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NEW IDEAS ABOUT THE STRUCTURE AND FUNCTIONS OF NATIONAL ECOLOGICAL NETWORK IN THE CONTEXT OF MODERN POSTNONCLASSICAL CONCEPTS

Today the idea of sustainable development has revealed severe signs of disability as evidenced by the fact that the global environmental problem is steadily worsening. All this makes to question the methodological guidelines which are incorporated into the content of the concept of national ecological networks. One of the main methodological mistakes implied in the development of the concept of ecological networks is bright biocentrism which led to their designing in some virtual space, completely detached from the real spatial organization of society. In fact, building a national ecological network as a spatial phenomenon may not be feasible without “inscribing” it in the specific area subject to certain models of socio-natural interaction. The nearest natural and anthropogenic landscape components approach the state of harmony not barrier but contact borders (in the form of strips, ecotones). Thus the best “contact” between a man and nature should promote exactly informative and ideological functions performed by technogenesis objects. Such theoretical approach provides a new tool for the formalization of relations between nature and society in the organization of the environmental work including formation of the ecological network.

So trips to anthropogenically disturbed landscapes under the new concept of ecotourism should consider all possible demands of tourists and visual observation of different forms and results of anthropogenic impact on nature. Involvement of technogenesis facilities to eco-tourism and local history work in regions of old industrial development has another socio-geographical aspect. Technogenic tourism which may be a separate branch of ecotourism is largely designed to overcome deep contradictions in complex civilizational fault line of the Ukrainian history. In particular, regions such as Kryvbas can provide tourist product mainly involving objects of industrial origin and content. The use of postnonclassical approaches to formation of the national ecological network reveals new features that should carry out modern alternative tourism destinations.

Key words: environmental, ecological network, postnonclassics, technogenic tourism.

Тетяна Казакова. НОВІ УЯВЛЕННЯ ПРО СТРУКТУРУ І ФУНКЦІЇ НАЦІОНАЛЬНОЇ ЕКОЛОГІЧНОЇ МЕРЕЖІ В КОНТЕКСТІ СУЧАСНИХ ПОСТНЕКЛАСИЧНИХ КОНЦЕПЦІЙ

Стаття присвячена новим підходам до формування національної екомережі. Згідно з постнекласичними уявленнями до її складу мають бути включені не лише традиційні природні об'єкти, які вимагають заповідання, а й об'єкти техногенезу. Особливо це стосується старопромислових регіонів України, в яких за активного використання зазначених об'єктів можливий розвиток таких альтернативних видів туризму, як екологічний та техногенний. Наводяться деякі приклади застосування авторських підходів на території Кривбасу.

Ключові слова: екологічний, екомережа, постнекласика, техногенний туризм.

Татьяна Казакова. НОВЫЕ ПРЕДСТАВЛЕНИЯ О СТРУКТУРЕ И ФУНКЦИЯХ НАЦИОНАЛЬНОЙ ЭКОЛОГИЧЕСКОЙ СЕТИ В КОНТЕКСТЕ СОВРЕМЕННЫХ ПОСТНЕКЛАССИЧЕСКИХ КОНЦЕПЦИЙ

Статья посвящена новым подходам к формированию национальной экосети. Согласно постнекласическим представлениям в ее состав могут быть включены не только традиционные природные объекты, которые нуждаются в охране, а и объекты техногенеза. Особенно это касается старопромышленных регионов Украины, в которых при условии активного использования названных объектов возможно развитие таких альтернативных видов туризма, как экологический и техногенный. Приводятся некоторые примеры применения авторских подходов на территории Криворожья.

Ключевые слова: экологический, экосеть, постнекласика, техногенный туризм.

Introduction. Building national ecological network in Ukraine as a part of all European society –is a reasonable strategy today that is supported by the relevant legal framework and therefore should be carried out. To some extent, this strategy is a guideligh for future harmonization of relations between nature and society and ultimately – bringing global environmental problem to nothing until its complete solution. All European formation strategy of ecological network is the continuation of the strategy of sustainable development that starting with “Rio-92” is designed to “solve global environmental problem”. But today, after 20 consecutive years of the Rio + 20, the idea of sustainable development has revealed severe signs of disability as evidenced by the fact that the global environmental problem continues to escalate. All this makes to question the methodological guidelines, which are incorporated in the realm of sustainable development, and therefore the content of

the concept of national ecological networks. That is what the relevance of the proposed article was caused.

