

example of the exhibition I curated in 1990 for the Brattleboro Museum of Art. The support there of Mara Williams, Linda Rubinstein and Sherry Bartlett made that show possible; and its example was essential to my being able to imagine the Cooper-Hewitt's *Power of Maps* and hence this book. That *they* knew my name I also owe to Roger Hart.

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Introduction

Power is the ability to do work.

Which is what maps do: *they work*.

They work in at least two ways. In the first, they operate *effectively*. They work, that is . . . *they don't fail*. On the contrary, they succeed, they achieve effects, they get things done. *Hey! It works!* But of course to do this maps must work in the other way as well, that is, *toil*, that is, *labor*. Maps sweat, they strain, they apply themselves. The ends achieved with so much effort? The ceaseless reproduction of the culture that brings them into being.

What do maps *do* when they work? They make present—they represent—the accumulated thought and labor of the past . . . about the milieu we simultaneously live in and collaborate on bringing being. In so doing they enable the past to become part of our living . . . *now . . . here*. (This is how maps facilitate the reproduction of the culture that brings them into being.) The map's *effectiveness* is a consequence of the *selectivity* with which it brings this past to bear on the present. This selectivity, this focus, this particular attention, this . . . *interest . . .* is what frees the map to be a representation of the past (instead of, say, a time machine, which because it makes the past wholly present eliminates . . . *the present*). It is this interest which makes the map a representation. This is to say that maps work . . . by serving interests.

Because these interests select what from the vast storehouse of knowledge about the earth the map will represent, these interests are embodied in the map as presences and absences. Every map shows *this . . .* but not *that*, and every map shows what it shows *this way . . .* but not *the other*. Not only is this inescapable but it is precisely because of this interested selectivity—this choice of word or sign or aspect of the world to *make a point*—that the map is enabled to work.

This interest is not disinterested. Neither is it simple or singular. This interest is at once diffused *throughout* the social system (in those forces enabling the reproduction of the society as a whole) and *concentrated* in this or that moiety, guild, or class, in this or that gender, occupation, or profession, in this or that neighborhood, town, or country, in this or that . . . *interest*. Rhetorical expedience dictates a certain . . . *reticence* with respect to both the site of the interest and its particular goals and aims. Therefore the conservative forces, whose end is social reproduction in general (and, let us face it, the position of those dominant in it), and the transformative forces, attendant to the interests of this or that particular class or industry or part of the country, *conspire* to mask their interest, conspire to . . . *naturalize* this product of so much cultural energy.

This *naturalization of the map* takes place at the level of the sign system in which the map is inscribed. A double coding ensures this (it is at least a double coding). No sooner is a sign created than it is put to the service of a myth (this is that the world displayed in the map is . . . *natural*). It is thus not merely that the native Americans were left off maps made by Europeans in the 16th and 17th centuries, but that the resulting surface—of trees, rivers, hills—took on the appearance of a window through which the world was seen . . . *as it really was*.

The map's ability to do this depends on the signs it deploys, all of which have . . . independent histories. These suggest not only how interests are embodied in individual signs, but how the signs themselves are brought into being and reproduced. But with maps revealed as the historically contingent sign systems they in fact are, they cease to appear as miraculous windows through which to snap shots of reality. No longer confused with the world, maps are suddenly capacitated as powerful ways of making statements about the world.

Maps are finally enabled to work . . . *for you*.

* * *

This thesis is embodied in this book in seven chapters. The first attempts to say how it is that maps work, how they make present—so that we can use it today—the accumulated thought and labor of the past.

The second strives to embed the map in the history out of which it emerges, as an instrument that serves interests which not only bring maps into being, but in so doing divide the world . . . between those who use maps and those who don't.

The third tries to show the way that these interests are embodied . . . in *every* map (even the most *objective seeming*) though a close reading of Tom Van Sant's brilliant map of the world.

The fourth pursues the way the map *masks* the interest it embodies—the way it *naturalizes* the map—through a close reading of a topographic survey of the area around Ringwood in northeastern New Jersey.

Through a close reading of the *Official State Highway Map of North Carolina* the fifth chapter tries to demonstrate the way this mask is embedded in the very signs either into which the map may be decomposed or out of which it can be constructed.

In the sixth chapter the history of a single one of these signs—that for landform relief (that is . . . *hills*)—illuminates the continuity of the map with the rest of the culture, the way its interest . . . is the map's.

The seventh chapter insists that the realization of the interest every map serves frees it to serve . . . mine, yours; that is, to work . . . *for us*.

CHAPTER ONE

Maps Work by Serving Interests

A cornucopia of images, bewildering in their variety: this is the world of maps. Sticks and stones, parchment and gold leaf, paper and ink . . . no substance has escaped being used to frame an image of the world we live in. Like the birds and bees we have danced them in the gestures of our living; since the birth of language we have sketched them in the sounds of our speech. We have drawn them in the air and traced them in the snow, painted them on rocks and inscribed them on the bones of mammoths. We have baked them in clay and chased them in silver, printed them on paper . . . and tee-shirts. Most of them are gone now, billions lost in the making or evaporated with the words that brought them into being. The incoming tide has smoothed the sand they were drawn in, the wind has erased them from the snow. Pigments have faded, the paper has rotted or been consumed in the flames. Many simply cannot be found. They are crammed into the backs of kitchen drawers or glove compartments or mucked up beneath the seats with the Kentucky Fried Chicken boxes and the paper cups. Where have all the road maps gone: and the worlds they described and the kids we knew, Route 66, and the canyon beneath Lake Powell, and the old Colorado pouring real water into the Gulf of Mexico? And when we talk of the “old map of Europe”—which too has disappeared—we are speaking of certainties we grew up with, not a piece of paper. And yet, and yet . . . it is hard, in the end, to separate those certainties from that very piece of paper which not only described that world, but endowed it with a *reality* we have all accepted.

A Reality Beyond Our Reach

And this, essentially is what maps give us, *reality*, a reality that exceeds our vision, our reach, the span of our days, a reality we achieve no other

way. We are always mapping the invisible or the unattainable or the erasable, the future or the past, the whatever-is-not-here-present-to-our-senses-now and, through the gift that the map gives us, transmuting it into everything it is not . . . *into the real*. This month's *Life* leaps at me from the checkout counter: “Behold The Earth,” it says. “Startling new pictures show our planet as we’ve never seen it before.” Inside, below the heading “This Precious Planet,” the copy promises “Striking new views from near space show us more than we could ever have guessed about our fragile home.”¹

Outside in the parking lot I am not struck by the preciousness of the planet, much less by its fragility. Instead, I am overwhelmed by the solidity and apparent indestructibility of everything I see around me. Only the pictures—let us think about them as maps for the moment—convince me of the reality the captions evoke. “Behold the Earth”: it is as if we had never done so before, and indeed . . . *apparently we haven't*. “New pictures”; “never seen it before”; “new views”; “show us more”: each phrase insists on the fact that indeed I *never have seen* the planet in quite this way.

