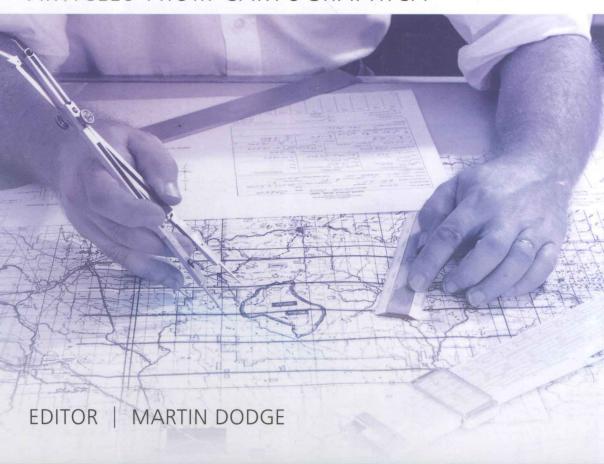
# CLASSICS IN CARTOGRAPHY

REFLECTIONS ON INFLUENTIAL ARTICLES FROM CARTOGRAPHICA



## Classics in Cartography

## Reflections on Influential Articles from *Cartographica*

Edited by

#### Martin Dodge

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Deceased, June 2005

#### Martin Dodge

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Martin's research focuses on conceptualizing the socio-spatial power of digital technologies and urban infrastructures, virtual geographies, and the theorization of visual representations, cartographic knowledges and novel methods of geographic visualization. He was curator of the well known Web-based *Atlas of Cyberspaces* and has coauthored three books covering aspects of the spatiality of computer technology: *Mapping Cyberspace* (Routledge, 2000), *Atlas of Cyberspace* (Addison-Wesley, 2001) and *Code/Space* (MIT Press, 2010). He has also co-edited two books, *Geographic Visualisation* (Wiley, 2008) and *Rethinking Maps* (Routledge, 2009), focused on the social and cultural meanings of new kinds of mapping practice. He is a member of the editorial board of the journal *Cartographica*.

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Independent Scholar

David obtained his undergraduate degree at the Royal Military College of Canada in 1963. He served as an officer and pilot in the Royal Canadian Air Force until 1966, after which he obtained a Master's degree in Geography at Carleton University in Ottawa. On completing his degree he was offered a post in the Department of Geography at the University of Ottawa, which he held from 1970 until the end of 1999. After that he held a three year position in the Department of Surveying at the University of Gävle in Sweden.

His research has involved the compression of cartographic data in lines and surfaces, along with work on simple projections for quantitative mapping, polygon topology for dasymetric and choropleth maps, and shortest path algorithms.

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Osher Professor in the History of Cartography at the University of Southern Maine, USA Matthew directs the History of Cartography Project, University of Wisconsin-Madison. He has also taught at SUNY-Binghamton and the University of Michigan, Ann Arbor. Broadly interested in the nature and history of cartography, his research currently focuses on eighteenth century mapping, especially of British North America.

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#### Leonard Guelke

Retired Scholar

Len graduated with a BSc in Geography from the University of Cape Town, South Africa, in 1961. The curriculum of the time had a strong emphasis on cartography,

something the leading thinkers on the nature of geography all agreed was a central component of geographic inquiry. This preparation helped him land his first job as a cartographic compiler and editor with Thomas Nelson & Sons of Edinburgh, which was followed by a two year assignment (1965–1967) as coordinator of the Atlas of Alberta. He obtained a PhD in Historical Geography from the University of Toronto in 1974. Although cartography was not specifically the focus of his graduate studies, on the basis of his earlier education and work experience he was deemed sufficiently well qualified to be appointed a faculty member at the University of Waterloo responsible for teaching cartography. This position stimulated a period, from 1975–1990, of cartographic research and the active participation in the Canadian Cartographic Association. Len retired in 2005.

#### Mordechai (Muki) Haklay

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Muki's research focuses on usability engineering aspects of geospatial technologies, public access to environmental information and participatory GIS. He holds a BSc in Computer Science and Geography and an MA in Geography from the Hebrew University in Jerusalem, together with a PhD in Geography from UCL. He is a member of the editorial board of the journal *Cartographica*.

