

Are maps pictures? Lots of people think so. Some of these people are ordinary users of maps. Some are respected authorities.

We beg to differ.

Maybe you noticed that throughout *Seeing Through Maps* we have been pretty cagey about just exactly what we think maps are.

Even when we introduced the concept of the map—in the lower right corner of page 2—we were pretty oblique about it. We said, “Maps are descriptions of the way things are,” and went on to say, “We can ask the same things about maps that we can ask about any description. How true? How complete? How accurate? How precise?” Later—on page 5—we talked about the way the Mercator “shows the world” and still later—on page 31—we referred to the Mercator as an “image of the world.” On page 33 we asked you to draw “a picture of the world.” On page 34 we referred to this picture as a map, and cited Tom Saarinen who called such pictures “mental maps.” We also referred to maps as

“views,” and went on a lot about how things “looked” on maps. We even compared maps to “painting.”

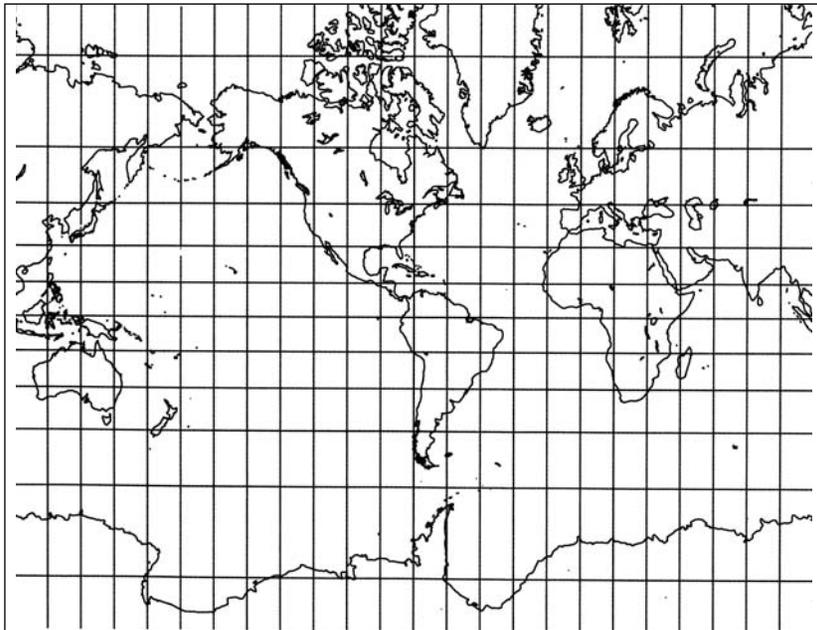
One word we never used was “representation” which is what most authorities say a map is. A map, says *The American Heritage Dictionary*, is “a representation, usually on a plane surface, of a region of the earth or heavens.” The words we used—*description, show, image, picture, view, look, painting*, along with the questions about truth, completeness, accuracy, and precision—did a little dance around the idea that maps are representations, and our last chapter did so elaborately, comparing maps and eyes. Why did we dance around the idea that maps are representations without going for the word itself?

After thinking about maps for years we find ourselves at odds with conventional wisdom. The fact is we're not convinced maps *are* representations. Indeed we feel sufficiently anxious about having used the words we did that we want to admit, and explain why, we now find ourselves disagreeing with that commonly

held point-of-view. The problem we faced was this: the idea that maps are representations is so much a part of how we all think about maps that trying to write about them as something else was just too complicated. But here, in this closing chapter, we'd like to think out loud about maps as talk, or if you will, propositions instead of pictures. We now assert that maps are actually a way of speaking, rather than a way of seeing.

But what's wrong with thinking about maps as pictures?

Well, in the first place, they're terrible pictures. This is so obvious we're surprised this fact alone hasn't torpedoed the “maps-are-pictures” advocates years ago. What does a picture do? It captures the way something *looks*. It sets out its *visual appearance*. Take a look at the color maps on the back cover of this book. Not one of them captures the appearance of the earth.



