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LANDSCAPE-ECOLOGICAL ENVIRONMENT AND TOURIST RECREATIONAL ACTIVITY

SUMMARY. The environmental paradigm of the modern geography considers a number of disputable scientific concepts. New aspects of relationships between society and nature are characterized by the increase of human activity and anthropogenic impact on landscapes. This resulted in the emergence of a new concept—landscape and ecological environment—which considers the society impact on landscapes and its ecosystems and geo-socio-ecosystems. Tourist—recreational activity influences negatively natural and sociocultural components of the landscape and ecological environment. It causes its strict, scientific, and regulated nature in accordance with the ecological and ethical restrictions. The analysis of the landscape and ecological environment, its structure and properties, when designing and implementing a tourist—recreational activity, promote a sustainable development of territorial socio-ecological systems.

KEY WORDS. Geographical environment, landscape ecology, landscape and ecological environment, tourist–recreational activity, tourist–recreational potential of a landscape.

Environmental paradigm in modern geography. The concept of environment is one of the fundamental ones in modern geography; it is generic for geographic environment, natural environment, social environment, etc. [1]. Among those the concept of geographic environment is the most important and at the same time most complicated and disputable one. Its essence, meaning, structure, correlation with "geographic (landscape) surroundings" as well as the role of humans in it are under discussion [2].

This term was introduced in the end of the 19th century by a French geographer Élisée Reclus and a Russian geographer L.I. Mechnikov [3]. E. Reclus described geographic environment as a number of natural ("static") and social ("dynamic") elements, which are so closely interconnected that it is impossible to tell which influence is prevailing [4]. French geography at the turn of the 19–20th centuries considered the geographic environment as a purely natural component [5]. This concept was introduced to the sociological literature by G.V. Plekhanov, who defined it as the nature-determined conditions of social life [2]. Since then it has been developing and getting more complicated and has provided theoretical grounds for geographic environment studies.

In the middle of the 20th century the issues of geographic environment studies were tackled by such prominent geographers as A.A. Grigoryev, S.V. Kalesnik, and

V.A. Anuchin. A.A. Grigoryev [6] treated the terms geographic environment, biophysical environment, geographic mantle of the Earth as synonyms and defined them as the interrelations of the atmosphere, earth mantle, soils, water, flora and fauna. Unlike him, S.V. Kalesnik [7] denied geographic environment the status of the subject-matter of natural geography and argued that this term can be applied to that part of the biophysical surroundings of the humans which is in the immediate contact with the human society.

The integral interpretation of geographic environment was first offered by V.A. Anuchin [8]. He differentiated the concepts of *biosphere*, *geographic envelope* and *geographic environment*; by the latter he understood the part of the natural environment which bears the interrelation of human society with the nature within the geographic envelope that has undergone purposeful man-induced changes and abounds in the human-made elements.

These different theories have found a common point in understanding geographic environment in the 70s when a new term—natural environment—was introduced. It came to mean the habitation and production activity area of the humans, the human material world, including both natural and anthropogenic components [3]. Though, this notion was not universally accepted, A.G. Isachenko is among its opponents; he thinks that it lacks meaning while *environment* by itself means something that is around by nature; so, the term is tautological. As for the geographic environment, A.G. Isachenko argues that it is a better alternative for "biophysical environment" in that part which describes the earthly surroundings of the humans [9].

Contemporary interpretations of this term by the philosophy of globalism [10] and the geoverse theory [11–12] are different, too. E.B. Alaev [11] describes geographic environment as a part of the geoverse that is utilised by the humans, that is involved into the production process and that is the material basis for human life. According to V.A. Shalnev [12] geographic environment is the part of the material world, the unique quality of the Earth geoverse geospace, the emerging properties of which are the invariant stabilizing core for human society. It is not a solid structure but is composed of a number of specific environments that get more complicated the closer they are to the subject. The sociobiospheric, landscape and natural environments are specified as the most important for human life.

Landscape-ecological environment. The important role of the landscape environment as a life condition among original landscapes has been recognised since ancient times. Later it has developed into a scientific and world paradigm known as geographic determinism. Landscapes were a significant factor in the ethnogeny works by L.N. Gumilev [13]. According to him it is the landscape which determined the culture of new ethnic groups, and the variety of nations is based on the variety of landscapes; the change in landscapes induces ethnic transformations or dissipation. As the scale of production and human economic activity grew, the changes in the landscape environment became threatening, which brought to life ecological ideas, and their social influence started to gain force.

The 20th century has seen the convergence of the geographic and ecological approaches which favoured the development of a new interdisciplinary scientific sphere of landscape ecology, the foundations of which were laid by a German geographer K. Troll. He defines landscape ecology as a science which studies complexes determined by the interrelations of living coenosis and their environments, where these relations follow a specific pattern of spreading (landscape mosaic) and form natural zones of different levels [14]. K. Troll said that the new term—landscape ecology—covers two approaches: landscape—geographic ("horizontal") and biologic—ecological ("vertical"), i.e. each zone is studies both from the point of view of its natural ecological structure and as regards its main causal relations at each site (ecotope) [14].

Today landscape ecology shifted its attention from the study of structural and functional peculiarities of the natural complexes and the study of their topological components interrelations to the assessment of man's impact on the biophysical component of the landscapes through the analysis of substantial and energetic balances [15].

These factors welcomed into the science a new term—landscape-ecological environment. According to V.V. Kozin [15–16], landscape-ecological environment is defined as a complex of natural ties between the systems, their elements and components of the natural environment.

