


CLASSICS IN CARTOGRAPHY

REFLECTIONS ON INFLUENTIAL
ARTICLES FROM *CARTOGRAPHICA*



EDITOR | MARTIN DODGE

 WILEY-BLACKWELL

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Classics in Cartography

Reflections on Influential Articles from *Cartographica*

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With a foreword by Jeremy W. Crampton,
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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 Gut sell (1914–2010) and his wife Barbara. As a young man in his native England, Gut sell 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, Gut sell 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 Gut sell, 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 Gut sells 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 Gut sell 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 Gut

sell'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 Gut sell I am originally British). Following Gut sell, 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.

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 real-world 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 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

1

What are the 'Classic' Articles in Cartography?

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1.1 Outline of the Book

The intention of *Classics in Cartography* is to provide an intellectually-driven reinterpretation of a selection of some of the most influential articles from the last thirty years of academic cartography research. The ten chosen 'classic' articles were written by a range of the leading academic cartographers, geographers and allied scholars. They were all published in the international peer-reviewed journal *Cartographica*.

While the ten 'classic' articles are diverse in their agendas and approaches, they are all thought provoking texts that demonstrate how different aspects of mapping work as a mode spatial representation; they also shed light how different cartographic practices have been conceptualised by academic researchers. They are reprinted in full in this volume and, importantly, they are accompanied by newly commissioned reflective essays by the original authors (or other eminent researchers) to provide fresh interpretation on the meaning of the ideas presented and their wider, lasting impact on cartographic scholarship. Moreover, these

essays give insights into how academic ideas emerge and some present a personal perspective on the nature of scholarly research. As such it is hoped that they will furnish current and future researchers with insights into how influential academic ideas come about and circulate as catalysts that can codify and instigate important areas of research within cartography and generate novel theoretical perspectives on mapping. While the focus on past 'classics' is perhaps rather backward looking in an era of such rapid social and technical change in cartography, it can be counter-argued that today there is real intellectual value in historical reflection because of the ways it helps us to understand better the present context for cartographic studies and to better inform future strategies for more innovative, creative mapping research (Dodge, Perkins and Kitchin, 2009; Kitchin and Dodge, 2007).

The book's intellectual focus on reflecting on 'classic' work in cartographic research, as opposed to GIScience or geovisualization is a conscious decision (see Dodge, McDerby and Turner, 2008; Fisher, 2006 for coverage of these allied fields). There is a strong case that cartography, broadly conceived, has become a newly reinvigorated topic in recent years, and that mapping has growing relevance to many scholars and students across the social sciences and humanities disciplines (Dodge and Perkins, 2008). The turn towards the 'visual' and 'spatial' in many large social science disciplines (such as anthropology, literary studies, sociology, history and communications) means there is extensive interest in spatial representations and mapping practice in its many forms (Warf and Arias, 2008). Meanwhile, mapping approaches are also proving instrumentally powerful in the information sciences, bio-informatics and human-computer studies as the basis for novel knowledge discovery strategies (Boorner *et al.*, 2009). There is also much more lively engagement with

cartography beyond academia, with growing artistic interest, numerous exciting participatory mapping projects and, of course, mass consumer enrolment of interactive spatial media on the Web, on mobile phones and in-car satellite navigation systems to solve myriad daily tasks (Crampton, 2009; Elwood, 2010).

So, looking beyond the core readership in cartography and GIScience, it is hoped that *Classics in Cartography* will have utility more widely across the sciences, social sciences and humanities, meeting the needs of a range researchers and postgraduate students interested in maps. It provides a new route into the wealth of significant cartographic literature, a unified and coherent way to bring a range of important mapping theories to the attention of a wide range of people looking to intellectually inform their mapping practice. The combination of 'classic' articles with new interpretation, which includes the significant work of many of the most well known cartographic scholars, makes this a uniquely useful book.

1.2 Delimiting the Cartographic 'Classics'

At the heart of the academic discipline of cartography are a set of theoretical frameworks and empirical findings that provide the intellectual basis for understanding the nature of maps and the work they do in the world. While such theories and findings are often the incremental product of the collective thought of many scholars, there are also signature pieces of writing that become recognized as 'classics' because of the way in which they push forward understanding or praxis by a significant degree. Such books and articles, through dint of their novel insights, analytic rigour or breadth of scholarship, gain recognition as

foundational touchstones for students and academic researchers in cartography.