Look at the ubiquitous Mercator in the top left corner of the back cover. Is North America really bigger than Africa? Far from it! Excluding the cloud-covered NASA photograph and the Oxford Globe (each showing just half the earth), the maps are mostly characterized by weird colors, bizarre shapes, and wild distortions of size. Most of them look nothing like the earth! Many of the maps inside our book are even worse as pictures. Only Tom Van Sant's GeoSphere map—on page 66—looks anything at all like the earth; and this map, precisely *because* of its commitment to getting the *appearance* right, draws attention to what's missing: the clouds. But without its clouds the earth doesn't *look* like the earth.

Whatever else they might be, maps are terrible pictures.

One way people try to ignore this fact, while continuing to think about maps as pictures, is to call them representations. A representation *can* be a picture but it doesn't have to be. The term “representation” is more slippery, more fluid and broader. A *representation* can be as little like a picture as a *symbol*, and so the Stars and Stripes of the flag may be said to represent the United States; it's certainly not a picture, but it is a symbol.

Since they are so inadequate as pictures, perhaps the maps on the back cover of this book can be more easily thought about as standing for, or symbolizing, the earth. Yet to remain maps, such “symbols” can't drift *too far* from pictures. Though maps may be more symbol-like than picture-like, they nevertheless have to look a lot like their subjects, which is why we can still raise the questions we asked on page 3 about how complete, how true, how accurate, and how precise they are.

These aren't questions we can ask about the Stars and Stripes, or Canada's Red Maple Leaf, or any other flag. Thinking about maps as representations lets us hang on to the picture idea without committing us to it too rigorously. Thinking about maps as representations encourages us to avoid thinking about what maps really are.

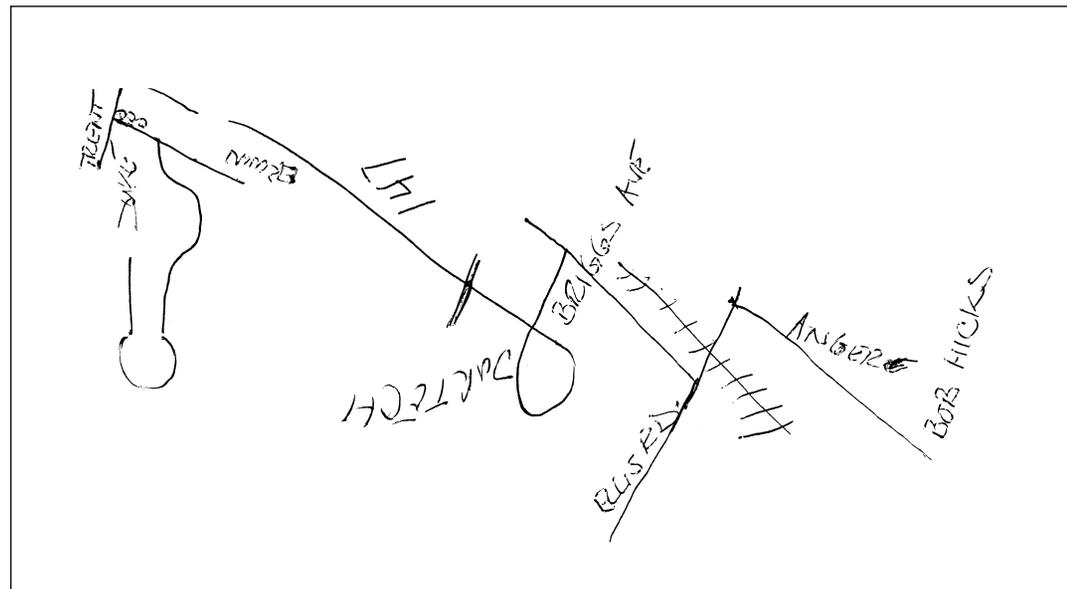
Even though we can see that maps *aren't* pictures, most of us can't understand how else maps can work unless they work *like* pictures. That is, we can't understand how maps could mean anything unless they looked like their subjects. With this way of thinking, meaning comes from the relationship between symbols and things: the *green* stands for *trees*, the *black* for *roads*, and the *red* for *cities*. The idea is that through these relationships maps are supposed to “represent reality.” Meaning is understood as a relationship between formal, abstract symbols and “things” in an independent, external reality. Why anyone would want to represent reality is a question that is not frequently asked.

