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NEW WOODEN RECREATIONAL OBJECTS OF THE CARPATHIAN REGION OF UKRAINE. FEATURES OF ARCHITECTURAL AND PLANNING DECISIONS

NOWE DREWNIANE OBIEKTY REKREACYJNE KARPACKIEGO REGIONU UKRAINY. WŁAŚCIWOŚCI ARCHITEKTONICZNO-PLANISTYCZNE

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ABSTRACT

In the research, based on the analysis of natural examination results and project documentation it was discovered the features of architectural and planning decisions of wooden recreational objects. By identifying the characteristic features of architectural and compositional signs of buildings and constructions an attempt is made to determine their stylistics.

Key words: Carpathian recreational region, wooden recreational architecture, architectural and planning decisions.

STRESZCZENIE

Badania przeprowadzono na podstawie analizy wyników badań terenowych i dokumentacji projektowej, ujawniono właściwości objętościowo-planistycznych rozwiązań obiektów drewnianych, rekreacyjnych. Poprzez określenie charakterystycznych cech architektonicznych i kompozycyjnych budynków oraz ich konstrukcji podjęto próbę określenia ich stylu.

Słowa kluczowe: Karpacki teren rekreacyjny, drewniana architektura rekreacyjna, decyzje architektoniczne i planistyczne.

1. INTRODUCTION

Tradition of recreational activity in its present sense in the Carpathian region has its 200 years old history. It starts from the time of discovery mineral water sources, with, curative properties by balneochemist's Teodor Torosevych's. This event was an important prerequisite of development of recreation in Eastern Galychyna. It had a great value, which influenced on formation of resort architecture. Recreational industry of the Carpathian region from the beginning of its origin organically nominated in European cultural process of the XIX – the first half of the XX centuries. Architectural and planning decisions of resting houses consorted with aesthetic stylish constructive and technological requirements of that time.

The next stage in recreational industry of the Carpathian region is a half-century period of stagnation, which lasted till the end of the XX century. At that time economic and cultural ties with European countries were broken. Changing the political system and the methods of management braked all the developing processes in recreational industry.

The situation in recreational industry began to change when Ukraine proclaimed its independence in 1991. Economic crisis in the country in 1990s and realization of tasks regarding to returning to market economy caused chaos. However in 2000s the activation of construction activity in the Carpathian region occurred. Nowadays the situation in wooden construction has the tendency of transition from quantitative to qualitative architectural and planning, aesthetic and technological indexes. That's why there was a necessity of research of wooden resting architecture factors and processes which influences on it.

Analysis of recent research and publications. Fundamental issues of formation and development of wooden resting architecture in the Carpathian region were observed by scientists such as Kh. R. Kharchuk, Yu. H. Hoshko, I. R. Mohytych, T. P. Kishchuk, P. M. Phedaka, Z. B. Sokolovskii, Ya. Z. Karashetskii, O. M. Kozakova.

Landscape and Urban Planning features of the region, its architectural and planning problems were explored by M. M. Habrel, T. F. Panchenko, H. P. Petryshyn, Yu. I. Kryvoruchko, B. S. Posatskii, H. M. Shulha.

Architectural organization of recreational objects of the region was researched by S. V. Dutchak, T. I. Bozhak, V. I. Proskuriakov, Ya. M. Taras, T. O. Kashchenko, O. S. Clentsov.

The preconditions for the formation of the tourist infrastructure of Chornogora in the Ukrainian Carpathians are determined in the study of Yuliya Idak. The objective estimation of its recreational characteristics, analysis of the nature of the area, accessibility of transport, recreational infrastructure, as well as historical and cultural potential is presented [11, p. 263-272].

The spatial organization of the ski resorts of the Carpathians in Slovakia, Poland, Ukraine and Romania is presented in the study of Yarina Onufriv. The author formulates the types of their spatial organization with the method of composite analysis of existing ski resorts. Also it is analyzed the interaction of the natural environment of the mountain landscape and the planning decision of the ski resort [12, p. 191-202].

The purpose of the study is to identify and analyze features of architectural and planning decisions of new wooden recreational objects and complexes in the Carpathian region of Ukraine. To achieve the purpose these tasks are:

1. To develop a methodology for studying architectural planning decisions of wooden recreational objects and complexes.
2. To explore architectural planning and constructive features of new wooden recreational architecture of the Carpathian region.

3. To conduct a comparative analysis and discover features of architectural planning decisions in modern wooden recreational architecture of the Carpathian region in Ukraine.

The object of the study is wooden recreational objects and complexes in the Carpathian region.

The subject of the study is architectural planning decisions of recreational objects and complexes in the Carpathian region.

Study boundaries. Territorial boundaries of the study. The article deals with architectural planning decisions of wooden recreational objects built in the Carpathian region (mountainous areas of Lviv, Ivano-Frankivsk, Chernivtsi and Transcarpathian regions). Chronological boundaries cover the period of 1990-2018.

PRESENTATION OF THE MAIN MATERIAL

The Carpathian recreational region is located in Transcarpathian, Ivano-Frankivsk, Lviv, Chernivtsi regions. It has common borders and transport connection with Moldova, Romania, Hungary, Slovakia, Poland. The area occupies 56,6 thousand square kilometers (it's 9,3% of total area of Ukraine). There are three tourist sub-regions: Zakarpattia, Ukrainian Carpathians, Prykarpatskyi [1].

Carpathian recreational region is territorial recreational system or recreational subsystem of Ukrainian Carpathians region of National importance. It is located in four regions: Lviv, Ivano-Frankivsk, Chernivtsi and Zakarpattia and includes urbanized (resort cities, excursion centers, contry-side settlements, settlements with a large share of employment in recreational activity) and not urbanized territories (natural parks, national parks, environmental protection areas).

2. CHAPTER. URBAN CONTEXT

New recreational architecture of the Carpathian region is tightly connected with regeneration and using the experience of regional schools of national construction. These schools have specific features of architectural style, special details in rhythm of construction of parts and proportions, differ with planning and composite decisions of buildings and constructions. At the moment the recreational architecture of the Carpathian region is being developed, it's more elemental than organized or adjustable.

In the Carpathian region recreational architecture is presented with wooden buildings and constructions. Tradition of using wood as a building material, has a very ancient history. During centuries local schools of wooden construction were formed. The author selected 5 regions, based on the analysis of territory of the Carpathian recreational region and research of architectural decisions of wooden resting buildings (Fig. 1). **Region I** is the largest and it is located in Ivano-Frankivsk region and coincides with historical boundaries of Hutsulshchyna. It includes such populated points as Yaremche, Tatariv, Mykylychyn, Yablunytsia, Polianytsia (the largest and the most modern Ski resort in Ukraine «Bukovel»), Kosiv, Vorohta. **Region II** is located on the territory of Transcarpathian region and it borders on Ivano-Frankivsk, Lviv regions and includes two recreational centers: Volovets and Pypypets. In the research of Ya. Taras and L. Prybehy these territories are located on the boundaries of ethnographic regions of Boikivshchyna and Zakarpattia, but T. Kosmina relates them to Boikivshchyna. From the point of view of wooden resting architecture this region will be located at the interjection of ethnographic region and administrative boundaries of Lviv, Zakarpattia and Ivano-Frankivsk region. **Region III** is located on the territory of Mukachiv and Svaliava region of Transcarpathian region which includes such settlements as: Poliana, Syniak and Kosyno. **Region IV** is located on the border of Transcarpatoin region and borders with Romania and Hungary, it includes such recreational centers Solotvyno, Veliatyn and Berehovo. These two

recreational regions are parts of ethnographic zone of Zakarpattia which are very assorted in development of architectural decisions of wooden resting building. **Region V** is located on the territory of Lviv region and has such big recreational centers as Truskavets and Shidnytsia. In addition, nowadays it is being restored recreational potential on other territories of Lviv region, including the group of settlements with the center in Slavsk. Also there is a restoration of the village of Rozluch, Turka region and the development of ski resort «Plai» in the village of Plavia. In comparing with other ethnographic regions Bukovyna is scantily represented with objects of wooden recreational architecture. The only settlement with systematic and complex development of recreational branch is the village of Myhove, Vyzhnytsi region, Chernivtsi region. It is located on the border of three ethnographic regions – Hutsulshchuna, Pokuttia and Bukovyna. Although in modern wooden resting architecture of Myhove there are the signs exactly of Bukovinian national construction most of all.

