

The methodological problems of landscape classification for the purpose of ecotourism

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Abstract. The paper presents various landscape classification, that serve as a basis of area's evaluation for the purpose of ecotourism. Several research works realised in the Department of Geoecology of Warsaw University have been presented. It has been stated, that the most popular and efficient landscape units that can be use for such an evaluation are that of natural origin. The morphological and land use diversity are the most often analysed features. However, spatial units don't reflect properly the problem of landscape penetration by tourists. In order to describe these phenomena, linear and point elements should be also taken into account.

Key words: ecotourism, landscape units, landscape classification

Introduction

The term of ecotourism has relatively short history. According to Zaręba (2000) an „eco” form of tourism shall have:

- a cognitive character,
- a minimal negative environmental influence,
- bring benefits to local communities.

As in this article only relations between tourism and landscape are taken into account, it can be stated that the distinguishing feature of ecotourism is its active approach to the landscape in which it is realized. The ecotourism activities are driven by the need of getting to know, familiarizing with and understanding the explored area.

The most popular definitions of landscape describe it as holistic system of a high rank, of specific structure and internal connection, which should be treated as a compound of interactive geocomponents. The other approach refers to landscape only as a physiognomical image of the area (Malinowska, Harasimiuk, Lewandowski 2004). As physiognomy is the final effect of interactions among geocomponents that create a landscape and thus is only a part of a holistically understood landscape, landscape researches conducted for tourism are often limited just to visual character of landscape (Wyrzykowski 1991). This approach can be partially argued by the fundamental significance of visual stimulation for human beings (Krzymowska-Kostrowicka 1997). Assuming that multilevel interactions with landscape are of primal importance for ecotourism. It should be indicated, that landscape evaluations that refers only to physiognomical features seemed to be not complex.

Landscape values for tourism can be perceived in various ways. Landscape's attractivity may be treated as a sum of landscape values of researched area. Landscape's usefulness refers to real abilities of using the area, which are modified by landscape's absorbency (resistance and accessibility). External factors, for example a local law, should also be taken into consideration (fig. 1).

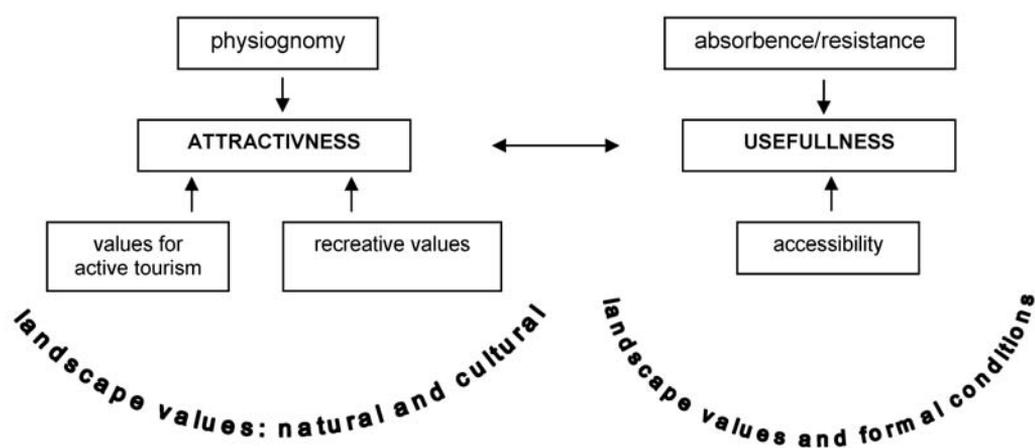


Fig. 1. Attractiveness and usefulness of landscape for the purpose of tourism.

Landscape's classification for the purpose of ecotourism – examples

In the years 1985 – 2006 eighteen master theses that concerned the discussed problem have been realized. They were promoted by A. Richling, K. Ostaszewska, W. Lewandowski and M. Zgorzelski. The most of researched areas is situated within the territory of Poland. The plots of land between 100 and 200 km² were the most popular objects of research. The most of works has been realized in lakelands and mountainous landscapes. The scale of research varied from 1:10000 up to 1:50000.

Landscape units, mainly geocomplexes of various types, are the most popular base of evaluation. M. Królak (1992), who worked under the tutorial of K. Ostaszewska, evaluated for purpose of ecotourism the area of Wigierski National Park (North-East Poland, lakeland landscape). Firstly, geocomplexes were delimited using the method of the leading factors by Richling. Units diversity reflects the lithological, morphological and land use diversity. That was the basis for landscape classification according to its attractiveness, absorbency and accesibility. Search for the units of different attractiveness, also points cultural elements (i.e. picturesque chapels) that were taken into account. The use of geocomplexes for description of aerial values, as morphological and land use ones seems to be accurate. However its usefulness for evaluating landscape absorbency and accesibility subjects some limitations. As well absorbency, as accesibility are almost always linear, not aerial, what makes linear units more useful for such a type of evaluation.

Assumption, that the majority of tourist activities has linear character was a basis of some works, where landscape is limited to a belt along tourist trails. A. Dołęgiewicz (2001), who worked under the tutorial of W. Lewandowski, valued trails of Gorczański National Park (South Poland, mountainous landscape) according to their usefulness and attractiveness for active tourism. Walking, horse riding and biking were taken into account. Each type of activity was analysed separately. The main valued elements used for estimate landscape usefulness were ground character, trail wide and slope inclination. To estimate trails attractiveness, the areas, which are passed by tourists were valued. The following elements were taken considered: aesthaetical and dydactic values of vegetation cover, age of trees, morphological diversity, presence of water, view points and presence of cultural elements. The information obtained for the aerial units was then transformed to the linear units – parts of trails of different character.

