

# WYTYCZNE DO KSZTAŁTOWANIA INFRASTRUKTURY TURYSTYCZNEJ W UKRAIŃSKICH KARPATACH (NA PRZYKŁADZIE MASYWU CZARNOHORA)

THE PREREQUISITES FOR FORMATION OF TOURISM INFRASTRUCTURE IN UKRAINIAN CARPATHIANS (FOR EXAMPLE MASSIF OF CHORNOHORA)

## Yuliya Idak

Ph.D., Associate Professor

## **Andriy Ihnatyuk**

mgr inż. arch.

Politechnika Lwowska Wydział Planowania Miast Instytut Architektury

# Vitaliy Bolyuh

mgr inż. arch.

#### **STRESZCZENIE**

W artykule przedstawiono przykład tworzenia infrastruktury turystycznej w Ukrainie i w innych krajach z opisem krajobrazowych i architektonicznych sposobów organizacji przestrzennej. Wskazano obiekty turystyczne różnego typu i przeznaczenia w warunkach krajobrazowych górskiego regionu średniej wysokości w Karpatach.

Słowa kluczowe: turystyka, Karpaty, krajobrazowy i architektoniczny sposoby.

# **ABSTRACT**

In this article the prerequisites for the formation of tourist infrastructure of Chornohora in the Ukrainian Carpathians are defined and it presents an objective evaluation of its recreational, analyzing the nature of the terrain, hydraulic, climate, flora and fauna, transport accessibility, human resources and recreational infrastructure, historical and cultural potential level environment.

Key words: tourism, Carpathians, landscape and architectural means.

Changes in the socio-economic life of the country resulted in the development of new areas of the market economy - tourism. Tourism is manifested as a form of public consumption of "specific goods" and as something that has a specific economic benefit. In turn, the tourist activity - is one of the most important sectors of the economy and an essential element in the development of international cooperation and integration in the world economy of any country. This is what causes the relevance and importance of tourism infrastructure in the Ukrainian Carpathians

The work is done in the context of scientific topics Urban Development Department "Development and reconstruction of local and regional populated areas of Western Ukraine."

The recreation problem is extremely important and popular. Some aspects of the recreational areas were analyzed by well-known foreign and Ukrainian scholars such as O.O. Berezhna, L. Yu Gorshkov, V.O. Quartarl'nov, T.D. Krysanova, D.V. Nikolaenko, G.A. Papiryan, V.S. Preobrazhenskiy, V. I. Stafiychuk, N. M. Sudova- Hom'yuk and others. The current state and prospects of development of tourism infrastructure in the Carpathian region are highlighted very profoundly in the scientific works by Zhuk P., Vachevskoho M. [1], V.Korobov [2], Kravtsiva V. [3], Mazur F. [4], Habrelya M. [1] and other scientists and researchers. It also requires further comprehensive and thorough study of all aspects of tourism potential in the Carpathian region.

The aim of the study is to determine the prerequisites of tourism infrastructure in the area massif in the Ukrainian Carpathians. Achieving this goal is based on the identification of recreational objective evaluation analyzed: the nature of the relief, hydraulic, climate, flora and fauna, transport accessibility, human resources and recreational infrastructure, historical and cultural potential, the level of the environment. In the paper, the dialectical approach and methods are used: historical-genetic, typological and comparative methods, methods of systematization of data, visual orientation, observation and generalization.

Assessment of the recreational potential of natural environmental and anthropogenic components is necessary for selecting sequence of development of certain objects of tourist infrastructure. This rating reflects the highest possible level of various subareas recreation in formulating programs for recreation.

The study of tourism infrastructure based on the theoretical and methodological principles of formation and market needs is to identify processes and events that are parts of its organization. The tourist market is a field connected with satisfaction of the population needs for services related to recreation and leisure activities in meaningful travel [5].

Interaction of the tourism market and territory occurs in two directions: the target direction provides tourism services needs for the population, the resource direction provides tourists consumption of the natural environment, cultural and historical resources of a territory and is manifested in the formation of recreational bonds. Options of these relationships (direction, size, stability, etc.) depend on the uniqueness of the based on the unique resources offer. And only then the distance, cost, comfort begin to act on the formation of recreation relationships. These features significantly influence the formation of the territorial structure of tourism infrastructure, defining its sequential nature [5].

