

Changeability of the value in educational potential for the southern part of the Kraków - Częstochowa Upland

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Abstract: The educational potential of the natural environment indicates the most suitable areas for teaching and it is useful to acquire knowledge about nature and ecology. It was identified as one of the perceptive – behavioral sub-potentials. The evaluation of particular environmental components (geology, geomorphology, hydrographic conditions, vegetation) was used to determine this potential. It shows the most important areas and objects, that have substantial value for the studied areas which is located in southern part of the Kraków – Częstochowa Upland. Determining the educational potential can be useful in planning educational path in naturally valuable areas. The main aim of this paper is presenting the important role of the time in changes of the value in educational potential of the natural environment.

Key words: educational potential, landscape's changeability, environmental valuation process

Introduction

The potential of the natural environment are all environmental resources and values that have the ability to providing for the human needs (physical and psychological). Very often partial potentials are distinguished. These are potentials which are describing the value of resources, raw materials, land use management, recreation or tourism. They are appointed through the environmental valuation process. Recently in the physical geography a perceptive – behavioral potential seems to be an interesting issue. For the reason that the methodology of appointing this potential is particularly difficult. The definition of the perceptive – behavioral potential means the ability of the landscape to have an effect on human senses (Przewoźniak 1991), because of that it is possible to distinguish a few sub-potentials describing the influence of the landscape on the development of the man. The educational potential of the natural environment indicates the most suitable areas for teaching and it is useful to acquire knowledge about nature and ecology (Pięta 2010). It can be useful in education or tourism, particularly that recently tourists are demanding. Recently thematic trips are popular, especially environmental and educational tours. Along with time the value of the educational potential and our possibilities of exploiting this potential are changing. This changeability is a result of interplay between human and the environment, in less or more sustainable manner.

The characteristics of the southern part of the Kraków – Częstochowa Upland Methods

The study area is located in southern part of the Kraków – Częstochowa Upland (Kondracki 2000), in the

distance of the about 15 km to the north-east from Kraków (fig. 1.). This is very important area for interdisciplinary research because of the variety environmental components. That means that landscape has a variety of forms. Predominant feature in this region is geology. Its influence governs distribution and forms of the other environmental components. The most characteristic elements are plateau, rock formations and valleys. Main elements of the landscape are built from limestone rocks (Oxford) in three lithological variety (Gradziński 1994). Additionally this area has an interesting flora and fauna. These are reasons to presenting this region as extremely important for the education and the researches.



Fig. 1. The study area

The educational potential of the natural environment

The environmental valuation process is one of the basic means of the evaluating the natural environment. Appointing the potential of the environment is one of ways of valuation process.

A potential of the natural environment are all resources and advantages of the environment, which are they providing for the physical and psychological human needs, currently and in the future (Kistowski 1997). Firstly the aim of the paper was to identify the value of particular environmental components (geology, geomorphology, hydrographic conditions, vegetation). Secondly the spatial evaluation of components was used to determine areas useful for performing educational functions. In order to accomplish this goal, the quality assessment were applied in 5 groups: geology, geomorphology, hydrographic conditions, vegetation and land use management. At the same time, the paper makes an attempt to broaden the definitions of the perceptive-



Fig. 2. Rock formations in Kobylańska Valley

behavioral sub-potential of the natural environment. Actually it means the ability of the landscape to have an effect on human senses and behavior. Knowledge about the perceptive-behavioral potential allows for the localization areas and objects, which are supposed to serve an educational purpose. Because of this the educational potential were identified (Balon, Pięta 2010). Determining this potential can be useful to indicate the most suitable areas to acquire knowledge about nature and ecology. Analysis of the southern part of the Kraków – Czeszochowa Upland shows that 7 % of this area have the highest value of the potential. These are places with the concentration of geological or hydrographical objects and natural vegetation. In these areas the income of the man is small, so they are representative for the region. High educational potential of the environment (12 %) is appearing on plateau, where is possible in the simple way to explain geomorphology, karst, genesis of rock formations. Built-up areas and waste ground (52 %) are least useful.

