Reviews

Cybercartography: theory and practice edited by D R Fraser Taylor, Elsevier, Amsterdam, 2005, 594 pages, €165.00 cloth (£113.00, US $180.00) ISBN 0 444 51629 8

The emergence of geographic information systems (GIS), and especially geographic information science (GISci), has had a great impact on cartography. The boundary between cartography and GISci has become increasingly blurred over the years. Many components of cartography have become the essential parts of GIS or GISci, and, as such, cartography has been losing its professional identity as many cartographers sensed would happen. However, the release of Google Maps and Google Earth has sparked an explosion of public interests in maps. Cartography is not disappearing; on the contrary it is all-pervasive. It appears in science, in technology, and in business, and penetrates every corner of modern society (Abrams and Hall, 2006). Cybercartography as a new paradigm for cartography is intended to reassert the importance of maps and mapping in the digital age. It is formally defined as the organization, presentation, analysis, and communication of spatially referenced information. The notion was first raised in 1997. Years of concentrated research have led to this book on the theory and practice of cybercartography.

The book is structured around the seven elements of cybercartography in which maps can be said to be part of an information package with a multisensory, multimedia, and interactive format, created with multidisciplinary teams and new partnerships. However, none of the seven elements is particularly new. They are already embedded and discussed in various new cartographies and cartographic practice, such as multimedia cartography, mobile cartography, web cartography, and exploratory cartography, just to mention a few examples. By saying this, I am not devaluing the edited volume. On the contrary, cybercartography is the first conceptual framework to reformulate cartography in such a unique and comprehensive way. Cybercartography reemphasizes the importance of art in cartography, which is stated in an early definition of cartography (Meynen, 1973). The aesthetics of cartography have also been asserted in the humanistic GISci advocated by Daniel Z Sui (2004). Therefore, an attempt to draw a very clear line between cartography and GISci using any excuse seems futile. I tend to consider cybercartography as a new conceptual framework that integrates all the aforementioned cartographies in the context of GISci.

The book has mainly grown out of a research project on cybercartography and the new economy, and has been shaped particularly by the thinking of Fraser Taylor, who has spent a long time working in cartographic theory and practice. The first chapter sets the scene for the whole book, and explains why cybercartography is needed. Each of the following chapters addresses one or more of the seven elements. Chapter 2 by Mark Monmonier compares maps with telephones, and illustrates the importance of standards for improving mapping quality in the digital age. He expresses his concern on graphic quality and visual effectiveness in the digital age, because of the wide use of computer software and web tools for mapping practices. The 'cyber' of cybercartography refers not only to cyberspace, on which it mechanically relies, but also cybernetics, on which it is theoretically based. In this connection, chapter 3 explores the integral theory of integration and synthesis of various disciplines, through the flow of information under the conceptual framework of cybercartography. The following three chapters draw on ideas and theories from related disciplines such as system theory and cybernetics, aiming at forming a theory of cybercartography from the modeling, societal, and cultural perspectives. Chapter 7 introduces the concept of cartographic and geographic mediation, with respect to the representation of distributed information. The proposed concept of mediation can guide the practice related to the design and evaluation of cybercartographic products. One of the seven elements of cybercartography is on the research partnerships involving groups and individuals from academia, government, civil society, and the private sector. Chapter 8 mainly

addresses this collaborative issue using the project 'Cybercartography and the New Economy' as a case study.

Cybercartography is multidisciplinary in nature and integrates knowledge and expertise from various disciplines. Chapters 9 – 13 are contributions from psychological, art, and literary perspectives. The chapters discuss the interface design, user needs analysis, and multimedia and multisensory techniques for the practice of cybercartography, and address the issue of aesthetics in the design practice. Chapters 14 – 16 explore and review various cybercartographic artifacts and products that exist as stand-alone products, or on the web and mobile devices. Design is likely to be a key issue for the products, and design principles must be adjustable to the different circumstances where products are to be used. Sound and touch are the central themes of chapters 17 – 18. Chapters 19 – 22 illustrate how theories and principles have been applied to produce some cybercartographic products. Finally, the editor summarizes some of the key lessons learned, and examines remaining challenges and the future of cybercartography.

The book is well structured and the chapters are cross-referenced. The coherent structure of the book is guaranteed by Fraser Taylor's involvement as coauthor in seven of the book's chapters. However, the book shows some constraints due to the fact that it has grown mainly out of a research project. Some chapters have a working-paper style. For instance, chapter 3 consists of twelve sections and the linkage between sections is not very clear. Interestingly, twenty references (about 50%) in the chapter are used to support only one trivial statement (page 38). Some concepts have not been thoroughly investigated. For instance, the concept of cybermaps appears in several chapters but is never clearly defined. How the concept of cybermaps is related to the concept appearing in existing literature (Dodge and Kitchin, 2001; Jiang and Ormeling, 1997) is also unclear. In addition, there are some mistakes. For example, Environmental Systems Research Institute is referred to wrongly as the Earth Systems Research Institute (page 5). Despite the criticisms, the book is a valuable reference book for cartographers, GIScientists, and cartographic practitioners who care about the future of cartography. I highly recommend it.

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Dictionnaire: la ville et l'urbain by D Pumain, T Paquot, R Kleinschmager; Economica, Anthropos, Collection 'Villes', Paris, 2006, 320 pages, €30.00 paper, ISBN 2 7178 5224 7

Two geographers, Denise Pumain of the Université de Paris I and Richard Kleinschmager of the Université Louis Pasteur in Strasbourg, and a professor of urbanism, Thierry Paquot of the Institut d'Urbanisme de l'Université de Paris at Paris XII, have compiled this specialized dictionary. It provides a wide range of entries of varying detail and length—from one line to several pages—according to the importance of the topic as determined by the contributors.

The spectrum of concern embraces the history of urban development, engineering aspects of city building, scientific elements of urban theory, the economics of urban growth, and the 'soft science' components of city life to emerge from anthropology, social geography, sociology and, indeed, the humanities. France is the main focus, with some entries not moving beyond French examples; however, others provide additional information from other parts of the (mainly)