

Alicja Krzymowska-Kostrowicka

THE GEOECOLOGY OF TOURISM — A NEW DIRECTION IN THE GEOGRAPHY OF TOURISM

INTRODUCTION

The notion of *geoecology* was first used by Troll in 1950 as synonymous with the "landscape ecology" (Richling, Solon, 1996). The sense of this notion consisted in the introduction of the paradigm of the ecological sciences into the geographical thinking. Relatively soon, because after twenty years, this term started to be used in a different meaning than that initially assumed by Troll. Geoecology started, namely, to be treated as a direction in social ecology, in biological ecology of man, or as the entire knowledge dealing with the protection and shaping of the human life environment ("environmentology"). Later on, the opinion started to dominate that geoecology is a separate domain of geographical knowledge, whose object of interest are human beings in their geographical environment (Willems, 1977; Leser, 1987; Lavrov, 1987).

The task of geoecology is to identify the relations in the triangle "man-nature-economy", treated as dynamic systems of functional and spatial interconnections, defining the "behaviour models" of human beings, natural systems, and the manners of performing economic functions in nature. Since the systems studied by geoecology are extremely complex, the discipline must of necessity make use of the achievements of other sciences, both natural and humanistic, transforming them in accordance with the paradigm of ecology, as formulated by the leading theoreticians of the latter, an especially W.C. Allee (1931, 1951), E. P. Odum (1959), K.A. Kershaw (1955), or V.B. Sočava (1979). This paradigm is the foundation for the geoecological thinking and the source of inspiration in the search for solutions.

The differentiation of the "man-environment" interactions, being the primary object of geoecological studies, makes it necessary to classify them. Such a classification can be carried out in a variety of ways, either, as it is done in the ecological sciences, on the basis of the internal level of organisation of the interacting systems, or according to the forms of human activity, or, finally, according to the economic criteria.

In the first case we may consider the "man-environment" interactions in

the autecological perspective, by analysing the influence of the external environment on human organism, or in the synecological perspective, when we are primarily interested by the relations between the human groups (communities) and the geoecosystems, that is — the natural complexes, such as, for instance, ecosystems, or landscapes, occupying a definite portion of space.

In the second case the fundamental criterion of classification is constituted by the form of contacts, bringing about the formation of specific spatial interaction settings, such as, in particular, "farming-environment", "town-environment", or "tourism-environment". This kind of approach is by the very nature of things synecological. While, however, in the typical synecological studies human population is being accounted for as a whole, in the perspective here considered the distinguishing factor is the form of use of the natural environment.

The third manner of formulating the geoeological perspective in the interactive "man-environment" studies consists in the adoption in terms of criteria the bioenergetic-economic assumptions, that is — the so-called economics of nature. In this perspective it is essential to determine the magnitude and the direction of flow of matter, energy, and information between a human being, the human communities, and nature. In other words — the "man-environment" interactions are being perceived in the categories of "costs-benefits" for the two co-operating sides.

THE OBJECTIVE AND THE TASKS OF THE GEOECOLOGY OF TOURISM

A specific feature of the geoeology of tourism and leisure, distinguishing it from other holistic concepts concerning the problems of tourism, is its typological, and not regional orientation. The task of this discipline is namely to search for the answer to the following questions:

— how does the human organism react to the influence of the variables of the natural environment, such as, in particular, the length of the day, the inflow of radiation energy, the climate, the variables of the biotic environment, etc.?

— what kinds of threat to the human health and feeling can be caused by these variables depending upon the age, psycho-physical condition, and the adaptation capacities of the individual, and what kinds of threat result from the presence in the environment of the animal and plants organisms, as well as the allergens, dangerous for human health?

— what is the course of the process of perception of the environment by those visiting it, is the perception-based assessment of the place of leisure conform to its actual values; in other words — what is the degree of divergence between the subjective evaluation and objective value?

— which models of tourist behaviour and social links dominate in a given location of leisure, which of them are a priori determined, and which are enforced by nature itself?

— what is the net balance of benefits and losses from the tourist use of a given place, or a given asset, as seen from both the point of view of tourists and of nature?

It can be clearly seen that the first two problem formulations bear a distinct autecological character, the following two — the synecological one (perception is always a social creation, although it is individually expressed), and the last question — the economic one (in the sense of a holistic, not just financial, economics).

GEOECOLOGY AND THE RELATED DISCIPLINES

The geoecology of tourism, as mentioned before, takes advantage of the achievements of numerous scientific disciplines. Its links to the related domains of knowledge are presented in Fig. 1.