But to those of us who *really* want to understand the power of maps, the question of motivation—the WHY—is fundamental. Thinking about maps as pictures begs the questions: “*What's the point of the map? Why would anyone want to make a map?*” To think about maps as just pictures is to think that maps *just are*, and that the problem is to dream up things to use them for. For people who think about maps as pictures, what you do with the picture has nothing to do with what the picture was made for. It's as

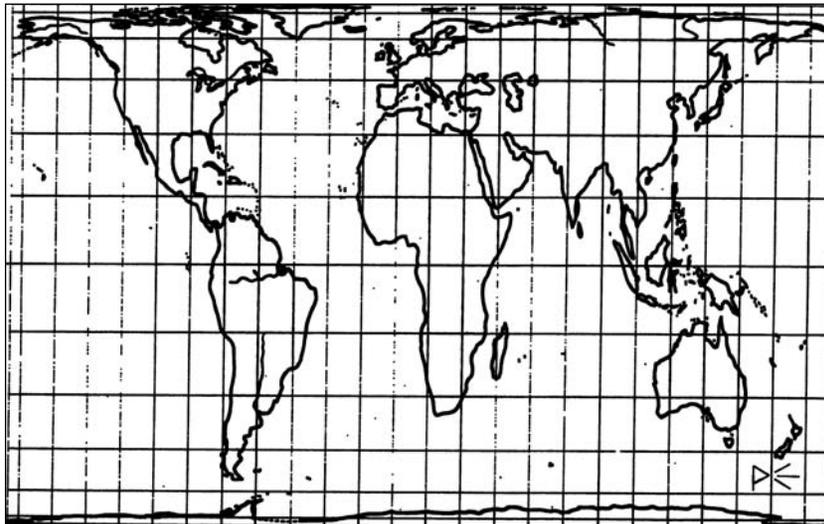
though the people who think about maps as pictures imagine the point of the map is...just to have a picture.

We believe this is backwards. We don't understand why people would behave this way. We don't understand why people would make such maps. What would motivate them? What would drive them? Thinking about maps as mere pictures, for us, seems to reduce the serious business of mapmaking to a game, one that robs the mapmaker of reasons for choosing what to put on the map, for deciding how to make it. Yet as we have shown again and again in *Seeing Through Maps*, what the map is *for* determines almost everything that goes into it. Purpose comes first.

- The Duke security guard hadn't created his map of how to get to Angier Avenue *before* we asked for it. He made his map *for* us, in response to our request. His map contained nothing not related to our quest.



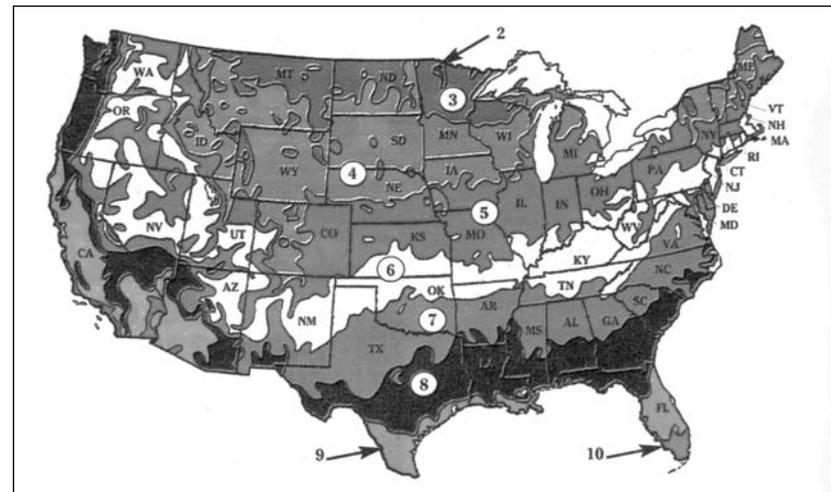
- Mercator didn't make his map and only later stumble across the fact that on it straight lines are true compass bearings. He set out to make a map to do exactly what his map does. He set out to make a map for sailors.
- Peters didn't sit down and devise a map that—surprise!—turned out to be equal-area. Equal area is what he was trying to do when he started. He was trying to make a map that would give people a better idea of the real size of things.

