15
The Anthropology of Cartography

Denis Wood

In 1986 John Fels and I claimed that 'The anthropology of cartography is an urgent project' (Wood and Fels 1986: 72). In 2011 this is truer than ever: we still have little idea what the gazillion maps are used for. With the explosion in the map's popularity that has taken place since 1986 and the extraordinary expansion of its reach and reception – map art, the ludic turn, map as performance, map as theatre, and so on – what the map in fact does, what it *accomplishes*, seems less clear, because more diffuse than ever. Indeed, as the map's functions multiply, the function that most justifies the pervasiveness of its presence in our lives seems ever more capable of receding into the background the better to perform its work unobserved. This growing invisibility threatens to blunt, if not wholly undo the entire critical project, even as criticism finds itself on everyone's lips.

What do people do with maps?

Why did Fels and I call for an anthropology of cartography? Because we were fed up with the woolly-headed nonsense cartographers spouted – without a shred of evidence – about how and why people used maps. Consider a 1985 episode of *MacGyver* in which MacGyver has been sent to retrieve a map from an unnamed North African country.[1] 'Great thing about a map,' MacGyver says, 'it can get you in and out of places a lot of different ways.' The map he's after, he goes on, 'documents the plans of some heavy-handed trouble-makers. Folks back home figure if I can get a hold of it, the trouble might stop.' As Legionnaires approach, MacGyver clambers through a window into the room with the map. Having seized it he discovers the door is locked from the outside. Slipping the map under the door, MacGyver pokes the key from the

keyhole with his knife. The key drops onto the map which MacGyver then pulls back into the room. During the ensuing chase MacGyver uses the rolled-up map as a pea-shooter to distract a bystander. Wrapped around an iron bar, MacGyver uses the map to disable a pursuer. Finally MacGyver uses the map to patch a hole shot in the hot air balloon in which he's escaping. The map is used to document plans, to retrieve a key, as a pea-shooter, as a disguise, and as a patch. 'A good map,' MacGyver concludes, 'will always get you where you want to go.'

The shortcomings of MacGyver's examples were that they were limited to what we might call *literal* functions, this at a time when Roland Barthes, among others, was encouraging us to pay attention to the *mythic* functions that hitchhiked, as it were, along with the literal. This was a well-understood characteristic of communication. Hitchhiking on MacGyver's varied uses of the map, for example, would have been his ingenuity. That is, what appeared at the level of what Barthes called *language* to illustrate no more than how to use a map to retrieve a key, appeared at the level of what Barthes called *myth* to illustrate something else, MacGyver's endless resourcefulness. Barthes's innovation was to recognize that this tiered system of signification applied to institutions, to the news, to advertising, to mass consumer goods, to 'collective representation' of all kinds. What Fels and I couldn't help noticing was that these 'collective representations' included maps. In fact Barthes might have been talking about maps when he wrote about his popular collection, *Mythologies*: 'I had just read Saussure and as a result acquired the conviction that by treating "collective representations" as sign-systems, one might hope to go further than a pious show of unmasking them and account in detail for the mystification which transforms petit-bourgeois culture into a universal nature' (Barthes 1970: 9). We too wanted to account in detail for the mystification enveloping the map, but the mere unmasking exposed map uses we hadn't thought about before.

For example, it soon became obvious how the North Carolina state highway map was first and foremost a promotional platform for the governor and a way of advertising the state as a tourist paradise. Its navigational function was really just a syringe for mainlining these secondary meanings. As a professor of curriculum and instruction, commenting on the availability of state highway maps for classroom use, remarked, 'It has the governor's picture on it. You can get as many as you want.' The discovery of such 'secondary' uses – 'secondary' in quotation marks because they're so often primary – blew the number of map uses out of the water. Here's a photo illustrating a story about a legislatively mandated North Carolina social studies curriculum

Figure 15.1 An eighth-grade girl uses the state highway map in her social studies class. She's not finding her way but she is affirming the existence of the state

(Figure 15.1).[2] It's an overhead shot of an eighth-grade girl transferring features from the highway map to a small outline map of the state. She's turned herself into a human pantograph, reproducing and so affirming the existence of the features she reproduces. Simultaneously she's reproducing and so affirming the existence of North Carolina *as a state*. Clearly the map has morphed into a teaching aid, but it is pretty plain that it is also implicated in the construction of the state as a reality to be taken for granted by North Carolina students.

