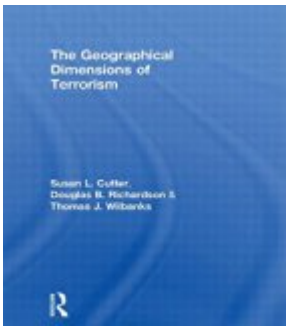
H-Net Reviews
in the Humanities & Social Sciences

Susan L. Cutter, Douglas B. Richardson, Thomas J. Wilbanks, eds.. *The Geographical Dimensions of Terrorism.* New York and London: Routledge, 2003. xxii + 274 pp. $45.95, paper, ISBN 978-0-415-94642-1.



Reviewed by Stephane Lefebvre

Published on H-Diplo (April, 2004)

Another Toolbox for the Terrorism Expert

Of all the books published since the terrorist attacks on the United States concerning September 11, 2001, a great many have looked at Al Qaida and affiliated groups, the root causes of Islamic terrorism, and the government response to prevent future terrorist attacks or manage their consequences should they occur. Very few have studied the tools and methods that would allow for a better tracking of the phenomenon and improved consequence management measures. This edited book represents such an effort.

As its title indicates, *The Geographical Dimensions of Terrorism* is the work of a group of geographers affiliated to academia, the private sector, or government. Their primary objective is to convince the reader of the utility of geographic information science (GIScience) tools to social scientists, law enforcement officers, public officials, and other practitioners confronted with the prevention of and response to terrorist acts. The book is divided into eight chapters, with each of the first seven looking at a different aspect of the terrorism problem and the last one offering a research and action agenda. Each author essentially makes two arguments: detailed geographical information is essential to anyone involved in addressing terrorist-related issues; and GIScience applications are of use to almost all disciplines, thus demonstrating the interdisciplinary approach necessary to deal effectively with terrorism-related problems.

In his introduction to the book, Philip Rubin explains the genesis of the authors' collective effort and their devotion to the task of devising a geographic research agenda that would assist in the construction of a "safer but open society" (p. xxi). Geography, in this context, is a means, not an end, as the authors of the first chapter aptly argue. They note that terrorism is largely a new but pressing challenge to geographers, one that will require innovation and imagination on their part. They admit, however, that the task is perilous and may divide their epistemic community, for instance because of distrusted policy agendas, and advocate a longer-term approach rather than a shorter one.

The authors of the second chapter are concerned about how society responds to and copes with hazards (natural, technological, or human-induced), how vulnerabilities are identified, and how and why they differ from one location to another. In her section, Deborah S. K. Thomas makes the point that there are commonalities among the geographic approaches in law enforcement, public health, and hazard management (arguing that they ask the same set of geographic questions, and all use maps and geographic information systems) and that they could be used for monitoring terrorist activities (for example bioterrorism in the public health sector). Consistent terminology and integrative approaches beyond crisis management purposes, however, will need to be developed, as well as mechanisms to deal with privacy issues and security classifications. In his section, James K. Mitchell looks at urban vulnerability to terrorism as hazard and argues that risk and vulnerability "must be addressed together in a comprehensive way from the outset" (p. 18). He particularly identifies the values-vulnerability nexus ("places and the people who construct them have different meanings and are valued differently by humans" [p. 20]) as an area of research deserving of greater attention, and urges that more research be devoted to investigating the full range of urban vulnerabilities. In his section on emergency preparedness and response, Gerald E. Galloway discusses the necessity for first responders to have access to near-current data on the location and status of critical infrastructure, and geographic information systems and supporting technologies, as well as the ability to update and manipulate the information in these systems. He adds that that the different communities of emergency managers must cooperate and be coordinated to avoid further casualties and have systems that can communicate and share data with one another. Drawing on the experience of September 11, he recommends that geographic information technologies be better integrated in the emergency response cycle. In this chapter's last section, Richard Wright, Paul Ganster, and David Dow address the issue of transborder disaster management as another area where GIScience plays a very important role. To be effective when dealing with this problem, emergency officials must be able to coordinate their efforts and share current geographic data (it must therefore be harmonized) with their counterparts from the other country.

The third chapter is focused on the root causes of terrorism and also divided into four sections. Alexander B. Murphy looks at the space of terror (activity, policy spaces, and perceptual spaces, or how different spaces are understood) and how geography can help explain how spatial arrangements and understandings impact on terrorists, their activities, and motivations. Colin Flint looks at the geographies of inclusion/exclusion and makes the case that we can no longer confine terrorists within sovereign territories and that non-territorial security threats must therefore be addressed differently than those from nation-states. Kent Mathewson and Michael Steinberg are interested by the links between drug production, commerce, and terrorism to show that globalization processes cannot be dissociated from our understanding of the wars on drugs and terrorism, and how GIScience can help us better understand what is happening globally. Finally, Marilyn Silberfein looks at insurrections, their causal factors (including ethnic diversity, politics of exclusion, and environmental degradation) and locational requirements, and the insights that GIScience could provide to such dynamics.

Chapter 4 discusses geospatial data and technologies in times of crises and the different ways through which they can assist emergency management and homeland security requirements. The first section, by Mike Tait, shows that there is a need for a national spatial data infrastructure and interoperability standards among systems. This infrastructure must be secure, real time or near real time, and be accessible directly by users.

