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Progress in Human Geography 2004; 28; 381

DOI: 10.1191/0309132504ph504pr

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Cartography – cultures of mapping: power in practice

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A book about geographical imagery which did not encompass the map would be like Hamlet without the Prince.

Harley, 1988: 277

For my last progress report, I have chosen to focus upon changing approaches to map use and mapping practices. I am prompted by the appearance of several theme issues of journals and a number of important books to focus in greater detail on recent research linking culture to the mapping process and in particular to some of the changing ways in which the power of mapping is practised, contested and subverted, but also by a recent resurgence of public interest in the history of mapping, shown by the publication of mass-market 'mapping tales' relating biography to histories of cartography. The former are increasingly informed by a nonrepresentational theory that is at once critical but also concerned with culture and politics, while the latter reflect a continuing public interest in the iconic role of maps in geography, seemingly at variance to geographers' contemporary obsession with writing and theory.

This variance forms the second theme in this article. Theoreticians of the new critical cartography usually employ *words* to extol the virtues of socially informed critiques of mappings, leaving to other people the messy and contingent process of creating mapping as visualizations. The discursive power of the word seems increasingly hegemonic in geographic literature, despite geographical interest in the visual and occasional clarion calls to the contrary (e.g., Lilley, 2000). Analysis and deconstruction predominates over creation.

The central argument of this piece and the justification for printing an extravagant, contested and complex mapped image in this review straddles these two themes. How have geographers' cartographic anxieties related to other envisionings, and to the increasingly confident literature emerging around enacted performative mappings and practices? How might everyday context, culture and practice relate to the

writing of ethnography and the emerging tenets of critical cartographies? It seems appropriate to start out with some consideration of how mapping as visualization might fit in to the 'world of the words', but also into how and why cultural geographers seem to be privileging other visual media over mapping. What better way to start than with a map as metaphor for my story?

I 'Tis folly to be wise ...

The foolscap map in Figure 1 has long been valued by collectors of cartography as a curiosity or enigma, anonymous and ambiguous, but an object of desire to be valued, acquired and explained (Tooley, 1963). The iconic power of this kind of image and its *difference* have led to its reproduction as a postcard, in several visually rich histories of cartography (e.g., Whitfield, 1994) and on the front cover of at least two recent books (Turnbull, 2000; Cameron and Palan, 2004).

The image itself was probably first published in the 1590s and reappeared regularly in differing shapes, incorporating and refitting updated details onto a cordiform projected version of Ortelius's world map in a jester's head (Mangani, 1998). The title of the map translates as 'know thyself', while the cartouche suggests it was drawn by Epicththonius Cosmopolites – 'everyman indigenous to himself' (Shirley, 1982). Mottos on the image emphasize the universality of folly and the folly of worldliness.



Figure 1 Foolscap map

Just as the Ortelius map was a cultural document, a creature of its time and place and embedded with other imagery, so is the foolscap map figured by its time. Its success depended upon the very certainties it mocked, for without the phenomenal advances of late sixteenth-century geographical knowledge and of modernist mapping there would be no need for the joke.

The joke no longer resonates as it would to a sixteenth-century audience: language needs to be translated and ambiguous meanings teased out for the striking visual power to be apprehended. It is none the less the visual juxtaposition of map and mind and the iconic force of the image that has encouraged contemporary critics to employ the foolscap for their own purposes.

Historians of science have used it to draw attention to the constructed nature of scientific and mapping discourses, employing the map to stress reflexive approaches to knowledge, the world apparently carried around in the head of a fool, imagined and embodied in the form of the trickster, the spirit of disorder. This reading clearly pokes fun at authority, certainty and the all-knowing myth of modernist scientific explanation (Turnbull, 2000). Economic geographers have used it as a metaphor for imagining globalization (e.g., Cameron and Palan, 2004). Literary and historical critics have sought to read the image as a contested contemporary cultural text reflecting changing intellectual culture. On the one hand urging us to beware the siren calls of modern certainties by recognizing subjectivities and heeding the words of its title 'know thyself', but on the other heeding the words of the cartouche 'tis folly to be wise', the image might be read as a wry reflection that all the world deludes itself, as well as a critique of reason (Helgerson, 2001).

