ASSOCIATION OF CANADIAN MAP LIBRARIES AND ARCHIVES
BULLETIN

Book Reviews

Compiled by Sarah Simpkin

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GIS and the Social Sciences: Theory and Applications

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Ballas, Dimitris, Graham Clarke, Rachel S. Franklin, and Andy Newing. ***GIS and the Social Sciences: Theory and Applications.*** First edition. New York: Routledge, 2018. 280p. $59.95 USD. (pbk) ISBN 978-1-138-78512-0. (pbk)

The use of GIS techniques has become increasingly common in social sciences in the last two decades. However, compared to the wealth of established literature on the application of GIS in physical sciences, a textbook designed specifically for social science disciplines are relatively scarce on the market. ***GIS and the Social Sciences: Theory and Applications***, co-written by four geography scholars in the UK and USA, addresses the rapidly growing demand for spatial approaches in social sciences. The purpose of this book is to offer a useful guide to a social science approach on the theory and application of GIS. It provides both the fundamentals of GIS and a variety of modern examples in social sciences with associated practical activities to work through, and demonstrates how GIS and spatial analysis can be applied to a wide range of public and private sectors. The target audience of this book are novice or more casual GIS users from a social science background who would like to become more capable with GIS techniques rather than those proposing to become GIS developers and specialists. The emphasis of this book, therefore, is the application of GIS in social sciences rather than the "nuts and bolts" of GIS tools and techniques.

The book has been divided into two parts. The first part consists of four chapters, introducing basic GIS concepts and functionality. Those who have read any well-known GIS textbook will be familiar with the materials covered in these chapters. However, in the words of the authors, these fundamentals are provided to help the book "to be 'self-contained' in that students and researchers new to GIS can get the mixture of theory and application in one publication". Furthermore, these chapters discuss key GIS methods in a social science context. For example, the authors outline some typical social science research questions and link them with appropriate GIS functionality, which the reader might find difficult to locate elsewhere in the literature. The second part of the book -- the remaining nine chapters -- discuss extensively how GIS and spatial analysis techniques have been applied in various fields of social science, including geodemographics, income inequalities and well-being, crime analysis and prevention, retail analysis, health care analysis, emergency planning, education planning, transportation planning and environmental justice analysis. The case studies covered in these chapters provide the reader with a variety of interesting yet challenging real problems in both the private and public sectors. It should be noted that most of the examples and specific datasets cited in this book are from Europe (especially the UK) and the U.S., due to the authors' backgrounds and the wealth of freely available data in these contexts. Nevertheless, the examples can still motivate the reader to explore datasets for their own country or region and replicate the examples in the book with comparable datasets.

One particular strength of this book is that it has a dedicated webpage (eResources), where each chapter is supplemented with hands-on practical activities and datasets that are linked to the techniques and application areas discussed within the text. Using Esri's ArcGIS software, each practical activity contains comprehensive step-by-step instructions that readers who have little experience with GIS software can easily follow to understand and apply the techniques. Furthermore, all the accompanying datasets have been derived from publicly accessible data sources and are well-documented, thereby enabling readers to explore and retrieve spatial data from such sources themselves later on in their own projects.

In general, the book has been carefully structured and well-written in a clear, logical and succinct manner. Each chapter has been designed to stay largely alone, but the authors did endeavour to provide linkages between different chapters to establish coherence and flow between them. Therefore, readers with different backgrounds and experience levels will all likely find something useful from it. For instance, novice GIS users may start with working through the first four chapters (Part I of the book) to become familiar with basic GIS concepts and tools before jumping into more sophisticated GIS applications. More advanced users can skip the first part of the book, and pick and choose from the individual application chapters in part II that are most suited to their needs.

Despite the above advantages, however, there are features that could be added or improved if the book goes into subsequent editions. First, although the book covers a wide range of social science disciplines, it perhaps should also include GIS applications in history and anthropology given the rapidly growing interest in using GIS in these fields. Second, some of the figures provided are not very clear. Take Figure 12.8 as a particular example, the sub-maps are so small that the symbols for certain features cannot be read easily.