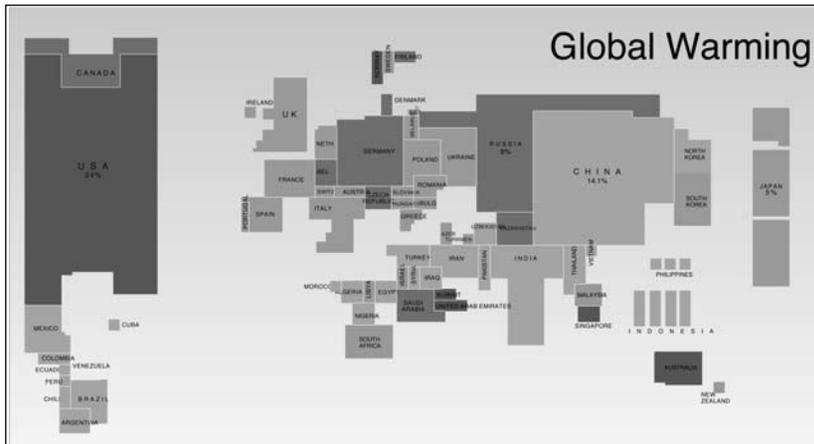


When you think about these maps you may realize they don't *act* like pictures either. They act more like teachers, or guidance counselors, or lawyers, or advisers, or cops. Maps like these—*most* maps—are preoccupied with giving us information, like how to get somewhere (like the Duke security guard's map), or how to do something (like Mercator's projection); or they're telling us where we *can't* do something (like

zoning maps), or where we *have* to do something (like maps of school attendance districts); or they're suggesting that this would be a good place *for* something (like planning maps), or *insisting* that this would be the *only* place for something (like the maps developers use to make their cases at city council meetings). Some maps even tell us how to think about the world (like the Peters map, and Tom Van Sant's map).

- Take another look at the plant hardiness zone map on page 72. It's not blandly representing temperature zones. Instead, it's telling *you* that if you live in *that* zone, you shouldn't be putting much in the ground before such-and-such a date, or shouldn't be planting *those* plants at all. The map's advising you.
- Or look again at the map entitled “Global Warming” on page 89. This isn't blandly “representing” the percentage of carbon dioxide each country emits to the atmosphere. Instead it's proposing that these emissions are related to global warming, the existence of which it takes