In this article I am using it as an iconic map image, juxtaposed to wor(l)d(l)y matters and inviting you to reflect on its status. Notice how the image might be a prisoner of my words, captioned off as a safe adjunct to discourse, a figure to be explained but also an icon on its own, positioned to problematize this review of a changing field. The words in my argument are part of an article that has to fit in with a journal's editorial policy. The image is in part a prisoner of the medium in which it is presented, but with a separate power of its own.

The foolscap might stand for the folly of ignoring the 'millionaire' view of geography as placial, factual and maplike. 'Mapping tales' and their popularity attest to this view: biographical histories of cartography aimed at a mass market have sold well in the last few years, for example Dava Sobel's *Longitude*, Simon Winchester's biography of William Smith, Nicholas Crane's retelling of the story of Mercator, Paul Binding's biography of Ortelius, Hartley's story of Phyllis Pearsall, the founder of Geographers A-Z, and Miles Harvey's masterly detective story exposing map theft (Sobel, 1996; Winchester, 2001; Crane, 2002; Binding, 2003; Hartley, 2001; Harvey, 2000). Everyday perceptions of the discipline do after all still emphasize factual information, not theory, and the map almost stands for the discipline itself: geography in the street is still about maps and places.

On the other hand the foolscap is clearly a complex and contested icon, polyphonous and ambiguous, with meanings changing according to cultural practice. Perhaps it can stand as a metaphor for mapping itself; as a contested part of visual culture employed when needed, but often elided in diverse geographical practices.

II Words before pictures before maps: the selective elision of the visual

Thinking about what to observe and how to observe ... has long been integral to the theory and practice of geographical knowledge.

Driver, 2003: 227

The ways in which geographers engage with visual culture are no longer taken for granted: research throughout the 1990s has charted the changing significance of vision in geographical thought (Sui, 2000) and explored methodologies for investigating the visual (Rose, 2001). Mapping has clearly also not been immune from the deconstructive turn (see my previous overview for an interrogation of the diverse theoretical positions adopted in analysing mappings (Perkins, 2003a) and the edited volume from Cosgrove (1998) reflecting the diversity of social and historical contexts in which mappings have been analysed). However, these contexts and the diverse roles that mapping plays remain the focus of a narrow group of researchers, often isolated from the mainstream of social and cultural geographic practice.

Many geographers who do profess a critical and cultural interest in the visual often ignore mapping. Social and cultural geographers have mostly been more concerned with reading other visual media and especially focusing on the naturalistic power of the photograph or the figurative potential of the artistic image, as static portrait or moving filmic image. Mapping practices have been strangely absent from much recent theorizing about the visual. For example Rose (2001) compares different approaches to the visual, drawing in the main upon pictorial representation, photography, advertisements, film and museum displays, but almost completely ignores maps. A series of articles published in *Antipode* in 2003 interrogates geographical engagement with the visual and how geographical knowledges are constructed in the academy. Rose (2003) focuses upon the performative role of the slideshow in the construction of geographical knowledges and a number of responses are made to this argument. Driver (2003) emphasizes the longevity and diversity of geographers' concerns with the visual, but urges more attention to the ambivalence of visualization; Matless (2003) disputes Rose's preoccupation with the hegemony of the single-slide projector in the dissemination of geographical knowledges and argues for a more complex, nuanced and participative potential of the geographical lecture; a view largely supported by Crang (2003) who argues that Powerpoint might be a more appropriate subject for analysis than the slideshow. Ryan (2003) criticizes Rose's assumptions that slides are necessarily pictorial and argues for more creative encounters with the visual. This suite of arguments nicely illustrates the continuing emphasis on pictorial representation and the elision of mapping from our engagement with geography's contemporary visual practices.