Overall, I would strongly recommend this book to all social science students, researchers and practitioners who are interested in using GIS and spatial analysis in their fields. The diversity of case studies and the broad range of spatial data offered in this book enable readers from different social science backgrounds to easily move from the examples and exercises of the book to using similar materials and techniques in their own project. The examples and accompanying practical activities provided in this book offer valuable instructional materials for GIS instructors/librarians too, which they can adapt and incorporate into different classrooms. Therefore, the book can serve as a strong companion and supplement to any other GIS books in the library collections.

Exploring Africa with Ancient Maps

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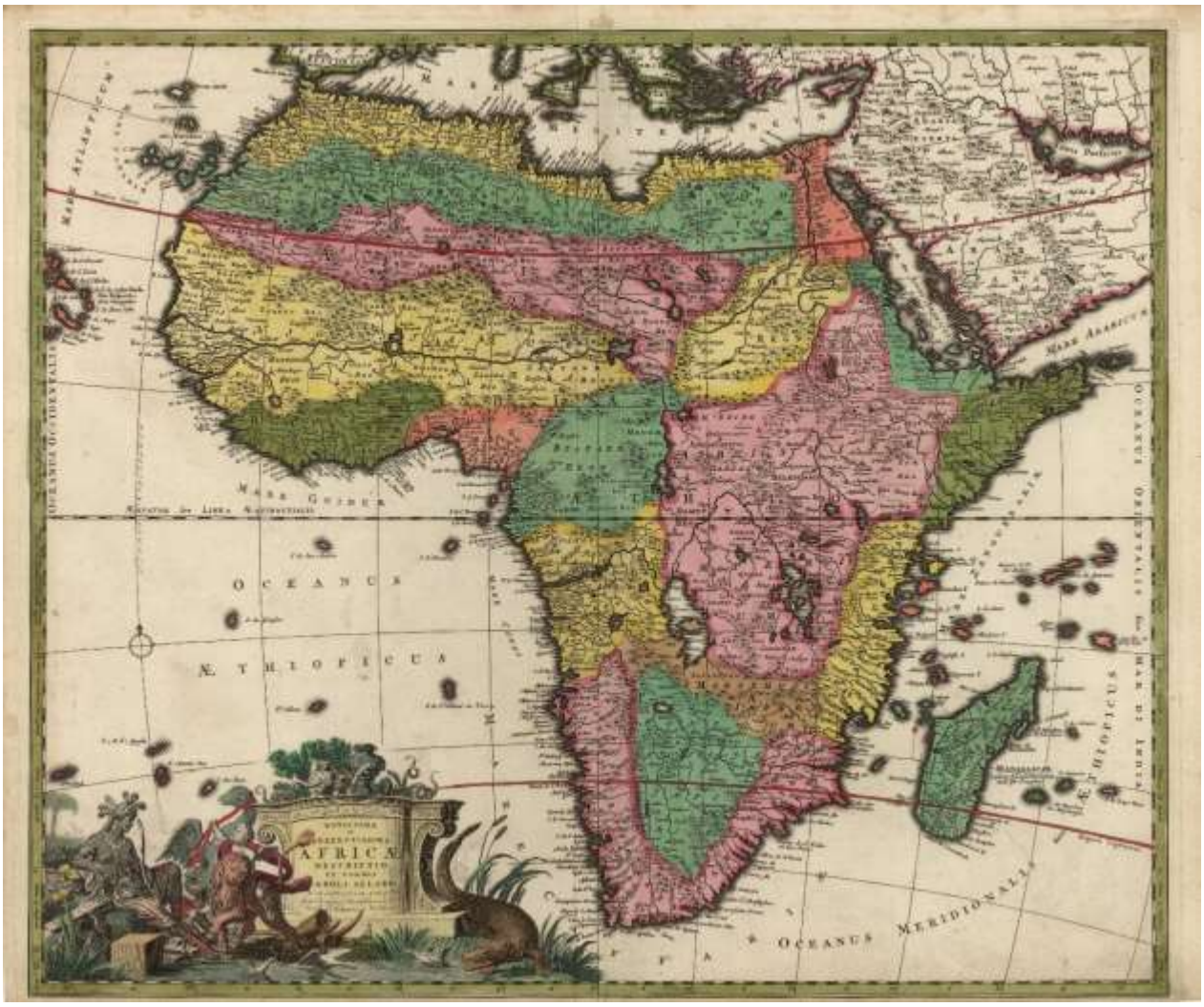
Bodenstein, Wulf. ***Exploring Africa with Ancient Maps***. Tervuren, Belgium: Royal Museum for Central Africa, 2017. 296p. 19,50 €. ISBN 978-9-4922-4479-6.