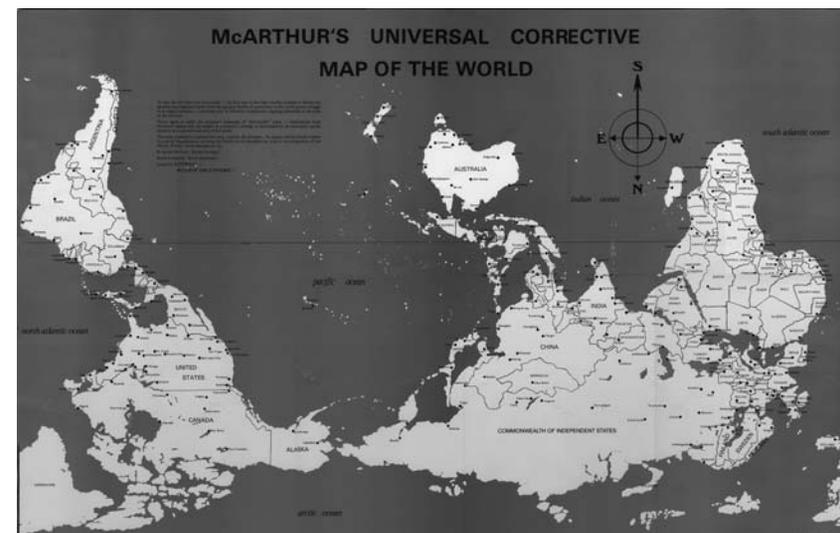
for granted. The map is pointing fingers at who's to blame. It's like a teacher, or a politician, chastising us.

- McArthur's Universal Corrective Map of the World—pages 50-51—is straightforward about the fact that it isn't a simple “representation.” It's explicitly a teacher, correcting us, and proposing a new way of seeing things.

What these maps are *for* is what brought them into being; and their motivation speaks not only to where the energies came from that made them, but to the role in the world their makers imagined for them. They are advisories, they are arguments, they are pleas. In a word, they are propositions. A proposition is “a plan or scheme suggested for acceptance,” says *The American Heritage Dictionary*, where to propose is “to put forward for consideration, discussion or adoption.”

- The security guard at Duke proposed a route to Angier Avenue. He suggested his plan for our acceptance.

- Mercator proposed that his projection—if adopted—would support sailors in their missions.
- Peters proposed that the relative size of places was an essential ingredient in thinking about our place in the world. He wanted everyone to accept this.
- Robinson proposed that the shape of the earth as a sphere was an essential ingredient in thinking about our place in the world. He curved the corners of his map to remind us of this.
- The makers of the plant hardiness zone map propose that how well a plant does is related to when and where it is planted. They urge us to consider this.
- The makers of the Global Warming map propose that the earth's climate is changing because of fossil fuel consumption by a minority of its peo-



ple. They want us to accept this and do something about it.

- McArthur proposes that south is up. He brooks *no* discussion!

Still, maps succeed as propositions because they look like parts of the world. Resemblance is “part and parcel” of the proposition. In fact, we think this “picture part” is the proposition's subject. *But this “picture part” is raised only because the map intends to say something about it.* For example, Peters mapped the continents *not* because they were there, but because he wished to tell us about their true relative sizes. The security guard drew Erwin Road and Rt. 147 not because these things existed, but because he was urging us to travel them to get to our destination.

In order to tell us how to go, the guard had to tell us that the streets he wanted us to take existed. In order to establish the comparative size of nations, Peters had to tell us the nations existed. To tell us what the mapmaker wants to tell us (that this or that is *so*), he or she has to establish the existence of the map's subject (that this or that is *there*); and so every map proposition has two parts (makes two claims): 1) this is *there*, and 2) it is *so*. Erwin Road exists, *and* it tees into Trent. Africa exists *and* it is larger than North America. The proposition's validity depends on the validity of *both* the claims. In order for us to follow the proposed route to Angier Avenue, Erwin Road has to exist, *and* to tee into Trent.

Every map affirms the existence of whatever it purports to map, but only by insisting that what the map says about it is true. In the end the difference between thinking about maps as representations (pictures) and thinking about maps as propositions (talk) comes down to what “this” means in the phrase “this is *there*”.

To assert that *x* is *there*, the mapmaker has to characterize *x*, has to give it a name (say “New York”), has to assign it to a class of things (it's a city), has to give it some kind of attribute (it's big). There is *x*, says the map, *and x* is a city, a river, a tree. The map can say many other things about *x* as well, that the city in question is suffering from traffic congestion, or that the river is polluted, or that the tree is in a forest with

...maps are among the many things humans make and do that bring trees, rivers, cities, and forests as such into being.

such-and-such a name. This is literally what a proposition does. Maps propose that this is forest Such-and-such, that it has these dimensions, that it is owned by these or those people or institutions. The forest is, *and* it is thus and so.