Let's face it: I haven't. Neither have you. Few have. At most even the best traveled have seen but a few square miles of its surface: the space around this convention center, that neighborhood, the thin traverse of the tour bus, the road from the airport home. It is not ample, this territory we individually occupy. It scarcely deserves the name “world” much less “planet.” I think of what Arthur Miller wrote about his father:

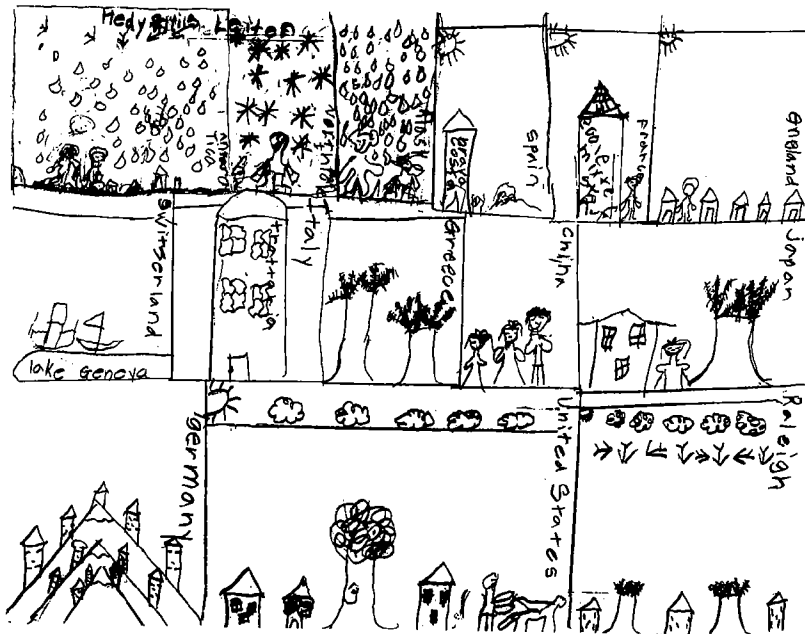
In his last years my father would sit on the porch of his Long Island nursing home looking out on the sea, and between long silences he would speak. “You know, sometimes I see a little dot way out there, and then it gets bigger and bigger and finally turns into a ship.” I explained that the earth was a sphere and so forth. In his 80 years he had never had time to sit and watch the sea. He had employed hundreds of people and made tens of thousands of coats and shipped them to towns and cities all over the States, and now at the end he looked out over the sea and said with happy surprise, “Oh. So it's round!”²

Why should it be otherwise? The sphericity of the globe is not something that comes to us as seeing-hearing-sniffing-tasting-feeling animals, is not something that comes to us . . . *naturally*. It is a residue of cultural activities, of watching ships come to us up out of the sea *for eons*, of thinking about what that might mean, of observing shadows at different locations, of sailing great distances, of contemplating all this and more at one time. It is hard won knowledge. It is *map* knowledge. As such it is something that little kids have to learn, not something they can figure out for themselves. “Educators are living in a dream world if they

assume young children understand that the earth is round," write Alan Lightman and Philip Sadler. Even many fourth graders who say the earth is round often "picture a flat part where people live in the interior of the ball. Others draw the earth as a giant pancake or as a curved sky covering a flat ground."³

Even these images—these maps—exceed the raw experience of the kids, are informed and supported by the cultural activities that inform and support mapping: knowledge, graphic conventions, ideas about representation, conventional ways of conceptualizing earth and sky and our place between them.

So how do we know the earth is round? We know the earth is round because (almost) everybody says it's round, because in geography class our teachers tell us it is round, because it is round on map after map after map . . . or, if not precisely round, then *supposed* to be round, topologically round, so that when you run your finger off one side of the map, you have the license to put it back down on the other. This is not some form of solipsism, but an effort to understand why in so many media we have made so many maps for so many years. Ultimately, the map presents us with the reality we *know* as differentiated from the reality we see and hear and feel. The map doesn't let us *see* anything, but it does let



Hedy Ellis Leiter, age 7, draws the world.

us know what *others have seen* or found out or discovered, others often living but more often dead, the things they learned piled up in layer on top of layer so that to study even the simplest-looking image is to peer back through ages of cultural acquisition.

Here, another image from this month's *Life*, one of Pacific winds. It is probably less than three square inches on the page, a voluptuous circle of swirling color summarizing . . . *millions of pieces of data*. And if the caption makes reference only to the computer display of satellite transmissions, we can see in its implied sphericity the Greeks and the Chinese who pondered long the meaning of the ships coming *up* from the sea; we can set sail once more with Columbus and Magellan, stand again upon a peak in Darien and stare out with Cortez at the Pacific; we can walk the decks of the ships and ride the buoys that used to make these measurements; we can . . . take advantage of *all the work* that has gone before, all the ingenuity and effort, all the voyages taken and flights made, all the hypotheses advanced and demolished and finally proven, all caught, all taken advantage of, *all justified*, by this silver-dollar sized hot-pink and blue map of Pacific winds.

Maps Make the Past and Future Present

The world we take for granted—the real world—is made like this, out of the accumulated thought and labor of the past. It is presented to us on the platter of the map, *presented*, that is, *made present*, so that whatever invisible, unattainable, erasable past or future can become part of our living . . . *now . . . here*. An example: I am one of a group of Raleigh citizens who have banded together to oppose a road the City of Raleigh wants to build across the grounds of a hospital listed on the National Register of Historic Places. In the process—of our living here and now—we compare a map of the proposed route for the road—that is, a map of a potential future—with a map of the historic site—that is, with a map displaying a determination made in the past about the extent of the historic site. Past and future—neither accessible to my senses *on the ground* (the road does not yet exist, there is nothing to see, the boundaries of the historic district are not yet inscribed in the dirt, there is not even a marker)—come together in my present through the grace of the map.

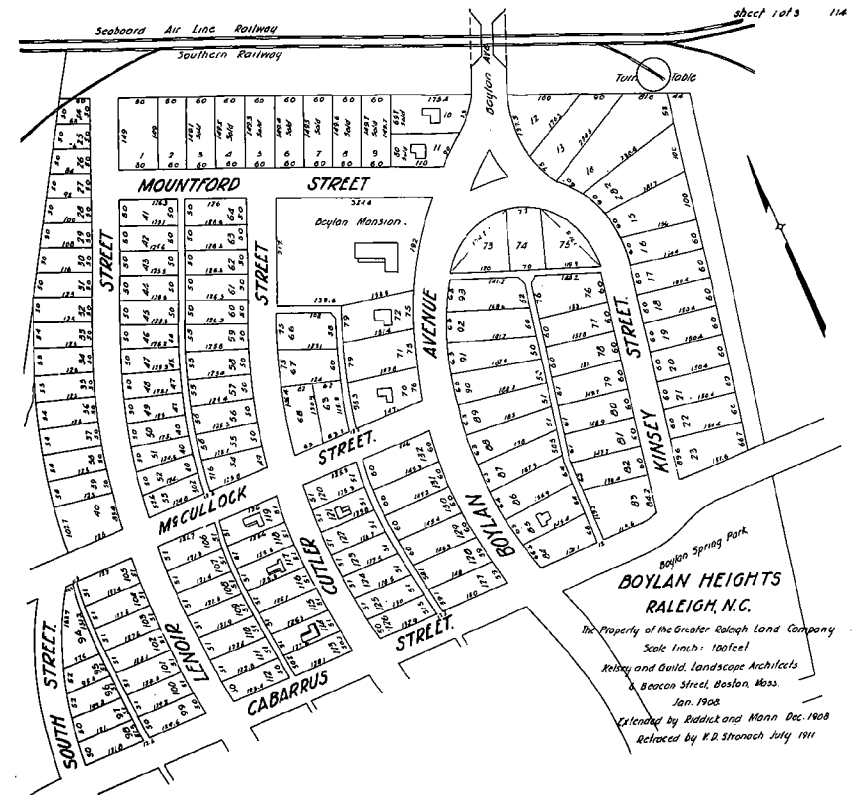
And every map is like this, every map facilitates some living by virtue of its ability to grapple with what is *known* instead of what is merely seen, what is *understood* rather than what is no more than sensed. I want to say that recently the distance between this visible, palpable world of our senses and the world we make of it has stretched. On the cover of Stephen Hall's *Mapping the Next Millennium*⁴ is what appears to be a map of the ocean floor. Actually it displays anomalies in the gravity field of the ocean

