

Thinking Philosophically in Cartography: Toward A Critical Politics of Mapping

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The purpose of this paper is to examine some of the context in which mapping is practiced and thought about. I shall make several points. First, our present context is historical and arose from identifiable events that help shape the way mapping takes place today. But every context allows some possibilities and closes off others. Second, our current context is based on a Cartesian–scientific worldview which casts maps as communicators of spatial location. One consequence of this is that we do not take account of maps as helping us find our meaningful place in the world. Third, examining this context as a horizon of possibilities is itself a political project. Finally, some possible components of such a “politics of mapping” are sketched out that might let us understand our horizon of possibilities in order to expand it.

Keywords: Critical politics of cartography, Heidegger, Foucault

Missing from [Kant's critiques is] the mode of understanding itself, a volume devoted to the rhetorics of how we make sense of the world and of how we share that sense with others. Its provisional title: A Critique of Cartographical Reason.

—Gunnar Olsson (1998, 152)

Horizons of Possibility

This paper asks the question: what are the historical conditions of possibility for thinking cartographically? Our present context is historical and arose from identifiable events that help shape the way mapping takes place today. But every context allows some possibilities and closes off others. What is it possible to think and do? By emphasizing that these are *historical* conditions we are not consigning events to the past, but acknowledging that different conditions may exist at different times.

I suggest that the work of Heidegger and Foucault can shed considerable light on this question of our current context for three reasons. First, these questions can be seen as philosophical in the same sense as Heidegger's ontological project about “being.” Heidegger's constant concern with being (often capitalized in English as Being to distinguish it from *a* being) was a question not just of what exists but with being as such.¹ Being is what it means to be (a short glossary of key terms is provided at the end of this paper). Heidegger's work is notoriously difficult and strewn with vocabularies and etymologies of his own devising. Still, his ontological question does point the way towards an important emphasis on understanding being within a particular historical framework.

An historical ontology (Elden, 2001; Hacking, 2002) examines the very conditions of possibility for thinking itself, in order to widen those conditions and increase the possibilities for human freedom. Putting it like this should tip us off to the fact that rather than armchair philosophizing this project is a politics, in this case a politics of mapping. Why? Because politics looks for the capability and grounds for intervening in the produc-

tion of (spatial) knowledge, as well as for resistance to established power relations. Politics and philosophy (in this case ontological thinking) are both involved. Foucault's "problematizations" are another way of doing historical ontology as we shall see.

Second, Heidegger's project is relevant to cartographers because he argued that enquiry in general was dominated by a scientific approach that obscured essential aspects of how things are. Although Heidegger was writing in the 1920s and 30s there is no particular reason to suspect that scientific mentalities have become less dominant, either generally or in cartography. Yet Heidegger was not anti-science. He would grant that there are many wonderful insights and achievements in science. However, these are largely confined to the physical sciences. He was doubtful whether the "human sciences" could be conceived in the same manner. Because cartography, mapping and GIS are at the intersection of science and human science, and are also practices and technologies, it is a particularly fascinating question to see how it has proceeded in this light. Brian Harley asked us much the same question: "are [cartographers] concerned at all with how maps could answer the Socratic question 'How should one live?'" (Harley, 1990, 16). Or does that political question pass us by as we concern ourselves with accuracy and interoperability? Harley's own reply is pessimistic, but perhaps he was too quick to judge. In any event, the success, goals, and problems of cartography's Cartesian tradition can be assessed by Heidegger's critique.

Third, Heidegger and Foucault were acutely aware of the importance and centrality of space in their thinking. Heidegger for example understood our being as one of being-in-the-world and was interested in place, distance, nearness and spatiality (see eg., section 22 in Heidegger, 1962). Foucault's concern with space in terms of its power-knowledge relations has also long attracted interest from geography (eg., Driver, 1985; Philo, 1992) and cartography (Harley, 1989). Both Heidegger and Foucault play key roles in a larger project of "the politics of space" (Elden, 2001; Hannah, 2000; Harvey, 2001).

In Gunnar Olsson's essay quoted above he makes a striking observation: modern thinking (he calls it by the more technical name: reason) is cartographic and we need to examine this thinking, this rationality (see also Olsson, 2002). No doubt Heidegger and Foucault are not the only writers we could turn to if we want to understand mapping. What is important here are not the exact details of their writings but how their writings can cast light on mapping. The three reasons given above; highlighting the political conditions of possibility, a critique of cartography's Cartesian tradition, and a concern with spatiality let us see what Olsson meant by a cartographic reason or rationality—our current context.

Theory and Practice in Cartography

What is our current context in which mapping takes place? One aspect can be examined by understanding the relationship between theory and practice. More than a dozen years ago Harley argued that cartography artificially divided theory and practice. At that time his concern was cartography's social relevance and its "theoretical isolationism" as he called it (Harley, 1990, 1). Mapping is often granted conceptual (theoretic-philosophic) and practical status (its practices). We distinguish between *understanding* maps and *using* maps. But there is all too often a failure to grasp how theory and practice affect each other. For example, maps are often used unreflectively for instrumental ends, to make things happen, while on the other hand some social theorists think of maps as repressive,

"What is our current context in which mapping takes place?"

and dangerously powerful, implying that we should use them only very reflectively.² Elsewhere these positions have been characterized as “theory avoiding” and “theory embracing” (Crampton, 2000). Both have proved useful to their adherents, but both are only part of the story we can tell about mapping. Perhaps the way we use maps affects how we understand them? Perhaps then if we can’t put maps into practice we gain only a limited understanding of them. (This has immediate consequences for the history of cartography because we cannot use historical maps in the context in which they originally existed.) By questioning our boundaries of thinking Harley was initiating what we can call a politics of mapping.

