calculating the areas of basic details of leather garments (skirt, back, waist, collar). It is impossible to use a variety of voluminous constructions in leather clothing, as this may lead to an increase in the quantity of material and, consequently, the cost of the product, in order to select the optimal option of natural leather material, It is necessary to determine the number and shape of the structural elements for each product, which ensures that the product fits exactly to the figure and minimizes the norms of material consumption. For the rational use of natural leather material, the paper provides technical sketches of the main details of the product, which are divided into small details, using structural elements such as the division of details in the longitudinal, transverse, oval and oblique directions. This method of structural separation provides the desired shape of the product and the rational use of the leather material area.

95) Lia Lursmanashvili

“A Study of the Materials Used in the Clothing of the Clergy”

V International Scientific Conference “Culture and Art in Contemporary Context”

Conference materials; Batumi 2021; The Batumi Art State Teaching University Publishing House, 2019
ISBN 978-9941-9519-2-3 info@batu.edu.ge

Annotation: In the report discusses the materials used in the clothes of the clergy in ancient Georgia. Archaeological and ethnographic as well as historical sources indicate that the production of flax and wool fabrics was still widely developed in the ancient Georgian tr.

The Georgian translation of Genesis mentions a woolen garment along with a linen garment. Studies have shown that from the 5th century onwards, the production of silk cloth and its use in the clothing of clergymen was widespread in Georgia. Extensive historical material on the distribution and production of each fabric is given.

96) Imnadze N. Vardosanidze G.

Connection in Architecture

Scientific-technical journal "Modern Problems of architecture and urbanism", TB.2021 # 16. GTU publishing house; ISSN 2233-3266

Annotation: The purpose of this article is to analyze the peculiarities of the interpretation architectural connection between the past and the present on the example of two objects: Monastery of the Order Clariss next to the Ronshan Chapel and the reconstruction of museum on the territory of Historical and Architectural Museum Uplitsikhe. Both objects differ from each other in the functional program, also in the architectural form, however, the differences allow us to identify a common principle, which we called “Connection in architecture”. The connection creates a place for "memory" through a subtle and hidden dialogue with the past.

97). Imnadze N. Kordzaia G.

“Architecture of Gas Stations”

Scientific-technical journal "Modern Problems of architecture and urbanism", TB.2021 # 16; GTU publishing house, ISSN 2233-3266

Annotation: Gas stations located in Tbilisi, their development and modification transformation is discussed.

The main part is dedicated to the analysis of stations, discussion of their architecture in the visualaesthetic aspect, urban planning and foreign historical analysis.

They briefly discussed what you think and what harms caused by incorrect placement, moving safety norms to the city. Recommendations, solutions, according to Georgian and foreign examples.

98) Imnadze N. Kurkhashvili Z.

“Space Architecture”

Scientific-technical journal "Modern Problems of architecture and urbanism", TB.2021 # 16; GTU publishing house; ISSN 2233-3266

Annotation: The article discusses space architecture, based on current technological advances.

The main part is dedicated to project analysis. Consideration of their architecture by Visual and technological aspects, urban planning solves based on current practice.

Addressing these issues will allow us to see development trends in a broader context and ways to address certain challenges clearly.

99)Bolkvadze M., Zukakishvili I.

Methods of Definition and Protection of the View Corridors

Scientific-technical journal "Modern Problems of architecture and urbanism", TB.2021 # 16; GTU publishing house; ISSN 2233-3266

Annotation: The article discusses methods for defining and protecting the view corridors, as well as their influence on the preservation of important panoramic views of the city. Problematic issues are raised and given some suggestions, as well as foreign examples and ways to solve them.

100)Vardosanidze V. (Lado)

Opinions on the Emancipation of Urbanonymy - an Important Element of the Intangible Cultural Heritage

Scientific-technical journal "Modern Problems of architecture and urbanism", TB.2021 # 16; GTU publishing house; ISSN 2233-3266

Annotation: Despite the theoretical, at first glance, nature of the article, it serves a practical, concrete and, at the same time, ambitious goal. This goal is to actualize, in the normative definition of typological spheres of intangible cultural heritage, the issue of the inclusion of urbanonymy - in domestic and international practice, until today, an ignored element. It is emphasized that the introduction of this consideration into the public consciousness is especially important in post-communist countries, traumatized in the ideological, political and socio-cultural sense; including in Georgia. The article deals with a retrospective of this issue, mainly based on Georgian examples; at the same time, the importance of the "collective memory" of the urban community is highlighted. Specific illustrations from Tbilisi practice are given. Finally, concrete actions are proposed at the national and international levels.

101)Melkadze M., Geguchadze Z.