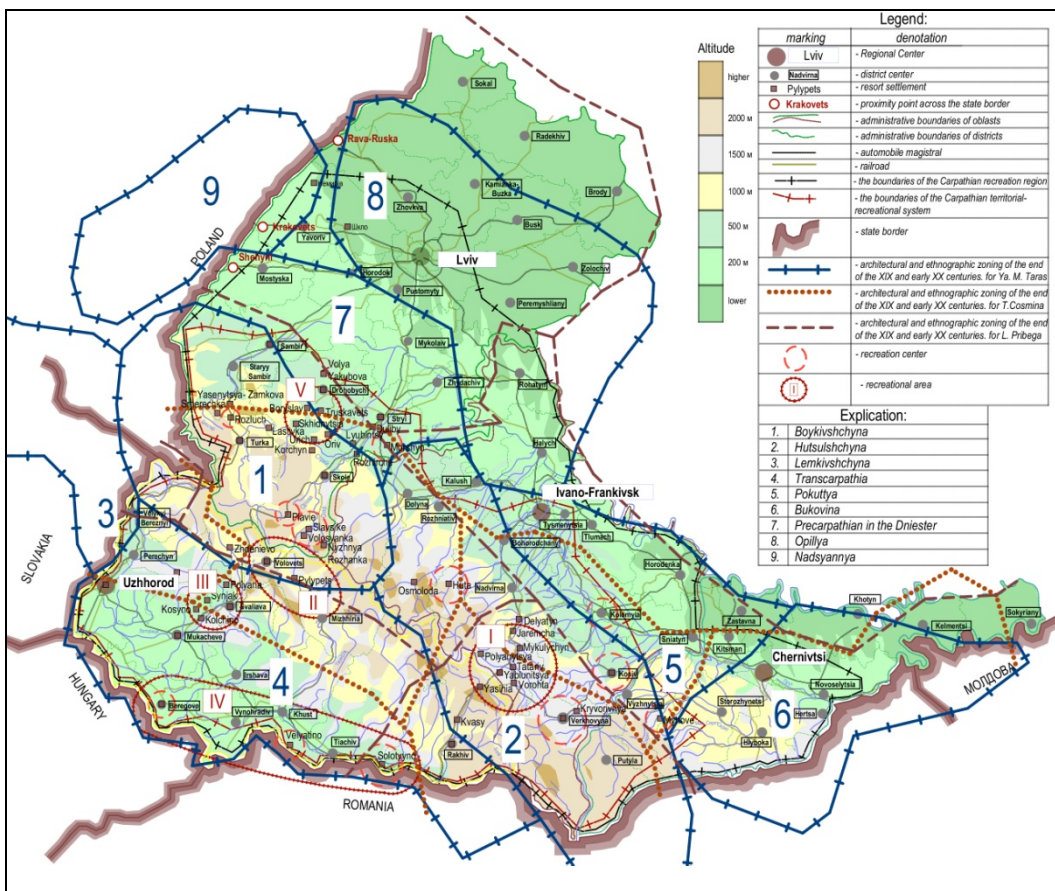


Fig. 1. Architectural and ethnographic zoning of the Carpathian recreation region. Source: author's drawing

3. CHAPTER. HISTORICAL BACKGROUND OF DEVELOPMENT OF RECREATIONAL ARCHITECTURE OF THE CARPATHIAN REGION

To understand the processes taking place in the recreational area of the Carpathian region, a necessary and compulsory condition is the study of its origin and development. Analysis of historical aspects will help to take a broader look at the current problems, to compare principles and methods of architectural planning decisions of resting buildings at different periods. It also influences economic, cultural and political circumstances on formation of architecture of resting settlement.

The consequences of the industrial revolution in Europe were: dynamic development of urban settlements, urbanization, industrialization, development of communication and connection (first of all railway transport). Economic growth and new processes in urbanism created favorable conditions for development of resting settlements. At this time the recreational industry in the countries of Central Europe is very active, particularly in Germany, Switzerland, Austro-Hungarian [3]. Along with the recreation there was also a rapid development of medicine, as resort settlements arose near the sources of mineral waters. The curative properties of mineral waters were started to be scientifically researched in Europe since 1820s [4]. At this time a significant amount of new sources of mineral waters with curative properties were discovered in the Carpathian region. Dr. Theodore Torosevych was the first to make chemical analysis of the curative properties of mineral waters at that time. He explored 26 sources of mineral waters, paid attention to their curative properties and multiplicity on the territory of the Carpathians [4].

For recreational areas of Galicia of the XIX – the first half of the XX centuries, mostly wooden villa buildings are typical villas [5]. In the second half of the XIX century there were new types of buildings: huts, inhalers, walking galleries, footprint houses, kiosks, pavilions [6].

Along with the development of the recreational industry in the Carpathian region architecture had got significant transformations. Built resting and private buildings (in the middle of the century – the first decade of the XX century) got the signs of «Swiss» and «Norwegian» style, which showed the outlook of Austrian leading elite. These can be related to typical signs of buildings in the Swiss style:

- *high stone basement;*
- *focus on horizontal elements when composing facades;*
- *gallery, veranda, risalit, external stairs decorated with carved elements;*
- *rich decoration of facades carved architectural details;*
- *use of padding roofs;*
- *application of various constructive schemes of buildings (framework, block house, calculus).*

Tourist recreational infrastructure in the interwar period (1920s-40s last century) completely changed. Along with aquatic and boarding houses for patients, there was the sonation of chain of tourist shelters, skiing complexes, vacancy colonies, camps and rural residences for amateur tourists leisure (Ukrainian intelligentsia, student youth) [7]. The greatest development of tourists infrastructure in the Eastern Carpathians was in 30s years of the XX century. Tourists societies with active support of Polish government and local administration intensively built up the infrastructure of tourist placing [8].

After Eastern Galychyna joined Poland in 1920s the architecture of resort recreational establishment began to acquire regional traits. Characteristic features of traditional directions of the Eastern Galychyna resort architecture art:

- *application of traditions and achievement of national architecture of the ethnic groups of the Carpathians;*
- *stone foundation;*
- *log construction of the building;*
- *rapid roofs with decorative protruding awnings;*

- galleries, verandas and outdoor staircases with railing decorated with carving or contour cutting of boards;
- triangular pediments were decorated with different motives and often finished with figures spike on the crest of the roof;
- application of carving for decorating window and door openings.

