ANALYSIS OF USER'S RESPONSE ON 3D CARTOGRAPHIC PRESENTATION'S

Dušan Petrovič, Polona Mašera
University of Ljubljana, Faculty of Civil and Geodetic Engineering,
Jamova 2, 1000 Ljubljana
Slovenia
Phone: (+386 1) 476 8543
Fax: (+386 1) 476 8545
E-mail: dusan.petrovic@fgg.uni-lj.si

Keywords: 3D cartographic presentation, map design, user opinion

The paper will describe results of an internet questionnaire that we prepared to find out, how different 3D cartographic presentations (maps) can fulfill users needs. As examples three different perspective presentations have been prepared: topographic map, draped over DTM, an orthophoto image, draped over DTM and 3D symbolic presentation. We have asked different map users, how they could use these three kinds of perspective view for similar purposes like they use 2D maps: about possibilities of getting numeric data, like defining distance, direction and height difference between two points or through selected track and also about possibilities of recognition of particular point, linear and area-type objects. In one month 119 different map users answered to questions. In generally participant gave quite positive evaluation of presented 3D presentations. Draped topographic map has been recognized almost as adequate for height or direction measurements as traditional 2D topographic map, while distance measurements bring more problems. The other two examples were evaluated nearly equally, they gave only limited accessibility for proposed measurements. Possibilities of recognition particular objects gave different order. Although the users are familiar with 2D topographic maps and therefore they know symbols presenting particular objects in draped topographic map, users found 3D symbolic presentation as much suitable for recognition majority of proposed objects.