#### J. Brian Harley

Deceased, December 1991

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Kate completed her PhD at University College London in 2008 in the area of Health Geography. She is a specialist in GIS for collaborative research in social and urban geography.

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David completed his PhD in Geography at Simon Fraser University (Burnaby, Canada) in 1977, and joined the University at Buffalo in 1981. He has written or co-authored more than 220 publications, including 80 refereed articles and four edited books. His research interests include ontology of the geospatial domain, geographic cognition, cultural differences in geographic concepts, geographic information systems, human-computer interaction and digital elevation models.

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Mark is author of sixteen books, including *How to Lie with Maps* (University of Chicago Press, 1991, 1996), *Coast Lines: How Mapmakers Frame the World and Chart Environmental Change* (University of Chicago Press, 2008), and *No Dig, No Fly, No Go: How Maps Restrict and Control* (University of Chicago Press, 2010). His awards include a Guggenheim Fellowship (1984), the American Geographical Society's O.M. Miller Cartographic Medal (2001) and the German Cartographic Society's Mercator Medal (2009).

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#### Thomas K. Poiker

Retired Scholar

Thomas Poiker, formerly Peucker, grew up in Austria, studied in Germany (Geography) and taught (Economic Geography, Geographic Information Systems (GIS), Cartography and – in the Computing Science Program – Computer Graphics) at Simon Fraser University in Burnaby, British Columbia, Canada. His research area was GIS, especially digital terrain models (DTMs) where he developed the triangulated irregular network structure. He is known for the first text in GIS and some articles in GIS, especially DTMs. He developed an online program (UniGIS, two years, 12 courses) which he directed from 1998 to his retirement in 2007.

#### Matthew Sparke

Professor of Geography and International Studies at the University of Washington, USA Funded by a National Science Foundation CAREER grant, Matthew's recent research and teaching have been about globalisation, neoliberal governance, and the impact of transnational market ties on the geography of politics. He is the author of *In the Space of* 

Theory: Postfoundational Geographies of the Nation-State (University of Minnesota Press, 2005), and Introduction to Globalisation (Blackwell, forthcoming), as well as over 50 articles, book chapters and reviews. In 2007 he received the University of Washington's Distinguished Teacher Award. His work on the politics of cartography is now leading into new research on the geography of global health, including attention to both neogeography Web 2.0 technologies used for risk management in rich countries, and the collective remapping of the globe itself – sometimes also enabled by volunteers – as a space of shared vulnerability and health citizenship.

#### Denis Wood

Independent Scholar

Denis holds a PhD in Geography from Clark University where he studied map-making under George McCleary. He was curator for the award-winning Power of Maps exhibition for the Smithsonian, and writes widely about maps. His most recent book is *Rethinking the Power of Maps* (Guilford Press, 2010). A former Professor of Design at North Carolina State University, Denis is currently an independent scholar living in Raleigh, North Carolina.

### **Foreword**

Cartographica: The International Journal for Geographic Information and Geovisualization (to give its full title) is one of the longest standing peer review journals for the publication of cartography and mapping and geographic information systems (GIS).

The journal was founded by Bernard Gutsell (1914–2010) and his wife Barbara. As a young man in his native England, Gutsell was a squadron leader in the Royal Air Force during World War II. It might be that he found his love of geography and maps at that time. After the war, Gutsell moved to Canada, where he got a job with the government in the Geographical Bureau, later joining York University in Toronto. He retired from York in 1989. To some degree his career parallels that of another cartographer, the American Arthur Robinson. Like Gutsell, Robinson was involved in World War II, although his job was more directly cartographic, since he was in charge of the Map division of the Office of Strategic Services (OSS), which became the CIA after the war. It would be interesting to compare their careers further, but they do highlight the deep interconnections between cartography and government.

In the early 1960s the Gutsells asked for funds to start a journal from Canada's National Research Council (NRC) and the Canada Council. The sponsors asked him to produce Volume 1 before they were prepared to issue any funds. Since Gutsell had no money to do this, he actually started the journal with Volume 2! This was May 1965. It was only a few years later that Volume 1 appeared (labelled '1964'), in response to many enquiries from people asking where they could get a copy.