It’s not very usual to think of mapping as a politics. That maps sometimes have a political dimension, such as propaganda maps, advocacy maps or public participation GIS, yes; but that the practice of mapping itself (as the production of geographic knowledges) is a political project? That is not so clear. Perhaps our responsibility should be to make maps as a-political as possible. Certainly it was not too long ago when cartographers could explicitly state that there should be as little “intrusion” of politics (ideology) into mapping as possible.³ And attention to mapping from those interested in the politics of space has also been intermittent. The journal *Political Geography*, for example, editorialized on Harley’s death with the comment that “there has been no sustained effort to understand the meaning of maps for the political processes we research” (Taylor, 1992, 127). The journal understood that maps produce spatial knowledge and that this fed directly into and informed politics, but regretted that this topic had been so overlooked.

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The opposition and neglect of this topic arises in part from an attempt to conceptualize cartography as purely technical, but it goes further than that. It also depends on the constitution of cartographic knowledge as an *a priori*, that is, as beyond the reach of human conceptualizing (it existed “prior” to our concepts and politics and is independently true). On this view, maps represent the things in the environment themselves, and cut nature at its joints (see Andrews’ introduction in Harley, 2001 for such a view). A historical ontology on the other hand suggests that the way things are, their being, is in fact a historical product operating within a certain *horizon of possibilities*. We are in a certain contingent way and can be different. If this view is valid then a politics of mapping is not just a question of propaganda maps (maps used politically) or even a political critique of existing maps, but a more sweeping project of examining and breaking through the boundaries on how maps are, and our projects and practices with them. This is politics in a very positive sense. And it would pretty much have to be a project that was always ongoing—we would never reach a conceptualization of maps “out” of history. Heidegger signals this in the title of his best-known work *Being and Time* (Heidegger, 1962).

Harley’s attempt to address these issues (eg., Harley 1988a; 1988b; 1989; 2001) was a necessary step in bridging the intellectual gap between theory and practice, but it was ultimately unsuccessful and sadly incomplete (Harley died in 1991 at the age of 59). The reasons for this failure have been detailed elsewhere but have to do with Harley’s conceptualization of power and politics (Crampton, 2001). Harley was a new kind of cartographer, and I can think of few other cartographers before him who studied the relation between maps and power. Symptomatically he would deny he *was* a cartographer, but in fact his work can be understood as making it possible to be a new kind of cartographer. But even Harley constituted cartographic knowledge as *a priori*. Thus his project became one of uncovering the layers of ideology inscribed in the map to get at the golden

nugget of truth underlying it all. On this view, power is repressive (a view never held by Foucault for all that Harley appealed to him). Since Harley's death, progress toward a critical politics of cartography which bridges the gap between theory and technology has been sporadic or carried out under other names—yet it has never entirely disappeared (see Yapa, 1991; 1992; Edney, 1993; Pickles, 1995; Cosgrove, 1999; Harvey, 2001; Black, 1997; Elden, 2001; Monmonier, 2001). What is at issue, but which has not yet been clearly articulated in this work, is a critical politics of mapping, rather than just a political critique of existing maps (more on this below).

Harley's fruitful contribution was to ask the vital question about what mapping is and could be, and like Heidegger to set us on the path of questioning its possibilities. That's why Matthew Edney called his obituary of Harley "Questioning Maps, Questioning Cartography, Questioning Cartographers" (Edney, 1992). But surely other cartographers and geographers have also thought about what mapping is? Arthur Robinson, for example, even co-authored a book called *The Nature of Maps* (Robinson & Petchenik, 1976). Was this not about the being of mapping? The longer answer to this is suggested in the next section but the short answer is that Robinson and Harley's projects were different because Robinson tried to describe how maps are, whereas Harley asks why maps are as they are, and how else they can be. It is this latter project which is the political one.

It is a key argument of this paper that maps and GIS are important sources for the production of geographic knowledge. What are the power-knowledge relations of mapping as they occur against the historical horizon of possibilities, and how that horizon can be enlarged. This is a question of the historical formation of mapping concepts (eg., about cyberspace) as an epistemology, and the possibilities that are given to us for the being of those concepts, or an ontology. In other words, theory and practice.

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The Fisherman's Problem: ontic and ontological knowledges

What does it mean to open the question of the conditions of possibility for cartography, and how does this constitute a question which is philosophical and political? To provide an initial response to these questions we can go back to a distinction between two types of knowledge that were important to Heidegger's work (see Heidegger, 1962, §4):

1. Ontic knowledge, which concerns the knowledge of things as such; and
2. Ontological knowledge, which concerns the conditions of possibility for ontic knowledge.

For example the question "how old is the Vinland map" is an ontical question, whereas "what is the mode of being of maps" is an ontological question. The first question may be addressed and resolved by science, but not the second (Polk, 1999, 34). Elden adds that "Heidegger's own exercise of fundamental ontology deals with the conditions of possibility not just of the ontic sciences, but also of the ontologies that precede and found them. This is the question of being" (Elden, 2001, 9). Heidegger's distinction suggests that ontical enquiry often characterizes disciplinary work because it can be addressed scientifically. In the discipline of cartography for example, we enquire how to satisfactorily generalize and symbolize landscape features, or which projection best reduces distortion. But this ontic language of science and objectivity itself takes place within a conceptual framework (ontologically). We can call this the fisherman's problem,

using an insightful metaphor from Gunnar Olsson: “The fisherman’s catch furnishes more information about the meshes of his net than about the swarming reality that dwells beneath the surface” (Olsson, 2002, 255). The fisherman certainly catches real fish that were in the ocean (that is, ontical enquiry certainly can say truthful things about the real world). But if he tried to say something about the reality of the denizens of the ocean, his explanation would be related to the size of his fishing net. He wouldn’t have much to say about whales or sharks, nor about sea anemones. The net therefore plays a double function of both revealing things about the sea and hiding or concealing them. For Heidegger this double function of unconcealing–concealing is an abiding aspect of our understanding of being. If Heidegger is right then studying maps and mapping would seem to include as much about what maps can’t or don’t do as what they can do. This is why Harley spoke of the silences of the map (Harley, 1988b).