floor based on radar altimeter measurements of the sea surface that mimic the topography of the ocean floor. Now, that's a stretch from the sandy bottom beneath our feet, or even from the (now) old-fashioned sonar readings we used to have to rely on. But here's another map, the first in *The New State of the World Atlas*.⁵ It looks like a political map of the world, and that's what it is. But just because it's easy for us to say this doesn't mean that conceptually it's not a stretch. Once you start to think about it, you realize that conceptually it's a lot more of a stretch than the map of the ocean floor. In fact, once you start to think about it, you realize that it's very difficult to say what this is actually a map of or to describe how it came to be. The concept of a gravity anomaly may or may not pose a conceptual difficulty, but the idea of a satellite bouncing radar off the ocean surface to map subtle variations in its height is straightforward; and the idea that these variations might reflect subtle variations in the gravitational field of the ocean floor that might in turn relate to variations in its topography is not too convoluted either. One can imagine the sensing system, can cope with the idea of its data being turned into this image.

But with the political map, this straightforward quality vanishes. National boundaries are not sensible. If variations in land use (as between Haiti and the Dominican Republic), or the gauge of railroad track (as between Russia and China), or the orientation of mailboxes (as between Vermont and Quebec), indicate the presence of an otherwise insensible border, no less often there is no difference to mark such a boundary through the rain forest (between Bolivia and Brazil), or across the desert (between Oman and Saudi Arabia), or in Los Angeles (between Watts and Compton). Or, the opposite situation, there is a chain link fence dripping with concertina wire and guard posts establishing the rhythm of a certain paranoia, and this border, which is more than sensible, is *not the border*, the border is contested, the neighbors disagree, there are binding United Nations' resolutions that are ignored, atlases show the border . . . *somewhere else*.⁶ Here the stretch between the sensible and the mapped is close to the breaking point: what is being mapped?

Every map constitutes such a stretch, those of the big world no more than that of the lot our house sits on, whose description reads as follows on the deed to our property:

Beginning at a stake marking the northeastern corner of the intersection of West Cabarrus Street and Cutler Street and running thence along the eastern line of Cutler Street North $3^{\circ} 17'$ West 50 feet to a stake, the southwestern corner of Lot 125 as shown on map reference to which is hereinafter made; runs thence [and so forth and so on] to the place and point of Beginning, and being Lot Number 126 of Boylan Heights according to map recorded in Book of Maps 1885, page 114, Wake County Registry.



The map, from the *Book of Maps 1885* (p. 114), Wake County Registry, on which lot number 126 is recorded.

But there is no stake, there are no stakes, there is nothing to see; or where there is, all acknowledge that the fence does not follow the property line but veers across it; the only reality is the map, the map recorded on page 114 of the *Book of Maps 1885*. Here is the stretch—there is nothing in the trees or grass, on the sidewalk or street to mark the ownership the map grants us (the *land* is there: it is the *property* the map creates)—and here again is this *activity of another world*—the past in which control of this land was seized by the English Crown and granted to those who sold or gave it to those who sold or gave it to those who sold or gave it to those who sold it to us—made present in the map so that it could be made part of our living . . . *here . . . now*.

How does the map do this?

It does it by connecting us through it to other aspects of a vast system similarly brought forward from the past and embodied, not in

maps, but in codes, laws, ledgers, contracts, treaties, indices, covenants, deals, agreements, in pledges, in promises, in words given and oaths taken. Through this map, for instance, the ownership of the property it grants us—whose limits it describes, whose limits it makes real for us—is tied to a hierarchy of tax codes. The owners of Lot 126—described in Book of Maps 1885, page 114—have obligated themselves, through their purchase, to pay taxes to the county (itself a creature of another set of maps). Through these in turn they have linked themselves to the local school district (endowed with reality by yet another map) where their children attend school (in an attendance zone defined by still another map). Through their purchase, they have similarly obligated themselves to observe a set of restrictions on the use of their property that are embodied in zoning maps (they cannot rent out, for instance) as well as in an historic district overlay (they must receive approval from an appearance commission before they can paint their house any color other than white). Others, connected to the owners of Lot 126 through their own enmeshment in this hierarchy of nested maps, have identical and reciprocal obligations. They have agreed not to dump trash on Lot 126, or set their pup tents on it, or use it for a playing field, or as a shortcut; they have agreed to help pay for the garbage collection from the alley behind the Lot, and to help pay for the water and sewerage, fire and police protection, and other services . . . *that come with the territory.*

Maps Link the Territory with What Comes with It

It is this ability to link the territory with what comes with it that has made maps so valuable to so many for so long. Maps link the territory with taxes, with military service or a certain rate of precipitation, with the likelihood that an earthquake will strike or a flood will rise, with this or that type of soil or engineering geology, with crime rates or the dates of first frost, with parcel post rates or area codes, with road networks or the stars visible on a given date. Maps link land with all these and with whatever other insensible characteristics of the site past generations have been gathering information about for whatever length of time. The University Museum at the University of Pennsylvania has a property map subserving some of these functions that is three thousand years old. It was incised with cuneiform characters on a clay tablet in Mesopotamia,⁷ but no subsequent society of any size has long failed to make property maps in a variety of media. Ancient Egyptians drew them and Roman *agrimensores* surveyed them; the Japanese had them made as long ago as 742 AD, and there is an Aztec map of property ownership in the Library of Congress dated to 1540.⁸ With the passage of the Land Ordinance of 1785 in the United States, and the cadastral mapping of France set in

motion 1807 by Napoleon, increasingly enormous swaths of the planet were entered into this huge atlas of proprietorship, until now it is hard to imagine there is a square inch left whose ownership has not been staked out, squabbled over, bought, sold or killed for, each *transaction* . . . recorded someplace, on a map in a land office.

Such maps account for but a single layer in the great bundling of boundaries with which we have tied up the planet: maps of treaty organizations and national borders; maps of provinces, territories and states; maps of boroughs, counties, parishes and townships; maps of towns and cities, neighborhoods and subdivisions; maps of water and soil conservation districts; maps of garbage collection routes and gas service districts; fire insurance and land-use maps; precinct maps; tithing maps; congressional district maps; maps of the jurisdiction of courts . . . There is no reason to end this list here—or *anywhere*—for there are as many different kinds of—what to call these? boundary maps? power projection maps?—as there are ways of holding sway upon the earth.