The Musical Harmony in the Architecture

Scientific-technical journal "Modern Problems of architecture and urbanism", TB.2021 # 16; GTU publishing house; ISSN 2233-3266

Annotation: The purpose of the Article is pointing out the connection and mutual harmonization between the sounds of music and mutual harmonization. The specific examples provided in 88 this article is the clear proof regarding the emotional connection between the proportions of architecture and sounds of music. Thus, the examples given in this article will help us in the future to gather up the proofs to support the above-mentioned article.

102)Melkadze M., Bezhuashvili M.

Pandemics and Architecture

Scientific-technical journal "Modern Problems of architecture and town planning", TB.2021 # 16; GTU publishing house; ISSN 2233-3266

Annotation: The article discusses how an important, formative event in a particular era, such as a pandemic, determines the direction of architecture as a whole. The article clearly shows that infectious diseases have been constantly present throughout the history of human development, and, consequently architecture as a field has been constantly transformed to become the best tool for the survival of mankind. The example of Alvar Aalto discusses the path that the architect takes as a person - in the form of an architectural battle against disease, when architecture - with tectonics, color, engineering systems, structure, spaces and all other architectural elements - ensures human well-being.

103) **Melkadze M.**

Hidden Heroes of Georgian Architecture

Scientific-technical journal "Modern Problems of architecture and town planning ", TB.2021 # 16; GTU publishing house; ISSN 2233-3266

Annotation: The purpose of this article is to recall the brilliant representatives of Georgian architecture whose work left an indelible mark in the history of our country and the capital in the forms of unique architectural creations. All of this should serve as a clear example for the architects of the new generation and not only for them of the high ethical-moral status of every citizen of the country and in particular the architect to protect the prominence and authenticity of their country

104) **Mujiri V.**

Suprematism as Inspiration

Scientific-technical journal "Modern Problems of architecture and town planning", TB.2021 # 16; GTU publishing house; ISSN 2233-3266

Annotation: Innovative ideas and trends in art that appeared one century ago are still relevant today and serve as a source of inspiration for modern architects and designers In the XX - XXI century with the creation of computer composite formats, new digital design technologies expanded the geometry of architectural forms and opened up engineering ways of their construction and implementation. The artistic insights of the 1920s, inherited by modern architects from the leaders of the Russian school (Rodchenko, Tatlin, Ginzburg, Golosov, Ladovsky, Krinsky, Melnikov, Leonidov, Malevich, 112 Krutikov, etc.) found a second life in the projects of modern architects (Hadid, Libeskind, Koolhaas, Koop Himmelbau, Eisenman, etc.).

105) **Titvinidze Z.**

Key Architectural-construction Concepts (Terms) in Modern Design Practice

Scientific-technical journal "Modern Problems of architecture and urbanism", TB.2021 # 16; GTU publishing house; ISSN 2233-3266

Annotation: The article deals with modern verbal architectural and construction professional terms and terminology that are widely used in practice, special literature construction - architectural academic or periodical literature and project documentation, electronic (digital) Internet sources.

106) **Khabeishvili N., Gogolashvili M.**

Green Roofs in Urban Design – esthetics and Function

Scientific-technical journal "Modern Problems of architecture and urbanism", TB.2021 # 16; GTU publishing house; ISSN 2233-3266

Annotation: The article discusses one of the most popular trends of today's reality - the use of roofs with unusual surfaces for landscaping in the design of the urban environment. The paper describes the ways of arranging green roofs and presents their positive features, including - improving the overall ecological background of the city, solving energy efficiency issues, sound insulation and noise reduction, oxygen supply to residents, cleaning the air from dust particles, etc. The experience of the world's leading cities, which are actively implementing green roof technology, is given. Along with world examples, the article also discusses the current situation in our capital in this regard. Important information on this topic is provided and a significant conclusion is made.

2022

107) **M. Pochkhua, T. Kharbedia.**

Some prerequisites of the concept of urban development of Samtskhe-Javakheti region.

Modern problems of Architecture and Town Planning ,Scientific and Technical, 2022, N17, ISSN 2233-3266.

Annotation: The article discusses the current problems of the Samtskhe-Javakheti mountainous region on the example of the village of Tabatskuri. Samtskhe-Javakheti is one of 12 administrative regions, roughly equivalent to a province, in Georgia. is comprised of six administrative districts: Adigeni, Akhalkalaki, Akhaltsikhe, Aspindza, Borjomi, and Ninotsminda. Adigeni, Akhaltsikhe, and Aspindza are commonly referred to as Samtskhe or Meskheti. The region's agriculture is made up of family farms and commercial farms. 73% of family farms produce agricultural products for own use, while for others - agriculture is a source of income. The level of commercialization of agriculture in the Samtskhe-Javakheti region is higher than in any other regional of the country.