Most human geographers see maps and visualizations as techniques, not as central geographical practices, and indeed Crang (2003) argues that, despite ongoing critique of the role of vision in the construction of geographical knowledge, almost all visual representations are still used as evidential support to theory. Compare, for example, the ways in which two recent student texts portray the field. Clifford and Valentine (2003) include a chapter on cartography and visualization that seeks to encourage best practice in the design of maps by undergraduates: mapping becomes a method and tool rather than discourse itself (Perkins, 2003b). In contrast, Holloway *et al.* (2003) focus upon concepts, and their contributing authors almost completely ignore mapping and visualization. Mapping remains a technology to

support the words, but generally unworthy of serious disciplinary conceptual consideration. There has indeed been no serious historiography of the role mapping plays in the creation of geographical knowledge in the academy. This orthodoxy is of course passed on to our students who learn to employ maps to display results and support ideas from lecturers who project slides of maps in Powerpoint displays to illustrate arguments. Words are more weighty than images in both teaching and research.

Mapping and visualizations have become increasingly marginalized from the mainstream of human geographic discourse, at the very time when GIS tools have allowed significant advances in scientific geographical analysis and the easy creation of data-rich map displays. There are fewer maps in mainstream geographical periodical publications than was the case a generation ago, even though technologies allow much easier creation of mapping, and even though more maps have been created and served over the web in the last decade than in the whole of the history of cartography! Four years ago Ron Martin charted a decreasing use of maps in geographical journals, with only 50 pages of *Transactions* in a five-year period comprising mapping (Martin, 2000). Geographers continue only rarely to employ the map as a visual image, with more recent parts of journals similarly sparse in their mapping content. In many ways *Progress in Human Geography* is the extreme case. By focusing upon extended overviews and bibliographic detail, the journal only rarely strays beyond the written word. The image with this article is the first visualization to be used in any of the progress reports on cartography in the last 20 years, despite their focus upon the visual! Despite arguments for a social cartography employing visualizations to destabilize accepted categories (e.g., Paulston, 1996; Moretti, 1998; Pickles, 1999), most geographers prefer to write theory rather than employ critical visualizations.

III Ethnographies of mapping practices

A philosophical shift away from representation and towards action (for an overview in this area, see Thrift, 1999; Nash, 2000) has been paralleled by a greater concern with the context in which mapping takes place, and the ways the cultural text of the map is performed. Contextual approaches have increasingly emphasized the interplay between history, geography and social or literary studies. Sparke (1995) is a good example of this kind of research. Informed by postcolonial theory he draws attention to the intertextual field of mapping of native peoples in Canada, with case studies of the complex interplay in which native mapping of Newfoundland was created, appropriated and practised in struggles over identity. Other historical studies also increasingly emphasize mapping as part of a suite of material or cultural processes, rather than focusing upon artifact or representation (Cosgrove, 1998). For example, Yonemoto (2003) charts the changing ways in which mapping 'worked' in the early modern Japanese context, arguing against simplistic Andersonian notions of a hegemonic role for universalizing modernist cartography in the development of nationalism. Hostetler (2001) explores ethnographic practices in Qing China, with a similar focus upon local complexity. Schulten's study of the changing geographical imagination in America also emphasizes practices and the work of mapping in a suite of geographical and cultural texts (Schulten, 2001).

Edwards (2003) contrasts materialist readings of early modern mapping that emphasize the particular, with more abstract and universal notions associated with the relations of mapping to other cultural texts.