If we now go back to the difference between Robinson and Harley we can see that where the former described the fish in the net, the philosophies of Foucault and Heidegger are concerned with the net itself. Harley also asked about the net. What does the net catch? Do we like what it catches? Have other places or times had other kinds of nets which caught different things? What do we suspect the net to be unable to catch? How can we change the net to catch other things? According to Heidegger our present “ontological net” is critically flawed because it sets up being in a very scientific way. We like to measure things and treat them as objective presences on the landscape that can be re-presented. Again, this critique of science should remind us more of Harley than Robinson.

The ontic–ontological distinction is a familiar one in the history of philosophy, dating back to Descartes and Kant. When Heidegger took it up, he distinguished between living life as such (making choices against a background of possibilities) for which he coins the term “*existentiell*” understanding, and the questioning of what constitutes existence and the structure of these possibilities, which he calls the “*existential*” understanding (Heidegger, 1962, §3–4). This *existential* understanding is one directed toward the meaning of being. Heidegger begins his book by stating that we are very far from answering the question of what an existential understanding might be; so far, in fact, that the very question itself is forgotten (Heidegger, 1962, §1).

These bewildering terms might make us wonder why it’s worth worrying about the “being of maps.” Why not study concrete maps that actually exist? Heidegger’s response is essentially to refer us once again to the fisherman’s problem. Sure, we could study the contents of the net. This is what we do when we study maps and mapping, especially from a scientific viewpoint. It is ontical enquiry about things. But the only way to know anything meaningful about the nature of the ocean is to understand our conceptual framework from within which we understand that ocean—to look at the net itself. This ontological looking means thinking about being as such, including the being of maps. The fact that it sounds strange to say this (“the being of maps”) is just one indication that we hardly ever think this way, that is, philosophically. Perhaps if we do so, we can open up a new and productive dialog about mapping.

How we might do philosophical thinking

What is philosophy today—philosophical activity I mean—if it is not the critical work that thought brings to bear on itself? In what does it consist, if not in the endeavour to know how and to what extent it might be possible to think differently, instead of legitimating what is already known?

Foucault, 1985, 8–9

If we grant that the ontic–ontological distinction is helpful, it is still not immediately apparent how ontology might be carried out in cartography. And what about ontical enquiry? If the whole way maps can be is expanded, it seems as if the ontical questions would have to change too. Since ontological thinking is rare and neglected (according to Heidegger) there won't be many examples to draw from. Luckily there is one well-known example that we can examine that picks up where Heidegger left off. Even better, it is directly relevant to cartography. The following is an extract from a lecture in November 1983:

Most of the time a historian of ideas tries to determine when a specific concept appears, and this moment is often identified by the appearance of a new word. But what I am attempting to do as a historian of thought is something different. I am trying to analyze the way institutions, practices, habits, and behavior become a problem for people who behave in specific sorts of ways, who have certain types of habits, who engage in certain kinds of practices, and who put to work specific kinds of institutions. The history of ideas involves the analysis of a notion from its birth, through its development, and in the setting of other ideas which constitute its context. The history of thought is the analysis of the way an unproblematic field of experience, or a set of practices which were accepted without question, which were familiar and 'silent,' out of discussion, becomes a problem, raises discussion and debate, incites new reactions, and induces a crisis in the previously silent behavior, habits, practices, and institutions. The history of thought, understood in this way, is the history of the way people begin to take care of something, of the way they became anxious about this or that—for example, about madness, about crime, about sex, about themselves, or about truth (Foucault, 2001, 74).

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It is worth trying to understand Foucault's meaning here. He begins by making a claim that the work he is doing is a history, but that it is not like the history we are most typically used to. So Foucault is a historian but not a traditional one. A traditional historian is interested in the "history of ideas" or what is thought at a particular time (the *zeitgeist*, contemporary discourse, what people said at the time as recorded in newspapers, journals, writings, records; i.e., the historical "archive"). Foucault, however, is interested in how things "become a problem" or problematizations. When something which was previously unproblematic does become a problem then people start to pay attention to it, even worry about it and try to deal with it. We can pick up on these periods of problematization as times when the regular ongoing behaviors are no longer possible in the old way. It might cause "cartographic anxiety" (*Angst*) as Gregory called it (Gregory, 1994). In this sense, mapping is a problematization itself. We map because we are concerned with a certain aspect of the environment and wish to try and deal with it. A Foucauldian history of cartography would be a history of how a particular problem was taken up cartographically.

In fact, it's the fisherman's problem again. We reel in the net and find it has big gaping vents and weird bite marks over it that prevents us from fishing as normal. We begin to suspect some large beast down there that is too strong for the net, so we research ways of strengthening the net or making the mesh coarser. Or perhaps we switch from net fishing that scoops up everything, to making a distinction between fish-for-consump-

tion and fish-as-part-of-an-ecological-system. Now fishing is not just a question of extracting resources but concerned participation in an ecological system. Because of a problematization, fishing as a way of being has changed.

A good cartographic example is provided by the controversy over the Peters projection. In the decades following the introduction of his world map, Arno Peters attracted dozens of articles that were highly critical of it (Monmonier, 1995). But Peters persisted, his map was adopted by aid agencies and the World Council of Churches, and was even featured on the US TV show *The West Wing*. It was and still is a big problem for cartographers. While their approach was ontical (they pointed out all the technical reasons he was wrong) it is also possible to read the controversy as saying something defining about cartography itself (Crampton, 1994). Perhaps Peters, explicitly using the map as a politics, has made a new way for mapping to be. On this view, the cartographic opposition is inadequate, not because cartographers missed the point (their technical criticisms of Peters were certainly true) but because Peters created a new point!