From a representational point of view the characterization of *x* as a city, a river, a tree, or a forest presents no problem. The mapmaker takes for granted that such things exist. In this view the job of the mapmaker is simply to show where these things are. This argument insists on the independent existence of things in an external world. Again we beg to differ. Let's state our position in its extreme form: maps are among the many things humans make and do that *bring* trees, rivers, cities, and forests *as such* into being. Far from being collections of symbols, which point to things existing independently in an external world, maps, like speech, help bring the world, *as we know it*, into being. That is, maps mold our world and help it to take shape.

Two examples from areas other than geography will clarify what we're trying to get at. Prior to the Magna Carta (June 15, 1215) there was no concept called "human rights." Human beings didn't have "rights." The concept did not exist in people's minds, nor was there any vocabulary to express that concept. The signers of the Magna Carta (the twenty five Surety Barons) were distinctly aware that only kings had rights and that the barons' exercise in political diplomacy was a radical act of calling their own rights (and the rights of their 2000 supportive knight landholders) into being.¹

A second example of how talk (or propositions, or language) worked to mold reality is observed in the history of the anti-slavery movement. The British anti-slavery movement began with the Society for the Abolition of the Slave Trade (most of whose members

were Quakers) in London in the 1780s. Prior to that time, few questioned the correctness of the institution of slavery. Years of activism on the part of British abolitionists (particularly the work of one committed individual, William Wilberforce) resulted in the end of slave-trading in 1807,

and a declaration of the abolition of slavery in the British Empire on August 1, 1834.² Our point is that over the course of a mere fifty years, an "idea" was *languaged*—speaking "abolitionism" brought it into being as a concept—and this brought about a dramatic change in the way human beings treated other human beings over a very short period of time.

But let's return to geography. Does this idea of speech bringing things into being really apply to maps? To some people this idea probably seems very silly—maps can't make forests! But consider the example of legislative districts. Because the U.S. electoral system operates on a one-person, one-vote basis, and because the U.S. population is both growing and moving around, every decennial census obligates state legislators to redraw the districts from which they're elected. You can just imagine what this leads to. The districts are drawn by the legislature and the party that's in control of the legislature tries to redraw the districts to its advantage. The other party resists. It usually ends up in court.

If you think about maps as mere pictures these electoral districts should be things in the world that exist independently of their mapping. The maps should just observe where these electoral districts are. But if you think about maps as propositions, the districts are brought into being by the maps that propose them. In late 2001 North Carolina's Democratic-controlled legislature published new district maps. North Carolina Republicans claimed that the maps favored Democrats

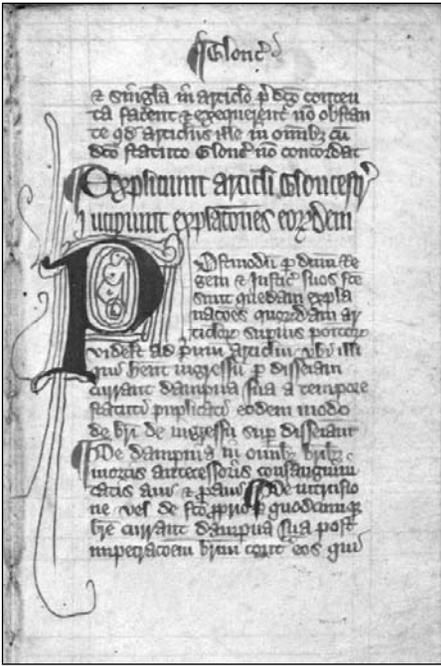


Figure 74 *The Magna Carta was an act of declaring "human rights" and thus the concept was brought into being.*

in future elections. They successfully challenged the maps, and the legislature was reconvened to redraft them. These maps too were successfully challenged. Ultimately the maps were redrawn by a judge.