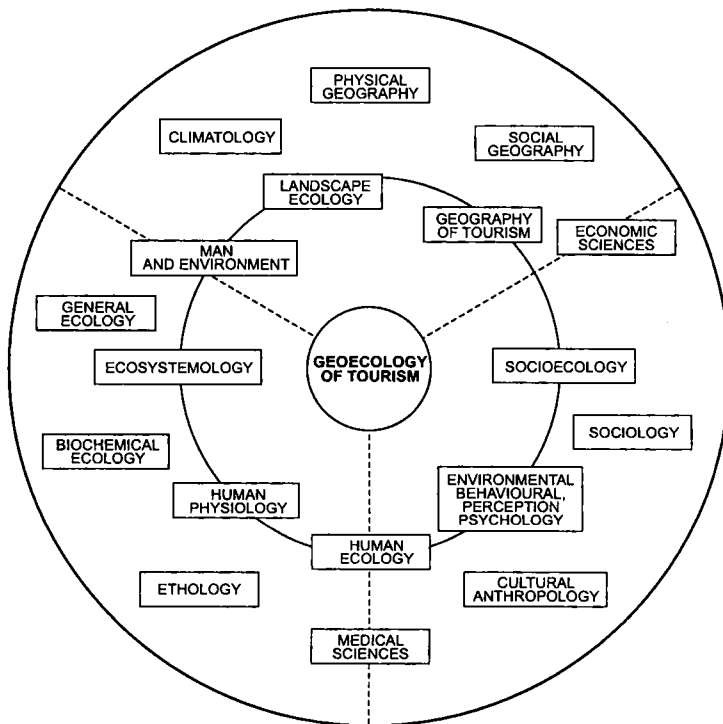


Fig. 1. The place of geoecology of tourism in the system of sciences.

By the very force of things, other domains of geographical sciences are the closest to this direction of study. These are, most of all, the broadly conceived physical geography, social geography, and, in particular, other disciplines oriented at tourism. They do not only share the spatial perspec-

tive of reality, but also the fact that these domains constitute for the geocology of tourism and leisure a rich source of information.

Equally strong links associate the direction of research here considered with the ecological sciences, and especially with the general ecology, and the eco-systemology, which formed the paradigm of geocology, gave it the research toolbox, and the manner of analysing the reality and of synthesising the results of inquiry.

Among other sciences the particularly close links exist between the geocology of tourism and sociology, and especially — socioecology. These links concern both the theoretical and the methodological sphere. In a particular manner this applies to the socioecology of tourism (Graburn, Jafari, 1991; Przeclawski, 1996; Smith, Eadington, 1992). Despite the fact that the socioecological studies differ in their approach from that applied in geocology, their theoretical prerequisites have been to a large extent assimilated by the geocology.

Specific relations link geocology with some of the psychological sciences. Special significance ought in this case be attached to the theoretical achievements of such domains as environmental psychology, social psychology of small groups, psychology of perception, etc.

There are quite original connections between the geocology of tourism and human ecology. Theoretically speaking, geocology of tourism could be treated as one of the subdivisions of human ecology. They namely share both the origins and the theoretical assumptions, and the spatial perspective on the phenomena. In reality, though, the development of these two domains of science went in completely different directions. In human ecology the strictly biological studies started to dominate, oriented at practical applications. These studies concern the influence of the external variables on the biomedical characteristics of human organism and human groups, such as physical development, susceptibility to diseases, fertility, etc. The second direction, being now developed within human ecology, pays special attention to the identification of the mechanisms of human adaptation to the changing environmental conditions, especially its chemical properties, in the biomedical perspective, as well.

Relations of the bioecology of tourism to other sciences, both natural (like, for instance, to bioclimatology, hydrology, and biochemistry), and humanistic (especially cultural anthropology, ethology of man, and economic, as well as medical sciences), are of unilateral character. These sciences are namely primarily the source of detailed information, and rather rarely of the methodological proposals.

An intensive development is taking place currently in the world of the disciplines studying the relations between man and environment, such as environmental ecology, cultural ecology, holistic geography, environmental psychology, etc., which to an important degree deepen our knowledge of the relations considered. The question thus arises whether geocology of tourism is to an extent identical with any of them. In my opinion, the answer is negative, since, first, the object of study of geocology of tourism is much

more interdisciplinary, and simultaneously limited in terms of subject matter, second — both the methods and the style of reasoning and concluding differ significantly from the ones applied in the directions mentioned, primarily in view of the typological-geographical approach of the geocology of tourism. This discipline is, on the other hand, certainly one of the domains of science dealing with man in the environment, perhaps the most affine to environmental ecology, if we consider that man, together with the human social outfit, is the fundamental object of study.