The difficulty for historians of cartography concerned with practice is of course that maps as artifacts have tended to be preserved and institutionalized, whereas evidence of mapping practices is less likely to have survived, or is harder to establish (Hendrikson, 2001). There are, however, great possibilities for *contemporary* investigation in this area and ethnographic methods are being used to understand process and practice in several contemporary contexts. Early examples of this approach include Hugh Brody's journeys and mappings among the First Peoples of British Columbia (Brody, 1986), Denis Wood's ethnographic work with children as mappers (Wood, 1993) and Benjamin Orlove's study of resource struggles and contested mappings in Bolivia (Orlove, 1993). Recent ethnographic approaches have investigated everyday social experiences of places and the role that mapping practices play in identity and knowledge construction. Some have focused upon the significance of movement in the construction of identity and used this to critique a representational approach to mapping and wayfinding. For example, Tim Ingold in a masterly chapter repositions mapping as 'the narrative re-enactment of journeys made and of maps as the inscriptions to which such re-enactments may possibly give rise' (Ingold, 2001: 155). Brown and Laurier (2004) use video evidence of day-trippers planning a car outing to advance a reading of mapping that is informed by the complex negotiation of identity in a social context. Other ethnographic approaches have focused upon tourist and leisure mapping. Brown (2004) investigates how tourists use maps and guidebooks to inform their sense of place, while a recent book draws together diverse mappings of tourist mapping practice (Hanna and del Casino, 2003). Three chapters in this interesting selection particularly emphasize ethnographic approaches to mapping: Delyser (2003) employs participant observation of tourist behaviour in relation to their experience of a heritage tourist attraction mapped out in a self-guided trail guide; a more contested and ambiguous ethnography is offered by Curran (2003) who demonstrates marginalized working-class identity in her study of the relations between tourist and environmental discourses mapped out in two visualizations of a western mining town; while Till (2003) explores the ways in which new Berliners relate to the rebuilding and remappings of their city.

An ethnographic approach reorientates theory so that mapping becomes a social activity, rather than an individual response. Recent studies in the context of leisure illustrate this emphasis. Perkins and Gardiner (2003) employ video evidence to explore how visually impaired people read tactile maps in the real world, but stress how reading depends upon the interaction between researcher and the blind map user and that use does not always constitute reading. Perkins (2004) examines the social function of golf-course 'planners', which serve as functional guides to hole layout, but also as 'actants' redeployed in remembering and narrating the course and game. Such a social approach fits in well with contemporary evidence of mapping practice in web-based environments where production and consumption of visualization is increasingly collaborative (MacEachren, 2000; 2001; Dykes *et al.*, 2004). The web offers huge potential for bringing together mappers as users in collaborative projects grounded in space. Ethnographic studies have also focused upon the behaviour of those creating contemporary interactive mapping, such as Schienke (2003).

IV Critical cartographies

A 'critical' trend is running in parallel to the increasing emphasis upon ethnographies of mapping practices: theorists are becoming more concerned with how the cultural practices of cartography might be unpacked, and with assessing the social significance of these actions and representations.

Brian Harley's work continues to be a major influence in this area. Late in 2003, John Pickles published his long-awaited critical analysis of the historical practices of cartography, drawing upon social theory to chart the constitutive practices of mapping and the ways in which the 'over-coded' world has been mapped in different modern mapping projects (Pickles, 2003). He draws upon Harley's social critique of mapping but also extends these notions to mapping practices in the digital era. Jeremy Crampton has also built upon Harley's calls for a more social cartography in a series of papers emphasizing the need for critical approaches to mapping. He calls for an ethical approach to online mapping (Crampton, 1999) and charts changing academic approaches to mapping from the decline of the cartographic communication to the rise of representation and Harleyian views of the map as a social construction (Crampton, 2001). In a more explicitly theoretical piece, he argues for a critical politics of mapping grounded in the historical production of knowledge, and employs Heidegger and Foucault to map out a politicized project for mapping as a technology and practice that problematizes and involves struggle (Crampton, 2002). This call for a critical practice echoes work on theorizing praxis in multimedia-based mapping by John Krygier (1999). Other work is more critical of Harleyian ideas. Saul Albert (2003), for example, emphasizes analogies between critical cartography and actor-network theory as reflected in the work of Bruno Latour and Michel Serres.

