

## **Cartographic visualization**

Cartographic visualization and communication.

Definitions of map and cartography. The development trends of theoretical cartography.

Spatial representation in the arts and science. Perspective representation. Materiality of pictures, representational methods. Forms of modern maps.

Geographic ontology and cartographic representation: objects and space. The concept of scale, the accuracy of spatial representation.

Cartographic modelling: object information and spatial attributes, and semantic information.

Time in cartographic visualization and narratives.

Symbolization: cartosemiotics. Time in cartographic representation.

Object classes and semantic categories. Graphic and conceptual generalization.

Representational space in cartography, functions of maps, maps and map-like representational forms.

Graphic communication and expression. The elements of visual language, the construction of pictures.

The structure of map graphic: the horizontal organization. Vertical hierarchy.

The representational space: dynamic network visualizations. Cartographic representation of abstract and virtual spaces, cybercartography.

User-oriented cartographic research, maps in mass-media, maps and propaganda.

### **Literature:**

Terry A. Slocum, Robert B. McMaster, Fritz C. Kessler, and Hugh H. Howard: Thematic Cartography and Geographic Visualization. Upper Saddle River, NJ: Pearson Prentice Hall. 2009.

John Kryger – Denis Wood: Making maps. A visual guide to map design for GIS. 2011.

Mark Monmonier: How to lie with maps. Univ. of Chicago Press, 2005.

### **Suggested literature:**

Alan McEachren: How maps work. Representation, Visualization, and Design. 2004.

Judith Tyner: Principles of Map Design. The Guilford Press. 2002

Borden Dent: Thematic Map Design. 1993.