Aspects of problematization include the following:

1. It is to deal with something as a problem at a particular time: for example, why did the Peters projection become such a hot-button issue at this time?
2. Second, to problematize something is not to do a history of ideas but: "to define the conditions in which human beings 'problematize' what they are, what they do, and the world in which they live" (Foucault, 1985, 10). Problematizations are an ontology, not ontical enquiries.
3. Finally, to problematize is to examine the larger truth claims of the discourses: "problematization doesn't mean representation of a pre-existing object, nor the creation by discourse of an object that doesn't exist. It is the totality of discursive or non-discursive practices that introduces something into the play of true and false and constitutes it as an object for thought" (Foucault, 1988, 257).

Problematization is an analysis of the conditions of possibility for ontic knowledge. Often these conditions remain unanalyzed and only at certain times do we question our horizons of thought.⁴ This has many fruitful ramifications, not all of which can be examined here. One important aspect however, is that every context establishes normalized ways of being. The hue and cry over the Peters projection for example was over whether it was acceptable ("normal") for a map to be like that. Normalization is a very powerful aspect of ontology because it tends to stabilize established power-knowledge structures. Normalization is often one of those negative effects of power with which Foucault is identified. When people especially are on the wrong end of normalization processes it can ruin their lives, but the response to this is not to escape from power but rather to use it productively (McWhorter, 1999). Power's positivity is an aspect of Foucault's enquiry that is often overlooked.

In the next section I provide a more extended example of how we might proceed with a problematization in cartography. The flip side of this is that when we *fail* to problematize we unreflectively work within normalization.

Problematizing the Essential Lie

In this section I would like to contrast and play off against each other two

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books by Monmonier (1996, 2001). In the first we can analyze his assertion “[n]ot only is it easy to lie with maps, it’s essential” (Monmonier, 1996, 1) to show that this very powerful statement pervades cartography, and that it produces the unproblematized ontology of contemporary mapping. By contrast, in Monmonier’s more recent book it is possible to discern some pointers towards a more critical problematization of cartographic knowledge production.

Monmonier (1996, 1) writes “[n]ot only is it easy to lie with maps, it’s essential”. There are at least three terms of significance: “easy,” “lie” and “essential.” All three terms surround a fourth, the map, which takes its shape and its being from this tripartite structure in which it finds itself. It is of the essence, it is essential, necessary, that maps lie. In order for a map “to be” a map, it must lie. Lying is in the essence of the map. Furthermore it is easy for maps to lie, it is not something which is difficult or which can only be achieved after a struggle in the sense of going against something’s nature. This ease is well-known and assumed in the statement that could thus be rewritten: “Not only (as you know) is it easy to lie . . .” *but also* (and here we introduce the new idea, which we didn’t previously know) it is essential and necessary. The natural ease of lying becomes something that is essential and important, that is, we don’t have to struggle against this natural tendency of lying, but rather should embrace it as something positive. This is further alluded to in the next few lines where Monmonier writes that “to avoid hiding critical information in a fog of detail,” in order that the truth does not get overwhelmed “an accurate map must tell white lies” (Monmonier, 1996, 1). So this positivity, this advantage to lying, is that it will yield truth. In order to tell the truth, we must lie. So any truth-telling, such as the map, comprises as an essential part, lie. A map is both lie, and necessarily and as a result, truthful. And “there is no escape” (Monmonier, 1996, 1) from this.

This is an old and essential idea in cartography. It can be found, for example, in the famous saying of Korzybski that “a map *is not* the territory it represents, but if correct, it has a similar structure to the territory, which accounts for its usefulness” (Korzybski, 1948, 58). The political consequences of this ontology of mapping are clear.⁵ Our task as mappers becomes one of deciding where to draw the line between the elements of truth and lie in the map. It is a normative ontological statement: maps “ought to be” truth-tellers. We police the boundary, we watch it, in order to make sure that there is not too much lie nor insufficient truth in the map. It becomes a question of separating the good maps, where the lie can be justified (it is just, legal) from the bad maps, where the lie cannot be justified (it is illegal, it has passed over the horizon). In this way we make the difference between USGS topographic quad sheets and propaganda maps. We’re immediately made aware of the danger of sliding away from truth-telling by Monmonier: “it’s not difficult for maps also to tell more serious lies” (Monmonier, 1996, 1). Thus in order to recognize when a map moves illegally across this border Monmonier has written this book, a text on drawing the line which is therefore an ethical text on the problem of truth in mapping.

These “dividing practices” of normalization were for Foucault a hallmark of modern thought, which for example can be seen in his work on how the mad are separated from the sane, criminals from “good boys,” the sick from the healthy. In other words it is how something gets entered into “the play of true and false.” Dividing practices are *normalizations* of cartographic thought.⁶

Monmonier’s fascinating account of the role of mapping in producing favorable electoral districts (Monmonier, 2001) illustrates the difference

“It becomes a question of separating the good maps . . . from the bad maps . . .”

between acknowledging the use of maps for political purposes and a more strongly conceived critical politics of spatial knowledge production by mapping. For most of his book, Monmonier discusses redistricting, gerrymandering, and the legal requirement that political districts achieve “compactness” (as measured through competing indices) and how these distinctions can be used to derive legitimate from illegitimate voting districts (in the legal sense). As such, his discussion is an example of how ideas act as dividing practices, especially between what is acceptable and what is not. However, in the last two chapters Monmonier turns from this historical account to explicitly question the way that modern voting districts are constituted.