Theoretical studies prove that natural and recreational potential of Ukraine is characterized by territorial concentration of natural recreation resources of the Western Region<sup>1</sup>. There are plenty of compelling proofs in favor of tourist-oriented perspective of the Ukrainian Carpathians region. Historical, cultural and natural resources potential of the Carpa-

<sup>&</sup>lt;sup>1</sup> The concentration level in the Transcarpathian region is 33.273; Lviv - 15.587; Ivano-Frankivsk - 13.223; Volyn - 11.089; in Chernivtsi - 7.911; Ternopil - Rivne and 7.000 - 5.522. If you take the natural and recreational potential per one thousand inhabitants, most indicators show the Transcarpathian (0.341), Volyn (0,214), Ivano-Frankivsk (0,131) and Lviv (0,131) region. It shows that with a small population concentrated powerful natural and recreational potential of the region [6]

thian region, combined with a favorable geographical position in the center of Europe is an essential prerequisite for the development of tourism infrastructure.

Carpathian region with promising tourism development covers Ivano-Frankivsk, Lviv and Chernivtsi regions, with a total area of 56.6 000 square km. This region includes a wide range of conditions: worldwide natural, historical and cultural attractions. Well-known attractions include the foothills of the Chornogirskiy mountain range.

Chornohora is the highest mountain range in the Ukrainian Carpathians. The main ridge extends for a length of about 40 km between the Black Tisza river valleys (in the west), the White Tisza (south - Transcarpathian region) and Black Cheremosha (in the east), Prut (in the north) - Ivano-Frankivsk region) (Pict.1).

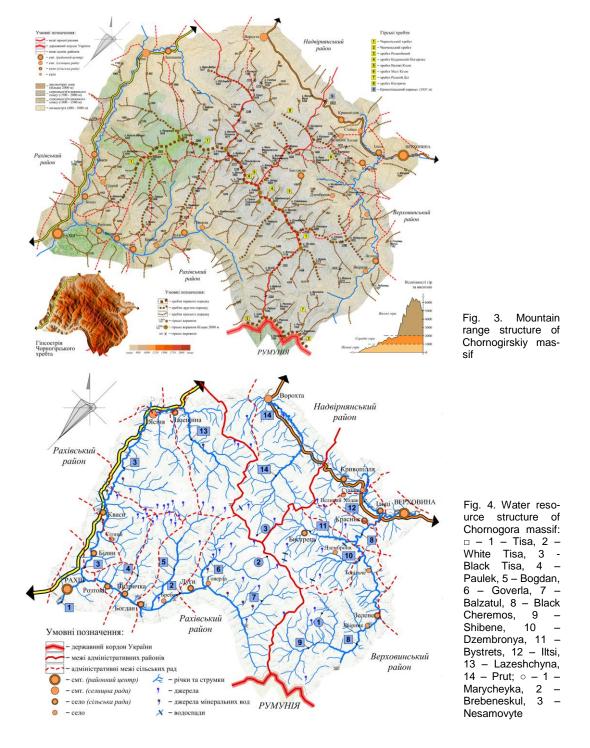


Fig. 1. Layout of the massif in the system of the Ukrainian Carpathians

Great part of Chornogora is watershed between the Prut and Tisza (many centuries it was also the border states, which include Galicia and Transcarpathia). The western and eastern parts of Chornogora are separated by the deep intermountain saddle. By Skopeska meadow (altitude up to 1550 m). The western part porizblena (relative altitude - 300 m); east - monotonous and massive ridge top high above 1900 m or even 2000 m (Goverla - 2061 m, according to other sources - 2058 m), Menchul - 1998 m, Gutin Tomnatyk - 2016 m, Pip Ivan Chornogirskiy - 2022 m), the saddles do not descend below 1750 m. (Pict.2-4).