The village of Tabatskuri is located in the Samtskhe-Javakheti region of Borjomi Municipality, 2000 meters above sea level, on the shore of lake Tabatskuri. Part of it is built on the peninsula. The local population is mainly involved in dairy production, fishing and livestock. The village of Tabatskuri (2000 meters above sea level), located in the peninsula, is invading in the lake. It is rich in impressive landscapes and cultural monuments.

108)**G.Tsulukidze.**

The interior of a modern restaurant as a space for the medium of mass culture and visual communication.

2022, technical magazine "Building" N2 (58); ISSN 1512-3936.

Annotation: The purpose of this article is to study the restaurant as an environment of mass culture. Interior design in a modern restaurant is carried out haphazardly and chaotically. The aesthetic needs of different types of users are not reflected. There is no stylistic and artistic change in the interior of restaurant establishments with the change of time and era.

109)**T. Chigogidze.**

Origins and Development of Multimedia Designing at the Faculty of Architecture, Urban Planning and Design;

2022(17), Modern Problems of Architecture and Town Planning; Scientific and Technical Magazine, Technical University, Tbilisi; ISSN 2233-3266.

Annotation: Dedicated to the colleagues of the faculty of architecture of the Technical University, whose pedagogical, scientific and design activities were related to the problems of using computational techniques in architectural-urban planning design and research. No matter how paradoxical it may seem, the preconditions

and origins of this activity include more than half a century of history at us. However, there were certain institutional and organizational preconditions in the form of structural units corresponding to the Department of architecture of the Polytechnic Institute of Georgia.

110) K. Salukvadze, Sh. Gelashvili; Ecological assessment of the territory;

Stu 2022#17; Modern problems of architecture and urban planning Scientific and technical journal ISSN2233-3266.

Annotation: The article discusses the issue of complex ecological assessment of urban areas of the city, which is one of the important problems of modern urban construction, which is based on: preservation of the natural environment, rational use of natural resources and optimization of the city environment.

111) K. Salukvadze;

"Safe architecture and the role of chemistry in construction.

STU Scientific and Technical Magazine Building" #3(63) 2022; ISSN1512-2936

Annotation: The article discusses the relationship between chemistry and architecture, two important fields, that chemistry as a natural science plays a great role in architecture. Construction materials that are intensively used for finishing modern interiors are discussed. Based on their properties, it is important to understand how safe they are to use.

112)N. Kochladze;

„Current Development of Open Educational Resources (OER) in Georgia“ (coauthors - Tsutskiridze D., Zhizhilashvili N.),

Scientific and Technical Magazine N17 Modern problems of Architecture and Town Planning; The publishing house “Teqnikuri Universiteti”, signed for printing 18.05.2022; ISSN 2233-3266 DOI: <https://doi.org/10.36073/2233-3266>

Annotation: Rapidly changing environment, technological change, and the crisis caused by the COVID-19 pandemic have posed significant challenges to modernity. Significant changes have taken place in the field of education as well, in particular, the digital world has become an integral part of the field of education. New opportunities for knowledge sharing and learning have been created, including the development of open educational resources (OER). The use of open educational resources (OER) facilitates the free dissemination of materials, supplementation of educational materials and textbooks with new information; Delivering course content in a variety of formats; Rapid dissemination of information; Receiving continuing education, etc. Because of its usefulness, the OER is gaining ground in more or less every country. UNESCO, William and Flora Hewlett Foundation, Andrew W. Mellon Foundation, World Bank, Open Education Community, Make Textbooks Affordable, College Open Textbooks, Open Knowledge Foundation, "OER Support from SPARC" [14] and other organizations are participating in the activities in support of OER. In order to study the current situation of the OER in Georgia, we have conducted research on the activities carried out, analyzed the Georgian-language information and material available in the Internet space. As it turned out, at present, in Georgia, the society is at the stage of being acquainted with OER and the first attempts to introduce it. Activities in terms of popularization and development of open educational resources are unambiguous, though small. The issue of 139 sustainability is also important. Considering the foreign experience, it can be said that OER-related initiatives are sustainable and do not have a one-time or short-term nature with the constant

activity and financial support of stakeholders. The continuous development of OER in Georgia represents another means of participation in important processes in the world.;

113) N. Khvedeliani;

Ecological and cultural goals of Georgian national parks and protected areas;

Publishing House "Technical University", Tbilisi, Collection of Scientific Works of Technical University of Georgia; №1(523), 2022; ISSN 1512-0996; DOI: <https://doi.org/10.36073/1512-0996>;
<https://doi.org/10.36073/1512-0996-2022-1-22-29>