Changeability of the value in educational potential

Conducted analysis of the area of research confirmed, that the southern part of the Kraków – Czeszochowa Upland has a great diversity of the natural environment. This is the reason to claim that this is an attractive area to meet the educational function. Analyzing the environment actually and in the past shows large differences in landscape. Also the conditions of the environment which are changing constantly are different (Czeppe 1972). These are changes mainly to the disadvantage for environment. They concern changes in underground water (caused by the mining), disappearing of wellhead, reducing the reach of the natural vegetation, atmospheric and hydrographic pollution, agriculture. Major threat to this area are still growing buildings and intensified tourism. Along with time this area is being converted to the disadvantage, therefore still a high educational potential is

reducing. Adverse impact of the human in this area causes the reduction of the educational potential in the physical geography, simultaneously increasing meaning of social or economic geography.

Conclusions

Changeability in educational potential is a result of interplay between humans and the environment which is appearing for many years in this area. Natural and human changes in landscape, in less or more sustainable manner, influence in spatial relations between the nature revived and inanimate. This is the reason of change in value of the educational potential in southern part of the Kraków – Częstochowa Upland. Knowledge about changes in the environment allows for the localization objects or areas, which are supposed to serve an educational purpose in geography. The time is an important measurement of the landscape. In the past in this area the highest potential of the environment resulted from his naturalness. At present high educational potential concerning social and economic changes in the geography of this region is noticeable.

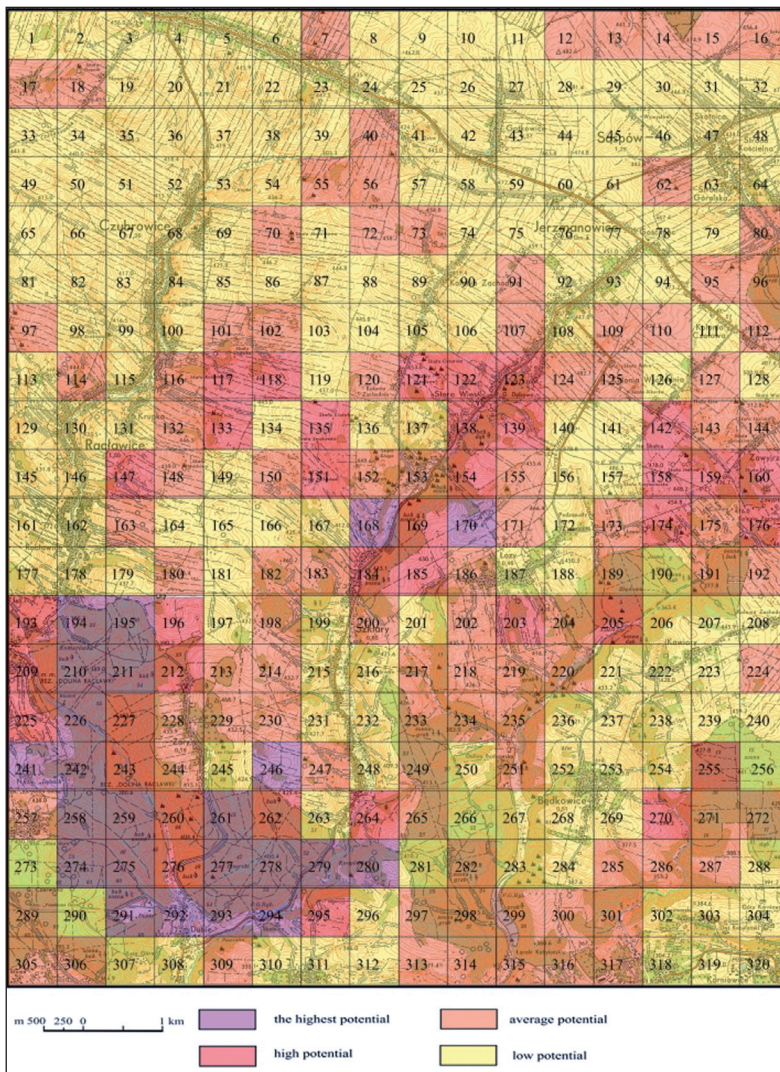


Fig. 3. The educational potential in southern part of the Kraków – Częstochowa Upland

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