



地理学报(英文版) 2001年第11卷第5期

3D visualization of the Watzmann-Massif in Bavaria of Germany

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3D visualization of the Watzmann-Massif in Bavaria of Germany Angsüsser St., Kumke H (Inst. of Photogrammetry and Cartography, Technical University of Munich, München, Germany) Abstract: The paper deals with 3D cartography. Using the program 3D studio max (Autodesk) a flight over an alpine region ("Watzmann-Massif") is animated. In addition to a description of the project some thoughts and ideas especially about generalisation degree are discussed. Key words: 3D cartography; generalisation; animation; flight; Watzmann-Massif (Bavaria, Germany) CLC number: P283; P285.1 1 Introduction The presented project deals with possibilities of 3D cartography. For that purpose a flight over Watzmann-Massif (Bavaria, Germany) is animated (Kumke, 2001). By the term 3D cartography we mean all cartographic terrain presentations that explicitly include the third dimension (z-axis). Such visualisations are based on 3D models. In analogous cartography there was no difference between these models and the map itself (Petrovic, 2001). In modern cartography it is possible to create several different 3D presentations from one single 3D model. Depending on the method how this is done, we make a difference between real 3D, pseudo 3D, dynamic 2D and static 2D (Buchroithner and Schenkel, 2001). The film produced in this project is an example for a dynamic 2D visualisation. There are also static 2D presentations in form of perspective images. The availability of more depth cues in such films leads to a higher immersion degree, hence a more realistic 3D impression than in images. This project has a two-fold goal. On the one hand, the film and the images are created to explore the potentialities of 3D studio max (Autodesk) for 3D cartography. On the other hand, the combination of different abstraction levels will be tested. That is to say, our final product should be adaptive to different user groups and their varying needs. 2 Project description 2.1 Basic data 2.2 Modelling 3 Discussion of examples 4 Conclusions and perspectives References

关键词: 3D cartography; generalisation; animation; flight; Watzmann-Massif (Bavaria, Germany)