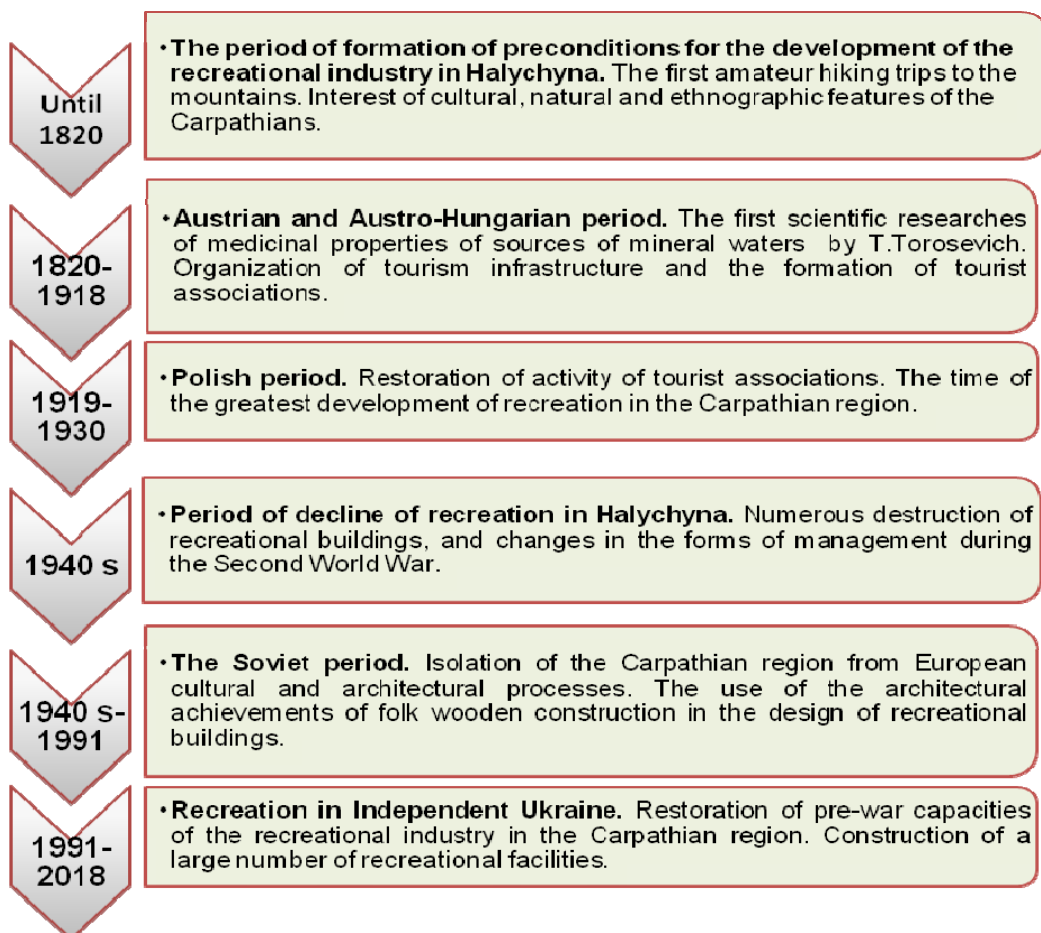


Fig. 2. Historical periods of development of recreation in Galicia in the XIX - beginning of the XX century.

In the interwar period recreational wooden architecture was of the greatest development. Volumetric composition decisions of buildings and their functional planning and technological filling were on the high level. All the processes were stopped, a lot of expensive buildings were lost, also some kinds of therapeutic and wellness activities were disappeared with the outset of hostilities in 1939.

An example of the revival and preservation of traditionalism and regionalism in the recreational wooden architecture is the town of Zakopane. The transition from a new aesthetic to a way of repetition in art and architecture in the study of Zbigniew Ksezek is substantiated. There are presented examples of recreational facilities built in Zakopane in a regional style [13, c. 21-34].

In the second half of the XX century the Carpathian region was no longer part of the European architectural process in the context of cultural and scientific relations because of political circumstances. Compared to the previous period recreational activity generally had another characteristics. All the functions of regulation and planning in the field of construction and tourism were centralized by the state authorities. Despite this situation there was a possibility to create new projects but not adapt typical ones in the area of recreational architecture. Thus, in the Carpathian region, a small number of recreational wooden objects were built, architecture of which has absorbed the achievements of previous periods and complied functional and technological requirements of that time. But the most important thing was that the architects managed to rethink creatively the heritage, traditions and technology of folk architecture and apply them in their professional activities. The result was the inclusion of some recreational buildings in the register of architectural monuments.

Since 1960s, there was also a revival of mass tourist interest in the Ukrainian Carpathians in the field of skiing. Voluntary sports societies were created: «Dynamo», «SKA», «Kolos», «Labor». Physical-mass work combines with sport of higher achievements [9].

In the writings of the post-war architects, there were appreciable searches for the creative interpretation of peculiar features of functionality still pre-war time. The task of the graduates of the Lviv School of Architecture was to form the modern architectural face of the cities and villages of the Carpathian region. Volodymyr Lukomskyi, Lukiia Lukomska, Stepan Valevskyi should be included to the cohort of the best architects. But the most prominent and influential was the architect Ivan Bodnaruk, who combined the assets of folk and professional architecture in the building of the restaurant «Hotsulshchyna». His creation was equaled to, he was imitated by many architects [10, page 5-6].

4. CHAPTER. SUBSTANTIATION OF RESEARCH METHODOLOGY

The study of architectural and planning decisions of wooden recreational facilities of the Carpathian region is carried out in two stages. The first stage provided for the localization of wooden recreation buildings in the region. After their inventory and photographic fixation were carried out, in addition the context was counted, for instance the location of the object on the territory, its place in the structure of the settlement, as well as the architectural details that give it individuality and determine the belonging to a certain style. Thus, the first stage of the study ensured the availability of factual material for its further structuring and analysis.

The second stage of the study involves the analysis of architectural and planning decisions of wooden recreational facilities. The development of a set of criteria allowed to give an objective assessment of particular building, as well as determine certain regularities that combine them into groups. The suggested scheme of analysis of architectural and planning decisions includes three general characteristics:

- 1. Volumetric and planning decisions.**
- 2. Architectural and compositional decisions.**
- 3. Engineering-constructive decisions.**

Volumetric and planning decisions are divided into items, which determine the general information about the object, study of volumetric and planning systems and functional characteristics. The general information about the object include: date of construction, the author of the project and area of the building; the analysis of volumetric planning systems involves determining the type of planning of the building; in the item of functional characteristics there is the analysis of the type of object, the function of the building, the level of service, services provided by the institution and the current use of the building.

Architectural and compositional decisions of recreational buildings allow us to give a stylish characteristic of the object under study. This section analyzes the geometric characteristics of buildings, which determine the composition of the facade and the overall sizes of the building. In addition, to determine the stylish features of the building, a set of architectural details is taken into account, which include: elements of the composition of the facades, elements of the decor of the facades, the shape of the roof, the presence of valuable art objects.

Engineering-constructive decisions of wooden recreation buildings are especially important in the process of their construction and operation. This stage of the study involves determining the design scheme of construction and filling it with technical and technological equipment. The design scheme of a wooden building greatly affects its volume planning and stylistic decisions. The presence of special equipment first of all determines safety of the rest and the comfort of the building for living.

The determined method of research of wooden recreational objects allows to use two methods of generalization of results of scientific work. The first is the vertical analysis, that is, the identification of common and excellent volumetric-planning, architectural-compositional and engineering-design characteristics of recreational buildings. The second way is to summarize horizontally. This approach makes it possible to determine the characteristic features of architectural buildings of certain regions. In the future, it will allow to modernize the existing boundaries of the architectural and ethnographic regions of the Carpathians, as well as expand the meaning of this concept, introducing a new indicator - recreational architecture, which will also affect the formation of boundaries of ethnographic zones of the Carpathian region.

Auxiliary, but very important stage of the study is the formation of general data. In addition to graphic materials, it includes the address and the name of the object, a description of the territory (especially the location of the building on the site).