The second section, by Andrew J. Bruzewicz, is about the use of remote sensing imagery for emergency management. He recognizes that such imagery has yet to be used to its full potential, but notes that there are impediments to doing so (such as the lack of knowledge about the usefulness of such a tool, weather conditions, organizational issues, etc.). The third section, by Michael F. Goodchild, is on improving access to geospatial data in emergencies. He looks at issues such as finding the data, interoperability, and data inaccuracy, and welcomes efforts by organizations such as the Federal Geographic Data Committee and the Open GIS Consortium to improve "interoperability through common specifications and standards" (p. 104). Goodchild moves on to a discussion on the significance of data modeling for emergencies in the fourth section. In the fifth section, Mei-Po Kwan looks at the use of geographic information systems (GIS) to "facilitate quick emergency response to terrorist attacks on multilevel structures in urban areas" (p. 111). Finally, in their section Frederick Abler and Douglas B. Richardson look at geographic management systems for homeland security, concluding that "continued research and development are necessary in order to rapidly implement an intelligent geospatial information infrastructure capable of supporting the decentralized, secure, and integrated management of the geographic information for homeland security" (p. 124).

The fifth chapter is dedicated to the vulnerability of lifelines, the built environment, and people. In turn, John A. Kelmelis and Scott A. Loomer focus on the critical infrastructure, Thomas J. Wilbanks on energy systems and infrastructures, Harvey J. Miller on transportation and communication lifelines disruption, Geoffrey J. D. Hewings and Yasuhide Okuyama on the economic assessment of unexpected events, Jerome E. Dobson on estimating population at risk, and Ray J. Dezzani and T. R. Lakshmanan on recreating secure spaces. All argue how important it is for society to understand its vulnerabilities and to develop new methods, models, and tools to assist in this endeavor.

Chapter 6, on bioterrorism, features the writing of Arthur Getis on understanding biological warfare, Lisa M. Butler Harrington on bioweaponry and agroterrorism, and Marilyn O. Ruiz on the spatial surveillance of and response to biological threats. They show that bioterrorism cannot be dissociated from its geographic expression, and that geographic research in medicine, epidemiology, ecology, and agriculture can help in mapping the bioterrorist problem and mitigating its impacts. While bioterrorism has generally not been a high priority among geographers, the authors argue that "there are significant potentials for contribution now that the challenge has become salient" (p. 179).

The authors of chapter 7, Harlan Onsrud and William B. Wood, are concerned with issues of privacy and security. Onsrud expresses concerns that the large amount of digital geographic information on government websites may eventually be restricted to prevent terrorists from using it for planning terrorist attacks. He argues, however, that far less information, and of a much lower quality, is generally sufficient for the planning of a terrorist attack, and that in any event "the benefits from having more readily available governmental data far outweigh the drawbacks" (p. 211). Wood, for his part, makes the point that homeland security would be much improved through the development of information-based security efforts which he terms "GeoSecurity" (p. 213). Ultimately, GeoSecurity would allow homeland security officials to "assess and visualize societal vulnerabilities against diferent types of threats and likely responses using a suite of geographic methodologies, organization and analysis of georeferenced data" (p. 213).

The last chapter, by Cutter, Richardson, and Wilbanks, sums up the research suggestions from all the authors and puts forward an action agenda for geographers. It proposes priority action items

and priority research issues with respect to the root causes of terrorism, vulnerability science and hazards research, and geospatial data and technologies research. All lead to the development of an interested community of GIScientists who would bring together their talent and resources to tackle the terrorist problem alongside specialists from other disciplines, all levels of government, and the private sector.

To the non-specialist, this book by geographers is highly accessible. It is easy to read and carefully avoids jargon. The arguments in favor of using GIS are well laid out and reinforced throughout the book. While there are some illustrations and tables to assist the reader in comprehending the issue at hand, it would have been useful also to include color pictures of GIS displays so as to see how knowledge on terrorism could be derived from displayed and manipulated geographic information. The inclusion of a GIS presentation or demo on a CD-ROM, for that matter, would have been perfect. The book is well edited and referenced. A reference to Monmonier, 2002, on page 3, however, cannot be found in the references section (one assumes that the date should instead have read 2003, for which there is an entry on Monmonier).

To the political scientist, the historian, or the public official interested in terrorism, there is much to gain by reading this book. It clearly shows that interdisciplinary approaches are highly beneficial, especially with regards to response and consequence management activities, and contribute to enhancing our knowledge of terrorism-related issues, including the targets of terrorists and the terrorists themselves. The book serves as a good primer to geographers who have yet to apply their skills in the field of terrorism studies and to all other individuals interested in geography of terrorism. This book, therefore, is to be recommended, as it offers another toolbox to those of us concerned with terrorism and its impact on our lives.

If there is additional discussion of this review, you may access it through the network, at https://networks.h-net.org/h-diplo

Citation: Stephane Lefebvre. Review of Cutter, Susan L.; Richardson, Douglas B.; Wilbanks, Thomas J., eds. *The Geographical Dimensions of Terrorism.* H-Diplo, H-Net Reviews. April, 2004.

URL: https://www.h-net.org/reviews/showrev.php?id=9188