THE ROLE OF GEOECOLOGY OF TOURISM IN THE CHANGING WORLD

What might be the significance of the geocology of tourism in the changing world? Since all the relevant studies indicate that the demand for the tourist and leisure services will be dynamically increasing, and it will also include the societies of the South-East Asia, tourism-wise passive until today, but which constitute currently close to half of the world's population, the style of tourism must change. New forms will emerge, while the other ones — now popular — will be transformed. Popularisation of the virtual techniques will contribute to a curb on demand for the cognitive tourism (Rifkin, 1995). At the same time it is already now visible that the spatial reserves for the mass SSS (Sun, Sand, Sea) tourism are quite limited. In conditions of a greater care for the health function of leisure all this will cause everybody to look for the optimum location and form of leisure for her- or him-self. It will therefore become necessary to pass from the mass tourism to the system of renowned centres — much like the English concept of establishment of the "honey spots", attracting tourists just like a saucer of honey attracts bees. Under such circumstances the geoecological knowledge will simply become indispensable, since only this knowledge will make it possible to determine whether resting in a given place will be beneficial in psychophysical terms, or will be detrimental, and so — how to choose the right place for vacationing. It should be expected that the further development of geocology of tourism will proceed in two directions:

— the development of theories allowing to make more precise and expand the methods of evaluation of the "tourism-leisure-environment" interactions (there are only few reports, like Edington, Edington, 1986; Farrell, McLellan, 1987; Krippendorf, 1988; Krzymowska-Kostrowicka, 1997, which treat this set of relations in a comprehensive manner);

— the practical aspect of studies, having as its purpose the elaboration of the eco-geographical compendia, providing a practical, synthetic knowledge on natural conditions (climate, lithological bedding, living nature, etc.), which will be encountered by someone who chose a given place for leisure; demand for this practical aspect of the geoecological studies arises already today, especially in these societies, which pay increasing attention to the psycho-physical effectiveness of vacationing.

REFERENCES

- Allee W.C., 1931, *Animal Aggregation: A Study in General Sociology*, University of Chicago Press, Chicago.
- Allee W.C., 1951, *Cooperation among Animals with Human Implications*, Schuman, New York.
- Edington J.M., Edington M.A., 1986, *Ecology, Recreation and Tourism*, Cambridge University Press, Cambridge.
- Farell B.H., McLellan R.W., 1987, Tourism and Physical Environmental Research, *Ann. of Tourism Res.*, 14, New York.
- Graburn N., Jafari J. (eds), 1991, Tourism as Social Science, *Ann. of Tourism Res.*, Special Issue. New York.
- Kershaw K.A., 1955, *Quantitative and Dynamic Ecology*, Crom Helm Ltd., London.
- Krippendorf J., Zimmer P., Glauber H., 1988, *Für einen anderen Tourismus. Probleme — Perspektiven — Ratschläge*, Fischer Verlag, Frankfurt a.Main.
- Krzymowska-Kostrowicka A., 1997, *Geoekologia turystyki i wypoczynku* [Geoecology of tourism and leisure], PWN, Warszawa.
- Lavrov S.B., 1987, *Social Ecology and Geography*, Nauk. Dumka, Lviv.
- Leser H., 1987, Humanökologische und humangeographische Aspekte der Landschaftsökologie, *Regio Basiliensis*, 30, 2-3.
- Odum E.P., 1959, *Fundamentals of Ecology*, Saunders Co., Philadelphia.
- Przeclawski K., 1996, *Man and Tourism. Introduction to the Sociology of Tourism*, Albis, Kraków.
- Richling A., Solon J., 1996, *Ekologia krajobrazu* [Landscape ecology], PWN, Warszawa.
- Rifkin J., 1995, Informational Revolution and Human Condition. Perspective for the Future, *Journal of Modern Technologies*, 7.
- Smith V., Edington W., 1992, *Tourism Alternatives*, Univ. Penn. Press, Philadelphia.
- Sočava V.B., 1979, *Theory of Geosystems*, Nauka, Irkutsk.
- Willems E.P., 1977, Behavioral Ecology, [in:] *Perspectives on Environment and Behavior*. Plenum Press, New York.