Annotation: National parks protect a variety of areas for a variety of purposes. In addition, nature and culture-based tourism on an individual scale is a manifestation of a larger community commitment. People should visit the national park to learn about and appreciate the locally preserved natural and cultural heritage. Traditional connection with nature, arts and crafts traditions, peculiarities of arrangement of dwellings, rituals, customs belong to the field of historical and cultural heritage - "living traditional culture", which is spread and preserved by the population living in national parks and protected areas. The article discusses approaches and guidelines on how to protect and at the same time use heritage sites in protected areas from a tourism perspective. The article also includes examples from abroad. The purpose of the article is to protect, develop and preserve the historical and cultural heritage of national parks and protected areas. It should be noted that such facilities are one of the most important places for the protected areas of Georgia.

114) G. Natsvlishvili;

The problem of existence of brownfields in Tbilisi.;

Publishing House "Technical University" Modern problems of architecture and town planning, scientific-technical journal № 17 ; Tbilissi 2022

ISSN 2233-3266 DOI: <https://doi.org/10.36073/2233-3266>

Annotation: Fortunately, brownfields in Tbilisi are not as visible as in some cities. Tbilisi is a beautiful city and it is possible to visit the city and travel from the airport or through the city without noticing the presence of brownfields. This is very important to build commercial confidence in the city. Brownfields are not a problem, they are currently a lost opportunity, and in the future, if properly and wisely planned, can become a huge opportunity. The city needs to make the necessary decisions about its brownfields. Of course, there will be problems, but above all, some brownfields represent the greatest prospects for the city - as a space with huge prospects. The city must prioritize its brownfields projects and ensure that in the future those areas that can bring the most benefits to the city are protected from unreasonable development.

115) T. Chubinidze; T. Chanturia

„ Development trends of country houses in current foreign and Georgian architecture"

Scientific and technical magazine "Modern problems of architecture and town planning" N 17; 2022.

Annotation: The article discusses the current trends in foreign and Georgian architecture, for the countryside houses and villas that have recently become more acute. The examples of the tasks of this direction of architecture and the ways of solving them in a new way are given some examples of foreign architectural samples and in this background the visions of Georgian architects, their various approaches and individual features. At the same time, the damage caused to the creation of a common face by the intervention of an uninformed customer is emphasized.

116) **M. Davitaia, N. Barnabishvili,**

Artistic-decorative motifs of the totalitarian period sanatoriums and baths of the medical-recreational resort - Tskhaltubo in the context of national traditions,

Works og GTU, N1 (523), 2022, p.183-196

Annotation: It is very important to study the issue of nationality and to establish the connection between national traditions and totalitarian architecture. The article discusses the connection of artistic-decorative motifs of the totalitarian period sanatoriums and baths of the medical-recreational resort, in the context of national traditions. The issue of unity of national traditions, classical and national decor and comparative analysis taking into account their subordination approaches is discussed. During the research we found literature and albums, photographs kept in private archives and all the documents that would allow us to discuss the artistic-decorative features of the buildings built in the totalitarian period in the medical-recreational resort Tskaltubo in the context of connection with national tradition.

117) **M. Davitaia, G. Kartvelishvili,**

XVIII-XIX centuries of Tbilisi. Religious buildings in the studies of scholars,

scientific-technical journal "Building" N3(59), ISSN-1512-3936, 2022. p.91-95

Annotation: Same religious buildings that disappeared from the architectural space of Tbilisi during the Soviet period or changed their function, in particular, the synagogue, the mosque, the Orthodox, Gregorian, Catholic and Lutheran temples. The works and archival materials of Tbilisi various travelers, historians or researchers are reviewed.

The information about the temples that survived the collapse of the Soviet government, but continued to exist with other functions - residential, theatrical or office space, are provided.

It is noteworthy that the main reason for the demolition of religious buildings during the Soviet period in different parts of Tbilisi was the development of this or that area in a new way. With regard to Georgian Orthodox churches, the Soviet authorities destroyed only those that were not cultural heritage sites at the time.

118) **M. Davitaia,**

Representation of architecture,

Collection of scientific conference of the Faculty of urbanism and design, "modern problems of architecture and town planning" online conference journal N17, ISSN-2233-3266, 2022. p. 40-49

Annotation:The article is considered to the methods originated in a modern architecture, related with the representation (presentation of initial ideas, the repetition) of forms generatrix arisen during the development. The repetition might be the purposeful architectural tactics, which drives the initial idea to the final perfect result. It is also known that the repetition destroys the initial contents. In architecture repetition regime moves away the creativity and instead prefers endless cycle of presentation of initial ideas. There are lot's of examples of the repetition in the world architecture. For example in Egyptian, Greek, Roman, Renaissance, neo-classicism, and other period's architectural works. XX century modernism, which appeared in American continent in very special case, was fundamentally based on repetition as transformation into reality. There are given some examples of representation in the report namely.