5. CHAPTER. ARCHITECTURAL AND PLANNING FEATURES OF THE NEW WOODEN RECREATIONAL ARCHITECTURE OF THE CARPATHIAN REGION OF UKRAINE

The most common types of recreation facilities in the Carpathian region are residential houses and cottages, and among the public ones the catering establishments, in which architectural and planning decisions the features of the Ukrainian construction of Ukrainian Carpathians are manifested. For this study, tables were drawn up, which selected two recreational institutions from each region, which reflect the current trends in construction and architecture to the maximum.

5.1. Public buildings. Food establishments. The most common type of building that provides the power supply of recreation is kolyba. Initially, this type of building was used as a shelter in the mountain valleys. However, in the middle of the twentieth century catering establishments got architectural signs of kolybas (kolyba-barbeque place in Shandra tract, Dolina district, Ivano-Frankivsk region).

After 2005 in the Carpathian region of Ukraine there was a revival of construction activity. Over the last decade, numerous food establishments have been built, which can be di-

vided into two groups according to the location: I. Separately located roadside restaurants and cafes; II Cafes-bars and restaurants, which are part of the structure of the recreation complex. The vast majority of catering facilities built from wood have architectural and planning features of kolybas.

From the analysis of **volumetric-planning decisions** (Table 1.), it follows that institutions that are not part of the recreational complexes have a larger area and contribute to a larger number of visitors. This is due to the fact that institutions, except for the reception of tourists, are aimed at holding banquets, that is, planned activities. Such buildings usually have a closed space-planning system, the hall for guests is large in size and can range from 80 m² to 150 m² (kolyba "Vysokyi pereval", Yablunytsya village of Ivano-Frankivsk region, restaurant-kolyba "Koufer", Lyubintsy village, Stryi district, Ivano-Frankivsk region).

Catering facility, which is part of the structure of the recreation complex, is usually smaller, respectively, its capacity is smaller and ranges from 30 to 100 people. Planning of such buildings includes a combination of anfilad and arboreal volumetric planning system (the kolyba of the recreational complex "Vedmezha Gora", Yaremche, Ivano-Frankivsk region).

The classic kolyba had a pentagonal, hexagonal or octagonal shape in plan. In modern samples, which have clear signs of using the planning of classical kolybas, the polygonal form of the plan is also retained. Due to the change in technological content, the increase in the overall dimensions and functions of the buildings, their plan is considerably more complicated than the classic kolyba plan. The rectangular volumes that provide cooking and storage function are adjacent to the main polygonal (hexagonal or octagonal). Very often the premises are constructed for safety purposes from non-combustible building materials (block, brick).

The analysis of **architectural and compositional decisions** (Table 1.) of nutrition establishments allowed to reveal certain regularities in their architecture. In modern buildings, the static and frontal facade composition is preserved from classical kolyba. The main factors influencing the formation of such proportions of buildings are the climatic conditions and the landscape of the region. These were winters and rainy summer caused an enlarging the roof of the building to protect the lower parts of the structure, which were mostly placed on a low stone foundation. The space under a large roof is used as a summer terrace. But, in addition to the static composition of the facades of the building, there are variants of a combination of frontal and high-altitude composition due to the use of a high stonecap and the nature of the relief – the restaurant-kolyba "Vysokyi pereval" in the village of Yablunitsia of Ivano-Frankivsk region. In addition, in the appearance of the restaurant-kolyba, the influence of architectural decisions of the classic model of the Hutsul style of the restaurant "Hutsulshchyna" in the town of

Yaremche, built in the 1950s of the 20th century, is noticeable, by architect Ivan Bodnaruk

The decoration of the facades of buildings in most cases emphasizes and affects them to a certain regional school of folk wooden construction. Common to all regions of the composition of the facades is the release of the upper crowns of the log, which have both

aesthetic and constructive function. Window and door frames are used to decorate the facades. The widespread phenomenon in the Carpathian region is an exterior and interior

exhibit of valuable items of folk arts and crafts, household items and samples of flora and fauna. The best example of the use of valuable collectibles is the Kolyba Museum in Dilove, Rakhiv district of the Transcarpathian region (located next to the geodetic mark and the stele "Geographical Center of Europe").

An important element of a wooden building, which gives it the characteristic features inherent in the kolyba, is the roof. Traditionally, there is a tent roof (top), often two-angled or

triangular with burglary in the lower part and protruding triangular window lights. Such forms and designs of roofs are used over the main perimeter of the building. Adjoining auxiliary rooms are usually covered with two-tiled roofs with or without gaps. Another common feature for modern dining establishments is located at the entrance (with the help of an incision in the main tent), a small, decorated pediment with a double-skinned dash, which acts as an accent of buildings.

In modern wooden construction and architecture, an important point that affects the longevity and comfort of buildings, are **engineering-constructive decisions** (Table 1.). This stage of the study includes the analysis of structural schemes of buildings and their technological equipment. The construction technology plays an especially important role in the construction of wooden buildings. In the Carpathian region, most of the "small" recreational facilities have a log construction. Building material is a cylindrical bar of factory production. Construction of such a beam is more accurate and faster. In addition to log buildings, there are samples of combined constructive systems. For example, in the building of kolyba "Vysokyi pereval" (Yablunitsa village of Ivano-Frankivsk region), log construction and frame construction are combined, where the pillars are placed at the corners, and the spaces between them are filled with a cylindrical bar.

The technological filling of catering buildings is mainly provided at the level of basic systems and communications (water supply, electricity, sewerage, heating, air conditioning). The negative factors include the actual absence of fire alarm systems, internal and external fire extinguishing systems, which are necessary in wooden public buildings.