For the first time the functional differentiation of the landscape—ecological environment was carried out by A.A. Krauklis [17]; he singled out geomes (rock soil and relief), mobilome (air masses surface and underground waters and climate), biotic part (biocenotic cover, including phytocenosis, zoocenosis and microbocenosis) and biostatic part (soils and other such systems). These parts are connected through substance and energy flows and have their own specific characteristics: functional, morphological, historic—genetic and dynamic [15].

According to A.A. Krauklis the landscape—ecological environment includes only the natural component and ignores the human society and human economic activities. Therefore, V.V. Kozin introduced one more part of the landscape—ecological environment—a sociome. Thus, from the anthropocentric viewpoint the landscape—ecological environment is a part of the socio-biosphere environment of a group of people, of the original landscape environment that turnedtobe meaningful and usable, according to turnedtobe V.I. Vernadsky, by the energy of human culture, by ethno-cultural and ethno-national values characteristic for a certain stage of civilisation [15].

Landscape-ecological environment and tourist recreational activity. Landscape complexes serve humans as environments, as sites and resources for all sorts of activities. Throughout their development they fulfill a number of functions important for societies. One of them is recreational. Its role is to restore life energy, to build up physical and psyco-emotional well-being, to support human intellectual development.

Landscape-ecological environment, which includes tourist and recreational resources and tourist infrastructure, can be characterised by its tourist and recreational

potential that is used or can be used to meet the demand for vacations. The tourist and recreational potential of landscape—ecological environments is determined by the variety and availability of tourist and recreational resources of two types: natural and historic—cultural.

The natural tourist and recreational resources can be represented both by the geosystems of different levels and by their components. In the first case what matters is the aesthetic properties of the landscape itself (the view, being unique or attractive, its variety); in the second case some of the landscape elements acquire specific importance for some tourist recreational activities. The importance of different components of landscape—ecological environments for tourist recreational activities varies depending on the type of landscape—ecological environment. Some territories are valuable for their hydrographic properties, others—for their relief, some—for their flora and fauna, etc. If these components are classified from most important to least important, they will form recreational types, which are individual for different landscapes [18].

According to A.I. Zyryanov, there are two factors important for tourist and recreational potential—landscape variety and landscape diversity [19]. The territories with varied or divergent landscapes develop tourist and recreational zones easier and have more mature tourist and recreational industry. Variety of landscape helps to reduce the recreational burden on the territory. Divergence serves as an indicator for landscape aesthetic attractivily.

The spatial and temporal parameters of tourist recreational activity are determined by their dynamics and functional mode such as daily, seasonal or annual rhythms. The tourist and recreational value of a landscape and its components can be seasonal, and it determines types and forms of tourist recreational activities, while changes in natural conditions (especially weather conditions) can even limit it. This trend is particularly relevant for seasonal rhythms.

Today most landscapes are more complex than purely natural shapes. They combine natural, anthropogenic, demographic, ethnic and sociocultural factors that in their interaction form homogeneous conditions for development, an integral solid zone-specific geo-socio-ecosystem [20]. Geo-socio-ecosystems, that function and develop in landscape—ecological environment, promote for the development of the second type of tourist and recreational resources—historic—cultural ones. They include unique historic and cultural objects of material and intellectual value (archaeological, ethnographic, architectural, etc.). Historic and cultural resources (especially ethnographic ones) immediately reflect the peculiarities of the landscapes that nurtured a particular ethnic group.

The possibilities and the economic effect of tourist and recreational activities in the region depend on the social and economic conditions that characterize the relevant landscape—ecological environment. These conditions include the quality of tourist infrastructure (transportation, catering, lodging, etc.), local authority policy, hospitality traditions of the local population.

Tourist and recreational resources determine the spatial development of tourist recreational activity, its types and forms, while its scope, variety and combinations depend on the landscape—ecological environment. The more differentiated it is, the greater are the varieties of tourist recreational activities, the higher is the tourist recreational potential of the area, the more important it is to meet the recreational demand of the society.

Efficient tourist and recreational use of resources in landscape-ecological environment. According to A.G. Isachenko, recreational research today is confined to the study of the recreational potential of the geosystems and their recreational load [21]. But landscape-ecological environment, being a complex structure that includes dynamic ecosystems and geo-socio-ecosystems, also requires attention to its social and cultural components. The tourist recreational activity in landscape-ecological environments relies on their structure and properties to ensure effective recreational management.

It exerts massive influence on natural complexes, social and cultural life in the area. Anthropogenic impact inevitably results in degradation and devaluation of the landscapes that are important as resources, environments and conservation areas. Lack of regulation as far as recreational activity is concerned or ecologically unreasonable construction of tourist infrastructure have a negative effect on the qualities of landscape-ecological environments, which reduces their potential and undermines diversity, as well as decreases their ecological stability and aesthetic properties, affecting, therefore, physical and psycho-emotional health of people. Tourist recreational activity can also have a negative effect on ethnic and socio-cultural properties of landscape-ecological environments: the mentality and the traditional lifestyle of the local population can get affected. It can be explained by cultural differences: tourist usually belong to a different culture, have different traditions and values. This inevitable contact of cultures can make ingenious people borrow alien cultural features. This is especially typical for younger people. Similarly, the discontent of local population can be caused by the number of arrivals, frequenting traditional natural resources and sacred places.

The analysis of the landscape—ecological environment, its structure and properties is the main objective to plan tourist recreational activities. It should follow the principles of rational natural resources management and should be based upon respect of local cultural values and lifestyle. It is possible to implement it as the basis of research, assessment and development of tourist recreational resources.

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