Nowadays architectural motives used by world architects and there were always some similarities, since the sources of architectural formations and principles are boundless. Compare with previous times, when it was quite difficult to be aware and to be informed on contemporary running process in world architecture, after the development of modern communication possibilities giving to architects the professional "food" to borrow these ideas and use in many projects the architectural clichés which are quite easily visible. This article is the kind of effort to recognize these clichés.

119) **M. Davitaia, A. Rekhviashvili,**

Fragments of the Templons Discovered in Racha in the Recent Decade

arch of Stu. Collection of scientific conference of the Faculty of urbanism and design," modern problems of architecture and town planning" online conference journal N17, ISSN-2233-3266, 2022. p. 49-59

Annotation: Stone and plaster templons from various villages of Racha such as Chordi, Ghunda, Skhieri, Bokwa, Zemo Bari, Seva, Samtisi, and Kedisubani have been discovered in recent decades. They date back to the 10th and 11th centuries and are less known or completely unknown to the academic circles of art historians. These artifacts have analogies among stone carvings of the same period (templons from Potoleti, Khashuri, Mtskheta, Tsebelda, Djruchi, Savane, Spety, etc.). Despite the artistic and stylistic similarities with the above-mentioned items, some create a separate group or originate from the same workshop. The study of the above specimens has shown a wide range of templons from Racha, and their examination has increased the importance of their study within the whole process of stone carving of X-XI centuries in the specified region.

120) **Dzidziguri M., Iosebidze G.**

“Visual Art in Different Spaces”,

Modern problems of architecture and town planning, scientific-technical magazine, #17, 2022, ISSN 2233-3266

DOI: <https://doi.org/10.36073/2233-3266>

Annotation: The article discusses the peculiarities of the perception of conceptual art, in which the urban and architectural environment plays an important role. Estimations are given based on the analysis of several specific examples of visual art in the form of scenographic and installation works embodied in the first decade of the 21st century by designer N. Chubinishvili. The author leaves free space for the viewers to express their emotions and attitudes based on individual association. It is interesting how these associations change, depending on the number of sculptures, their historical-geographical or external and internal spatial characteristics. Naturally, associations are subjective, depending on the informativeness and mood of each perceiver. Moreover, the perceiver himself becomes a passive or active participant in the "performance", which is conditioned by the author's intention.

121) **Lursmanashvili; G.Kvantisze; N.Failodze**

Color Harmonization in Georgian Ornaments

Georgian Scientists; Vol. 4 Issue 5, 2022;

<https://doi.org/10.52340/gS.2022.04.05.41><https://journals.4science.ge/index.php/GS/article/view/1387/1472>

Annotation: In the paper are discussed the issues of research of the colors used in Georgian ornament.

In the Georgian ethnography, the ornaments are represented in a various way as in secular so in the church clothes, shoes, carpet products, weapons, jewelry, stone carpentry, pottery and etc.

The ornaments are presented with a rich palette of colors in pictorial iconography, manuscripts and miniatures. Ornament, as one of the important monuments of Georgian cultural heritage, is the representation of national identity and indigenosity.

The development of tourism in Georgia was accompanied by the commercialization of ethnographic items and as a matter of fact, we find gross inaccuracies - in terms of forms, origin, dominant colors and decorations.

As a result, often, neither the shape nor the combination of colors of the ornaments have anything to do with the old Georgian ornament. There is a danger that the stylization will continue and lack of information will lead to its complete confusion and even to oblivion.

In the Georgian sciences ornaments are studied as in the artistic so in the symbolic ways.

In spite of existing situation with studies, systemization of the Georgian ornaments is not conducted according to form, color and symbolic peculiarities and their rational usage in the various technologies sustaining and protecting the original forms and colors.

122) **N. Imnadze, G. Vardosanidze**

Symbolic-informational "architectural culture" and its importance in the formation of a tourist cluster

Works # 1 (523); Georgian Technical University,

ISSN 1512-0996 DOI: <https://doi.org/10.36073/1512-0996>; Tbilisi 2022, Publishing house "Technical University".

Resume: This paper discusses one of the directions of tourism - "Wine Tourism". This direction was established at the beginning of the XXI century as a "wine architecture" and developed in many countries around the world, including Georgia. The paper analyzes the relationship between wine and architecture on the example of famous wineries from an architectural-artistic point of view and understands their importance in the context of the formation of a tourist cluster. The analysis revealed that architectural interpretations have created unique tourist sites far from the city, in the countryside or in the vicinity, which integrates radically different architectural currents, diverse concepts, including multifaceted contextualism with several aspects in mind: synthesis, psycho-emotion, script, and associations. Thus, a peculiar symbolic-informative "architectural culture of wine" was created to popularize wine tourism.

