DEPTH PERCEPTION IN VIRTUAL REALITY

Anja Matatko, Jürgen Bollmann, Andreas Müller

University of Trier, Cartography, Behringstrasse, 54286 Trier, Germany
{matatko, bollmann, muellea}@uni-trier.de

Commission IV, WG IV/8

KEY WORDS: depth perception, depth cues, thematic 3D cityscapes

ABSTRACT:

Thematic 3D cityscapes represent a combination of the advantages of thematic 2¬D maps with those of 3D modelling. The application of thematic 3D cityscapes, however, poses the question of difficulties for orientation in the space represented. Here is where, among other things, factors of depth perception must be applied. This study by the University of Trier examines empirically the phenomenon of depth perception in thematic 3D cityscapes to be able to offer recommendations to makers of such models, recommendations for so-called depth cues which improve perception of the spatial environment and which can be technologically implemented. These recommendations are based on theoretical approaches to depth perception which were established in recent years in the field of perception psychology and geovisualisation.

This contribution was selected in a double blind review process to be published within the *Lecture Notes in Geoinformation and Cartography* series (Springer-Verlag, Heidelberg).

Advances in 3D Geo-Information Sciences

Kolbe, Thomas H.; König, Gerhard; Nagel, Claus (Eds.) 2011, X
ISBN 978-3-642-12669-7, Hardcover
Date of Publication: January 5, 2011
Series Editors: Cartwright, W., Gartner, G., Meng, L., Peterson, M.P.
ISSN: 1863-2246