Other critical research also seeks to map out the role of representation in urban contexts. Miller (2003) casts renaissance city maps as a celebration of art and the rise of civic humanism, while Joyce (2003) analyses the urban mapping impulse in Victorian Britain as a reflection of the rule of freedom and of Foucauldian notions of governance.

Technological change has also been a key focus for critical studies. Theorizing the social role of GIS continues to be an important research area and largely beyond the scope of this piece. However a recent emphasis upon the role of gender in visualization is an important new trend in this field (e.g., Kwan, 2002a; 2002b; McLafferty, 2002). Another central theme explores the relationship between the state, the individual and visualizations: how the state has employed surveillant geographical technologies such as remote sensing, GIS and digital mapping and the impacts of technological transitions on individual privacy. Monmonier (2002), for example, charts the increasing use of geographic data, satellite imagery and location tracking in law enforcement, military intelligence, traffic engineering and market research. Cloud (2002) relates recent technological transitions in cartography to the military imperatives of the cold war and argues for a convergence of secrecy, mapping and power in this era. Postnikov (2002) explores the changing relationship between Soviet mapping and the state as reflections of military power. Crampton (2003a) seeks to explore the links between state power and technology by evaluating security and surveillance practices to Foucauldian state rationality, in the context of post 9/11 security discourse and crime mapping.

Vujakovic (2002) maps out some of the ways in which the media visualize these security discourses.

Political opposition to surveillance has increasingly focused around using the web to disseminate sensitive information mapping of the nexus of global power. Key loci for finance capital have been mapped as part of anti-globalization protests in London (e.g., Corporate Watch, 2003), and the relationship between protest, economy and heritage identities charted in the context of anti-globalization protests in Quebec (Shields, 2003). Networks of global power are being visualized in an ongoing French mapping project (Holmes, 2002). The web links together oppositional communities and is being used to disseminate alternative mappings, for example by 'eyeballing' secret sites (Dodge, 2003). It also impacts upon geographic literacy (Krygier and Peoples, 2003).

The increasing social reach and sophistication of internet-served mapping also continues as a fertile ground for growing critical theory. Harpold (1999) offers an influential critique of web-based mappings as metageographic constructions. Dodge and Kitchin (2000) seek to expose the cyberboosterism and techno-utopian underpinnings of maps on the web. Others argue that location-based technologies are leading to an increased emphasis upon the real-world links to cyberspace (e.g., McClellan, 2003). Two contrasting books published in 2003 emphasize the ongoing methodological debate around mappings of cyberspace. Peterson (2003) brings together a largely acritical set of papers about the nature of maps on the internet, whereas Crampton (2003b) articulates a much more critical and political view of the medium exposing how we map ourselves onto cyberspace.

Such an embodied view of mapping practices has also attracted increasing critical attention in the context of artistic mappings. Theorists from the history of art have begun to explore the nature of 'nonartistic' visualizations such as mapping (e.g., Elkins, 1999). Relationships between mapping and other media have been charted out, for films (e.g., Bruno, 2002); literature (e.g., King, 1996), personal imagined geographies (e.g., Harman, 2003) and landscape art (e.g., Casey, 2002). Artists' pre-occupation with mapping has been used to theorize contested worldviews (Silberman and McDonnell, 2000; Bender *et al.*, 2002), the relationship between the body, art, mapping and digital media (Silver and Balmori, 2003) and the impulse to escape embodied gendered and racialized subjects through scientific mapping projects (Piper, 2002). Artistic communities seem to be increasingly interested in psychogeographical engagements with urban life.

V Conclusions

This review demonstrates a great contrast between practices inside the discipline and our appreciation of mapping in the outside world. The rich diversity of investigations of mapping practices and their role in the construction of geographical imaginations, as well as the fruitful theoretical opportunities offered by critical approaches to cartography, contrast strangely with a neglect of critical consideration or detailed ethnographies of our own mapping practices inside geography. Isn't it time to resolve the difference between street and academy by reclaiming mapping? And isn't it time to reinstate the Prince of Denmark and subject his performance to a critical eye?

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