However, the task of drawing up a *short and definitive list* of such 'classic' work for any academic discipline that would achieve widespread agreement is an almost impossible one. The idiosyncratic interests, personal biases, partial knowledge and political agendas of the list maker will always mean the selection is less than perfect. To begin there are multiple dimensions upon which 'classic' status can be defined and the judgements made are almost always subjective. Perhaps most obviously a 'classic' might be delineated in terms of the degree of novelty and originality in the material: being first to publish can often be crucial in claiming rights to found a field of research. Additionally, 'classic' status might be judged by the impact the paper or book has in terms of setting on-going research agendas and acting as the initiator of something bigger - it is a 'classic' not so much for what it is but because of what it caused. Along a different track, it could be argued that some writing is rightly regarded as 'classic' because it is an archetypal model or stylish synthesis of a large and important body of knowledge, it elegantly encapsulates an argument better than rest, and the quality of expression and depth of scholarly interpretation means it becomes widely referenced as the definitive source. Such articles and books can also be powerful in pedagogic terms - giving students and the next generation of academics their 'route maps' into ideas and interpretation of the literature. So 'classics' are classic because teachers and textbooks cite them as such. The longevity of the work can also award 'classic' stature as ageless pieces that every serious student and new scholar must read (although many do not!). A piece of work can also be elevated to the prominence of a 'classic' because it provides a convenient shorthand signifier for a much large body of scholarship by one academic or research group; it

becomes the totemic masterwork of a lifetime of research. This is particularly the case where scholarly reputations inflate and evolve after the death of the person concerned. One could argue, for example, that J.B. Harley's 'classic' article *Deconstructing the Map* (Chapter 16), which was published shortly before his sudden death in 1991, has subsequently been cited oftentimes as a summary of his larger body of work on the politics of maps.

'Classics' can also emerge because what they say becomes the centre of controversy, either by accident or deliberate design by the author. Such pieces can spark a flurry of responses and commentaries in journals - and now online discussions and blog posts - and also generate an inflated citation score. While sometimes pieces can become a 'classics' because they got things wrong and are seen as prime exemplars of how misguided scholars were in the past. Others become elevated as talismans of failed paradigms or as placeholders for politically unacceptable viewpoints of previous generations (e.g. in political geography dealing with the overt colonial ideologies of past in Halford Mackinder's writing with its infamous 'Heartlands' mapping, Blouet, 2005; or the racist agenda underlying the cartographic analysis of W.Z. Ripley, Winlow, 2006).

This kind of revisionism also begs the questions, is 'classic' a permanent state - once its achieved, does it remain forever more? Perhaps it is less so now given the extent to which theories seem to change with fashion and the rapidity of cycling through research agendas in contemporary social science scholarship. Consequently, 'classic' status must be regarded as provisional: a touchstone piece for the in vogue paradigm can become moribund as the core research agenda shifts and it is superseded by other, better - or perhaps just different - work. And, one of the interesting academic games is to try to find such 'lost classics' and resurrect them to bolster a newly emerging perspective.

Beyond these intellectual issues, subjective judgements and temporal fluctuations, there is a panoply of projects that seek to 'scientifically' assess the most significant scholarly work using citations counts, impact factors, h-scores and an assortment of other quantitatively derived metrics. Such calculative 'classics' seem to offer objectivity, but this is very much a veneer that masks a whole host of messy realities, fallacies and contingencies with quantitative approaches, particularly relating to relative comparability through time and across subject areas. As anyone who has used citations knows, the major databases recording them are also incomplete, with varying coverage over time, by language, publishing formats and academic disciplines. The partiality of the data sources is easily highlighted in their inconsistencies when comparing citation scores for the same article across the three main databases (e.g. citations to my 2007 paper *Rethinking Maps*: ThompsonISI's Web of Science: 13; Google Scholar: 32; Elsevier's Scopus: 17). Moreover, the practices and intellectual significance of citations varies across scholarly domains, which means measuring 'classics' absolutely, in quantitative terms, across subjects areas is unworkable.

Yet these acknowledged flaws in citations do not stop a significant degree of fascination with such metrics by academics (particularly, perhaps, by those who seem to have high scores or want higher ones!), by promotion committees, grant giving bodies and government funding agencies. Increasingly over last decade, quantitative assessment of the significance of published work has figured in efforts to systematically profile academics, allocate funding amongst departments and rank institutions in the name of improving quality, rewarding so-called research excellence and achieving greater value for money. It is interesting to ponder how cartographic research - with a relatively small core body of active scholars and particular