

The navigation network as the basis for the organization of geo-cultural and information space

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Abstract

Navigation is common to all living things: taxis, photoperiodism, orientation reflexes. Special feature of a human is the development of navigation based on instruments, which can be traced back to the Stone Age. Based on field studies and paleo-astronomical calculations, stages of the evolution of ancient navigation technology can be distinguished: 1. natural navigational tools; 2. direct visioning of horizon observatory; 3. using the same facilities as a network in which the elements are bound by the shade; 4. reverse visioning of the shadow of the gnomon: graph of shade - full trajectory of the light source in the sky, the shape of the graph - a reflection of the space-time, the basis of sign systems. Local level of navigation networks and individual instruments provides information in real time to reflect the unique conditions of the location (latitude, the shape of the physical horizon, tradition). The regional level provides internal communication; tools have similarities, reflecting regional special features of lighting modes and the applied technology. Global - provides inter-regional communications. Information modeling of the world on the basis of navigation is provided by: the relative stability of the space super-system in comparison with the dynamics of landscape; value in the life-support system and the general practice; the ability to refer to any object by its position in space-time. Basic levels of modeling of the world: the formation of geo-cultural area based on the physical development of the geographical space, the formation of information space on the basis of modeling of the world (graphic, phonetic symbols and images, the system of abstract concepts). The basic principles of modeling: polycentrism, flow, networking.

Biography

Alina Paranina has received a Diploma (with distinction) of the Voronezh State Pedagogical University in "Geography and Biology" in 1986. In 1995, she received the academic degree PhD of Geography "11.00.01 - Physical geography, geophysics and landscape geochemistry" Since 1997, she has been working at the Department of Physical Geography and Nature resources, Herzen State Pedagogical University, and since 2005, as a Lecturer. Since 2012, she has been tutoring in Doctoral studies. In 2001, she conducted a research on the topic "Information in the geographical space." Over the past 5 years, she is working on a research theme. She has written more than 100 studies, including one individual monography and two collective monographies.

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