Using the nomination (later withdrawn by President Clinton) of Lani Guinier to assistant attorney general for civil rights in 1993, Monmonier points out that alternative methods of electing representatives—multi-member districts and proportional representation—to the American (and UK and France) system of “first past the post” have plenty of historical and international precedence. According to Monmonier “[p]roportional voting is used extensively throughout the world, by developed countries in northern Europe and the western Pacific as well as by less prosperous nations in Latin America and parts of Africa” (2001, 144). Thus, despite the negative press Guinier received (as a “quota queen,” and a promoter of racial preferences) Monmonier interprets her as problematizing the political agenda as far as space and representational politics are concerned: “American-style elections are not a prerequisite for democracy” (Monmonier, 1996, 146). This raises the question of what prerequisites are necessary, and what the historical horizon of possibilities might permit or disallow at the moment.

Monmonier successfully “puts into play” questions concerning space and politics in real-life practical situations. As such, his work is potentially useful for a critical politics of representation and mapping, and for critical geography more generally. Monmonier does not necessarily cast his work in this light himself. But thinking critically and philosophically about mapping, space and politics does not necessarily entail taking up a position on the political spectrum. It is rather to question the essence of that spectrum and to help redefine it.

Towards a Critical Politics of Cartography

“Even . . . apparently arcane ontological and epistemological questions must be part of the debate [about cartography]. They too raise issues of practical ethical concern. Our philosophy—our understanding of the nature of maps—is not merely a part of some abstract intellectual analysis but ultimately a major strand in the web of social relations by which cartographers project their values into the world”

Harley, 1991, 13.

Harley’s words suggest that it is but a short step from questioning the bounds and limits of our lives (philosophy) to politics and that maps are an important practical component of social relations. It is an important step that connects philosophy and action.

First, maps might be sites of struggle. This struggle is a political one where knowledge and power structures meet. To understand cartography politically opens and allows intervention in the struggle over the deployment of power-knowledge effects. On the basis of these questions it is possible to imagine *new* possibilities, changes, and human being at both the individual and societal levels for cyberspace, as Guinier and Mon-

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monier indicated. As such, this is a political project where we see “the development of domains, acts, practices, and thoughts that seem . . . to pose problems for politics” (Foucault, 1997a, 114).

Second, maps may not have to produce space only objectively and scientifically, which according to Heidegger has nothing to do with how we live, our experiences, or pleasures. Maps ought to be able to play a significant role in the political project of finding our place in the world. As Harley put it “when we make a map it is not only a metonymic substitution but also an ethical statement about the world . . . [it] is a political issue” (Harley, 1990, 6). For example, if we are interested in understanding an historical map we may think we need to examine it as an object and to assess what information it may contain (eg., see Woodward, 1974). Yet this will not tell us how the map was used and lived as part of a struggle of making sense of the world. It will omit the experiential side of the map as well as any lived context in which to situate our understanding. Using or experiencing historical maps in their original context is not easy. It’s no wonder that instead we objectify maps. Yet maps are meaningful understandings of the world, not just mechanisms for communication. This point echoes a critique made as long ago as 1976 by Leonard Guelke (Guelke, 1976). Guelke argued that the focus on communication in cartography was seriously inadequate because it doesn’t take into account map meaning.

Insofar as a map is thought of as simply communicating an already known and digested *knowing*, then the questioning (of the horizon) is not permitted and is foreclosed. This very foreclosing gives the map its authority and power. But “it awakens nothing in the way of a questioning attitude or even a questioning disposition. For this consists in a *willing-to-know*. Willing—this is not just wishing and trying. Whosoever wishes to know also seems to question; but he does not get beyond saying the question, he stops short precisely where the question begins. Questioning is *willing-to-know*” (Heidegger, 2000, 22). If we use a map just because we wish to know something, to be on the receiving end of an information transmission, then we have stopped short of mapping as problematization. We have chosen to limit ourselves to thinking within the bounds of our ontology, rather than willing to know what mapping can be and how it can open up a world.

In the ontic cartographic practice so far established the best maps are those which are the most conclusive, the ones which most authoritatively communicate the truth of the landscape (an authority which is vested in their adherence to the rules, rules which are at this particular historical juncture provided by science). But what we aim for here are maps that willfully challenge normalization. For from this questioning comes the possibility of an unfolding of the being of maps and mapping. In the remainder of this article therefore I wish to suggest or open up some possibilities which might contribute to a critical politics of cartography by posing two major questions: why pursue a critical politics of cartography; and second, of what does it consist?

Why pursue a critical politics of cartography?

We can begin this question by identifying a necessary linkage between the political and the spatial, a linkage that is essential, rather than just an occasional political option. The manifold relationship between space and politics has been examined elsewhere (see eg., Elden, 2000) but we can gain a flavor of it by returning to the origin of the word “political.” What did this word mean for the Greeks? As Sallis puts it, referring to Plato’s

cosmological dialogue the *Timaeus*:

How is it, in particular, that reference to the earth belongs to political discourse? The answer, most succinctly, is: *necessarily*—taking necessity to have the sense it has in the *Timaeus*. Discourse on the city [*polis*] will at some point or other be compelled, of necessity, to make reference to the earth; at some point or other it will have to tell of the place on earth where the city is—or is to be—established and to tell how the constitution (*politeia*) of the city both determines and is determined by this location” Sallis, 1999, 139

The political then originally meant how we should live, and how we should arrange the city (or place or site) in which we need to dwell. To use Heidegger’s phrase, we are concerned with our being-in-the-world. At the beginning of this paper I suggested that Heidegger brought a geographic sensibility to light, and here we can see why. The spatial in the sense of this *polis* constitutes the political. Here we are very close to phenomenological enquiry in geography (eg., Pickles, 1985). Elden elaborates:

In his rethinking of the [*polis*], Heidegger makes a potentially major contribution to political theory, by suggesting the links implicit in the phrase ‘political geography.’ Following Heidegger, we might suggest that ‘there is a politics of space because *politics is spatial*’ (Elden, 2000, 419, original emphasis).