address and object name	General data about the object		Three-dimensional planning solutions for public buildings																
	characteristic of the land plot	photophixation, dimensional drawings	general data		three-dimensional planning systems			functional characteristics											
			date of construction	the author of the project	the area of the building (number of visitors)	artificial system	system with horizontal communication rooms	sectional system	hall system	mixed (combined)	individual planning	object type	function of the building	service level	services provided by the institution	current usage			
Food establishments																			
Chernivitsi region	Kolyba of the recreational complex "Kolyba" - Horkuska Street, 2, M. district	the kolyba is located on the territory of the recreational complex on a plain relief. In addition, the complex includes wooden holiday cottages; also on the territory are an outdoor swimming pool, a recreation area, car parking, a bike rental			the complex has been operating since 2010	unknown	hall - 82 m ² ; terrace - 63 m ² ; auxiliary area - 36 m ² ; total area - 171 m ²				two-level hall hexagonal plan with large exterior gallery and attached kitchen				public building	food establishment	standard	bar, restaurant (buffer and menu), organization of banquets	bar, restaurant catering establishment
					the complex has been operating since 2017	unknown	total capacity is 150 people				hall system with an octagonal plan in the main hall and adjoining smaller rectangular spaces				public building	food establishment	standard	bar, restaurant, kolyba, organization of banquets and weddings	bar, restaurant catering establishment
					the project of the restaurant of the Kolyba with a covered dance floor	GPA: N. Ignatuk Donec by Yu. Korolchuk	620 m ²					hall is the octagonal plan with attached on the sides smaller halls and masonry cuisine				public building	food establishment	standard	bar, restaurant, kolyba, hotel, organization of banquets and weddings
Lviv region	Construction of the recreational complex "SLOBODA", Volya Yakubova, Drohobych district	the kolyba is located on the territory of the recreational complex on the plain relief. In addition, the complex includes two more wooden holiday cottages, in the territory are located an outdoor swimming pool, a recreation area, car parking, a bike rental service			the complex has been operating since 2017	unknown	total capacity is 150 people				hall system with an octagonal plan in the main hall and adjoining smaller rectangular spaces				public building	food establishment	standard	bar, restaurant, kolyba, organization of banquets and weddings	bar, restaurant catering establishment
					the project of the restaurant of the Kolyba with a covered dance floor	GPA: N. Ignatuk Donec by Yu. Korolchuk	620 m ²				hall is the octagonal plan with attached on the sides smaller halls and masonry cuisine				public building	food establishment	standard	bar, restaurant, kolyba, hotel, organization of banquets and weddings	bar, restaurant catering establishment
					the project of the restaurant of the Kolyba with a covered dance floor	GPA: N. Ignatuk Donec by Yu. Korolchuk	620 m ²					hall is the octagonal plan with attached on the sides smaller halls and masonry cuisine				public building	food establishment	standard	bar, restaurant, kolyba, hotel, organization of banquets and weddings
Ivano-Frankivsk region	Kolyba of the recreational complex "Yablunysya, trat "Goryskiv" Street, 29, Yaremche, Ivano-Frankivsk region	the kolyba is located on a small section on a complex relief. In addition, there is a small wooden cottage and a car parking on the territory next to the kolyba.			the complex has been operating since 2009	unknown	general hall (36 seats), banquet hall (34 seats), VIP hall (6 seats), summer playground (30 seats), playground (100 seats), visitors is 100				hall system of the main building with adjoining banquet hall and terrace				public building	food establishment	standard	bar, restaurant, kolyba, organization of banquets	bar, restaurant catering establishment
					the complex has been operating since 2015	unknown	total capacity is 170 people				the two-storey building with octagonal plan main volume and an outdoor terrace				public building	food establishment	standard	bar, restaurant, organization of banquets	bar, restaurant catering establishment
					the complex has been operating since 2015	unknown	total capacity is 170 people				the two-storey building with octagonal plan main volume and an outdoor terrace				public building	food establishment	standard	bar, restaurant, organization of banquets	bar, restaurant catering establishment
Transcarpathian region	Kolyba Museum, Dlovo, Rakhiv district	the kolyba is located next to the geodetic mark and the state "Geographical Center of Europe"; in this area there is also a small souvenir market, garden houses and a small lake.			the complex has been operating since 2010	unknown	two halls: for 100 people and a separate banquet for 150 people				the two-storey building with hexagonal plan hall				public building	food establishment	standard	bar, restaurant, kolyba	bar, restaurant catering establishment
					the complex has been operating since 2010	unknown	total capacity of the restaurant is 250 people				the two-level building with octagonal plan main volume				public building	food establishment	standard	bar, restaurant, kolyba	bar, restaurant catering establishment
					the complex has been operating since 2010	unknown	total capacity of the restaurant is 250 people				the two-level building with octagonal plan main volume				public building	food establishment	standard	bar, restaurant, kolyba	bar, restaurant catering establishment
Conclusions and generalizations					<p>In the process of research, the following regularities and trends in volumetric-planning decisions of food establishments were revealed:</p> <ul style="list-style-type: none"> - the predominance of the hall volume-planning system; - dominance of the main polygonal volume of the building in plan of; - complications and a proportional increase of the plan of classical kolyba; - adjustment of the type of building "kolyba" for the function of a catering establishment; - unification of planning decisions of "kolyba". 														

Continuation of Table 1. Architectural and planning solutions of wooden food establishments in the Carpathian region of Ukraine:

Architectural and compositional solutions				Engineering-constructive solutions				Conclusions and generalizations									
geometric characteristics		stylistic features		constructive system		technical equipment											
frontal composition	altitude composition	combined	proportions of the building	overall dimensions	elements of the composition of the facades	elements of the decor of the facades	roof shape		availability of valuable art objects	stylistics of the building	log construction	frame construction	combined	technical condition of the building	engineering communications	protection and warning systems	climatic equipment
the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building	the front facade composition with an accent on the entrance to the building
building is located on a complex relief in a hill slope treatment, on different sides has different proportions	the building is asymmetric, the planning organization of the ground floor violates symmetry	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield	protrusions of the log edges, protrusions of the roof which is trimmed with decorative carved windshield
the building is asymmetric, a cuisine attached to a symmetrical octagonal hall	the building is asymmetric, the attached volume of the building	decorative framing of window and door apertures, wooden gutters	decorative framing of window and door apertures, wooden gutters	decorative framing of window and door apertures, wooden gutters	decorative framing of window and door apertures, wooden gutters	decorative framing of window and door apertures, wooden gutters	decorative framing of window and door apertures, wooden gutters	decorative framing of window and door apertures, wooden gutters	decorative framing of window and door apertures, wooden gutters	decorative framing of window and door apertures, wooden gutters	decorative framing of window and door apertures, wooden gutters	decorative framing of window and door apertures, wooden gutters	decorative framing of window and door apertures, wooden gutters	decorative framing of window and door apertures, wooden gutters	decorative framing of window and door apertures, wooden gutters	decorative framing of window and door apertures, wooden gutters	decorative framing of window and door apertures, wooden gutters
rather protrusions of the roof, which form a summer terrace along the perimeter of the building. The lantern-like ends the left top	protrusions of the log edges, big protrusions of the roof, which form a summer terrace along the perimeter of the building. The lantern-like ends the left top	the tent roof of the third tier and the third tier of the building	the tent roof of the third tier and the third tier of the building	the tent roof of the third tier and the third tier of the building	the tent roof of the third tier and the third tier of the building	the tent roof of the third tier and the third tier of the building	the tent roof of the third tier and the third tier of the building	the tent roof of the third tier and the third tier of the building	the tent roof of the third tier and the third tier of the building	the tent roof of the third tier and the third tier of the building	the tent roof of the third tier and the third tier of the building	the tent roof of the third tier and the third tier of the building	the tent roof of the third tier and the third tier of the building	the tent roof of the third tier and the third tier of the building	the tent roof of the third tier and the third tier of the building	the tent roof of the third tier and the third tier of the building	the tent roof of the third tier and the third tier of the building
decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures	decorative framing of window and door apertures
the tent roof with bendings, covered with bluish tiles (roof angle 30°)	the tent roof with bendings, covered with bluish tiles (roof angle 30°)	the tent roof of the third tier and the second tier (roof angle 45°)	the tent roof of the third tier and the second tier (roof angle 45°)	the tent roof of the third tier and the second tier (roof angle 45°)	the tent roof of the third tier and the second tier (roof angle 45°)	the tent roof of the third tier and the second tier (roof angle 45°)	the tent roof of the third tier and the second tier (roof angle 45°)	the tent roof of the third tier and the second tier (roof angle 45°)	the tent roof of the third tier and the second tier (roof angle 45°)	the tent roof of the third tier and the second tier (roof angle 45°)	the tent roof of the third tier and the second tier (roof angle 45°)	the tent roof of the third tier and the second tier (roof angle 45°)	the tent roof of the third tier and the second tier (roof angle 45°)	the tent roof of the third tier and the second tier (roof angle 45°)	the tent roof of the third tier and the second tier (roof angle 45°)	the tent roof of the third tier and the second tier (roof angle 45°)	the tent roof of the third tier and the second tier (roof angle 45°)
items of decoration of interior and exterior of the building	valuable decorative art objects, valuable items of decorative and applied art, woodwork, products of folk craftsmen	Regional style (Hutsul style)	Regional style (Hutsul style)	Regional style (Hutsul style)	Regional style (Hutsul style)	Regional style (Hutsul style)	Regional style (Hutsul style)	Regional style (Hutsul style)	Regional style (Hutsul style)	Regional style (Hutsul style)	Regional style (Hutsul style)	Regional style (Hutsul style)	Regional style (Hutsul style)	Regional style (Hutsul style)	Regional style (Hutsul style)	Regional style (Hutsul style)	Regional style (Hutsul style)
log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber	log construction of a building made of cylindrical timber
combination of a log construction with a frame base for supporting the roof rafters	combination of a log construction with a frame construction, where the interior is filled with cylindrical timber	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure	log construction of the main volume of cylindrical timber, the summer terrace has a frame structure
excellent	excellent	excellent	excellent	excellent	excellent	excellent	excellent	excellent	excellent	excellent	excellent	excellent	excellent	excellent	excellent	excellent	excellent
sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity	sewerage, water supply, electricity
unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown
<p>The Transcarpathian region is unique in the structure of the Carpathian region due to the presence of significant therapeutic and wellness recreational resources. In addition, the oblast is multinational, reflected in architecture and culture. The processes that take place in the recreational industry require clear regulation from the side of the state. Recreational wooden buildings are often built in violation of construction standards, many of them are only suitable for use in the summer period of the year.</p>									<p>Ivano-Frankivsk region borders on all areas of the Carpathian region and is its main communication hub. Also on its territory intersect the boundaries of all local schools of folk construction. Despite this situation in the recreational wooden architecture of the oblast, the architectural and cultural ritual traditions of its inhabitants were best preserved and transformed. Relatively small amount of therapeutic recreational resources has led to the formation and development of new functional types of buildings and types of recreation. The oblast is also the center of mountain skiing.</p>								
<p>In the process of research, the following regularities and trends in the architectural and compositional solutions of food establishments were revealed:</p> <ul style="list-style-type: none"> dominance of the frontal static composition of the facades of the building; partial or complete maintenance of the symmetry of the building in plan and in volume; presence of significant edges of the roof rails, which rests on the performances of the wreaths; decorative elements of carving and cutting from the tree; availability of rapid complex stepped tent roofs with protruding light windows of a triangular shape; use of valuable art and everyday items in decoration of interiors and exteriors of buildings. 									<p>In the process of research, the following regularities and trends in the engineering-constructive decisions of food establishments were revealed:</p> <ul style="list-style-type: none"> domination of a log constructed system; the main building material is cylindrical timber; excellent technical condition of buildings (the age of the studied buildings does not exceed 20 years); availability of basic engineering communications; absence of fire alarm systems, internal and external fire extinguishing. 								