The thesis of M. Brodowska (2001), realised under the tutorial of W. Lewandowski, represents the similar methodical approach. The research were realized in the surroundings of Solińskie Lake (South-East Poland, mountainous landscape). Motor ways, walking and equestrian trails were classified according to their attractiveness and resistance. By the assessment of trails resistance the following features were taken into account: character of surface, lithological diversity, ground humidity, morphological diversity and natural absorbency of areas adjacent to the assessed linear object. However in the presented work the landscape

occurs to be limited to linear objects, some assessed elements refer to spatial properties. By the assessment of tourist trails attractiveness such elements of adjacent areas, as their aesthetical and sanitary values, vegetation contrast, existence of running water, slope inclinations and appearance of cultural elements were taken into account.

The presented methodical approach, which reduces landscape classification to the process of grouping some lines that exist within it seems to be partially justified when landscape accessibility and resistance are concerned. As for the landscape attractiveness, too much of information is loosed this way. Linear elements are only a part of landscape, so classifying them and assessing doesn't concern the whole landscape.

The other possible approach to the problem is assessment of viewpoints. Such an approach can be the only option in areas of limited accessibility, for example high mountains. A. Pucek (2003), working under the tutorial of M. Zgorzelski, valued landscape of Sagarmatha National Park (Himalayas, high mountains landscape). The assessment was conducted for nine easily accessible viewpoints. the natural values (view of the highest peaks, presence of glacial morphological elements, untypical plants and animals) as well as cultural (Sherpas' villages, trails, religious sites) were taken into account.

As presented examples show, landscape classification for the purpose of ecotourism can concern spatial, linear of point objects. Each of the mentioned groups of elements plays a different role as a part of a landscape and also has a different significance for tourist (see table 1).

Table 1. Types of landscape elements and their significance for tourism

Landscape element	Significance for tourism
spatial	Background; aesthetical value
linear	Moving through the landscape
point	Cognition, amusement, sleeping and eating

None of presented types of landscape classification is a complex one. In all cases only some problems of landscape assessment for tourism are identifies and described. There are researches, that analyze groups of elements – for example point and linear ones (Brodowska 2001) or spatial and linear ones (Adamczyk 1999). Among the rewieved thesis only one appears to touch as well spatial (land use), linear (character of lakeshore, roads, water trails) and points (view points, tourist infrastructure) elements of landscape. That is thesis "Aessment of south eastern shores of Lake Jagodne for tourism and recreation" prepared by W. Madej (1985) under the tutorial of A. Richling. However the assessment is limited only to recreational values of landscape, which are analysed in a large scale and on a relatively small plot of land, the mentioned work is an important example of complex approach to landscape classification for the purposes of tourism.

Conclusions

Complex landscape classification for the purposes of ecotourism is a difficult methodical task, especially due to number of elements that should be taken into account. To ensure the adequate result of such a classification the following problems should be taken into consideration:

- to specify the type of touristic activity within the researched type of landscape and to describe its environmental demands,
- to take into account various elements of landscape structure: spatial, linear and point ones,
- to keep the holistic approach to landscapes,
- to assess a landscape attractiveness as well as its usefulness for ecotourism.

Realising such a multilevel research may occur technically complicated. This can be resolved by splitting all the research in few parts. As a first step, separate landscape classifications of landscape attractiveness and usefulness should be prepared. As the spatial features determine any landscape's character, the spatial units should serve as a basis for this classification. Then, for the areas of the highest attractiveness and usefulness, the detailed analysis, concerning linear and punctual elements, should be conducted.

Some technical problems, which may limit the practical value of landscape classifications for the purpose of ecotourism exist. These are:

- Scale of research. This should be correlated with spatial range of tourist activity (which can differ depending on type of activity).
- Clarity. As different social and scientific groups focus themselves on tourism problems, the research, its methods and results should be easy to percept and understand also for non specialists in landscape sciences.

References

- Adamczyk J., 1999. Ocena walorów środowiska przyrodniczego Bieszczadzkiego Parku Narodowego dla turystyki aktywnej. Master thesis, Department of Geoecology, Faculty of Geography and Regional Studies, Warsaw University.
- Brodowska M., 2001. Uwarunkowania przyrodnicze rozwoju turystyki aktywnej w okolicy Jeziora Solińskiego. Master thesis, Department of Geoecology, Faculty of Geography and Regional Studies, Warsaw University.
- Dołęgiwicz A., 2001. Przyrodnicze uwarunkowania rozwoju turystyki aktywnej w Gorczańskim Parku Narodowym. Master thesis, Department of Geoecology, Faculty of Geography and Regional Studies, Warsaw University.
- Królak M., 1998. Typologia krajobrazu północnej części Wigierskiego Parku Narodowego na potrzeby ekoturystyki i edukacji ekologicznej.
- Krzymowska-Kostrowicka A., 1997. Geoekologia turystyki i wypoczynku. PWN. Warszawa.
- Malinowska E., Harasimiuk A., Lewandowski W., 2004. Geoekologia i ochrona krajobrazu – leksykon. Uniwersytet Warszawski.
- Madej W., 1985. Ocena przydatności południowo-wschodnich wybrzeży jeziora Jagodne dla rekreacji i turystyki. Master thesis, Department of Geoecology, Faculty of Geography and Regional Studies, Warsaw University.
- Pucek A., 2003. Przyrodnicze Uwarunkowania Turystyki w Parku Narodowym Sagarmatha. Master thesis, Department of Geoecology, Faculty of Geography and Regional Studies, Warsaw University.
- Wyrzykowski J. (red.), 1991. Ocena krajobrazu Polski w aspekcie fizjonomicznym na potrzeby turystyki. Uniwersytet Wrocławski.
- Zaręba D., 2000. Ekoturystyka – wyzwania i nadzieje. PWN. Warszawa.