The Royal Museum of Central Africa (RMCA) is located in Tervuren, Belgium and it's known for being one of the world's most beautiful and impressive museums devoted to Africa. Amongst its many treasures are approximately 3,500 maps of the continent of European origin. Of these maps, the museum has 600 published from the late 15th century to the early 20th century and which the RMCA designates as being "ancient." Curator Wulf Bodenstein, himself an avid map collector and historian, selected 80 of the museum's most significant ancient maps which were reproduced and contextualized in ***Exploring Africa With Ancient Maps***.

The book contains six main chapters that are arranged chronologically by the century in which the maps were published. Bodenstein provides short, fascinating introductions to these chapters, which serve to familiarize the reader with cartographic techniques commonly employed during each epoch. They also illuminate for readers other noteworthy developments useful for understanding the mapping and exploration of the African continent (e.g., the founding of Portugal's El Mina settlement in 1482, which served to support the transatlantic slave trade). Following chapter introductions are colour reproductions and commentaries about the 80 representative maps from each of the centuries. The small physical dimensions of the book (18 cm by 15.5 cm) occasionally make map details difficult to discern. Fortunately, the accompanying DVD provides high-resolution versions of all maps illustrated in the print edition as well as additional regional maps, short atlases, and map versos.

Bibliographic details used to identify and describe maps include titles (in original language and translation), names of mapmakers, places of publication, and dates of publication to the extent known. All maps included in the work are also assigned reference numbers that are handy when flipping back and forth between specific map examples. More importantly, Bodenstein provides his insightful commentary detailing the geo-political events, cartographic conventions and scientific explorations that influenced mapmakers whilst creating each of these maps. He also describes seminal ancient maps (e.g., Ptolemy's African maps in *Cosmographia,* also known as *Geographia*) and how mapmakers frequently gleaned information from them to be incorporated into their own efforts to distinguish Africa's known geography from 'Terra Incognita.' Throughout



MAP 29. *Carel Allard, The latest and most perfect map of Africa according to Carel Allard. In Amsterdam-Holland: with the privilege of the most powerful Lords of the States of Holland and West-Friesland, Amsterdam, ca. 1696. Copperplate engraving, 50 x 59 cm. HO.1975.18.1, RMCA Collection, Tervuren.*

the text, Bodenstein explains "new" details that appear on African maps over time, and he specifically highlights the unusual, erroneous or enigmatic details that make each of them worthy of study.

In his introduction, Bodenstein mentions that the purpose of this book to provide, "…a leisurely stimulating journey through time, in the company of [African] maps of all sorts, shapes and sizes, many of the them an immediate artistic appeal…." ***Exploring Africa with Ancient Maps*** certainly succeeds in taking the reader on an informative guided tour of the mapping of the content of Africa through a lens of historical European cartography. A recommended resource for those interested in exploring African history through maps as well as the history of cartography more generally.

