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Review of Mastering ArcGIS

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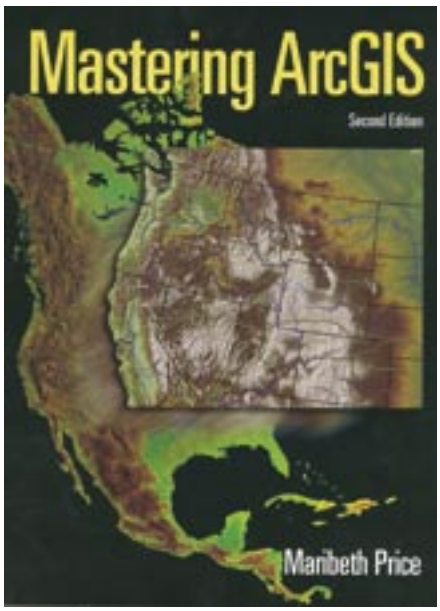
Book Review



Mastering ArcGIS, 2nd Edition

Maribeth Price

McGraw-Hill Higher Education: Dubuque, IA. 2006. xiii and 609 pp., maps, graphs, screen shots from ArcGIS, diagrams, glossary, index.

ISBN 0-07-298417-1.

Spiral Softcover. $65.00.

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Geographic Information Systems technology is very popular among practitioners from a variety of fields. However, the GIS learning process can be complex and challenging, and there is always a need for good learning sources. *Mastering ArcGIS* is a high-quality contribution for this type of literature, discussing basic theoretical concepts behind the technology and providing hands-on experience using the ArcGIS software from ESRI[1]. Practitioners who are starting the GIS learning process and instructors for GIS introductory classes that aim to focus on the basics of the technology—comprising theory and practice—will find this book extremely useful. The book is oriented towards improving the skills of users (or future users) of ArcGIS software. Therefore, the concepts presented within the book are, most of the time, ESRI-related. However one should only consider acquiring this book, if one has access to the software because the book does not include a limited version of ArcGIS.

The book consists of 15 chapters and comes with a CD containing video clips. The chapters all have the same framework—'mastering the concepts' and 'mastering the skills'—which combine theory with GIS applications. In most of the chapters, the 'mastering the skills' section predominates. In the first part of each chapter ('mastering the concepts') Price introduces basic concepts such as vector and raster data, coordinate systems and map projections, with very good illustrations to guide the readers. Certainly, anyone reading the book will become familiar with the basic vocabulary and concepts used in the GIS field, from an ESRI perspective.

In the second section of each chapter ('mastering the skills'), the author offers hands-on experience, which is divided into three parts: teaching tutorial, exercises, and skills reference. All the commands from the teaching tutorials are well-written and easy to understand. Each teaching tutorial has an accompanying video clip on a CD that follows all the written steps. For readers who are inexperienced GIS users, the video clips are a wonderful resource to get them started. Within the teaching tutorials there are tips, which are valuable for all levels of users. The insertion of questions within the tutorials is beneficial to learners because it reinforces what was covered previously. The exercises at the end of each tutorial help the reader to know how much he/she has understood and if they have learned to apply the new tools to different spatial problems. At the end of each chapter the 'skills reference' section provides a great summary of all tasks covered in each tutorial, which can be valuable for further consultancy.

This book is designed for beginners and the video clips are definitely a useful tool. Nevertheless, if the reader would prefer not to use the video clips—but just the book—a few more pictures and screen shots should be included in the text to make this possible. The lack of a sufficient number of pictures and screen shots can result in the reader getting lost, and so the addition of more visuals would strengthen the teaching tutorials.

Overall the author gives an excellent overview of ArcGIS for beginners. However, the book fails to mention some basic GIS techniques that one would commonly expect to find in other GIS texts, such as how to use available internet sources (e.g. Census Bureau data) to get raw data, prepare them, and transform them into spatial data to be used in ArcGIS. In addition, geoprocessing operations such as erasing and multiple-ring buffering are also not included.

To conclude, this book is well-organized, well-written, and its main advantage is that readers can learn the technology by themselves due to the richness of details and the inclusion of the 'mastering the skills' sections, which contain the hands-on experience tutorials. Using this book, readers can set their own pace making the GIS learning process much more fun. *Mastering ArcGIS* is one of only a few GIS textbooks that mix theory and practice in the same volume. Most of the time, GIS books focus only on the theory or only on the practice, making Price's book a unique piece in the market.

[1]This book uses ArcGIS version 9.0, from ESRI.