Wow! Navigational aids, pea-shooters, promos for the gov ... what else might maps be used for? In 1989 I tried to develop an answer to this question by noting every map my family encountered, used or produced in 20 days of its daily life. On day 2 my then 14-year-old son, Randall, made two elaborate maps of 'Rebel Installation SR 543-k3' for a role-playing game he was in; during the whole period he was obsessed with these maps. My son Chandler, then a 12-year-old, made two maps during the 20 days for a school project on France: one of departments, capitals and major rivers, the other for a tourist brochure of attractions along the Seine ('France: The Country of Romance'). Chandler also spent time drawing elaborate plans for water parks (as many as four or five a day); produced a map for a role-playing scenario; and spontaneously emitted a map of the world, stimulated by a visit from Tom

Saarinen who had projected slides onto our dining room wall of maps he'd collected as part of his National Geographic Society-sponsored study of world views (1988). During the 20 days we drew nine maps playing Pictionary in efforts to evoke 'Brazil', 'Taiwan', 'Los Angeles', 'Illinois', 'East Coast', 'trip', 'map', 'area code' and 'foreigner'. The kids and some friends played Risk – with its notorious map – and maps showed up on packaging, in advertising, and as editorial content in newspapers and magazines.

Maps played central roles in numerous social exchanges. On the first day in the period I gave Ingrid, then my wife, maps of bus routes I'd collected in Spokane and Portland for her to use in her capacity as a board member of the Raleigh Transit Authority. On the second day she and I consulted a pair of Amtrak maps to plan a summer train trip. On the third day Randall asked me to photocopy a map from volume IV of the *Mid-Century Edition of The Times Atlas of the World* for a report on the Canary Islands. Two days later Ingrid took our *Goode's World Atlas* off the shelf to show Chandler the route of the trip we'd planned on Amtrak. A day after that Randall and his friend Garland used a city road map to clarify the bike route we'd taken to see *Beverly Hills Cop II*. This led to a discussion of distances in which Garland used the map's index to find Walden Pond Road, and then to calculate the distance he'd biked to get there. Five days later Randall took a city road map with him on his Sunday bike ride to Wake Forest. Five days later still, on a bus trip with my father, we conferred about our route while consulting the map on a bus stop kiosk. When he noticed that on the way home we were following a different route we looked at a map on a bus schedule. Talking on the phone a couple of days later we each consulted our own copies of a city map as we tried to locate the places we were talking about. On the last day a friend came by with a pair of maps we needed for a presentation to Raleigh City Council. Together we delivered a yard sign that had a road map on it. At dinner that night Chandler asked about Greenland on the Surrealist map of the world I was wearing on a T-shirt promoting R.E.M.'s *Little America* album. On his own shirt, over the left breast, was a logo constructed around the outline of North Carolina.[3]

But the map is not a rock

The problem with approaching map use in this way is that it takes the map for granted, as though it were a fact of nature like a rock, and then tries to catalogue how people use rocks, what people do with them, what they ... *mean*. But maps aren't 'facts of nature'. They are artefacts

people have created to do things with, artefacts with almost ritualistic functions. Maps are used to establish the real. They're profoundly performative.

I say this almost belligerently. I want simultaneously to mean by this that the map is anything but representational *and* at the same time to distance myself from the cant about the performativity of the map that sullies so much map talk these days. Maps have *always* been performative. In fact, it is their performative character that makes them such a useful prop for the state, for the state that called maps into being in the first place, called them into being first and foremost ... *to perform the state.*

Okay, hang on. I know that might be a bit much to swallow. Hear me out.

Starting in graduate school, when I first began to take maps seriously, I had a problem that seemed not to trouble others: why were maps so popular, and why were there so many of them? The answers I got danced around a contention that struck others as self-evident: it's their utility, stupid, a utility that was supposed to arise with the 'fact' that, 'Maps enable man to rise, so to speak, above his immediate range of vision, and contemplate the salient features of larger areas.' That's how Arthur Robinson put it back in 1953 in his textbook, *Elements of Cartography* (1953: 1). Large-scale maps, he went on, 'provide [man] with the knowledge to carry on his work intelligently', while smaller-scale maps 'are indispensable to understanding the problems and potentials of an area'. The paragraph heading read, 'Maps, Indispensable Tools'. Others put it differently, but to the same end.

