Cartographies of Disease (CoD), contains multitudes, functioning as an up-to-date health and place primer as well as a nuanced historical study of public health, medicine, and science. This book is most suited to a university level introductory course in health geography or as a great reference for professionals doing work in this area or contemplating doing so. As an ESRI publication, this book is quite handsomely produced with well-rendered maps, photos, and illustrations. Much of the "meat" of CoD focuses, unsurprisingly, on the cholera epidemic of mid-18th century London and John Snow (chapters 4-6). Koch, nevertheless, expands considerably on the first edition by adding topics such as advances in science and computation, Ebola, H1N1 influenza, HIV, and other modern infectious diseases. In addition, Koch widens the notion of geographic/spatial health to include chronic diseases such as cancer and heart disease/stroke. More importantly, he goes correctly in my view, considerably upstream to examine how spatial methods allow the ability to examine socio-demographic and political determinants of health and health access. This is key in the ability to coherently put people in places regarding effective medical and public health research and policy. Koch also discusses how advances in genomics and other more basic biological sciences can be married to spatial epidemiological methods to provide a more specific and effective ability to predict and intervene across a range of outcomes. CoD has 14 chapters that include a plethora of interesting and sometimes beautiful maps. The first chapters provide an introduction and history of, not just mapmaking, but the epistemological context in which maps are created and interpreted. The middle chapters focus on the history of public health and sanitation uses of mapping and how this use was integrated into political practice and policy. Later chapters focus on modern disease and conceptual issues related to new methods.

Central to the first edition, the section on cholera in mid-18th century England remains as powerhouse exploration of the myth and reality of John Snow and places this story in a broader scientific and political/historical context. This extensive exploration of the "creation myth" of epidemiology shows, in-depth, the complexities associated with dealing with bacterial infection as well as the unstinting efforts and travails of John Snow. Koch, writing elegantly about this time, places Snow's efforts in a much more complex setting than is typical for the "John Snow and the pump handle" story. Indeed, Koch describes an active medical and research culture in which Snow's efforts are one amongst many. At the time, given the lack of germ theory to situate etiology, it was difficult to differentiate scientific claims.

CoD also serves as a solid introduction to modern issues related to the geography of health and illness. Most of the advances in modern health and place issues have occurred only in the last two decades or so due to the vast increase in computational power and the inexpensiveness of this power.
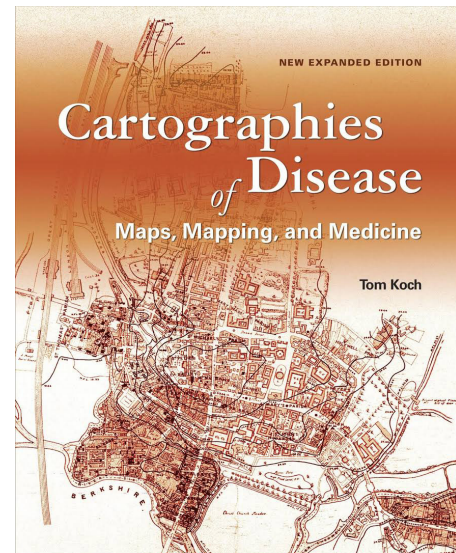
Cartographies of Disease: Maps, Mapping, and Medicine
Tom Koch

ESRI Press: 380 New York St, Redlands, CA; New expanded edition (2017). xix and 403pp., diagrams, maps, photos, images, index, notes. Softcover. $58.22 ISBN-10: 1589481208

Reviewed by Robert Lipton, Fellow, Prevention Research Center (PIRE), Berkeley California.

Both spatial statistics and map generation have become much more readily available. Previously, such work was simply too complex to be implemented on anything less than a supercomputer. Koch does a good job describing the many approaches towards dealing with spatial data, differentiating between mapping, spatial statistics, surface mapping, and areal mapping.

Although the genesis of health mapping arose from infectious disease, chronic disease is also considered in this book. Further, the obvious social epidemiological issues are well covered, particularly in terms of teasing out disparities in health outcomes, access to health and other issues related to health, such as safe/unsafe neighborhoods, food deserts and related.

The discussion of Ebola is particularly thorough, going into depth on the political and geographic issues associated with various epidemic occurrences of the virus. This more in-depth

analysis carefully explores important place-based concerns bearing on disease spread and treatment that properly highlight why geography matters.

Topics that might be added in subsequent iterations; more discussion of the "Spanish Flu" as it was truly one of the most important epidemics in modern history. This epidemic particularly lends itself to further spatial/geographical analysis given the manner in which the disease spread socio-political issues and the significant effect the epidemic had on modern medicine and public health. In line with this, more coverage of mid-twentieth century disease and geography would be helpful. Although not meant as a spatial statistics primer, presenting emerging work on spatial and temporal issues would have been useful

All told, CoD is a comprehensive and deep accounting of the history and current state of public health/medical geography.

Indeed, Koch argues successfully for the idea that place is an important constituent element for understanding disease and illness, no different than considering individual characteristics or those of the disease/illness agent (virus, bacteria, lead, etc). This normalization of geography as a unit of analysis on its own terms is well described in Koch's accounting. Beyond the pedagogical utility of CoD for college and medical school students, an important achievement of this volume integration of geography as a constituent element of good public health and medical research. Koch has written a book, that because of its deep historical understanding, will not become obsolete. Readers and students can first learn of these important topics in this volume and return and grow with the depth of Koch's ideas.

AN INTERVIEW

At the Great Wall of China."Traveling has become one of my greatest passions"

Has ASPRS helped further your career? If so, how?

ASPRS has set the benchmarks for professionals in this industry and has made available the resources for us to learn and grow. It has also led me to a network of like-minded professionals with whom I (we) can share ideas, problems, and solutions. I would also like to add that I am very encouraged by the new leadership in the organization. I think ASPRS has a bright future.

> *"Traveling has become one of my greatest passions"*

What is the biggest open question in your field of photogrammetry that will require the most attention in the future?

As I mentioned earlier, the introduction of UAV/UAS has brought a large number of people into the field. Many of these newcomers have little if any, experience with the survey/mapping accuracies required for geospatial products. They are confident that by just using one of the new, very user-friendly software packages that they'll deliver a high-quality topo. I say again that education is the solution. Educating the consumer on the right questions to ask and what to expect, educating the newcomers on standards, best practices, etc., and educating ourselves on the newest technology and how we can help our client and better our craft. I think ASPRS needs to be the leader in this effort.

ERRATA

To correct the authorship of *"Aerodynamic Roughness Length Estimation with Lidar and Imaging Spectroscopy in a Shrub-Dominated Dryland"* to include Venkataramana Sridhar, Ph.D., P.E., Associate Professor, Department of Biological Systems Engineering, Virginia Tech as one of the author. To reflect the following:

Aerodynamic Roughness Length Estimation with Lidar and Imaging Spectroscopy in a Shrub-Dominated Dryland
Aihua Li, Wenguang Zhao, Jessica J. Mitchell, Nancy F. Glenn, Matthew J. Germino, Joel B. Sankey, Richard G. Allen, and Venkataramana Sridhar

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