At this time the journal was simply called *The Cartographer*, and although it has gone through several name changes, one constant of its first thirty years was Gutsell's editorship. His involvement is generation-spanning. When he started the journal I was a baby; when I published my first articles in the journal in the early 1990s he was still editor. He stepped down in 1994. Due to his long tenure I'm still only the fifth editor of the journal after 45 years (and the first from outside Canada, although like Gutsell I am originally British). Following Gutsell, the journal was edited by Michael Coulson (1994–1999), Brian Klinkenberg (1999–2004) and Peter Keller (2004–2007). Other significant figures include Roger Wheate and Cliff Wood, who served as co-editors from 2004–2010. In addition, Ed Dahl must be mentioned in a number of roles, such as Associate Editor (1981–1994) and Board member (1994–2007). It was Ed who arranged the responses to the Harley article I discuss later in this book.

**xviii** Foreword

The very idea of classics in cartography might seem anachronistic in an age when cartography has become GIS, and GIS itself is either going to have to revolutionise or be subsumed by so-called Volunteered Geographic Information (VGI) or the geospatial Web and their corporate ilk such as Google Earth. It raises the question not only of what constitutes a classic (Something cited a lot? Something 'old'? Something cited a lot at first but not much now?) but of what cartography actually is (and whether the answer to that is historically variable or constant). Perhaps, in fact, a classic is something which changes the definition of cartography.

Indeed, Denis Wood's manifesto cry that 'Cartography is Dead – Thank God!' might at first glance appear to be the *sine quo non* judgement upon cartography. But this idea bears further examination. Wood does not celebrate the end of maps and mapping, but rather of a certain species of cartographic enquiry (academic, dry, irrelevant to realworld map use) that he sees as all too prevalent – and after all he is on the editorial board of *Cartographica*. Wood's point is subtle, it is not maps that have betrayed us, rather we have betrayed maps. We have flogged them to death and analysed them as if they were disturbed mental patients on the psychiatric couch. We have prosecuted them for war crimes, for supporting militaristic conquests and colonial exploitation, for propping up ministers and monarchs. And perhaps most indefensibly we have forgotten the beauty and wonder of maps, not to mention their sheer power amongst the general public.

No doubt Wood has a point, and his own work on map art has done much to correct these imbalances. But cartography, as a study of maps and mapping, is a product of modernity, and like most disciplines has undergone shifts in emphasis. Cartography embraced the scientific reason of the European Enlightenment as a practice of mapping and surveying in the sixteenth and seventeenth centuries, and as an academic discipline in the late nineteenth and early twentieth centuries. As this book neatly demonstrates, 'classics' come in a number of forms, and the classical scientific side of the discipline is well represented – notably the very influential work of Douglas and Peucker (now Poiker), which has been cited well over 1000 times according to Google Scholar (unfortunately academic citation databases have not indexed that year of *The Canadian Cartographer*, as the journal was then known). We also see from the selection how the study of mapping has evolved. Harley's article, which has been cited about half as much, represents a very different tradition, that of map critique. Newer concerns such as participatory GIS (PGIS) and experiential mapping are also included (see the Introduction for a fuller discussion of the choices included).

So classics can be thought of as articles that attract attention, whether formally through citations or more informally by word of mouth, that serve to shift the discipline and cause us to rethink maps.

Classics in cartography also raises the question of the relation and importance of the field in the larger sense. To Wood, it's dead, but I think that a little ungenerous to those of us still interested in thinking about mapping (and by 'us' I don't just mean academic cartographers, but map artists, geographers, philosophers, historians, political activists and the like). My old professor at Penn State, Peter Gould, used to say that geography was a great place to begin, but a bad place to remain. The same is probably true of cartography. Cartography is strongest (and I think to me this is what 'classics in cartography' ultimately means) when it reaches out and joins with these other forms of

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questioning. Cartography for cartography's sake is probably not going to light up the world. But cartography for art's sake, for philosophy's sake or for politics' sake, now that's something.

Jeremy W. Crampton Editor, *Cartographica* 2008–2010

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I also acknowledge Pete Fisher and his earlier book on GIS 'classics' for sparking the initial idea for this volume.

Martin Dodge

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