123) **Nino Imnadze, Elguja Kurtskhalia, Otar Mchedlishvili;**

For optimal planning and management of the urban system

Works # 4 (526) Georgian Technical University,

ISSN 1512-0996 DOI: <https://doi.org/10.36073/1512-0996>; Tbilisi, 2022. Publishing house "Technical University"

Annotation: Mathematical modeling of urban processes, system planning and land management are very topical problems. The solution of these problems according to the traditional method is carried out according to the subjectively chosen method. In this case, a number of questions and data are usually ignored or corrected. Which leads to the disintegration of the structural unity of the urban system. In this paper, a new method and algorithm has been developed to identify urban "inconsistencies" - both in terms of urban planning and socio-economic issues that are associated with urban planning and management.

124). **N.Imnadze, G. Gogrichiani**

Kutaisi, the historical city bridges

Scientific and technical journal "Building" №. 3(63) Tbilisi 2022, ISSN 1512-3936

Annotation: In the article analyzed of existing bridges in the historical part of Kutaisi and the significance of their construction for the urban development of the city center. Over time, depending on the socio-political

situation, the city developed on the left bank of the river, which made it necessary to build bridges. Most of the bridges were built in the XIX century, which can be clearly seen on the general plan - the locations of the existing bridges and the prospective directions for the construction of new bridges. This process had a significant impact on the formation of the city center, which continues to this day.

In the 60s of the XX centuries, the urban development of the city required the relief of the center from excessive traffic flows, which is why it became appropriate to build a new bridge, which was already marked on the existing master plan. It was successfully implemented in the section between the Red and White Bridges, with the project of architect Givi Todadze. It should be noted here that the new bridge is an example of how tactfully, with architectural understanding and respect for the environment, it is possible to intervene in the fabric of the historical city without causing dissonance in the area of historical bridges. Thus, the new bridge not only accomplished the transport function, but also fulfilled the challenge of modernity and made the connection of the two parts of the city center even more complete, both functionally and artistically.

125) **G. Vardosanidze**

"Healthy architecture" and its importance in the tourism industry"

Modern problems of architecture and town planning, scientific-technical journal № 17 ; Tbilissi 2022

ISSN 2233-3266 DOI: <https://doi.org/10.36073/2233-3266>

Resume: In this article, we tried to identify the features of designing public buildings and spaces in the context of "healthy architecture". The issue is relevant for the formation of touristic objects and recreational spaces. It is known that travel has a positive effect on the psychoemotional state of people and on their general health. Based on the task of the research, we analyzed objects realized in 2013-2018, which have many visitors and users: "Summer Gallery" Serpentine in London - Mexican architect Frida Escobedo, "Yangshou Sugar House" hotel in China - Chinese architect Dong Gong, residential house in America - American architect Brian Massey. The selection of objects was not random. We can describe them as a "sight" for visitors, functional and human-scaled. Inspired by the past, architects from different countries design a humane environment. They are create architecture for today. The spatial-volumetric structure and planning character of the object designed for a harmonious connection between man and environment. Which is the basis of "healthy architecture". "Healthy architecture" forms an intermediate link between folk culture and the present.

126) **N. Imnadze**

"Architectural Heritage: the Environment and Modern Society"

„HERITAGE WITHOUT FRONTIERS. KNOWLEDGE AND PROTECTION OF CULTURAL HERITAGE ON THE OCCASION OF THE 50TH ANNIVERSARY OF THE UNESCO WORLD HERITAGE CONVENTION AND THE 35TH ANNIVERSARY OF THE ERASMUS STUDENT MOBILITY ACTIONS“ edited by Nora Lombardini and Miriam Terzoni; ISBN 979-12-218-0565-9; prima edizione Roma dicembre 2022; pag. 49-69

Annotation: In article, analyze one of the important period of Architecture Georgia – as we cold laetest modernism. Last period of end Soviet Union – 1974 – 1990. this period of history of Georgian architecture requires serious research. What is their place in the 21st century urban environment? Whether they remain in the memory or a new history is being created for them. In a short article we have tried to identify the problems in which the changes of the present era are clearly manifested. It is important that the architectural changes do not have a harmful character, but to promote their appearance. This brief incomplete analysis reveals that this period requires a critical understanding.