And such boundary maps constitute but a single entry in the vast ledger maps keep. To open any thematic atlas is to—here, these are the plate titles, that is, the names of the things in the world the maps point to, from the “world thematic maps” section of *Goode’s World Atlas*: Political, Physical, Landforms, Climatic Regions, Surface Temperature Regions, Pressure, Winds, Seasonal Precipitation, Annual Precipitation, Ocean Currents, Natural Vegetation, Soils, Population Density, Birth Rate, Death Rate, Natural Increase, Urbanization, Gross National Product, Literacy, Languages, Religions, Calorie Supply, Protein Consumption, Physicians, Life Expectancy, Predominant Economies, Major Agricultural Regions, Wheat, Tea, Rice, Maize, Coffee, Oats, Barley—well, it goes on for pages.⁹ Or here, a *totally* different selection from *The New State of War and Peace* atlas: The Dove of Peace (a map of cease-fires and reductions in armed forces, 1988–90), The Dogs of War (a map of states in which wars took place, 1989–90), Unofficial Terror, Nuclear Fix, Killing Power, The Killing Fields, Bugs and Poisons, The Armourers, The Arms Sellers, The Butcher’s Bill (the number of deaths attributable to war), The Displaced (the number of refugees), Sharing the Spoils, The Martyred Earth . . . and this too goes on for pages.¹⁰ Zoom in? In the 57 maps of *The Nuclear War Atlas* we can subject the Nuclear Fix map of the *The New State of War and Peace* atlas to a kind of microscopic inspection. For example, here is a map showing the destruction of Hiroshima during World War II, and here another showing the sweep of debris around the world from the fifth Chinese nuclear detonation, and here a third showing the portions of the United States that would receive more than 100 rems of radiation in a nuclear war. There are 54 more where these came from.¹¹

Zooming out allows us to take in what cartographers refer to as general reference maps, images establishing a relatively indiscriminate

reality, at least by the standards of the *Nuclear War Atlas*, the *Atlas of Landforms*¹² or *The World Atlas of Wine*.¹³ In *Goode's* these comprise most of the maps in its "regional section" where they go under the name of "physical-political reference maps," that is, maps that pay attention to selected aspects of the physical environment—topography and major water features—and to a few of what are called "cultural features"—political boundaries, towns and cities (of certain sizes), roads, railroads, airports, dams, pipelines, pyramids, ruins and . . . *caravan routes*.¹⁴ Granted . . . it's hardly *general* reference, but it's about as close as maps come to portraying a world that we might *see*, especially at really large scales where, when the relief is shaded, the maps begin to suggest *pictures* of the world as it might be seen from an airplane . . . sort of. The map is always a stretch. It is never "the real thing" we walk on or smell or see with our eyes:

Big Tiger had never had a map in his hand before, but he pretended to know all about maps and remarked airily: "I can't read the names on this one because they're in English." Christian realized he would have to show his friend how to read a map. "The top is north," he said. "The little circles are towns and villages. Blue means rivers and lakes, the thin lines are roads and the thick one railways." "There's nothing at all here," said Big Tiger, pointing to one of the many white patches. "That means it's just desert," Christian explained "You have to go into the desert to know what it looks like."¹⁵

Exactly. This is the very point of the map, to present us not with the world we can *see*, but to point *toward* a world we might *know*:

"That's a fine map," said Big Tiger. "It's useful to be able to look up beforehand the places we reach later." "Are there really bandits about here?" asked Christian. "Perhaps it's written on the map," Big Tiger ventured. "Look and see."¹⁶

And if caravan routes . . . *why not bandits?*

Maps Enable Our Living

Here is the difference between a property map and a general reference map: one nails us to the territory, the other merely points it out. We might use a property map (and the maps to which it points) to answer *beforehand* questions about school districts and crime rates, but the way such a map usually *works* is to make these connections effective in the *ongoingness* of our daily living. The general reference map . . . is a *less involved observer*. The difference is that between parents saying "Wash these!" as they point to the dirty dishes—the property map—and saying



A detail from "Porlier Pass to Departure Bay," the fourth of four sheets which together make up Chart 3310—Gulf Islands: Victoria Harbour to Nanaimo Harbour.

"Your grandmother gave us those" as they wave in the general direction of the china cupboard. The indexicality is none the less, but the way that other world is made part of our living is less *well defined*, is less *enforceable*. This suggests that we can distinguish among maps not merely on the basis of what they show, but on the basis of the different livings into which that knowledge is incorporated. Spread before me is "Porlier Pass to Departure Bay," the fourth of four sheets that taken together comprise "Chart 3310—Gulf Islands: Victoria Harbour to Nanaimo Harbour."¹⁷ It's a skinny chart about four feet long by maybe a foot and a half high, folded, meant to be used—that is, *consulted*—in sections, though when unfolded it's pretty enough, and more than one of these is hanging behind glass somewhere, decorating a wall *and* making a connection to the territory. The sheet is sprinkled with black numbers and furrowed with blue lines indicating the depth of the water in fathoms (under 11

fathoms in fathoms and feet). A cabala of other marks differentiates 46 aids to navigation (permanent lights, whistle buoys, fog signals), eight different qualities of seabed (gravel, mud, shells), and 44 other objects of interest (drying rocks with heights, kelp, wrecks, abandoned submarine cables).¹⁸ Now, the living into which all of the labor that resulted in the production of this chart is incorporated is different from the living taking advantage of another map, say, this one, the *Geologic Map of Region J, North Carolina*, which shows in black and red the location of igneous, sedimentary, metasedimentary and metavolcanic rocks, various strikes and dips, and mineral resources, including, among other things, sites of potentially economic mineral deposits of crushed stone, iron and ruby corundum. Indicative of the living into which this map might be incorporated is the title of the booklet it accompanies, *Region J Geology: A Guide for North Carolina Mineral Resource Development and Land Use Planning*.¹⁹ This allows us to imagine planners—as opposed to pilots—consulting this map in their struggle to make land-use decisions, as, for example, where to locate a low-level radioactive waste dump.

Conventionally we have been asked to think about these as different *uses* of maps—navigation, planning—but both exploit the maps' inherent indexicality to link the territories in question with what comes with them, here perhaps shoal water, there perhaps an active fault. The *uses* are less different than the *livings* that incorporate into their present the endless labor all maps embody. This is what it means to use a map. It may look like wayfinding or a legal action over property or an analysis of the causes of cancer, but always it is this incorporation into the here and now of actions carried out in the past. This is no less true when those actions are carried out . . . *entirely in our heads*: the maps we make in our minds embody experience exactly as paper maps do, accumulated as we have made our way through the world in the activity of our living. The deep experience we draw upon, for example, whenever we select from the myriad possibilities *this route* for our trip to the movies is no less a product of work than was a medieval *portolan*, incorporating as it did in its making the accumulated knowledge of generations of mariners (and others) in the carefully crafted web of rhumb lines, the fine details of the coasts.²⁰ Onto the simple schemata with which we came into the world, our early suckling and crawling and grasping and peek-abooing all mapped a web of simple topological relations. This provided a substrate for the etching—as we moved out into the school yard and the neighborhood, as we explored the woods behind grandma's house or the meadows down beyond the creek—of spatial relations invariant under changes in point of view. Once we coordinated these, we could begin the construction of systems of reference invariant under changes in location, we could begin making . . . *maps*,²¹ which we do, wherever we go, whenever we go, out of our movement on foot and in car, in boat and in

plane, out of pictures we see and movies we watch, out of the things we read in the newspapers and hear on the radio, out of the books we read, the maps we consult, out of the atlases we flip through . . . out of the globes we spin. It is all labor, it is all work, the construction of these mental realms; and when we draw on them—for even the most mundane activity—we are bringing forward into the present this wealth we have laid up through the sweat of our brows.