5.2. Buildings for temporary stay of holidaymakers. The development of green tourism in the Carpathian region since the early 2000s has led to the spread of new types of planning for functioning, similar to individual residential buildings. Private farms are increasingly beginning to acquire the features of holiday cottages. As a result of these changes formed three types of cottage planning: **I-type.** The cottage provides accommodation for one small group of vacationers and its planning is close to an individual dwelling house (Holiday cottage № 3 of the complex "Sim vitriv" in Volosyanka village of Skole district, Lviv region; guest house-sauna in Dora village, near Yaremche, Ivano-Frankivsk region). **II type.** A cottage of a hotel type, which is functionally adapted to a mini-hotel with rest rooms. Typically, such buildings have larger dimensions and a total area of at least 200 m² (but no more than 300 m² in accordance with the regulatory restrictions) and provide accommodation from 12 to 30 vacationers (cottage of the hotel and recreation complex "Karpaty Myhove" in the village of Myhove, Chernivtsi region, cottage base holiday "Tsarynka" in the village of Nizhnia Rozhanka, Skole district of Lviv region. For these two types of cottages, the common planning feature is that access to rest rooms or rooms is carried out with the help of vertical communications, that is, internal staircases. **III type.** This type of cottage is somewhat different from the previous two with external vertical and horizontal communications that provide access to the rest rooms (mini-hotel of the recreation center "Ruslana" in the village of Solotvino, Transcarpathian region).

The **volumetric planning decisions** (Table 2.) of holiday cottages have a significant number of variations of planning systems. They do not actually have a regional nature of building planning. For the most part, individual planning is used, which is used in stone building. However, certain planning patterns can be distinguished in the wooden construction of recreation cottages of the Carpathian region. A holiday cottages, apartments and individual residential buildings for family vacations (used for family vacations, renting out or guest houses) have free planning. The common planning characteristics are the presence of a large room on the ground floor, which serves as a living room, kitchen-dining room and in some cases, a fireplace room. In addition, in buildings of this type there are no living rooms on the ground floor; instead, ancillary premises are arranged: bathrooms, saunas, storage rooms for storing products and inventory, as well as summer terraces and loggias (a private holiday cottage in the village of Chynadiyivo, Mukacheve district of the Transcarpathian region; a guest residential house in the village of Dora, near the town of Yaremche in the Ivano-Frankivsk region). In hotel-type cottages, in most cases there is a tall stone plinth, which houses warehouse and auxiliary premises for engineering equipment. In some cases, it is possible to have a common kitchen-dining room (institutions with a lower level of service), most of the kitchen niches are installed in the rest rooms, accessed through a common staircase and a corridor on each floor. The most common room categories are: "standard", "economy", "junior suite", "luxury family", "suite" and "apartment".

In the cottage houses of hotel type there is virtually no common communication space for tourists. This factor gives them the hallmarks of the hotel, however, the size and volume resolution of the individual residential buildings (cottage of the Noris Hotel type of the mountain-tourist complex "Myhove", Myhove village of Chernivtsi region; recreation cottages of the recreation center "Tsarinka", village of Lower Rozhanka of the Skole district, Lviv region). Buildings of mini-hotels have larger sizes for cottages, the capacity of vacationers, but differ in planning. The feature of such buildings is the arrangement of external individual entrances to the rest rooms (mini-hotel of the recreation center "Ruslana", village Solotvyno, Transcarpathian region). The main communicating rooms are external loggias and terraces. This principle is sometimes used in the construction of recreation cottages, but this is rather an exception, and not a regularity.

Table 2. Architectural and planning solutions for wooden buildings for the rest of the vacationers of the Carpathian region of Ukraine