Elden’s work (see also Elden, 2001) is critically important here because he recovers from Heidegger the idea of the *polis* as the site of human existence (an idea which was lost when *polis* was simply translated as “city” or “city-state”). The *polis* rather is the site and abode of human history. As a spatialized entity (site, abode) it is what constitutes the political and allows us to rethink it. Maps, because they “make reference to the earth” are part of this constituting. Maps *produce* knowledge through mapping practices, but as problematizations their knowledge is always in a certain context, is normalized, in a power relation, and therefore for all these reasons, political.

It is precisely not a question therefore of examining “the” political in mapping, which is how the question has been framed until now. It is not a question of “looking for” the political in maps, for this would be to assume an a priori realm of the political which is sometimes injected into maps and which makes their content political. On this view we are misled into uncovering this political content, which is the project I argue Harley pursued. On the view I am discussing here, the project is rather to

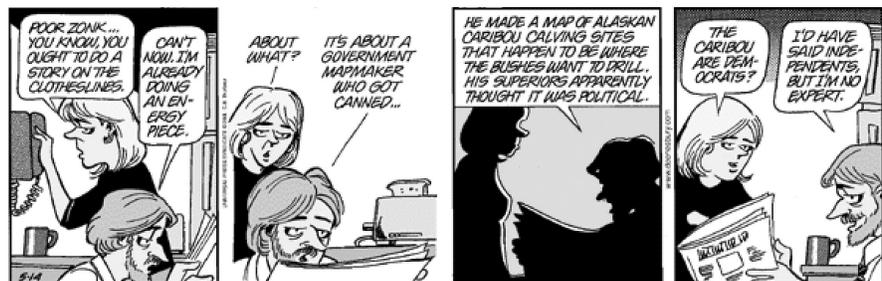


Figure 1. In this Doonesbury cartoon, the joke is dependent on a distinction between the content of the map being political (caribou-as-Democrats) and the position of the map within a political situation and how it helps constitute that political situation. (Used with permission of Universal Press Syndicate.)

investigate and reveal how mapping necessarily produces the political, and how rethinking mapping can lead to a rethinking and questioning of the political. This as such and of itself is both a definition and a call to a critical politics of cartography.

A Doonesbury cartoon can bring to light some of these points (Fig. 1).

In 2001, a USGS cartographer lost his job over a map he made of caribou calving areas in an area wanted for oil exploration. Rick says “it [the map] was political.” The joke is that Joanie deliberately misunderstands and pretends that the *content* of the map (the caribou) is political (obviously caribou can’t be Democrats or even independents). What *is* political is the map’s position in a wider political situation. This example shows that a politics of cartography does not study the political content of the map—as if we could temporarily “adopt” a political mode of enquiry or “look for” political things in the map (as has happened in studies of propaganda maps and in Harley’s work) but how maps as spatial knowledge creatively constitute politics itself. Our target is politics (understood as a horizon of possibilities) and not maps themselves. We are interested in “a politics of mapping” and not a cartography of politics.

In the last section of this paper I will sketch out a few possibilities for what a critical politics of mapping may look like. These are not propositions, axioms or even guidelines, but rather some issues that might bear thinking through. The idea here is not to put boundaries on a subject, but to open up and explore it. Perhaps they are best seen as statements in the process of being superseded, overturned and rejected.

Of what would such a project consist?

1. A critical politics of cartography is a problematization. As we have already noted and lead to, a critical politics of cartography is highly situated spatially. That is, specific understandings of space at particular historical moments are analyzed. A problematization of these moments would enquire what issues were taken up as problems in order to investigate the horizons of possibility of mapping. For example, why did thematic mapping emerge in the late 18th and early 19th centuries in Europe (especially France)? During this period (1780–1830) many of the standard thematic map types we are familiar with today were invented, such as the choropleth and proportional symbol maps. An enquiry about the conditions under which these map types were invented might proceed from the fact that they were not invented by cartographers but were part of a specific discourse about political economy. The choropleth map (invented in 1826 by a Count Charles Dupin) in particular was a very influential method and practice of demonstrating where the state was developed or underdeveloped, and hence where the state’s resources might need to be directed. Thus the map at this time was understood as a key component in governing the state more efficiently. Furthermore, thematic maps were instrumental in forming a statistical framework in which to understand the problem of governance. Statistics were increasingly used to assess “moral” questions, or what we would now call socio-economic issues (crime, birth rates, suicide, early marriages, etc.).

Statistics were able to provide insight into what was “normal” and what was abnormal or deviant, and maps were then able to produce pictures or snapshots of normality over the territory of the state. This led in part to an increasing need to collect more statistics, and the 19th century saw a great boom in these statistical collection procedures, most notably of course the national census (Hannah, 2000; 2001). Atlases of the census,

“Thus the map . . . was understood as a key component in governing the state . . .”

such as Francis A. Walker's great atlas of 1874 (the first statistical atlas of America) were extensions of this way of producing geographic knowledge (as normalized resources). What was a problem for the 19th century political economists was the issue of how best to govern the territory of the state and it was operationalized in a very particular way which has had long-lasting effects (not the least of which is the predominance of statistical mapping in problem-solving). A critical politics takes up the way that maps have been cast in an effort to imagine other cartographies that are not based on mapping normalized resources. We saw this earlier when we encountered Heidegger's critique of science as an ontic enquiry. Problematizations are concerned with the ontological horizon of possibilities.