To what end? To the same end, to—through the map—link all this elaborately constructed knowledge up with our living. Say we want to go to a movie. What do we do? We look it up in the newspaper, and read “Six Forks Station (daily at 2, 4:30, 7 and 9:30). Tower Merchants (nightly at 7, 9:30).” To choose which theater to go to, *much less how to get there*, we have to organize all the relevant bits of information into some kind of structure. For the moment let's call this structure a mental map, and let's think about it as a board sort of like a Paris metro map but covered with a trillion tiny light bulbs. When I think of Six Forks Station, a string of these bulbs lights up. This isn't the image I get, of course, any more than the activity of the computer I'm typing this on displays for me the machine processes in which it is engaged. The string of bulbs lights up, and I have a sense of Raleigh and a route to the theater, where it is (does my body sort of turn toward it?), what kind of roads will take me there (there may be many alternatives), the level of traffic at the time we want to go, other things. I don't know if this sense is displayed in my head as a map *image*. I know I can externalize it this way, but my feeling is that the mental maps I consult are less . . . *straightforward*. Sometimes the string won't be complete, I'll sense a gap in my knowledge, a little uncertainty, I'll say, “Do you know how to get there?” “Don't you?” “Umm . . . sort of.” Maybe there's a red bulb at the end of one of the strings that makes me realize that I'll have to ask around when I get there, but that this won't be a problem. Or maybe there's a blue bulb that lets me know I could easily get lost. Of course this is only a map. There are no guarantees. I could get lost no matter the color bulb. The same thing happens for Tower Merchants. Among the alternatives for the two theaters, I select a couple to compare (do some routes glow more brightly than others?). Then the board goes black, and only these two routes light up again. One comes on in pink (heavy traffic), another in blue (road construction). In the end—this all takes milliseconds—I say, “What about Tower Merchants at 7?” and off we go.²²

Of course a mental map is not a board with a bunch of lights on it, but the neurological activity underwriting this kind of decision is clearly related to the way we use paper maps to make decisions. Certainly the similarities increase once we begin to externalize these maps, to share them with each other. “What? Why would you go that way?” “Because it's shorter.” “No, no, it's shorter if you take St. Mary's to Lassiter Mill—”

"Oh, and then go out Six Forks to Sandy Forks?" "Yeah." Here the maps, in separate heads, are being consulted almost as if they were paper maps open on the table, linking knowledge individually constructed in the past to a shared living unfolding in the present.

One Map Use—Many Ways of Living

For these many maps then, only one use (aside from swatting flies or wrapping presents in them), and that is this connecting up what-we-have-done (money we have exchanged, surveys we have carried out, walks we have taken) *through the map*—property or mental, thematic or general reference—with what we want to do or have to do, with what we find is pressing. But if only one use . . . *many livings*. Perhaps this is the problem with the many taxonomies of maps that have been attempted, they end up taxonomies not of maps, but of the ways we view the world and the many ways we make our way within it. Take this simple-looking scheme from *The Map Catalogue*.²³ Since its subtitle reads *Every Kind of Map and Chart on Earth and Even Some Above It*, we should be able to anticipate a certain . . . comprehensiveness. But what we find are three types of maps, of *land*, of *sky* and of *water*. This apparent simplicity—itsself an illusion—disintegrates immediately. Under "Land Maps" are listed: Aerial Photographs, Agricultural Maps, Antique Maps, Bicycle Route Maps, Boundary Maps, Business Maps, Census Maps, CIA Maps, City Maps, Congressional District Maps, County Maps, Emergency Information Maps, Energy Maps, Foreign Country Maps, Geologic Maps, Highway Maps, Historical Site Maps, History Maps, Indian Land Maps, Land Ownership Maps . . . But already I'm exhausted with this inventory, there is no rhyme or reason to it, it is a melange, a potpourri . . . and it doesn't stop. Here, another one, this from a special issue of *The American Cartographer* (Journal of the American Congress on Surveying and Mapping) containing the *U.S. National Report to ICA, 1987*.²⁴ With all this we should be able to expect a certain . . . *authoritativeness*. Again, we have three fundamental divisions, but this time into *government mapping*, *business mapping* and *university cartography*. Again, the apparent simplicity is delusional (all the universities are state universities, under the latter we find "Limited Edition Maps for Corporate Cartography"), the divisions are not real, or they have to do with making money not maps, and, again, the whole dissolves into a chaos ordered only by the type on the page: "Cartographic Programs and Products of the U.S. Geological Survey," "NOAA Map and Chart Products," "Defense Mapping Agency Redesign Studies," "Maps for Parklands," "An Experimental 1:100,000 Ground/Air Product." A third example, this from the fifth edition of *the* textbook in the field, Robinson, Sale,

Morrison and Muehrcke's *Elements of Cartography*.²⁵ Again, we have three divisions: "In order to provide a basis for the appreciation of the similarities and differences among maps and cartographers, we will look at maps from three points of view: (1) their scale, (2) their function, and (3) their subject matter." There is the imputation that these are independent, but again the classification collapses on inspection, this time into . . . *the vague*. Scale turns out to distinguish between *the large* and *the small*. Function discriminates among *the general*, *the thematic* and *the chart*. Under subject matter—after a nod toward cadastral mapping and plans—we find that "there is no limit to the number of classes of maps that can be created by grouping them according to their dominant subject matter." This leads to the conclusion that "cartography is independent of subject matter," thus rendering moot the point of making it the basis of a classification in the first place.

Hall gives us *four* divisions (violent novelty)—"Planetary Landscapes, Ours and Others," "The Animate Landscape" (maps of the body, brain, gamete, genes and DNA), "Probabilistic Landscapes, Atomic and Mathematical" (atomic surfaces, particle interactions, the fractal mapping of *pi*), and "Astronomical and Cosmological Landscapes".²⁶ So does *Goode's*, though all four of *Goode's*—world thematic maps, major cities maps, regional sections and ocean floor maps²⁷—would get lost in a single division of Hall's. Southworth and Southworth, both designers, give us eight in a veritable explosion of map types: Land Form; Built Form; Networks and Routes; Quantity, Density and Distribution; Relation and Comparison; Time, Change and Movement; Behavior and Personal Imagery; and Simulation and Interaction. Bizarrely enough, they refer to these as "mapping techniques," including what others call map types within them (thus: embossed map, relief map, route map, diagrammatic strip map, pictographic map, cartoon map, military map, geologic map, pictorial map, insurance map) but making no effort to systematize these.²⁸

Maps Construct—Not Reproduce—the World

These disparate efforts have in common precisely what the maps they so desperately attempt to sort have in common. Both are driven and shaped by the uses that connect the maps *through* them—*through* the taxonomies—to the livings that demanded and produced them. The crude impulse to produce a book produced the crude taxonomy of the *The Map Catalogue* with its land, sky and water world arbitrarily decomposed according to the order of the letters in the alphabet. The cartography journal, written by and for people who *make* maps, followed the cleavages of production. Hall, a journalist on the prowl for "newly charted realms,"