address and object name	General data about the object		Three-dimensional planning solutions for public buildings														
	photophixation, dimensional drawings	characteristic of the land plot	general data		volumetric planning systems			functional characteristics									
			date of construction	the author of the project	the area of the building	antislip system	system with horizontal communication	sectional system	hall system	mixed (combined)	individual planning	object type	function of the building	service level	services provided by the institution	current usage	
Chernivtsi region																	
Holiday cottage of hotel recreation complex "Mihailo" in the settlement of Baciurka Street, 178, Myrivce		The investigated cottage is located on the territory of the hotel recreation complex "Mihailo" in the settlement of Baciurka Street, 178, Myrivce. In addition to 11 recreational cottages of the same type, which are located on the territory, garden houses and swings, places for cars, restaurant for 50 visitors, summer indoor pools.	2013	unknown	total area - 200m ²												
Lviv region																	
Recreation cottage No 3 of the complex "Sivits'ka, 1, Babynia, Sabin district, Roznara of the State district		The investigated cottage is part of the structure of the recreation complex, located on its territory there are a swimming pool, garden houses and a parking lot.	2009	unknown	unknown												
Recreation cottage No 3 of the complex "Sivits'ka, 1, Babynia, Sabin district, Roznara of the State district		The investigated cottage is part of the structure of the recreation complex, located on its territory there are a swimming pool, garden houses and a parking lot.	2015	unknown	total area of the cottage is 295 m ²												
Ivano-Frankivsk region																	
Recreation cottage of the resort hotel "Korona", Terny, Pchy tract.		The investigated cottage is part of the structure of the hotel complex, which includes a museum of Husar life, two conference halls, an outdoor swimming pool, a sauna, a tennis court.	2010	unknown	unknown												
Guest a residential sauna house in the village of Doha, Varenka City Council		The investigated cottage is located next to an individual dwelling house, in which the cottage is designed for rest and wellness. There is a small swimming pool near the cottage; the territory is landscaped; there is a place for parking of several cars.	date of construction 2017	GPA, I. Yu. Hnes architect N. Yu. Hnes	unknown												
Transcarpathian region																	
Private holiday cottage, Chyryatiiv, Mukacheve district		The investigated cottage is included in the structure of the recreation center, except for a swimming pool, garden houses, a restaurant, medical treatment points, garden houses, chaise longue, children's and sports grounds, and parking lot for visitors.	unknown	unknown	unknown												
Holiday cottage, Chyryatiiv, Mukacheve district		The investigated cottage is included in the structure of the recreation center, except for a swimming pool, garden houses, a restaurant, medical treatment points, garden houses, chaise longue, children's and sports grounds, and parking lot for visitors.	unknown	unknown	unknown												
Holiday cottage, Chyryatiiv, Mukacheve district		The investigated cottage is included in the structure of the recreation center, except for a swimming pool, garden houses, a restaurant, medical treatment points, garden houses, chaise longue, children's and sports grounds, and parking lot for visitors.	unknown	unknown	unknown												
Buildings for accommodation vacationers																	
Holiday cottage of hotel recreation complex "Mihailo" in the settlement of Baciurka Street, 178, Myrivce		The investigated cottage is located on the territory of the hotel recreation complex "Mihailo" in the settlement of Baciurka Street, 178, Myrivce. In addition to 11 recreational cottages of the same type, which are located on the territory, garden houses and swings, places for cars, restaurant for 50 visitors, summer indoor pools.	2013	unknown	total area - 200m ²												
Recreation cottage No 3 of the complex "Sivits'ka, 1, Babynia, Sabin district, Roznara of the State district		The investigated cottage is part of the structure of the recreation complex, located on its territory there are a swimming pool, garden houses and a parking lot.	2009	unknown	unknown												
Recreation cottage No 3 of the complex "Sivits'ka, 1, Babynia, Sabin district, Roznara of the State district		The investigated cottage is part of the structure of the recreation complex, located on its territory there are a swimming pool, garden houses and a parking lot.	2015	unknown	total area of the cottage is 295 m ²												
Recreation cottage of the resort hotel "Korona", Terny, Pchy tract.		The investigated cottage is part of the structure of the hotel complex, which includes a museum of Husar life, two conference halls, an outdoor swimming pool, a sauna, a tennis court.	2010	unknown	unknown												
Guest a residential sauna house in the village of Doha, Varenka City Council		The investigated cottage is located next to an individual dwelling house, in which the cottage is designed for rest and wellness. There is a small swimming pool near the cottage; the territory is landscaped; there is a place for parking of several cars.	date of construction 2017	GPA, I. Yu. Hnes architect N. Yu. Hnes	unknown												
Private holiday cottage, Chyryatiiv, Mukacheve district		The investigated cottage is included in the structure of the recreation center, except for a swimming pool, garden houses, a restaurant, medical treatment points, garden houses, chaise longue, children's and sports grounds, and parking lot for visitors.	unknown	unknown	unknown												
Holiday cottage, Chyryatiiv, Mukacheve district		The investigated cottage is included in the structure of the recreation center, except for a swimming pool, garden houses, a restaurant, medical treatment points, garden houses, chaise longue, children's and sports grounds, and parking lot for visitors.	unknown	unknown	unknown												
Holiday cottage, Chyryatiiv, Mukacheve district		The investigated cottage is included in the structure of the recreation center, except for a swimming pool, garden houses, a restaurant, medical treatment points, garden houses, chaise longue, children's and sports grounds, and parking lot for visitors.	unknown	unknown	unknown												
<p>In the process of research the following regularities and trends in volumetric-planning decisions of buildings for the residence of vacationers were revealed:</p> <ul style="list-style-type: none"> - predominance of individual non-typical cottage planning; - division of planning varieties of cottages into three types: cottage cottage type, cottage hotel type, mini-hotel; - influence of brick construction on planning solutions of wooden cottages; - a wide range of services provided by rest facilities (from the category "economy" to "apartments"). 																	
Conclusions and generalizations																	

Architectural and compositional solutions		Engineering-constructive solutions			Conclusions and generalizations											
geometric characteristics		stylistic features		constructive system		technical equipment										
frontal composition	altitude composition	combined proportions of the building	overall dimensions	elements of the composition of the facades		elements of the decor of the facades	roof shape	availability of valuable art objects	stylistics of the building	log construction	frame construction	combined	technical condition of the building	engineering communications	protection and warning systems	climatic equipment
			the stone basement is the foundation of the building that has a height proportions						Regional style			excellent	sewage, water supply, electricity		autonomous water heating system	When constructing buildings for temporary residence of vacationers, individual planning is used to maximize the comfort of visitors. In addition, the construction uses local building materials and tradition of the Bukovyna school of folk wooden architecture. Technological incompleteness of buildings meets the modern requirements. The least developed tourist infrastructure in Chernivtsi region has a village Yigrovo, Vyznitsya district, where the best examples of recreational wooden architecture are concentrated.
			the left block of the building has a height proportions, the right block has a frontal composition						Regional style			excellent	sewage, water supply, electricity		autonomous water heating system	
			the building has an asymmetrical massive, the ground floor is massive, is made of blocks of ashlar						Regional style			excellent	sewage, water supply, electricity		autonomous water heating system	
		the building has high proportions due to the volume in the upper part							Regional style			satisfactory (there is no noise isolation of rooms)	sewage, water supply, electricity		autonomous water heating system	In the Lviv region for almost two centuries formed a lot of recreational settlements, which became centers for the development of wooden recreation architecture. In volumetric compositional decisions, there are features of both national construction and the noticeable influences of regionalism of neighboring European countries (Poland, Norway). On the territory of the region there are large sanatoriums (built in the XX century) and local small recreation complexes, which include both wooden and masonry buildings for the rest of tourists. Most recreational facilities are oriented to the health-improving function
		the building has high altitudes due to its high stone basement and swift roofs							Regional style			excellent	sewage, water supply, electricity		autonomous water heating system	
		the front facade composition is provided by the elongation of the plan of the building and a small storey							Regional style (with features of reconstruction 1920s - 1930s)			excellent	sewage, water supply, electricity		autonomous water heating system	In the Transcarpathian region in the areas of concentration of wellness recreation resources, the quality of the construction of recreational wooden buildings is reduced. A significant number of buildings of seasonal use are constructed, which do not differ in aesthetics and functionality, having primitive planning. Contrasts in the region are the construction of cottages for family recreation.
		due to the height of the main part of the building, the height of the main part is higher, but the overall dimensions are practically the same							Regional style (châlet)			excellent	sewage, water supply, electricity		autonomous water heating system	
		the building has a symmetrical main facade, with open galleries on all floors							Regional style			excellent	sewage, water supply, electricity		autonomous water heating system	
		combining a frontal composition of a log and a high stone basement							Regional style			excellent	sewage, water supply, electricity		autonomous water heating system	
		due to the presence of summer terraces, the building has asymmetrical main and side facades							Regional style			excellent	sewage, water supply, electricity		autonomous water heating system	
		protrusions of the log edges, which underscore substantive protrusion of the roof over the terraces							Regional style			excellent	sewage, water supply, electricity		autonomous water heating system	
		decorative framing of window and door apertures, fencing of terraces and the completion of the gable on the main facade							Regional style			excellent	sewage, water supply, electricity		autonomous water heating system	
		saddle roof, covered with bituminous tiles (roof angle 35°)							Regional style			excellent	sewage, water supply, electricity		autonomous water heating system	
		log construction of the building made of cylindrical timber on a low stone basement							Regional style			excellent	sewage, water supply, electricity		autonomous water heating system	
		framed structure of the building with a planking only from the inside							Regional style			excellent	sewage, water supply, electricity		autonomous water heating system	
									Regional style			excellent	sewage, water supply, electricity		autonomous water heating system	
In the course of the study, the following patterns and trends in architectural and compositional decisions of buildings for the residence of vacationers were revealed:		In the course of the research, the following patterns and trends in the engineering-constructive decisions of buildings for the residence of vacationers were revealed:														
<ul style="list-style-type: none"> - domination of high-rise composition of facades among cottages of hotel and country-type; - dominance of front and combination of facades composition among mini-hotels; - arrangement of summer premises due to the use of space under the edges of the roof rails; - dependence of the shape, structure and angles of the roof from the climatic conditions and regional traditions of national construction; - decoration with decorative traditional elements of carving and wood carving of the windows and doors, decorative execution of fencing terraces, loggias and balconies. 		<ul style="list-style-type: none"> - log construction made of cylindrical timber; - application of the technology of the so-called "wild barn"; - excellent technical condition of buildings - availability of high-tech engineering equipment in recreational buildings; - absence of fire alarm systems and firefighting. 														