2. Critical politics of cartography is a struggle in the sense of a political intervention or participation. A critical politics is not passive, but also very actively directed at intervening in the production of cartographic knowledge. This arises because as a problematization we are interested in how the particular historical horizon came to define our thinking and practices. As we have seen normalization is one powerful procedure in stabilizing this horizon, a stability that can nevertheless be undermined through a critique which sees the horizon as contingent and changeable following intervention. An example of such intervention in mapping is the "Public Participation GIS" (PPGIS) project formed by the National Center for Geographic Information and Analysis (NCGIA) and the Varenus Project (Craig, Harris & Weiner, 1999). PPGIS can trace its roots to the early 1990s, when discussions in various journals and at meetings raised the question of the relationship between GIS and society. Prior to that is a concern with community mapping (eg., Aberley, 1993). The work has developed ways in which "alternative GIS" could be developed which empowers communities, especially those which are marginalized. Terms such as "empowerment" and "marginalization" were themselves critically assessed, and the creative tension of GIS as both enabling and marginalizing is acknowledged.

These efforts can be large and strategic, or small, tactical interventions on a particular issue. An example of the latter was the work of a graduate seminar in cartography in the spring of 2002. The seminar performed community mapping in an Atlanta neighborhood called Cabbagetown (Crampton, et al., 2002). Cabbagetown is one of Atlanta's oldest working class neighborhoods, founded in the 1880s as a factory village to support a cotton mill. Today its very identity is being contested as it undergoes gentrification and the conversion of the mill into gated lofts. The seminar was interested in how the historical "memory" of this unique neighborhood may be expressed through mapping as a process of producing spatial identity, and how in turn those memories may be spread and made accessible to current residents. Techniques involved an online GIS, resident surveys, participant observation and many other ethnographic practices. The goal was to work with community leaders and residents in order to make the online GIS part of the experience of living in Cabbagetown (as opposed to an outsider's representation of it). In this sense, mapping is a struggle over how to remember the past and to write its biography in maps. Often this writing means opposing received wisdom or the "auto-bio-geographies" inscribed by structures of power. Thus in general we can say that a critical politics of cartography involves the positive production of counter-memory (McWhorter, 1999) and counter-mappings (because they are written counter to power).

3. The critical politics of cartography is an ethics, or what Foucault (1985) called an *askêsis*, a Greek word for exercise or practice. That is to say the project is "ethical" if by this word we understand not the "rights and

"A critical politics takes up the way that maps have been cast in an effort to imagine other cartographies that are not based on mapping normalized resources."

wrongs" of mapping, but *ethos*, the mores or practices of the time. Ethics means: how shall we live in practice? In turn we ask: What is the origin of these practices? How do they constitute the horizon of possibilities of being? What other mapping practices might emerge under a different horizon and how can we open these other horizons? Mapping practices as an ethics in this sense have yet to be properly considered politically. One suggestion is to take up the challenge of the ethics of mapping as a practice of freedom (Foucault, 1997b) through the "pleasure of mapping." Given how desire has operated to so completely normalize people, for example "gay desire" (McWhorter, 1999), it may be that sheer pleasure offers some positive ways forward. Maps as pleasure is appealing, perhaps evoking the reason people take up mapping as a practice in the first place, before it is laden down with jargon. It is in this sense that I use the phrase "maps as finding our place in the world", maps as pleasurable sense-making of the world. Unfortunately we still know very little about the pleasure of mapping—although Wood has written on it (Wood, 1987) and Harley's beautiful piece on the map as biography may hold some initial clues (Harley, 1987, see also Gould's response, 1999, 74–78).

4. A critical politics of cartography is a technology. By this I mean that we engage with the specific technological question of cartography and its relation to power-knowledge. As was mentioned earlier, cartography raises this issue to the foreground because of its singular place at the intersection of art, science, technology and practice. In today's context by "technology" we mean primarily cartography and mapping as ways of being that depend on instruments and digitality as a means to an end. As such, it may leave behind other aspects of "technology". The original word for technology is the Greek *technê* which meant art, skill, way of making or doing. This sense is however quite lost when mapping technology produces knowledge as a resource or "standing-reserve" (Heidegger, 1977). Two short examples illustrate this point.

First, the question of "interoperability" or how well data and databases integrate with each other. Interoperability has been mentioned as one of the leading technological issues in GIS and digital mapping today (Monmonier, 1999) although the word only came into common usage in the early 1990s (in the sense of integrating software or data; the word was used prior to this in a military context to refer to how well military equipment from different countries worked with each other, as well as how different computers networks can be integrated, but these are not necessarily the same associations we have in GIS/mapping now). What role does interoperability have on the normalization of data? For example, what value will be attached to data that cannot be made interoperable (because they are too local or outside the scientific purview)? How will we judge and value maps or databases when they already have an a priori existence as interoperable? This is technology as an impoverished instrumentality because it is a cause of an end already in sight (that is, interoperability). What we are interested in with technology however is how it can bring about insight into meaningful human life.