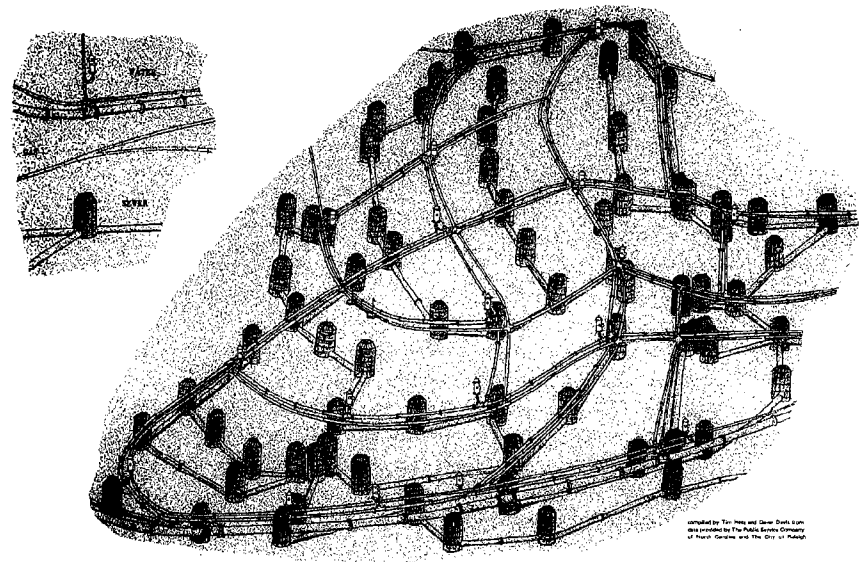
found them in the sub- and supraterrestrial, and from these he generated a taxonomy of spectacle. The Southworths produced—as designers might be expected to—a more formal partitioning. But for all this, little taxonomy . . . of maps. One would not be difficult to imagine. Here: at the level of the kingdom, *material maps* and *mental maps*. Within the kingdom *material*, phyla distinguish among substances: *paper maps*, *cloth maps*, *clay maps*, *metal maps*. Within these, subphyla and classes, by size and weight; orders and families, by age and place of production; genus and species, by projection and . . . Well, at least it's a taxonomy of maps, instead of the earth or of mapmakers or the elements of Aristotle. But it is immediately evident how . . . *uninteresting* these classifications are, how . . . *irrelevant*. Not that the size and weight of the map don't matter—you can't read the *Times Atlas* in bed; a map you're going to steer by needs to fold up into small sections—but that these characteristics are subsumed in the more general, more powerful, more . . . *meaningful* question of how the map will link its readers to the world it embodies. Thus: bicycle map, blueprint, book illustration, topo sheet, historical atlas, wall map, logo . . .

Again: caught in the net of the living. Better simply . . . to admit it that *knowledge of the map is knowledge of the world from which it emerges*—as a casting from its mold, as a shoe from its last—isomorphic counter-image to *everything* in society that conspires to produce it. This, of course, would be to site the source of the map in a realm more diffuse than cartography; it would be to insist on a *sociology* of the map. It would force us to admit that the knowledge it embodies was socially *constructed*, not tripped over and no more than . . . *reproduced*. But then no aspect of the map is more carefully constructed than the alibi intended to absolve it of this guilt. In his effort to understand why historians make so little use of maps, Brian Harley argues that it follows from the way they see them:

The usual perception of the nature of maps is that they are a mirror, a graphic representation, of some aspect of the real world. The definitions set out in various dictionaries and glossaries of cartography confirm this view. Within the constraints of survey techniques, the skill of the cartographer, and the code of conventional signs, the role of a map is to present a factual statement about geographic reality. Although cartographers write about the art as well as the science of mapmaking, science has overshadowed the competition between the two. The corollary is that when historians assess maps, their interpretation is molded by this idea of what maps are supposed to be. In our own Western culture, at least since the Enlightenment, cartography has been defined as a factual science. The premise is that a map should offer a transparent window on the world.²⁹

What is achieved in this way? Precisely the pretense that what the map shows us is . . . *reality*. Were it not reality, why then it would just be

. . . *opinion*, somebody's *idea* of where your property began and ended, a good *guess* at where the border was, a *notion* of the location of the hundred-year flood line, but not the flood line itself. What is elided in this way is precisely the social construction of the property line, the social construction of the border, the social construction of the hundred-year flood line, which—like everything else we map—is not a line you can see, not a high water mark drawn in mud on a wall or in debris along a bank, but no more than a more-or-less careful extrapolation from a statistical storm to a whorl of contour lines. As long as the map is accepted as a window on the world, these lines must be accepted as representing things in it with the ontological status of streams and hills.³⁰ But no sooner are maps acknowledged as social constructions than their contingent, their conditional, their . . . *arbitrary* character is unveiled. Suddenly the things represented by these lines are opened to discussion and debate, the *interest* in them of owner, state, insurance company is made apparent. Once it is acknowledged that the map *creates* these boundaries, it can no longer be accepted as *representing* these "realities," which alone the map is capable of embodying (profound conflict of interest).³¹ The historian's problem is everybody's problem: our willing-



The social construction of this map—of the gas, water and sewer mains below the neighborhood in which Lot 126 is located—is hard to overlook, since, underground, it is impossible to see. (Drawn by Carter Crawford.)

ness to rely on the map is commensurate with our ability to suspend our disbelief in its veracity, but this amounts to a willingness to accept the map as an eye where the eye too no more than selectively brings into being a world that is socially construed.³²

The temptation here always is to illustrate the truth of these assertions with outrageous examples. The effect is to protect the alibi by poking in it only . . . *the most obvious holes*. By parading egregious instances of map bias, the vast corpus that underwrites our daily living is allowed to evade inspection. A story in this morning's paper is classical. A local high school, Cardinal Gibbons, isn't where its address—and most maps—say it is:

But the confusion about Gibbons doesn't stop there. Some maps show the school west of Avent Ferry Road, resting between Fraternity Court and Western Boulevard. "Every map that I've seen has us about a half a mile west of here," Kockx said. "No wonder we haven't grown. Nobody can find us."

The implication is that everything else on the maps is where it's supposed to be, that except for this bewildering—but explainable—error, maps really are windows on the world. *This* is the exception that proves the rule. When isolation won't serve, miraculous sleight of hand: our attention is turned to "propaganda maps" whereby the innocence of other maps is protected by blinding us to all but a small corpus of maps in which everyone can see—and happily acknowledge—the social construction of the image.³³ Or, a big deal is made about the failures of maps *in the past* to reflect the "real world." This leads to much self-righteous indignation over the loss of the learning during the dark ages when the lamp of learning was extinguished,³⁴ and endless froth over the placing of elephants for want of towns on the uninhabited downs of Jonathan Swift, thereby permitting *contemporary* maps to appear as the windows they have—presumably by dint of hard effort and the "scientific" attention to standards—triumphantly become³⁵:

The stations of this network are normally located 25 to 100 km (15 to 60 miles) apart and will have NAD 83 (North American Datum of 1983) horizontal positions, with differential positions accurate locally at the 1–3 cm level and absolute positions relative to the NAD 83 coordinate system accurate to the 5–10 cm level. Since GPS is three-dimensional, these stations also will have a vertical coordinate (ellipsoid height) associated with them. These ellipsoid heights can be converted to orthometric heights, the quantity obtained from leveling surveys, using geoid height information. NGSD currently publishes such geoid information from the high resolution geoid height model known as GEOID90. This geoid can provide 1 cm accuracy between points 10 km apart.³⁶

Only by the slimmest margins does the map fail to be a window on the world, margins which, because we can control and understand them, no more interfere with our vision than does a sheet of window glass.

All you have to do is ignore the frame.

