



Map Analysis

Understanding Spatial Patterns and Relationships

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Joseph K. Berry is principal of Berry and Associates // Spatial Information Systems (Basis), consultants and software developers in Geographic Information Systems (GIS) technology and serves as the Keck Visiting Scholar in Geosciences at the University of Denver. Dr Berry is the author of the "Beyond Mapping" column for GeoWorld and the popular books *Beyond Mapping* and *Spatial Reasoning* (Wiley). He has published over 200 papers on map analysis and GIS modeling and has been teaching courses and presenting workshops on the topic since 1977.

An online description with hyperlinks to related materials and a sample chapter is posted at...

www.innovativegis.com/basis/Books/MapAnalysis/

Map Analysis

This book is a collection of selected works from of Joseph K. Berry's popular "Beyond Mapping" columns published in GeoWorld magazine from 1996 through 2006. In this compilation Berry develops a structured view of the important concepts, considerations and procedures involved in grid-based map analysis. Each Topic contains online links to further reading and the companion CD contains exercises for hands-on experience with the material presented.

While numerous books focus on Geographic Information Systems (GIS) capabilities of computer mapping and spatial database management, few provide an understanding of GIS's analytical potential and practical realities in a non-technical manner. The unique character of this book draws from the author's ability to convey seemingly complex concepts of spatial data and GIS operations in words that resonant with others less technically versed. The result is a book that engages the reader to "think spatially" and formulate new and innovative solutions to complex spatial problems. Key to this process is a paradigm shift that extends the traditional paper map perspective of "where is what" to the modern perspective of "why and so what." Within this context, maps become data and map analysis becomes the means to derive information about spatial patterns and relationships within and among map layers.

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Book Organization

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Links to Further Reading sections provide hyperlinks to other GeoWorld Beyond Mapping columns, feature articles and papers extending each Topic's discussion.

Hands-on Experience sections provide links to exercises using the supplied software and databases on the companion CD.

Full-color/resolution Figures are included on the companion CD.

Instructor Materials are available for presenting three levels of courses—1) four-hour Awareness session with real-time demos, 2) eight-hour Introductory session with hands-on exercises and 3) all course materials for a UG/Grad Formal course including lecture slide sets, advanced exercises, databases, study questions, and exams.

Companion Software

MapCalc Learner software included with the book is used for the hands-on exercises. The software includes the basic set of data and operations needed to complete the hands-on exercises. An Academic version is available for use in computer laboratory environments. For more information on MapCalc Learner and Academic software visit www.redhensystems.com/mapcalc/.

**For more information on the Map Analysis book
contact the author at jberry@innovativegis.com**

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