Continuation of Table 2.

In **architectural and compositional solutions** (Table 2.) of buildings for the rest of tourists at the same time noticeable influences as brick architecture, as well as the use of traditions of regional schools of public construction. In addition, in the wooden architecture of the Carpathian region, different proportional relations and decorative elements are used in the construction of buildings. The use of traditional decoration of carvings and carving (recreation cottage of the resort hotel "Koruna", Tatariv village of Ivano-Frankivsk region) alternates with the use of elements of regional styles of other countries (guest house-sauna with signs of chalet style in the village of Dora, near the town Yaremche, Ivano-Frankivsk region).

Geometric characteristics of the buildings of holiday cottages have a great variety. However, there are certain patterns in their application, namely: buildings located in mountainous terrain or complex relief, for the most part, have high aspect ratio due to the presence of a high stone cap, which is the basis for the main buildings of the structure of a log construction. Also, the perception of the height of the composition of such buildings are amplified by rapid, double-skinned roofs with protrusions above the loggias and balconies of the attic floors. The compositions of the facades of the mini-hotel buildings are more static because they are located on more flat areas of the landscape due to overall dimensions. For the decoration of the facades of resting residential buildings, use is made of window and door openings, fencing of loggias and terraces, carved wooden spiers, decoration of pediments and wind boards by cutting method.

The structures and shapes of the roofs of the holiday cottages have a great variety: from simple double-beds (recreation cottage № 3 of the complex "Seven Winds" in Volosyanka village of Skole district of Lviv region) to complex, which form the architectural image of the building (recreation cottages recreation center "Tsarynka", Nyzhnia Rozhanka village of the Skole district of the Lviv region). The slopes of the roofs vary depending on the climatic conditions and the regional features of the building.

Engineering-constructive solutions (Table 2.) for wooden cottages are very diverse. The most widespread design is a frame made of cylindered timber. However, since 2012-14s, the so-called "wild log", that is, construction of unbleached timber of various sizes in diameter, becomes very popular. Such a method requires more expert skills and the construction of the building directly at the place of its location, as well as the simultaneous installation of engineering communications. Therefore, this technology requires more time expenditures on construction (private holiday cottage in the village of Chynadiiovo Mukacheve district of the Transcarpathian region). When constructing holiday cottages, all engineering communications and climatic equipment (air conditioners, additional heaters and mostly water heating systems) are installed. Protection and warning systems such as fire alarm are used much less.

6. CONCLUSIONS.

The situation in the new wooden recreational architecture of the Carpathian region is very ambiguous. There are processes of restoring the capacities of cities-resorts, the creation of new recreational centers, redistribution of recreational resources. To resolve these processes, it is necessary to develop and implement interdisciplinary strategies for the development of the whole region.

Architectural decisions of wooden recreational objects are very diverse and depend on the following factors: climate, the nature of the relief, the territory's membership to a certain architectural and ethnographic zone, the availability of recreational resources. The vast majority of catering establishments in the Carpathian region have architectural and planning features of kolybas. On the basis of the developed method of complex analysis of features of wooden recreational objects, their characteristic features are identified, which are grouped according to three criteria:

1. Three-dimensional planning decisions:

- the predominance of the spatial planning system;
- dominance of the main polygonal volume of the building in terms of;
- complication and proportional increase of the plan of classical kolyba;
- *adjustment of the type of building kolyba for the function of a catering establishment;*
- *unification of planning decisions of kolybas.*

2. Architectural and compositional solutions:

- dominance of the frontal static composition of the facades of the building;
- partial or complete maintenance of the symmetry of the building both in plan and in volume;
- the presence of significant edges of the roof rails, which rests on the performances of the wreaths;
- decoration with decorative elements of carving and wood carving of window and door slots of buildings;
- the presence of complex stepped tent roofs with protruding light windows of triangular shape;
- a swift roof with a gutter, an angle of inclination from 30o to 45o;
- application of natural materials in the decoration of buildings;
- *the use of valuable art and everyday items in interior and exterior decoration of buildings.*

3. Engineering design solutions:

- the dominance of a log constructed system;
- the main building material is cylindrical timber;
- excellent technical condition of buildings (the age of the studied buildings does not exceed 20 years);
- availability of basic engineering communications;
- absence of fire alarm systems, internal and external fire extinguishing.

These items do not apply to all catering establishments in the Carpathian region, but they cover trends in wooden recreation construction over the past two decades.

Buildings with housing function also have architectural features, generalized according to the developed criteria:

1. Objective planning decisions:

- predominance of individual non-typical cottage planning;
- division of planning varieties of cottages into three types: cottage cottage type, cottage hotel type, mini-hotel;
- influence of brick construction on planning solutions of wooden cottages;
- a wide range of services provided by rest facilities (from the category "economy" to "apartments").

2. Architectural and compositional solutions:

- *domination of high-rise composition of facades among cottages of hotel and country-type;*
- *dominance of front and combination of facades composition among mini-hotels;*
- *arrangement of summer premises due to the use of space under the edges of the roof rails, supported by the projections of carvings and vertical pillars along the contour;*
- *dependence of the shape, structure and angles of the roof from the climatic conditions and regional traditions of national construction;*
- *decoration with decorative traditional elements of carving and wood carving of the windows and doors, decorative execution of fencing terraces, loggias and balconies.*

3. Engineering design solutions:

- *the domination of a log construction of buildings made of cylindered timber;*
- *application of the technology of the so-called "wild barn" for small-size cottages;*
- *excellent technical condition of buildings*

- *availability of high-tech engineering equipment in recreational buildings;*
- *absence of fire alarm systems and firefighting.*

Consequently, the wooden recreation architecture of the Carpathian region is at the stage of formation, formation of trends, rethinking of architectural styles and directions of the past. Positive factors are: the transition from quantitative to qualitative indicators in the volume-planning and technological solutions of recreational buildings, the development of peripheral territories, preservation of the traditions of national construction. Among the negative ones are: low level of regulation of urban development, neglecting the installation of security systems in wooden buildings, direct reproduction of architectural elements of buildings of the past without rethinking the traditions of folk architecture.

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