Fig. 2. The Mountain peaks of the Ukrainian Carpathians



From the main ridge relatively short lateral spurs. Contrast with almost equal ridges (remnants of the former peneplain) are the curbsof Chornogora, dissected by narrow valleys with elevation of 1000 m or more. Glacier influenced more on Chornogora landscape than on other parts of the Carpathians. In the past, the limit of perpetual snow lying at an altitude of 1300-1400 m in the flow near well-spring parts formed short glaciers (glaciers in the valley Prut reached to a height of 1,000 m and was 6.5 km in length). In the footsteps of former glaciation there are after glacial boilers - with streams, often with rocky roadsi-

des and wide bottoms, sometimes filled with lakes (most under Gutin Tomnatyk - Lake Brebeneskul) or peat bogs; uneven decline valleys (sometimes waterfalls such as Prut), lateral and terminal moraines and so on.

For an objective evaluation of recreation array comprehensive studies were performed.

Relief recreational rating is made taking into account the following criteria: a) ridges and mountain peaks - places with high recreational potential; b) the feet of the mountains - the area nearby communities - places with low recreational resources; c) mountain peaks with panoramic opening (h.Hoverla, Pip Ivan, etc.) - recreation centers based on topography (Fig. 5.).

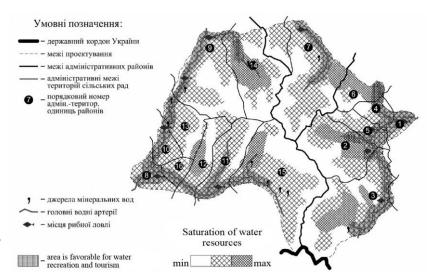


Fig. 5. Relief recreational rating. Developers: A.lhnatyuk, V. Bolyuh

Recreational hydraulic assessment is made taking into account the following criteria: a) the density of the river network - places with a high concentration of water; b) mineral springs - the recreational appeal of objects; c) mountain peaks with panoramic opening (h.Hoverla, Pip Ivan, etc.) - recreation centers based on topography (Fig. 6.).

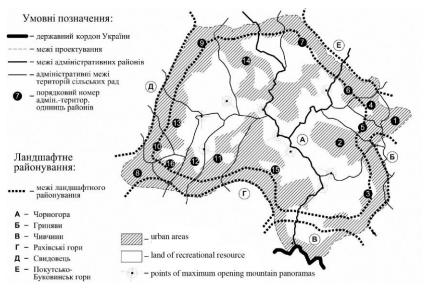
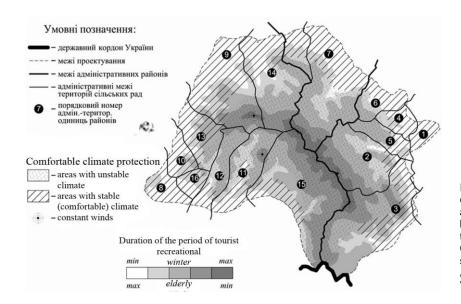


Fig. 6. Recreational hydraulic assessment. Developers: A.Ihnatyuk, V. Bolyuh

Recreational climate assessments are made on the basis of data on temperature zones of Chornogirskiy massif: a) climatic environment cool zone - an area with a low level of comfort (seating not stable for climatic conditions); b) climatic environment warm zone - an area with a high level of comfort (zone more stable for climatic conditions) (Fig. 7.).



Rice. 7. Recreational climate assessments are made on the basis of data on temperature zones of Chornogirskiy massif. Developers: A.Ihnatyuk, V. Bolyuh

Recreational assessment of flora and fauna was made taking into account the following criteria: areas with a high degree of conservation of flora and fauna – a place with high recreational potential; area of localization of unique flora and fauna – places a maximum limit of human intervention; objects of nature reserve fund – flora and fauna recreation centers (Fig. 8).

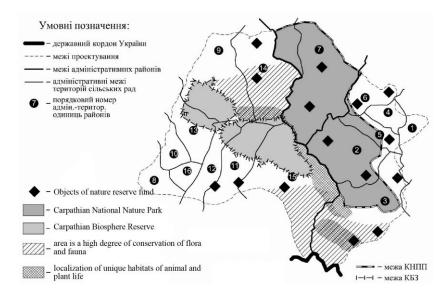


Fig. 8. Recreational assessment of flora and fauna Developers: A.Ihnatyuk, V. Bolyuh

Recreational evaluation of engineering and transport provision of Chornogirskiy massif was made with regard to the following criteria: transport accessibility where max -it's a

good accessibility to individual and public transport, and min - it's only pedestrian accessibility, availability of skills at mountain paths walking; there are localization of the main utilities: electricity, water and communications (Fig. 9).

