



The impact of biometeorological conditions on the landscape perception

Ilona Potocka (1), Leszek Kolendowicz (2), Marek Półrolniczak (2), and Mateusz Rogowski (1)

(1) Adam Mickiewicz University in Poznan, Department of Tourism and Recreation, Poland (ilonek@amu.edu.pl), (2) Adam Mickiewicz University in Poznań, Department of Climatology, Poland (leszko@amu.edu.pl)

Landscape is an inseparable element of human daily, and its values and how we perceive them can significantly affect our quality of life. The environment is not landscape until people perceive it, hence, the description and the methods of landscape assessment can't be free from a certain degree of subjectivity. Moreover, landscape perception can be determined by biometeorological conditions, i.e. the synergistic effect of weather elements. In order to determine the impact of biometeorological conditions on the perception of the landscape, taking into account individual characteristics, observer's well-being and the specificity of the landscape itself, eye-tracking and a survey method were used.

The viewing point was located in the northern part of Poznań (Poland), on the roof of the Faculty of Geographical and Geological Sciences of the University of Adam Mickiewicz University in Poznań, and participants in the study observed a fragment of the Warta River valley.

The results of surveys of the perception of the landscape, depending on the gender of the respondents, did not show statistically significant differences. Both women and men from the group of respondents perceived similarly the test landscape during positive and negative weather affecting them.

Studies carried out without taking into account the gender showed a significant impact on the diversity of the perception of the test landscape. In negative, cloudy and a low air pressure weather with small solar radiation reaching the Earth's surface, respondents devoted almost twice or more than twice the time to explore areas characterized by a large number of details, colors and contrasts.

The perception of the landscape is also influenced by the mood of the observer together with the impact of negative or positive weather. It was noticed that during bad mood, stronger than expected stimuli from the landscape side are needed, eg an unusual view to explore the landscape differently depending on the type of weather.

The order of looking at individual parts of the test landscape (AOI – area of interest) depends on the type of weather affecting the observer. The obtained results partially confirm the theory regarding the directions of looking at the most common visual transitions from the upper left quadrant of the observation field to the upper right, and later to the lower right and lower left.