GIS Tutorial 1 for ArcGIS Pro: A Platform Workbook

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Gorr, Wilpen L, and Kristen S. Kurland. ***GIS Tutorial 1 for ArcGIS Pro: A Platform Workbook***. Redlands, CA: Esri Press, 2017. 480p. 99.99 USD. ISBN Print: 9781589484665 ISBN Digital: 9781589484931.

As with their earlier GIS Tutorial publications, Wilpen Gorr and Kristen Kurland combine easy-to-follow lessons and tutorials with a judicious use of illustrations to introduce novices to GIS concepts using Esri software, in this case ArcGIS Pro. Presented in thirteen chapters, the book is divided into four parts, each of which becomes successively more complex. Part 1 introduces the reader to the ArcGIS Pro platform, introduces basic elements of map design and explores other outputs for GIS projects. Part 2 focuses on file geodatabases, spatial data (with considerable attention paid to map projections), geoprocessing, digitizing, and geocoding. Part 3 finds the reader working with more advanced GIS technologies, such as spatial analysis, raster data, and 3D data. Part 4 concludes the volume with two chapters pertaining to managing operation systems with GIS.

Given the title, it should come as no surprise that this volume is not meant to be an in-depth reference volume on GIS. The authors suggest that it is suitable for in-class as well as self-taught learning and for secondary students all the way up to doctoral candidates, as well as non-students who want to learn how to make, use, analyze, and share maps. I would agree that this book requires no background in GIS, and is easily followed by anyone who has a desire to learn. Gorr and Kurland are clear in their objectives for each chapter and provide a reasonable amount of background before taking readers through exercises. A separate set of assignments is available for further learning.

For anyone hoping for a resource to help make the transition from ArcGIS Desktop to ArcGIS Pro, this may not be the volume for you. The emphasis is on learning new concepts and skills. In fact, the authors do not take anything for granted with respect to users' familiarity with modern computing environments, and are almost excruciatingly explicit with their directions at times. This level of detail is great for users who are new to using GIS software, and is entirely appropriate in an introductory workbook.

In ***GIS Tutorial 1 for ArcGIS Pro***, Wilpen Gorr and Kristen Kurland have taken their previous successful GIS Tutorial workbooks, which originally featured ArcView 9 and later ArcGIS 10, and updated the contents to reflect the ArcGIS Pro environment. Unsurprisingly ArcGIS Online also features prominently, as do a number of other Esri apps. Tutorial data and companion assignments and data are downloadable from the esri.com website, which begs the question, how long does Esri intend to support this title? If the publishing cycle of their previous editions is any indication, I would expect the next iteration of this title to be forthcoming in two to three years.

Overall, all I would say that as with its predecessors, ***GIS Tutorial 1 for ArcGIS Pro*** is a great resource for the classroom and for beginners who want to learn on their own.

From the Book Reviews Editor:

Thanks to those who submitted book reviews and to all who have expressed interest in reviewing! I'll continue to request review copies from publishers - but please let me know if you have read a book of interest to the ACMLA and would like to submit a review, and if you have any suggestions for titles/sources. Here are the review guidelines:

Review Format

1. Bibliographic Citation
This should include: author, title, edition, place of publication, publisher, date, number of pages, price (if known) and ISBN. Example:

Bussey, Ben and Spudis, Paul D. The Clementine Atlas of the Moon. Cambridge: Cambridge University Press, 2004. 316p. $80.00 US. ISBN 0-521-81528-2.

2. Content
The review should describe and critically evaluate the work. Typical review elements include: scope, purpose and content of the work; intended audience; writing style; background and authority of the author; how the work compares with other titles on the same subject; its usefulness as a research tool; any unique features; and its suitability for library collections.

The length of the review is at the reviewer's discretion, but should normally reflect the importance of the work. A typical review is about 500 words.

3. Your name, title, institutional affiliation, city and province/state

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Sarah Simpkin
Reviews Editor