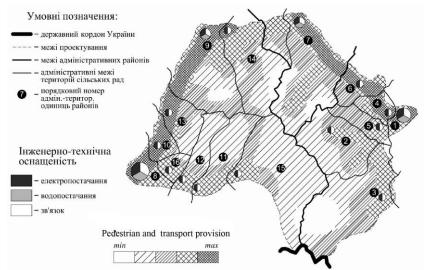
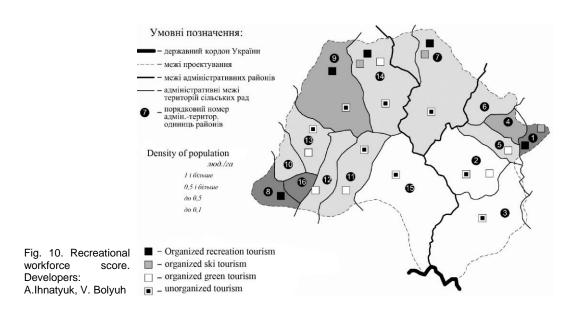


Fig. 9. Recreational evaluation of engineering and transport provision of Chornogirskiy massif. Developers: A.Ihnatyuk, V. Bolyuh

Recreational workforce score was made according to two criteria: population density; availability of tourist infrastructure (Fig. 10).



Recreational evaluation of historical and cultural potential was made taking into account the following criteria: monuments and culture saturation area, where the max - this is a place with a high concentration of relevant objects and their popularity among tourists and min – absolute absence or not popularized among tourists; folklore and handicrafts saturation territory, which are popularized among tourists (festivals, fairs, etc.), where the max - this is a place with a high concentration and min –absolute absence or not popularized among tourists; there are localization of the main monuments (Fig. 11).

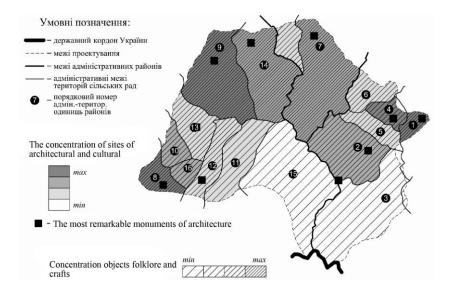


Fig. 11. Recreational evaluation of historical and cultural potential. Developers: A.Ihnatyuk, V. Bolyuh

Recreational environmental assessment was made taking into account the following criteria: the zone of moderate environmental hazards; area of environmental safety; also listed locations and major pollution source areas (Fig. 12.).

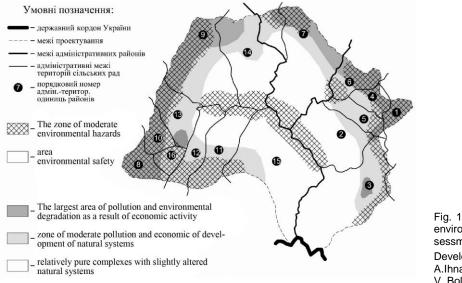


Fig. 12. Recreational environmental assessment Developers:

A.Ihnatyuk, V. Bolyuh

On the basis of the research ,the planning structure of Chornogirskiy massif can be divided into three main areas:

A. The low-lying area. Valley area of rivers and streams. These areas have great potential for recreation, but also the negative impact of human activity gradually decreases it. In this zone, it is necessary to: create parks and forest park zones along water channels; hold the sewage network with home rainy and connect them to cleaning facilities\$ not condense existing buildings; arrange and re-export processing of solid waste.

B. Mid- zone. The area of slopes. These spaces have the highest potential diversity of functions: forestry - to improve the environment, proposed maximum preservation of existing forests and planting new on the northern (not insolated) slopes; agriculture.