The story of these maps—tracked in front-page headlines through 2002—makes little sense if you think about maps as just pictures: “Maps survive voting rights review,” the state capital’s *News and Observer* declared in February, but in April it was proclaiming, “Provision key to map fight,” and in May, “Court won’t release draft maps,” and “Fast action pledged on new maps.” Days later the paper announced, “Legislature to convene, redraw maps,” then “Rival parties take on map-making,” and the next day, “New state voting maps could boost GOP power.” It was in full caps in early June that the paper blared “MAPS REJECTED.” In short order this led to, “High court won’t block new maps,” “Black lawmakers oppose most recent maps,” “Woman files suit over district maps,” “GOP tries to stop review of maps in federal court,” and “Candidates, voters wait for end to wrangling over maps,” this “end to wrangling” only because without an end to the wrangling it was beginning to puzzle voters how the primaries could be held prior to the general election in November. It wasn’t until mid-July that a headline read, “N.C. maps pass federal muster,” permitting elections to be scheduled. With the court’s maps in place, Republicans did take control of the legislature. Since then a headline has observed that, “State seeks new voting maps.” Consideration and debate continue.

We said this story makes little sense if you think about maps as mere pictures. Actually the story makes no sense at all if maps are just pictures. It is indisputable in this case that the maps were *in*, not just

about, the world; and that what the maps did in the world was participate, as propositions, in a debate about North Carolina’s political future. That is, the maps played a part in bringing the future into being. This, we believe, is what all maps do all the time.

We can imagine someone saying, “Sure, okay ... voting districts! But voting districts aren’t forests.” Neither, of course, are wetlands, the definition of which has been hotly debated in several presidential campaigns. Again, neither are floodplains, which North Carolina, Florida, France, and many other places seem to have trouble mapping. Not because authorities don’t have up-to-the-minute aerial photography, and a “bare earth” profile of the ground accurate to within twenty-five centimeters. No, it’s because, well, because maps aren’t representations, but rather plans or schemes suggested for acceptance (they’re propositions). For example: Larry Fitzpatrick owns some land which on North Carolina’s new floodplain map lies in a floodplain. Being in the floodplain restricts Fitzpatrick’s ability to build, and this restriction reduces the value of his property. Fitzpatrick plans to “appeal the map.” This doesn’t mean he denies the existence of the floodplain or is trying to be released from the floodplain construction restrictions, but that he’s contesting ... the location of the floodplain.

From a representational point of view this smacks of politics—Fitzpatrick was a county commissioner for fourteen years—but from a propositional perspective this is what maps *are*, proposals put forward for consideration. J. Karen Wagley, the Onslow County floodplain administrator said, “That’s exactly how the process is supposed to work.” With floodplains as with voting districts, maps are a form of speech, a way we

talk with each other about the spaces we mutually inhabit.

In order, then, to say *where* things such as voting districts, wetlands, floodplains, and forests, even trees, are, maps have to take stands on *what* they are. On top of this are the stands maps take whether they want to or not (those who ignore the challenge merely end up confirming the status quo). Maps take stands on everything from how to get to Angier Avenue from Duke University, to how to navigate, to how big things really are, to when to plant, to who's to blame for global warming, to where you can vote for whom, to what land is going to be flooded, to ... what's up. (Stuart McArthur asserts that South is up!)

Drawing attention to what maps do in the world is a way of saying why maps matter. Maps matter because

Most maps are commissioned by people in power who want to maintain their position of power.

they, and those who make them, are active participants in the struggles over our future. Focusing on the way maps *look* draws attention away from their power, relieves the maps, and their makers, of the active responsibility both maps and makers share for the shape the world takes. Of course, acknowledging maps as propositions robs them of the authority they have claimed as objective pictures of the world; and hanging on to this authority is another reason why some people want to insist that maps are pictures. We might

even go as far as to suggest: Most maps are commissioned by people in power who want to maintain their position of power.