Literature review. In our opinion, one of the main methodological mistakes implied in the development of the concept of ecological networks is bright biocentrism which led to their designing in some virtual space, completely detached from the real spatial organization of society. In fact, building a national ecological network as a spatial phenomenon may not be feasible without “inscribing” it in the specific area subject to certain models of socio-natural interaction. Among them there are the most frequently mentioned models of B. Rodoman and O. Topchiev. In particular, the author of the model of polarized landscape B. Rodoman initially provides subject to regular geometric shapes for his model in the design of artificial landscapes [4]. As any proper geometry which is initially hostile to nature [8] then, as soon as possible, this model is anthropocentric and some works propose not to take into account [5]. O. Topchiev [9] in his theoretical model environmental management de-

defined the following principles of rational territorial organization of landscape environment:

- areas of protected and technogenic environment should be distant one from another;
- intensity of the economic use of the environment should be consistent to less intensive;
- various types of economic activities and spatial organization of the biosphere should be spatially eche-loned: from “windows” of clean (protected) nature forming a “core biosphere” to “biosphere barriers” which act as protective buffer strips. Mandatory elements of rational territorial organization of “nature-society” must also be bio corridors in order to ensure biosphere integrity and environmental coherence.

We agree with the idea that in the separation concept initially provides a barrier line between society and nature. And with such superlative approach of “harmony” between them and more ecotonization of spatial relationships it shouldn't be mentioned [6]. Also a hierarchical level of the task is questionable because only determining logic of socio-natural interaction at spatial micro level will expose the general trends of this interaction on spatial mezzo- and macro level reaching the famous slogan of Rio de Janeiro – “Think globally, act locally!” [5].

According to the same author who owns the rotational model of a spatial structure of the noosphere, the closest to the state of harmony natural and anthropogenic landscape components bring no barrier and contact borders (in the form of strips-ecotones) [6]. Forms of spatial organization meeting ecological network objects in this model take up buffer position between district and urban ecosystems. Thus the best “contact” between human and nature should promote just informative and ideological functions performed by objects of industrial heritage (OIH) as potential objects of ecological network [7].

Main contents of research. Given theoretical approach provides a new tool to formalize relationship between nature and society organizing environmental work and includes the formation of the ecological network. In modern geography and ecology there are two methodological approaches to the protection of landscapes. *Traditional approach* provides protection for objects with high natural value only – they must be less disturbed by a human (almost raw landscapes), be in a state of self-development; with significant level of biodiversity; represent a regional landscape unit (zone, subzone, province, etc.).

The second approach is built *on the principles of postnonclassical methodologies* (Korzhyk, 1995; Tiutiunnyk, 1998, 2003; Denysyk, 1998; Kazakov, 1998; Boreyko, 1998) and provide following types of reserves: 1) not only well-preserved landscapes that also have a potential to heal itself to almost original state; 2) anthropogenic landscapes, although sometimes some are characterized by indigenous differences from the original state – quarries, dumps, dips, underground mining (mines); 3) no difference between “natural” and anthropogenic landscapes should be, any of anthropogenic landscapes that have ontological and epistemological value have to be reserved ranging from mining, industrial landscapes and ending with agricultural and recreational ones in order to preserve them as phenomena of

the universe or renew primary geo systems themselves; 4) natural objects that differ by sacral (in historical perspective) value; 5) territorial organization of reserve management has to be totally done (according to post-nonclassical approaches).

Understanding presence of these two approaches by reserve management allows a completely new deal with problems finding objects of nature among modern landscapes for taking them under protection. Particularly acute the problem is in those regions (Kryvbas, Donbas, territories of Nikopol manganese ore and Kerch iron pools, etc.) landscapes of which suffered significant in size and quality man-made alterations as a result of mining and redistribution of minerals and extensive development of factory production.

For the period of XX century “wild” nature was not minority at all and experts working on projects of new protected areas effectively deal with disturbed landscapes. For example, studies of workers of Kryvyi Rig Botanical Garden showed that an area of about 30 thousand square kilometers which is adjacent to Kryvyi Rig, there are only 35-40 hectares of steppe landscapes a little transformed by a human. There are no areas needed to build reserves. The maximum that can be justified are preserves, natural monuments and more. So for reserve management in mining and industrial regions the most significant is only the second methodological approach [2].

So trips to anthropogenically disturbed landscapes according to ecotourism should consider all possible demands of tourists and have a single goal. The purpose of trips through the ecotourism to environmentally stressed areas is a visual examination and monitoring of different forms and results (in estimates – negative) human impact on nature. Figuratively, these trips are actually hiking the “human garbage” [1].

