ASSOCIATION OF CANADIAN MAP LIBRARIES AND ARCHIVES BULLETIN

Book Reviews

Compiled by Sarah Simpkin

Books Reviewed in this Issue:

Introduction to Human Geography Using ArcGIS Online by Chris J. Carter Reviewed by Rhys Stevens

Lining Up Data in ArcGIS: A Guide to Map Projections, Third Edition by Margaret M. Maher Reviewed by Martin Chandler

Switching to ArcGIS Pro from ArcMap by Maribeth H. Price Reviewed by Andrew Nicholson

> Introduction to Human Geography Using ArcGIS Online Rhys Stevens University of Lethbridge

Carter, J. Chris. *Introduction to Human Geography Using ArcGIS Online*. Redlands, CA: Esri Press, 2019. 440p. \$74.99 US. ISBN 9781589485181 (Print); 9781589485198 (E-book).

Introduction to Human Geography Using ArcGIS Online by Dr. J. Chris Carter is a textbook designed for university undergraduate students and Advanced Placement (AP) high school students. Carter is a professor at Long Beach City College where he teaches Geographic Information Systems (GIS) as well as courses in human, world, regional, and economic geography. Like other textbooks of its ilk, this one aims to introduce students to the major concepts in the field of human geography. It does so over the course of twelve chapters which cover themes related to population, migration, ethnicity, urban geography, agriculture, development, cultural geography, political geography, and the environment.

The tables, graphs, photographs and other visualizations included throughout the text are well laid out and attractive. This makes them very effective for illustrating concepts in human geography ranging from "food deserts in New Orleans" to Walter Christaller's classic "central-place theory." Textbook content has been developed using up-to-date data sources (2015+) which focus on a wide variety of interesting and contemporary world issues (e.g., refugee flows and migration to Europe) though examples from the United States are somewhat overrepresented (e.g., Ch. 4. Race

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and Ethnicity). References are listed at the conclusion of each chapter and the book also contains an index.

What distinguishes Introduction to Human Geography Using ArcGIS Online from similar textbooks is that it offers an opportunity for students to use the ArcGIS Online cloud-based mapping platform to further investigate the concepts described in the book. This is accomplished in two ways. First, the book's visualizations frequently link to interactive ArcGIS maps created using real-world data from sources such as the United Nations, Census Bureau, and Esri. For example, students can view a map of the "Tornado Alley" region in the U.S. and link to the map's data source by using their web browser to explore an online dataset of 52,000+ tornados from 1950-2008.

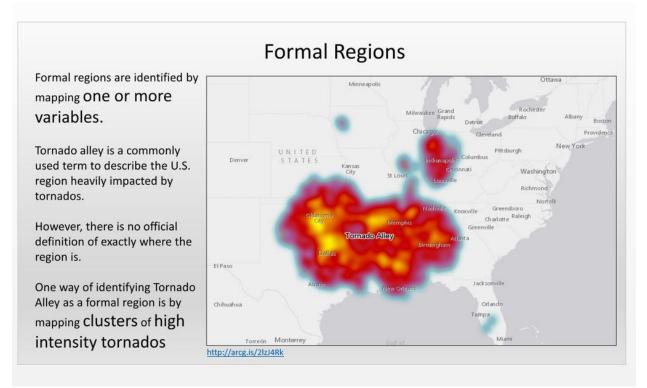


Figure 1.30. Formal Regions: Tornado Alley. Map by J. Chris Carter. <u>http://arcg.is/2lzJ4Rk</u>

A second way that ArcGIS has been incorporated in the book is through cues in the text that alert readers to the availability of mapping and analysis exercises designed to enhance student understanding of content¹. These exercises give students the opportunity to learn about human geography concepts while further developing their GIS-related spatial analysis skills. All chapter exercises are sufficiently detailed and offer both learning objectives and helpful step-by-step instructions for their completion. Exercises, exercise data and PowerPoint slides of map images contained in the book are all freely available for download from the Book Resources section of the Esri Press web site.

¹ For instance, Exercise 5.4 instructs students on using available real- world map data in ArcGIS Online to apply urban model concepts to a city or neighborhood of their choice. ISSN 2561-2263 11

In summary, *Introduction to Human Geography Using ArcGIS Online* is an effective introductory-level college textbook full of up-to-date and relevant examples. The numerous examples and exercises which incorporate interactive data using the ArcGIS Online mapping and analysis tool are a particular strength of the book. A recommended resource for library collections that include textbooks.

Lining Up Data in ArcGIS: A Guide to Map Projections, Third Edition Martin Chandler Brock University

Maher, Margaret M. *Lining Up Data in ArcGIS: A Guide to Map Projections, Third Edition*. Redlands, CA: Esri Press, 2018. 272p. \$39.99 US. ISBN 978-1-58948-520-4.

Lining Up Data in ArcGIS, Third Edition, offers a valuable update to Lining Up Data in ArcGIS, Second Edition, from Esri Press. With the sub-title "a guide to map projections", it seeks to help users of ArcGIS to resolve some common issues in accurately lining up their data, including lining up data that use different coordinate systems, working with CAD data, transforming data, and determining what projections to use for new projects. The author, Margaret M. Maher, is a Senior Support Services Analyst and has worked with Esri's Support Services team since 2000. She has "helped resolve more than 16,000 cases involving problems with map projections and data conversions" (p. 255), and is a leading expert on the scope of the text.