127) **N. Imnadze**

„Restoration-rehabilitation of the historical district of Tbilisi“

„HERITAGE WITHOUT FRONTIERS. KNOWLEDGE AND PROTECTION OF CULTURAL HERITAGE ON THE OCCASION OF THE 50TH ANNIVERSARY OF THE UNESCO WORLD HERITAGE CONVENTION AND THE 35TH ANNIVERSARY OF THE ERASMUS STUDENT MOBILITY ACTIONS“ edited by Nora Lombardini and Miriam Terzoni; ISBN 979-12-218-0565-9; Prima edizione Roma, Dicembre 2022; pag. 129-145

Annotation: The article showed, that the further development of the historical districts of the city, in each case, should be determined by the specificity of the district, based on historical and architectural features. For this purpose, it is necessary to reveal the cultural-historical, memorial and architectural values of the reconstructing object, their classification, a thorough study of planning and spatial compositional structure of both individual monument and the whole area. We need to find both new forms and appropriate methods of space and functional organization, that will complement as well as refine the established architectural environment of the city.

128) **Beridze L., Girkelidze T.**

Glass facades in the architecture of tall buildings

Modern problems of architecture and town planning, scientific-technical journal № 17 ; Tbilisi 2022

ISSN 2233-3266 DOI: <https://doi.org/10.36073/2233-3266>

Annotation: Architecture is an interplay of organized, functional, technical, aesthetic principles in the environment, influenced by many factors among which are almost always the glazed facades of buildings. In the XIX-XX centuries, glass became one of the factors that influenced the development of a new aesthetic of the architectural object, the shell of which should protect people from unfavorable environmental factors and, at the same time, ensure its maximum visual connection with the outside world. Glass plays an important role in the architecture of tall buildings. It improves the aesthetic quality of tall buildings, reveals tectonic characteristics, gives the buildings an individual architectural-artistic look. Creates a unique look of the facade of the building, as well as the use of different colored glass. Modern transparent facade systems allow the architect to implement different types of high-rise buildings in shape, color, lighting, to make architectural-artistic intent, expression, scale, proportions and other aesthetic features a reality. In order for glass to be used successfully in modern construction, in addition to its basic functions, it must meet the requirements set by a number of indicators, such as: thermal characteristics; safety; Hardness; Optical characteristics; Sound insulation; Duration; Fire, impact and lead resistance and more. As for optical properties, when glazing tall buildings, the focus should be on optical distortion. Improper glass selection and optical distortion and color heterogeneity significantly worsen the appearance of the building.

Innovative engineering solutions in housing Tavkhelidze M. Resume Modern architecture is characterized not only by artistic and rational construction schemes but also by additional devices that give to architectural objects new functional features and purposes. The said, depends on the use of both original mechanical systems as well as modern control systems and sensors, the introduction of which in architectural objects gives them new technical capabilities in the service of habitants. Based on the here mentioned, in the present work are given several examples of schemes of engineering systems that have a distinct functional purpose.

129) **Maisuradze M., Nasidze N.**

Work with cultural heritage sites in Tbilisi and the potential for the formation of architectural monuments in the city

Modern problems of architecture and town planning, scientific-technical journal № 17 ; Tbilissi 2022

ISSN 2233-3266 DOI: <https://doi.org/10.36073/2233-3266>

Annotation: The topic includes defining the importance of the cultural heritage monuments of the city of Tbilisi, a structure that can unite the types of different functions, public and private spaces, to maintainance their relation. How architecture was developed from the past to the present and what effect the last century had on the development of Tbilisi. Of course history is an important link which has written its pages in all fields and the destruction of these pages is meant to erase everyhing. Consequently, understand the history of the country without it, is 92 unimaginable. In fact, our city was built in the last century. Currently, the focus is on aspects of urban planning. When working with cultural heritage sites, the potential for the formation of a city of architectural monuments is considered. Where the following factors are defined. • Urban planning options; • Scale (plan dimensions, storeys, reasonable facade solution); • Composition and structure; • Silhouette (height and volume of the building, roof shape, Material selection and color scheme); • Stylistics (dissonance, contrast, imitation). In addition, there are a number of other problems - how to introduce a new object, in a historical setting. How a new facility is embedded in the fabric of the city in terms of functional planning and spatial. What should be the height of the building for a safe and dominant compositional impact. The potential for social, artistic and urban development of a particular section of the city should also be considered, as it is much higher for cultural heritage sites.

130) Melkadze M.