Involvement of technogenesis facilities to ecotourism and local history work in regions of old industrial development has another – social and geographical, but rather geopolitical aspect. Regions of Ukraine are now in a very difficult state of transition from industrial to post-industrial economy. This transition in torch with most civilized countries is very dramatic as evidenced by military actions in an old industrial region of Donbas. In fact, this difficult transition has explanation from a geopolitical point of view: the old resource-capacious branches are changed by latest postindustrial ones. However such transition in countries with developed democracy took place evolutionarily, while in Ukraine – revolutionarily. By many estimates of major geopolitical consequence of these events was carrying Rimland attack for Heartland in bounds of ATO zone. In other words there is a border between Asia (with the ancient traditions of dictatorship and oppression of its own people) and Atlantic countries (bearers of democratic traditions and scientific and technical progress).

For better understanding it is necessary to analyze the sectoral and territorial structure of old industrial regions of Ukraine including Donbas may not be the last region that will develop in a dramatic scenario. It is impossible always to exploit the natural rent exporting raw materials and not developing at the same time intellectual branches.

Heritage of old industrial regions is “fixed” in the multi-production assets and infrastructure under the influence of post-industrial trends depreciates rapidly leaving behind unemployment, low living standards and a deep nostalgia for the Soviet Union. However in one and the same river twice you cannot come into so we must seek for a constructive way out.

Technogenic tourism which may be a separate branch of ecotourism as a relatively young area of tourism is largely intended to solve the above problems and to overcome deep contradictions in complex civilizational fault line of the Ukrainian history. Krivbas starts to play the important role in such kind of tourism as one of the oldest industrial regions of Ukraine where fortunately were no military actions and it has kept the above-mentioned industrial legacy of the previous industrial-technological way.

Recreation and tourism activity is undoubtedly one of the most promising trends not only in the structure of environmental management but in general the formation of sectoral structure of old industrial region. Over the last 20-30 years there was the evolution of species and tourism content from traditional forms to new ones. Search for more optimal ways of tourism development led to the emergence of concepts and phenomena as “natural”, “rural”, “adventure”, “scientific”, “educational”, “cultural”, “agricultural”, “ecological” tourism. All these terms are now united under the banner of alternative tourism. The structure of alternative tourism also includes “industrial” and “technogenic” tourism development of which is gaining momentum not only in old but also in new industrial reclaimed areas.

Therefore, such regions as Kryvbas can provide tourist product mainly involving objects of industrial origin and content. The starting basic concept is *technogenic tourism (TT) – a kind of recreational activity aimed at visiting for different purposes (scientific, educational, sports, etc.) industrial facilities. From the landscape point of view TT science is the tourism where objects are the man-made landscapes – quarries, dumps, mine surface failing formations, underground mine landscapes and industrial structures (factories, plants, mines).* [3].

Conclusions. Postnonclassical approaches to formation of a national ecological network reveals new fea-

tures that should carry out modern alternative tourism destinations.

The basis of technological tourism are anthropogenic landscapes that are formed under the influence of industry – mining (development of underground mine voids, pits, dumps, mine collapses) and manufacturing (ore dressing metallurgy, metallurgy accumulation of waste, energy facilities (hydroelectric dams, nuclear power plants, helio-thermal PP etc.) and areas of technological disasters – Chernobyl zone). So to areas of potential development of technological tourism can be attributed territories where heterogeneous industrial anthropogenic landscapes are widespread.

In addition to the main feature characteristics development of technological tourism very good “fits” in the list of areas of post-industrial economy. The main features of post-industrialism are supplements of the old machine technology with growing use of “intellectual technology” (in our case – tourism as sensitive perception of reality which through cognitive activity takes features of an intellectual branch). If the industrial society is determined by the number of products that define the standard of living, the post-industrial society depends on the quality of life, measured by services and various amenities – health, education, recreation and culture which were desirable and affordable for everyone. And at the present rate of working and living expenses for holidays, especially related to travel, they quickly move into the category of required ones. As mental work makes a person more independent from the means of production and governing management, for the implementation of internal freedom of an individual phenomenon of free time becomes very important on costs of which tourism is actually focused. Tourism performs similar to mass culture functions – meets the needs of people in recreation and relaxation in conditions of constant stress.

Gradual transition of society from life-support model to model of meaningful leisure time typical for post-industrial countries, gives grounds for expecting further growth in recreational activities and diversifying its functions. This role in old industrial regions of Ukraine can and should be played by the technogenic tourism.

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