Second, the relationship between cartography as a science and an art is still seen as problematic (see eg., Woodward, 2001). No doubt this is part of a larger question of the degree to which cartography sees itself as a technology, science or art. Some cartographers have demonstrated how it is possible to productively reinterpret technology not in order to exploit the environment as a resource but to let the essence of the landscape emerge (eg., Patterson, 2002). Patterson has mastered the art of digital mapping from a manual tradition which pays close attention to the things themselves (see the work of Erwin Raisz and Heinrich Berann). An

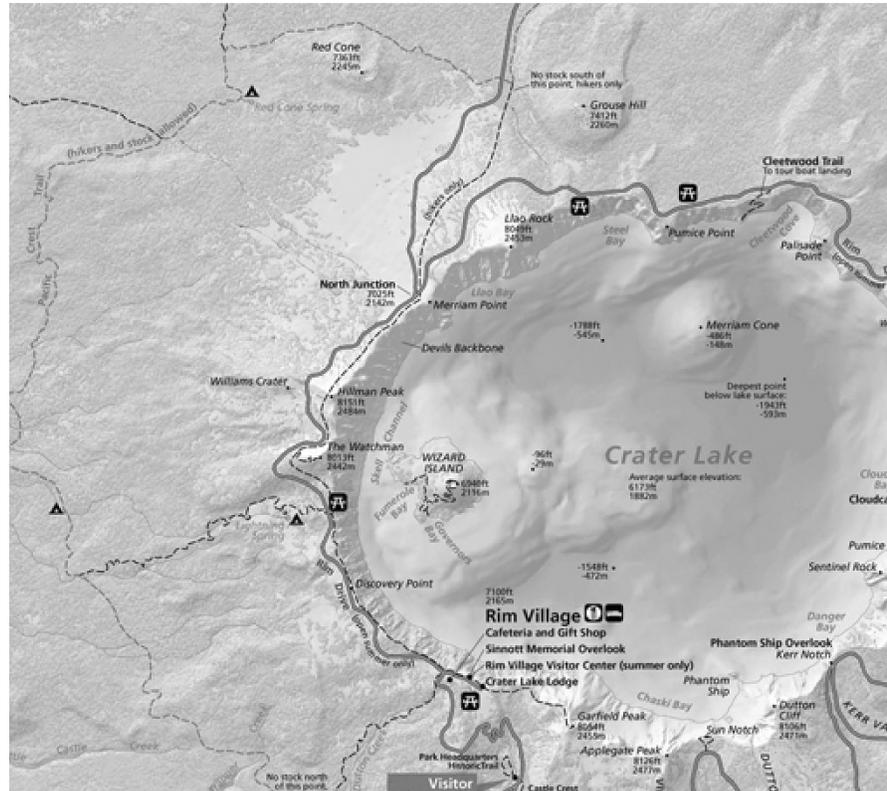


Figure 2. Crater Lake, Oregon on National Park Service (NPS) maps. Produced entirely from digital sources. Source: Patterson, 2002.

example of his work is shown in Figure 2.

Figure 2 shows the detail and realism on NPS maps, the aesthetic quality that can be achieved in the digital realm and not least the superb integration of art and science by bringing out the qualities of the landscape itself. It is critical to note that it is necessary for the cartographer to pay very close attention to the landscape and to understand its processes and ideally to work from personal experience. There is no question here of “automatic” hillshading or whatever. The concepts of “art” and “science” recede in the light of the landscape itself.

Summary

This paper has suggested that in order to pursue a necessary political project with mapping (cartography and GIS) we need to think about the being of maps at this present moment. This “philosophical” enquiry turns out to have numerous critical outcomes of a practical nature. An important distinction was made between knowledge about things in themselves (what we know) and the horizon of possibility for knowing in general (how we know what we know). It is critical to make this distinction because to fail to do so is to fail to think politically. It is by asking what are the conditions of thinking in cartography that we can both see the shape of that thinking,

to see it as it is, and therefore to begin to see how it might be otherwise. It is to think about the being of maps. Seeing this as a critical politics of cartography I suggested a few ways in which this project could be pursued: as a problematization in Foucault's sense (a history and critique of the present), as an ethics, as a struggle, and as a question of technology.

APPENDIX

Short Glossary of Key Terms

H = from Heidegger

F = from Foucault

Being: what it means to be (H)

Existentiell: our everyday understanding about ourselves (H)

Existential: about existence and being as such (H)

Genealogy, history of the present: an account which reveals historical ontology (F)

Ontic: knowledge of specific things (H)

Ontological: the historical conditions of possibility of ontic knowledge (H)

Problematization: historically contingent disturbances of the ontological (F)

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NOTES

¹I deviate from common practice in not capitalizing the word being because this has the effect in English of reifying the concept and making it harder to grasp.

²For example, Harvey characterizes mapping as hegemonic: "mapping requires a map and that maps are typically totalizing, usually two-dimensional, Cartesian, and very undialectical devices with which it is possible to propound any mixture of extraordinary insights and monstrous lies" (1996, pp. 4–5). Ó Tuathail points to power relations (re)produced through mapping: "[I]dealized maps from the center clash with the lived geographies of the margin, with the controlling cartographic visions of the former frequently inducing cultural conflict, war, and displacement" (1996), p. 2.

³A well-known example is provided by Harley (1991, p. 16) who quotes one cartographer during the debate about the Peters projection as saying "it escapes me how politics, etc. can enter into it" (the quote is from Duane Marble).

⁴The relation between Foucault's problematizations and Heidegger's ontology and especially his "equipmental breakdown" is discussed in Schwartz, 1998 and Elden, 2001. As Polt points out, Heidegger also anticipates Kuhn's argument on paradigm shifts (Polt, 1999, p. 33, fn. 16).

⁵As one referee correctly pointed out, there is also an internal disciplinary politics to protect the gate keeping of cartographic truth from any attempts (such as Harley's) to undermine or question it.

⁶Heidegger's notion of being as revealing–concealing, that being when it shows itself also conceals, indicates another way of constituting mapping.

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- Instead of guarding against the lie, in mapping revealing the truth can be seen as necessarily including concealment. Thus when Monmonier says that it is of the essence of mapping to require the lie, it is inconsistent to reject maps on the grounds that they lie (such as the Peters projection). Cartography (and Monmonier) comes close to developing this line of thought (eg., in generalization) but it has never been fully pursued. Thus cartography remains an instrumental technology of revealing because it wants revealing—unconcealment without concealment.
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