All you have to do is ignore the way the window isolates this view at the expense of another, is open at only this or that time of day, takes in only so much terrain, obligates us to see it under this light . . . or that. This is the sleight of hand: if you're paying attention to the glass, you're not paying attention to what you're seeing through the window. Not that accuracy is not worth achieving, but it was never really the issue, only the cover. It is not precision that is at stake, but precision with respect to what? What is the significance of getting the area of a state to a square millimeter when we can't count its population?³⁷ Who cares if we can fix the location of Trump's Taj Mahal with centimeter accuracy when what would be interesting would be the dollar value of the flows from the communities in which its profits originate? What is the point of worrying about the generalization of roads on a transportation map when what is required are bus routes? Each of these windows is socially selected, the view through them socially constrained no matter how transparent the glass, the accuracy not in doubt, just . . . *not an issue*.³⁸

Look: here's Plate 86 in the *Times Atlas* with the Suez Canal running right up the gutter. Here's Israel and here's Jordan and running around through them in place of the usual international boundary line symbol is a string of purple dots and dashes: "Armistice Line 1949" and "Cease-Fire Line June 1967."³⁹ What is at stake here? Certainly it is not the *location* of the lines represented by these dots which everyone agrees . . . *are where they are*. What is at stake is not latitude and longitude, measured to whatever degree of fineness imaginable, but . . . *ownership*: this is what is being mapped here. This is what the fight is about. And the fighting was just as ferocious—maybe more so—before Harrison's chronometer beat its first second and long before we had Global Positioning Systems. With our total station we can get a satellite fix where we're standing at 31.31 N and 35.07 E; and whether we call it Hebron or Al Khalil, we will all agree that it's 31.31 N and 35.07 E. But because the map does not *map locations* so much as *create ownership at a location*, it is the ownership—or the ecotone or the piece of property or the population density or whatever else the map is bringing into being, whatever else it is making real—that is fought over, in this case, to the death.

Here, a second example, from the morning paper, *completely explicit*. The headline reads: "Raleigh neighbors don't want place on city's map." Here again the question is one of annexation, in this case to justify another annexation:

What Raleigh really has its eye on is part of the lucrative Centennial Campus that stretches across 1000 acres next door. State law requires that annexed land have a certain number of residents—something the new campus doesn't have . . . The 340 people who live next door would fulfill those requirements as part of a package annexation deal.⁴⁰

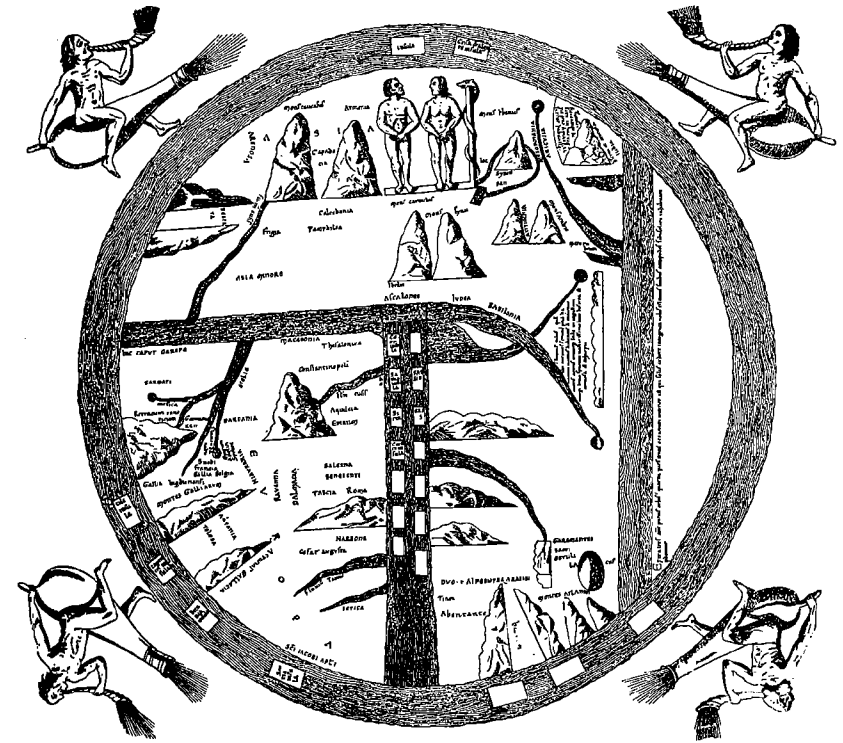
The objection is that because the city won't be maintaining the neighborhood's narrow, private streets, the residents will be paying for services they won't be getting, resulting in a kind of multiple taxation: "We're being taxed almost three times—by the county, by the city and by our homeowners' dues," complained one resident. Again, there is no question where any of these things are: city, county, subdivision, campus. All exist as property, thanks to the agency of maps, whose accuracy again is not in question, because maps do not so much record locations as connect them to a living. County, city? The role of the map, *which will be to establish this connection, to make it real in the lives of the residents* (and through their mutual enmeshment in the hierarchy of nested maps real as well in the lives of the rest of the city residents), will pass unobserved by all but the guy who wrote the headline.

Every Map Has an Author, a Subject, a Theme

"Mirror," "window," "objective," "accurate," "transparent," "neutral": all conspire to disguise the map as a . . . reproduction . . . of the world, disabling us from recognizing it for a social construction which, with other social constructions, brings that world into being out of the past and into our present. Preeminent among these disguises is the general reference map, the topographic survey sheet, the map, which without a point of view, gives us the world . . . as it is. Is any myth among cartographers more cherished than that of this map's dispassionate neutrality? So surely is this the north toward which cartographers point that they take its presence for granted, as though the neutrality of the general reference map were a fact of nature, a common truth like "all men are created equal" or "everyone's out for himself." Like these, its truth is little debated. It is just there, lodestone for a time of doubt. In most cartographic texts, the general reference map does a brief turn in the opening, where its existence, like that of the Virgin Birth, is blandly announced.⁴¹ An undefined term, it then disappears, though like a palsied hand, its presence is sensed in every line. "We all know how a map works, right? Good. Then let's get down to business." It is like a cookbook: what does it matter what a cake is? Follow these instructions and you will be able to *make* one. Compile and scribe, proof and print: *that's* a general reference map. If you can hold it in your hands is there any need to discuss it? Or, the general reference map is brought on stage to

clarify what something else is *not*. Fleeting, like the conjurer's hat, it is spun through the discussion: magically, from its empty interior, materializes the rabbit of the thematic map.⁴² This is claimed, in contradistinction to the general reference map, to have a subject or a theme. Or could I have that backwards? A map without a subject . . . would that be like a song without a melody?

