

BOOK REVIEWS

GEOGRAPHY AND TECHNOLOGY edited by Stanley D. Brunn, Susan L. Cutter and J. W. Harrington, Jr. Dordrecht: Kluwer Academic Publishers, 2004.

The strong link between geography and technology dates back to the days of ancient geographers who explored new worlds with maps and navigation tools. Nowadays, more than ever, technology has become an inherent part of geographical studies (Haggett 2001). The rapid development in technologies with geographical aspect during the 20th century and especially during its second half, such as air transportation, the camera, computers and information systems, has transformed geographical studies and research, and, as it is well reflected in *Geography and Technology*, many other fields as well such as military affairs, communications and public health. These transformations amplify the need for up-to-date summarization of the different aspects of interaction between technology and geography. This is probably why the Association of the American Geographers has published a collective volume on the subject towards its Centennial Celebration (1904–2004).

The book is edited by three senior geography professors and includes twenty-five chapters, written by thirty-three authors from the US, four from the UK and two from Canada. The chapters are organized in five parts. Part I includes an introductory essay (Chapter 1) by Thomas J. Wilbanks. This chapter provides an interesting synergy of the main findings of its following chapters and illustrates the challenges expected with the increasing use of technologies in exploring geographical issues. In Chapter 2, Ron Johnston compares two communication approaches to spreading geographic knowledge and concludes that whereas new technologies have speeded up the circulation of materials and widened their spatial scope, face-to-face contacts remain crucial to many aspects of knowledge dissemination. In Chapter 3, Shelley, Bigler and Aspinall review the federal funding sources for geographic research in the US in the twentieth century and discuss the effect of funding trends on geographic research publications, as illustrated by three of the mainstream geographic journals.

Part II of *Geography and Technology* is focused on technologies that have changed the study of geography, including geographic information systems (GIS), remote sensing, communication technologies and mobile phones. In chapter 4, Harvey and Chrisman describe the development of geographic information science and systems, using an ecological metaphor as an indication of the geography-technology interaction. In chapter 5, Sui and Morrill describe the role of computer develop-

ment in automated and virtual geography. Chapter 6, by Jensen and Hodgson, is relatively long, providing interesting satellite image mosaics and introducing the use of remote sensing methods as a tool for data collection and information extraction, with a special focus on remote sensing of vegetation. Chapter 7 (Zook, Dodge and Aoyama) provides an overview of the role of internet and mobile phones in the development of digital geography for imaging, visualizing, commercializing and untethering (i.e., wireless communication).

Part III is composed of eleven chapters that present technologies that have an influence on diverse themes with geographic aspect. Chapter 8 (Roger Downs) discusses the role of old and new tools, such as globes and GIS, in teaching school geography. His conclusions are particularly critical with regard to the decreasing status of geography in schools' curricula. Chapter 9 (Porter and Grossman) shows continuity and change in the nature of fieldwork in non-Western settings during the second half of the twentieth century. In Chapter 10, John Jakle reviews the use of ground photography in geographic teaching and research, and Chapter 11 (Dixon and Zonn) extends the photographic aspect into the role of film and film technology in cinematic geography. Chapter 12, by James Rubinstein, reviews papers from the second half of the twentieth century that study the effect of motor vehicles on landscape at the local, regional, national and global scales. Chapter 13 (Leinbach and Bowen) is focused on the rapid development of air transport technology during the twentieth century and its huge social and economic impacts. Chapter 14 (Rain and Brooker-Gross) also discusses a subject concerning global impact, that of the global TV news. It combines a discussion on the geographies of news events and possible collaboration between geographers and the media. In Chapter 15, Joanna Regulska shows the relationship between democracy and technology through e-democracy, e-government and cyberdemocracy. In Chapter 16, Michael Greenberg illustrates technology-health interactions through case studies of weapons of mass destruction, environmental cancer, elderly health care, urban redevelopment and sprawl, and the spread of the AIDS-HIV virus. Chapter 17, by Moss and Kwan, is about women and space and discusses the concept of "real" body and "real" technology. Chapter 18 (Corson and Palka) is an especially comprehensive essay, presenting the major geotechnologies that were used by the US army and air force from the pre-World War I era to the postwar era, as well as the revolution in military affairs due to the evolution in geographic technologies.

Part IV is focused on the physical environment. Chapter 19, by Sherman and Baas, describes how electronic instrumentation increased dramatically the capability to measure sediment transport. In Chapter 20, Julie Winkler reviews the primary surface and upper-air datasets available for climatological research for global-scale analysis. Chapter 21, by Walsh, Evans and Turner, describes the role of remote sensing and GIS in the study of land-use dynamics from early data gathering to advanced modeling. Chapter 22 (Taylor) summarizes the potential and barriers of the use of geographic information for development in Africa, and, finally, Chapter

23 (Tobin and Montz) addresses human vulnerability to natural hazards and shows how technology helps in both research and policy of hazard risks.

The last section, Part V, is a summary focused on technological issues and society. Chapter 24, by Jerome Dobson, describes trends and ideas about future societal implications that applications and science in GIS may bring to the community. The closing chapter (Chapter 25, by Michael Curry) discusses a very important, albeit usually considered straightforward question: Is technology a necessary element of geography? This closing chapter concludes with the assertion that one should be careful that technology does not obscure the way in which geographic questions are asked.

Overall, the book is well edited and I could not find any major editorial mistakes. The sequence of chapters is coherent and, in general, they are fluently read. The book provides innovative research as well as comprehensive review works. It is especially interesting that this collection covers a wide array of technologies that affect geographic ideas and knowledge and it is not solely focused on geographic information technologies, although these do play an important role in the book.

Geography and Technology can be useful for geography students and scholars, as it summarizes today's insights on technologies that have had and will have a strong impact on geographical issues from the end of the twentieth century and onward. This book can also be a valuable source for professional geographers who are interested in the potential use of technologies in geographical fields.

REFERENCE

Haggett, P. (2001) *Geography—A Global Synthesis*. Harlow, UK: Prentice Hall.

Tal Svoray

Ben-Gurion University of the Negev

SCALE AND GEOGRAPHIC INQUIRY: NATURE, SOCIETY, AND METHOD edited by Eric Sheppard and Robert B. McMaster. Oxford: Blackwell, 2004.

The volume *Scale and Geographic Inquiry*, edited by Eric Sheppard and Robert B. McMaster, joins a group of publications that rethink basic concepts in geography. It focuses our attention on the concept of scale, traditionally presented in introductory textbooks as one of the basic concepts of the discipline. In the introductory and the concluding chapters, the editors set forth the argument for a reconsideration of the concept of scale, along with some generalizations concerning the place of scale in contemporary geographical analysis. The middle chapters set out to explain how scale is treated in various geographic sub-disciplines, from physical to social to cyber-geography. The editors argue that the concept of scale has received a renewed