Maps shape opinions and direct behavior. Europeans drew maps of their colonies denying humanity to the indigenous inhabitants and creating nation-states where no nation-states had existed. Today these maps bear a terrible burden of bloodshed. In the Middle East, in Africa, and in the Himalayas, people shed blood every day over lines that maps brought into being. All the nations of the New World were brought into being by maps, including the new Canadian national territory of Nunavut. In U.S. cities, red-lining—the practice by real estate agencies or large insurance companies of refusing to grant loans, mortgages or insurance in certain parts of the city—deprives people of mortgages, insurance, and good medical care. Other lines that maps bring into being assign children to the schools they attend to achieve important educational goals, often against the will of their parents. Zoning maps determine land use, density, building height, and other aspects of the built environment. Historic preservation districts brought into being on maps allow people to paint their homes this color but not that. The way that maps delineate floodplains, wetlands, and watersheds determines who can build what where, how it can be built, and insurance rates, among other things. Maps of nesting areas, breeding grounds, migratory routes, and other wildlife features determine—

But the list is endless. Befitting their importance, such maps are endlessly debated and continuously changed. Even the sizes and shapes of the continents stir passions, as the past three decades of controversy

over the Peters projection has illustrated. “Maps just show the world ... *as it is* ...”

Oh, really?

Then what's everyone so excited about?

What everyone is so excited about is that they see how high the stakes are—for gaining or losing power. People who can see through the maps, see that they have the opportunity to seize power. When thus challenged, those in power will recognize their inevitable loss of control.

It is our assertion that most people (just beneath the surface) really *know* maps don't show the world as it is. They know maps show the world the way *those in control of the mapmaking process* want the world to be. The problem is, as this becomes conscious knowledge, the maps will lose some of the power they have to convince others. Maps will have no more power than other forms of speech. People will act as though maps are

arguments and will begin to argue back with maps of their own. Maps will still be highly efficient forms of speaking about the territory we all live in, but they will no longer wear that special seal of authority such as encyclopedias and law books have. It's the loss of that authority that agitates people. People who have a stake in the status quo, don't want their maps to lose that authority. If maps are stripped of their veneer of authority, it's going to be much harder to convince people that their children should go to school *here*, or they should vote *there* or where exactly the wetlands are.

But when people start arguing back with maps of their own, this country (and this planet) is going to be a much more democratic place to live. That's what everyone's so excited about. It's about power and who has it. Take the power of the map into your own hands. Change your world. Make the power of the map work for you!

1: The signing of the Magna Carta was actually far more complex. This goes back to our opening sentence in this book, “What is the truth?” A detailed social/political history of these historical power struggles can be found at <http://www.infokey.com/hall/magna.htm> and also at <http://www.bostonreview.net/BR28.3/linebaugh.html>.

And when we said, “there was no concept called human rights,” we were referring to the Western European legacy. In fact, the first charter of human rights that historians have found is traced back to a clay drum known as the Cyrus Cylinder. This artifact detailed the conquest of the Babylon of Belshazzar and Nebuchadnezzar by the 6th-century BC Persian king, Cyrus the Great. Cyrus showed great forbearance and respect

towards the religious beliefs and cultural traditions of other races. These qualities earned him the respect and homage of all the people over whom he ruled. It is a little unusual for Westerners to imagine Iran (then Persia) as having been the birthplace of human rights. And that's all that archaeologists have found so far. Again, the truth is often complex and can be seen from many perspectives.

2: Again, the “truth” is more complex. After the abolition of slavery there was a four-to-six-year interim period when the slaves' labor was somehow to further compensate their masters; and it is clear that while slavery may have generally ended in England in 1834, other parts of the British Empire may well have continued the practice.

This new chapter to
Seeing Through Maps
(second edition, 2006)

by Denis Wood, Ward Kaiser
and Bob Abramms

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