What would a map be *of* that lacked a subject, unless the horror of the empty mirror? *Of* nothing, it would *be* nothing. It would not be. Unless it were to pop up in another universe, that of the mathematician perhaps, as an empty grid; or in that of the linguist as a crippled language, a grammar without words to embody it. A map is always *of* something, always has a subject, even when that something is a fiction alive exclusively in the map that is of it.⁴³ It refers out from itself to another map, to the world, to the Nature of which it is not. *Of* something (its



It is not just maps like this, from a manuscript in a library in 12th-century Turin, which embody their authors' prejudices, biases, partialities, art, curiosity, elegance, focus, care, attention, intelligence, and scholarship: *all* maps do.

subject), it is also through someone (its author), for its presence in the world is ever a function of the representing mind, and as such—it needs repeating—prey to all the liabilities (and assets) of human perception, cognition and behavior.⁴⁴ This is no more than to say that the map is about the world in a way that reveals, not the world—or not just the world—but also (and sometimes especially) the agency of the mapper. That is, maps, all maps, inevitably, unavoidably, necessarily embody their authors' prejudices, biases and partialities (not to mention the less frequently observed art, curiosity, elegance, focus, care, imagination, attention, intelligence and scholarship their makers' bring to their labor). There can be no description of the world not shackled (or freed—for this too is a matter of perspective) by these and other attributes of the describer. Even to point is always to point . . . *somewhere*; and this not only marks a place but makes it the subject of the particular attention that pointed there instead of . . . *somewhere else*. The one who points: author, mapmaker; the place pointed: subject, location; the particular attention: the aspect attended to, the theme—nothing more is involved (and nothing less) in any map. For example, a cartographer (the author, the one who points) maps the vegetation (the theme, the focus of attention) of Europe (the subject, the place pointed to).⁴⁵

Seen this way, it is not that the general reference map lacks a theme, but that it has *too many*, or that they are too deeply interwoven, that the map is more subtle than simple, too complex to bare in a single word—which words therefore are dispensed with altogether, as great novels today get along without the subtitles that adumbrated the themes of earlier ones, *Candide ou L'Optimisme*, *Emile ou L'Education*. Thus, not *Europe or the Vegetation, Transportation, Topography, National Boundaries, Cities and Points of Interest*, but simply (and more grandly) *Europe*, as we say *Ulysses* or *Love in the Time of Cholera*, with respect to which, simply because they are not itemized, we do not assume any lack of "themes." Perhaps the issue is essentially one of euphony, that on first hearing, "Vegetation Map" sounds reasonable, whereas "Vegetation-Physical-Political-Urban Map" sounds silly and cumbersome. Whereas it is a form of snobbery to prefer the seemingly elegant ("Vegetation Map") to the merely utilitarian ("Vegetation-Physical-Political-Urban Map"), it is a form of madness to confuse the titles with the content, and so come to mistake the "Vegetation Map" for a map of vegetation, or the map of "Europe" (elegant cover for "Vegetation-Physical-Political-Urban Map") for a map of Europe. The former is to mistake the theme for the subject; the latter to take the map for the subject itself, as though it were possible to have a map purely of its subject, of Europe, not of the *vegetation* of Europe, or the *topography* of Europe, or the *cities* of Europe *today*, but, you know, of *Europe itself*, as it is, once and forever, warts and all.

But sooner this hallucination than a cacophonous title, even if such self-deception should result in the articulation of a class of maps founded, not on content, but on names: those called by their themes (vegetation, urban, climate) and presumptively partial (*the thematic map*); and those named after their subjects (Europe, North America) and presumptively impartial (*the general reference map*). That such nominal classification bears but the slightest relationship to the subject of its attention (the maps) is but a trivial sign of panic, sad, but innocuous. The poison lurks in the ascription to the maps named after their subjects (the general reference maps) of, initially, literal impartiality; that is, not being partial (as thematic maps are), to either vegetation or national boundaries or topography; and since not partial in this way, literally impartial (that is, *comprehensive*, as general reference maps are supposed to be). Soon, however, impartial, ceases being heard as not partial but comes to be heard, figuratively, as impartial; that is, as fair, free from bias, disinterested; as in John Dewey's "impartiality of the scientific spirit," that is, as objective, dispassionate, even neutral; until ultimately purely and totally of the subject, without mediation, *transparent*.

Cartographers talk as if this were all well understood. The editors of *Goode's World Atlas*, to exemplify, are nicely outspoken. As they write in their introduction, "Because a well-drawn map creates an aura of truth and exactness, the cartographer should caution the reader against interpreting the generalized data too literally,"⁴⁶ but frequently they do not mean what they say, they rarely practice what they preach, and have managed to order their maps so as to preserve the implications of transparency for the general reference section. Most of all they are handicapped by the ferocious power of the maps to speak for themselves. The effect is to have created an artifact that says one thing wrapped in words that claim it is something else.

To illustrate: in their introduction to the "regional section," these editors write of their "environment maps" that their boundaries "as on all maps are never absolute but mark the center of transitional zones between categories."⁴⁷ One wants to applaud: *wonderful sentiment*. But that's all it is, a sentiment. For certainly it is not true, as stated, in the general case (unless we are to exorcize maps of their cadastral and political content), and is adhered to in no other, for where the idea of the *zone* has merit, there is invariably a fine black line (as that separating Mediterranean agriculture—in a stippled yellow-green—from deciduous forest—in tan); and where the idea of the *line* has merit there is invariably a zone—depending on the scale, up to 20 miles thick—engulfing a very broken line (as between Germany and France). It is a kind of nominalism which, having insisted that a boundary is not a line, feels perfectly free to draw it as nothing else.

Suspended Between Faith and Doubt

What is its cost? At public meetings citizens peer at small-scale maps on which city planners have scrawled road proposals in markers wide enough to be seen from the back of the council chamber and then, during a break, have heart attacks when they go up close to find the road on top of their homes. Reassured about their homes by careful explanations of the road's actual width, they nevertheless continue to accept the inevitably and accuracy of the rest of the map . . . including the proposed road. Why shouldn't they? Doesn't the map merely . . . *reproduce reality*? If it does, everything on the map is real. If it doesn't, nothing is. Not only would the proposed road be open to debate, but so would the course of *this* stream and *that* political boundary. But if they *are* real, then—except for unwitting error, an unintended failure of accuracy—*everything* on the map is above discussion. This is where the stream runs and that is where the boundary lies, and that is where the road will be built. Can we have it both ways? *We have to*. For the map to enable past or future to become part of our living *now*, it has to be able to connect it to a *here*. Otherwise, paralyzed by doubt, we are reduced to inaction: "Well, we want to plant a hedge, but until we really know where our property line is . . ." Yet unless we continuously *question* the map, doubt—yes—its accuracy, but more critically what of past or future it is linking up to the present and how it is doing so, the map will *disable* us from acting with intelligence and grace, will doom us to a living that is fatally flawed, partial, incomplete: "Well, we planted a hedge there, but none of the maps we looked at showed the city's plan to widen the road." Between doubt and conviction we must perpetually cycle: "We forfeit the whole value of a map if we forget that it is *not* the landscape itself or anything remotely like an exhaustive description of it. If we do forget, we grow rigid as a robot obeying a computer program; we lose the intelligent plasticity and intuitive judgment that every wayfarer must preserve."⁴⁸ At once the map *is* and *is not* the terrain:

"The map is not the terrain," the skinny black man said.

"Oh, yes, it is," Valerie said. With her right hand she tapped the map on the attaché case on her lap, while waving with her left at the hilly green unpopulated countryside bucketing by: "*This map is that terrain.*"

"It is a quote," the skinny black man said, steering almost around a pothole. "It means, there are always differences between reality and the descriptions of reality."

"Nevertheless," Valerie said, holding on amid bumps, "we should have turned left back there."

"What your map does not show," the skinny black man told her, "is

that the floods in December washed away a part of the road. I see the floods didn't affect your map."⁴⁹

But the floods didn't wash everything away, they were not those that only Noah survived. Poised, suspended, between faith and doubt, we must make our way through the world of maps.