Lining Up Data in ArcGIS, Second Edition, was released in 2013, making this third update to the text well-timed. At that point, Esri had released ArcGIS 10.2; with the release of 10.6 last year, there are enough changes to make the release of an updated text of value for users. Regular readers of ACMLA *Bulletin* book reviews may remember this author's previous questioning of the speed of new editions of Getting to Know WebGIS (Chandler, 2019), however at 5 years since the last edition, this text was coming due for an update.

There are some assumptions made about the knowledge base of the user in terms of projection comparison. When discussing methods of determining the geographic coordinate system of a particular dataset compared with another, Maher points to the problems of some potential coordinate systems: "...data on WGS 1984 and NAD 1983 are within one or two meters of each other...the offset between NAD 1983 and NAD 1983 HARN...or between NAD 1983 and NAD 1983 (NSR2007), NAD 1983 (CORS96), or NAD 1983 (2011) are also quite small" (p. 26). This is good information, but does not properly answer the question of how to determine the unknown coordinate system beyond trial and error. More detail on some of these specifics would have been welcome. As well, the examples used are all U.S.-based, with a brief mention in the introduction that other countries are likely to use different coordinate systems, but that these are out of the scope of the text.

Many of the skills discussed in the book are transferable, however users of ArcGIS Pro may find it a more cumbersome process. The book is directed primarily toward Desktop, with Pro bearing only a few mentions. Overall, though, **Lining Up Data in ArcGIS** offers a good outline of how to work with geographic coordinate systems and projected coordinate systems in data files, and ISSN 2561-2263 12 how to examine and manipulate this information in ArcGIS Desktop/ArcMap. The book updates some specifics from the 2013 version and is a worthwhile investment for library collections.

Sources:

Chandler, M. (2019). Getting to Know WebGIS, Third Edition [Book Review]. *Association of Canadian Map Libraries and Archives Bulletin, Number 161* (Winter 2019), 10-11. https://doi.org/10.15353/acmla.n161.437

Maher, Margaret M. (2018) Lining Up Data in ArcGIS: A Guide to Map Projections. Redlands, CA: Esri Press

Switching to ArcGIS Pro from ArcMap Andrew Nicholson

University of Toronto Mississauga

Price, Maribeth H. *Switching to ArcGIS Pro from ArcMap.* Redlands, CA: Esri Press, 2019. 172p. \$49.99 US. ISBN: 9781589485440

With ArcGIS Desktop (ArcMap) scheduled to be retired by Esri in about six years, this ArcGIS Pro book arrives on bookshelves (and as an e-book) to help users begin the transition away from ArcMap. The opening line of the Preface sums it up well for all the dedicated ArcMap users out there: "Change is never easy".

While some texts from Esri Press often spend time covering general GIS terminology and concepts for a new or novice GIS user, **Switching to ArcGIS Pro from ArcMap** does not take this approach. Instead, the author writes for an intended audience of long-time ArcMap users who may be unsure or are feeling anxious about making the transition to ArcGIS Pro. For example, readers of this text are expected to already have a grasp on what a Geodatabase is and what a Map Document in ArcMap includes. Making **Switching to ArcGIS Pro from ArcMap** especially useful is the author's focus on introducing ArcGIS Pro through an ArcMap context, noting the similarities and differences between each of the different applications throughout the text.

Switching to ArcGIS Pro from ArcMap is laid out over 11 chapters beginning with "Contemplating the switch to ArcGIS Pro", and unlike other Esri texts this title is probably best read (at least initially) by moving from the first chapter to the last, especially if you have never opened ArcGIS Pro before. For example, a table is featured in Chapter 1 (p.15) which compares the ArcGIS Desktop terminology with the new names being used by ArcGIS Pro. Moreover, Chapter 1 takes the reader right through the very first steps of accessing and running the application. Sections on 'System Requirements', 'Licensing', 'Capabilities of ArcGIS Pro' plus answers to that key question: 'When should I switch?' are all covered in Chapter 1.

The next ten chapters then break down each of the essential components of ArcGIS Pro software. These include "Unpacking the GUI", "The Project", "Navigating", "Geoprocessing", "Tables", "Layouts", "Managing data", "Editing", and concluding with "Moving Forward". Each chapter follows a similar template of "Background" explanations of the application/tool/function, and then

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a prescribed series of "Objectives" in which the reader (ArcMap user) can complete (using sample data downloaded from ESRI) to become more comfortable with using ArcGIS Pro.

Also useful in each chapter are the short, stand alone "Tips" which cover small, but important aspects of ArcGIS Pro which could be potentially useful. For example, in Chapter 3, the author tips off the reader that Microsoft Office documents can be safely stored in ArcGIS Pro Project Folders.

Overall, **Switching to ArcGIS Pro from ArcMap** is a well laid out text with plenty of screen capture illustrations of ArcGIS Pro in action to guide the ArcMap reader into a pain-free transition to the new application. Both the Table of Contents and the Index in the back of the book are detailed for easy reference.

Having written all this, would I recommend the book for your library collection? The focus on ArcMap users looking to move to ArcGIS Pro does limit its appeal for acquiring in a general library collection. However, I do highly recommend this title as a professional development text if you or your library staff are ArcMap users and have not yet worked with ArcGIS Pro.

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