Agritourism on the basis of the Carpathian valleys - a new kind of tourist recreation, which is not yet popularized in the Carpathian region; taking into account the great recreational potential, panoramic views, high insolation, comfortable climate, formation of recreational facilities in these areas are the most reasonable.

C. Altitude zone. The territory of mountain ranges - the maximum preservation needs, developing new reserves and sanctuaries. Human intervention in the environment should be minimized: hiking trails, camping village, rest areas and more.

#### **CONCLUSIONS**

The main requirement of the formation of the modern tourist infrastructure is to preserve the authenticity of the environment

Analysis of the research and practice of formation of tourism infrastructure show that despite their quantity and quality, each new projected area requires detailed analysis and a unique approach to solving specific problems. In general, current trends indicate priority in shaping the infrastructure inherent to ecotourism. An analysis of foreign and domestic experience, and learned from the normative literature can be said that the successful formation of tourism infrastructure needs: interaction with territorial settlement; development of active and passive recreation; development of hiking trails of various level difficulty; anticipate all the possible types of tourism on the projected area for all year round visiting; meticulous attitude to details.

In the Carpathian region there is a whole range of natural, economic, scientific and technical potential for the future development of the territory of the optimal use of natural, material, technical, human and intellectual resources in order to create an efficient travel system that will provide material welfare and environmental security of the Carpathians. The Mount Pip Ivan is the primary development of tourism infrastructure for the development of the Carpathian region.

The current and future development of tourism requires active support from the government in terms of information and promotion of tourism and infrastructure provision; it is necessary to develop new markets, to take steps to ensure cooperation in all sectors - public and private - in the interests of maximizing the promotion of tourism sector.

### **BIBLIOGRAFIA**

- [1] Vachevskiy M.V., Svintsov O.M., Kuznetsov V.F. The development of recreational areas in the Carpathian region / / Ukrainian balneotherapy magazine. 2001. № 1. P. 99-104.; Kravtsiv V.S., Yevdokymenko V.K., Habrel M.M. Recreational policy of the Carpathian region. Chernivtsi: Prut, 1995. 68 p. 4. Mazur F.F. Socio-economic conditions of the recreational industry (on the example of the Carpathian region): Teach. Guide. Kyiv: Teaching literature Centre, 2005. 96 p.
- [2] Korobov V. Environmental tourism, http://tourlib.net/statti\_tourism/korobov.htm
- [3] Kravtsiv V.S., Yevdokymenko V.K., Habrel M.M. Recreational policyof the Carpathian region. Chernivtsi: Prut, 1995. 68 p.
- [4] Mazur F.F. Socio-economic conditions of the recreational industry (on the example of the Carpathian region): Teach. Guide. Kyiv:Teaching literature Centre, 2005. 96 p., <a href="http://tourlib.net/books\_ukr/mazur.htm">http://tourlib.net/books\_ukr/mazur.htm</a>
- [5] Goryn G.V. Sustainable economic development, 2012- №4 (14) P.125-131.
- [6] Characteristics of recreational and tourism potential of Western Ukraine http://tourlib.net/statti\_ukr/goryn.htm

#### **AUTHOR'S NOTE**

The author **Yuliya Idak** is an architect, urban planner, phd. Associate Professor of Iviv polytechnic National university, institute of architecture, department of urban planning. Principal sphere of her scientific interests is: The Urban Development and its Forms, the spatial planning, the architectural morphogenesis. E-mail: <a href="mailto:yuliya.idak@gmail.com">yuliya.idak@gmail.com</a>

The author **Andriy Ihnatyuk** is an architect, urban planner, Assistant Professor of Iviv polytechnic National university, institute of architecture, department of urban planning. He is carrying out PhD research at Lviv Polytechnic National University since 2011 year. Principal sphere of her scientific interests is: The Urban Development, the spatial planning. E-mail: <a href="mailto:andriyignatuk@gmail.com">andriyignatuk@gmail.com</a>

The author **Vitaliy Bolyuh** is an architect, urban planner. Principal sphere of her scientific interests is: The Urban Development, the spatial planning. E-mail: vitalball@mail.ru