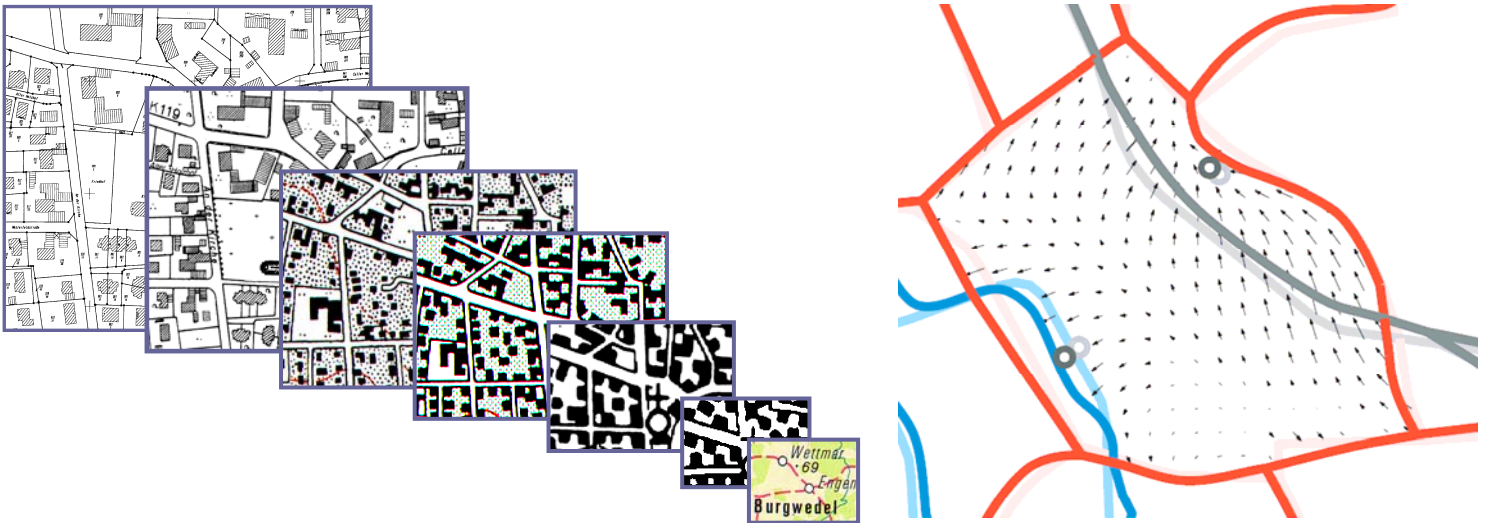# ISPRS Workshop

Multiple representation and interoperability of spatial data

Hanover, Germany
22. – 24. February 2006

Editors
M. Hampe, M. Sester and L. Harrie

Organisers
ISPRS WG II/3 "Multiple Representation of Image and Vector Data"
ISPRS WG II/6 "System Integration and Interoperability"
German Bundle-Project: Spatial Data Abstraction

The papers in these proceedings were selected on the basis of a full paper peer review procedure.

Preface

The key scientific challenge for GI research today is geospatial interoperability. The crucial matter is to achieve mutual understanding of context and meaning of the geographic domain, both by developers and users of Geographic Information Systems. Geospatial information not only is distinct and special, i.e., differs from other kinds of spatial information, but it has gained acceptance to provide a framework for referencing most other information. To establish a common framework between providers and users of geospatial information, the research agendas of the field is focusing on structuring knowledge about geography and space by using ontologies.

Geospatial data and processes can only be fully understood when they are explored and inspected taking their thematic and spatial multi-dimensionality into account. Furthermore, different scales or resolutions reveal different aspects of the underlying structures and processes that are of crucial importance for all applications. These issues are relevant for all kinds of spatial data, namely raster, vector and surface data, but also verbal expressions.

A topic of growing importance is the availability of data and services via the internet. In order to allow for a flexible and adapted use of data and services from any source in any given spatial and thematic resolution for a given application, both methods for semantic and geometric integration have to be available, as well as methods to extract, transform and integrate data from different scales and resolutions.

The workshop is held at Hannover, Germany, and is organized by two ISPRS working groups in the fields of multiple data representation and interoperability. The third organizing body is a group of scientists in Germany funded by the German Science Foundation in a project dealing with "data abstraction". The workshop intends to bring together researchers and practitioners dealing with semantic and geometric data integration, data representation in Multiple Representation Database (MRDB) structures, as well as generating and exploiting the links between multiply represented objects. It is expected that the workshop, which includes in-depth discussion sessions on two very important topics in the field, will encourage and stimulate a fruitful exchange of ideas. The papers for the workshop have undergone a full paper peer review procedure.

The organization of the workshop would not have been possible without the help of many people. We would like to thank the members of the programme committee for reviewing the papers. A special big thank you goes to Mark Hampe who managed all the organizational issues in Hanover.

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Lars Harrie, Lund University – GIS Centre, Sweden

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