The process of harmonization-synchronization of architectural theory and practice in the epoch-making context

Modern problems of architecture and town planning, scientific-technical journal № 17 ; Tbilissi 2022

ISSN 2233-3266 DOI: <https://doi.org/10.36073/2233-3266>

Annotation: Nowadays, in the world of architectural space the process of increasing activation of the dialectical narrative - the unity of the opposites - is actively taking place. What is meant by this provision - the unity of the opposing? On the one hand, it means the issue of architecture as a science and, on the other hand. The issue of architecture as a creation and consequent practice – including the interrelationships and interdependencies. The purpose of the article is to examine in what aspect do we want to consider the above mentioned provision. 1. Architectural activity; scientific research; creativity - design; 2. Classical architectural education which includes all three stages of the educational program as a whole structure of interdependent and logical, systematic development. Does time create a man or does man create time? This is a sacred question which is very relevant in the modern world, in particular in Georgia. Does the epoch create a Creator, or does a Creator create the epoch? In the XX century, the architects created the epoch. Today, the era is created by the architects, that is, technologies - guidelines "Cyberprof". These are the names of creators. This reality has destroyed medicine and kept the doctor-healer away from the patient! The same thing is happening and waiting for our field! ... P.S. Creation is man - the crown of the world . that is how a man was create. A man was created by the truth and not by the stick, which was used by man from the past and is still used by him today, if needed !!! ..

131) Kipiani G. Spatial Arrangement, Urban Planning and, Architecture Some Issues

Modern problems of architecture and town planning, scientific-technical journal № 17 ; Tbilissi 2022

ISSN 2233-3266 DOI: <https://doi.org/10.36073/2233-3266>

Annotation: The report discusses some issues of spatial arrangement, urban planning and architecture. There is an attempt to answer the question - why is it that the development regulation system, which is effective in many European countries, works poorly or does not work at all in Georgia. In order to answer this question, a parallel discussion of the German system and the norms, rules and practices adopted as a result of its implementation in Georgia is underway. Issues are discussed in the report without undue detail, so that less important facts do not interfere with the main issues. The activities of the Agency for Transport and Urban Development in Tbilisi and the Tbilisi Architecture Service are also discussed. The technical regulations "Building safety rules" are briefly discussed. It is requested that this document be examined. It is noted that the correction of the situation, along with the clear legislative issues, requires provision of a relationship focused on the proper development of practice and legislation.

132) **Chachava N., Gersamia L. Poti - a city and its invisible values**

Modern problems of architecture and town planning, scientific-technical journal № 17 ; Tbilissi 2022

ISSN 2233-3266 DOI: <https://doi.org/10.36073/2233-3266>

Annotation: There are cities where natural potential is invisible and undiscovered. The illusion arises that time has inspired and stored their potential information only in the form of DNA code. Of particular interest are the cities located at the hub where the rivers join the sea. The function of such cities since ancient times was fortification-defense, trade, agriculture and many more. Such cities are distinguished by a peculiar characteristics like landscape, spatial openness, attractive economic and ecological environment. The city of Poti, ancient Phasis is no exception - known for its port as a navigation hub on the world trade route till nowadays can't use and develop its opportunities and landscape potential fully due to a number of factors. This paper deals with the study of these opportunities, invisible values of the city in order to define the tools and mechanisms to overcome the problems and find the way for future solutions. As a result, these investigations will support the planning of activities and processes related to the city, that will greatly facilitate the fast and sustainable development of Poti City.

2023

133) **M. Davitaia, G. Kartvelishvili**, Cultural-historical and architectural-artistic analysis of the ruined Kaloubani and Amaghleba temples in Tbilisi, Works og GTU, N (527), 2023.

Annotation: In Tbilisi, representatives of different denominations have never fought each other on religious grounds, unless we count the Bolsheviks and their "League of Militant Atheists", who from the end of the 1920s declared a fight against representatives of all religions and razed many churches to the ground. The article talks about, among the many religious buildings destroyed in Tbilisi during the Soviet period, two Orthodox churches - St. George's Cathedral in Kaloubani, which was built on the ruins of an old Georgian temple in the 50s of the 19th century during the annexation of Russia, and the amaghleba church in Sololaki, built by Platon Ioselian in 1852, which is an old It was built according to the Greek temple and renovated at the end of the 19th century. The article presents the cultural-historical and architectural-artistic analysis of the churches destroyed by the Soviet authorities since the 1930s, the reasons for their construction and destruction.

134) **L. Lursmanashvili; N. Natbiladze, O. Rukhadze**

Traditional technology of felt making and modernity.

Transport and machine building №1(56)2023 ISSN 1512-3537

The article presents both the traditional techniques of felting and new technologies that have significantly enriched and expanded the area of use of felt. The characteristics of felt and different types of felt according to composition are discussed. Attention is focused on three technologies of felt production - flat, seamless and voluminous.

The article describes the winding and unwinding device of flexible elements, the purpose of which is to increase the performance and simplify the winding technology. From the technologies analyzed in the paper, it follows that new felt production technologies lead to the need to develop a scientific direction related to the study of the properties of modern felt.