That this was untrue was obvious to me even as a graduate student. Even with the history of cartography in the parlous shape it was in the 1960s anyone could see that for most of human history maps had been dispensed with quite readily; for *most* of human history they'd been dispensed with *entirely*. And callow as I was, I had enough experience to know that even in the 1960s they weren't indispensable tools *everywhere*: they were, for example, hard to find in the highlands of Chiapas even in government offices.

This objection aside, though, I was struck by another, namely that any 'knowledge' a map might provide could just as well take other forms. For instance, I'd never seen a deed on which the surveyor's map wasn't paralleled by a verbal description: 'Beginning at a stake marking the north-eastern corner of the intersection of West Cabarrus Street ...' and so on. (In 2011, of course, Google Maps directions work the same way: there's a route highlighted on a map but it is paralleled by a verbal description: 'Head south on Hillsborough Street toward Shepherd Street ...' and so on.) If words could serve in legal documents (and on Google Maps today), where couldn't they? And geography texts, it was hard for me not to notice, were mostly words with only here and there a map. Evidently maps were easily replaced by words. It was probably why they were so dispensable.

Other arguments – that we needed maps to get around – were almost laughably dismissible. *Who did?* and, *Since when?* No, all these arguments were too flimsy to stand up against the weakest attack. They were clearly bogus.

In fact I found the whole 'Maps enable man to rise, so to speak, above his immediate range of vision ...' class of arguments inherently troublesome, the whole idea – on which all the rest of the arguments rested – that maps were *representations* of the world. In the first place, *what if they were?* I mean, how was rising 'above his immediate range of vision' supposed to 'provide the knowledge to carry on his work intelligently'? *You had an overhead view and all of a sudden you had knowledge?* I never got how this was supposed to work. At the very least there were a number of missing terms.

And even if the representational idea did hold for trees and rivers – later I would realize it didn't even hold for them – right off I could see that it didn't work for property lines, for political boundaries at all. I mean, I'd seen the world from the tops of tall buildings, from airplanes: it was mostly roofs and fields and patches of green and brown. And, okay, even if I abstracted and labelled these, named the rivers and the streets, I still didn't have the legislative district boundaries, the school zones over which people fought so ferociously. I still didn't have the property lines. I didn't have the city limits.

Because it *explained nothing*, the idea of the map as a representation for me was suspect from the beginning. It didn't explain what the map offered that photographs, that paintings, that prose didn't; it didn't explain how knowledge was supposed to arise from its contemplation; and it didn't explain the presence of insensible things. It didn't explain anything.

A working description of the map

Okay, but if they weren't representations, what were they? *This wasn't easy*, mostly because the idea – the very word 'representation' – was so deeply embedded in all map talk, in every *dimension* of map talk. But by 1992, when I found myself curating 'The Power of Maps' exhibition, I'd

been grappling with the question for 20 years – and six years earlier had managed to write 'Designs on Signs: Myth and Meaning in Maps' with John Fels – and if I wasn't altogether sure what maps *were*, at least I'd kicked the habit of reflexively thinking about them as representations. By then I was working with the following definition, which I'd printed out at 18 pt, all caps, and had pinned to the wall in front of my computer to help keep me from slipping back into 'representational' habits: *A map is a more or less permanent, more or less graphic object supporting the descriptive function in human discourse that links things through territory by fusing onto a common plane (that of the map) multicoded images of the very world the map itself brings into being. Due to this, maps become weapons in the fight for social dominion, weapons disguised as representations of the world.*[4]

First of all, the map is an object here. (At least I'd gotten rid of the idealism.) It's a material thing. (It's not something in the head, it's not pointing, it's not walking, it's not dancing, it's not singing.) It's not *any* material thing (it's not a *list* of directions), it's a graphic material thing (*more or less* graphic because it's a mix of different kinds of signs, and the mix varies), and it's a permanent material thing (*more or less* permanent because some maps are scribbled on scraps of paper, others are carved in marble, still others written to a hard drive). The fact that it's more or less graphic and permanent meant that it could be transmitted without change across distances and generations, and this was essential for the management of the early modern and contemporary state – the state, it had already dawned on me, that was responsible for the map as we knew it (more on this later). 'Object' here also implies the map's validation as independent of its creators (this attribute 'sealed' by the assent of another or, more commonly, by marks attesting to such assent: scale bars, legends, north arrows, neat lines and the like).[5] This validation as an independent object helps secure the map's authority, the authority that *obligates* people to accept the links the map makes, and through this acceptance bring into being the world the map encodes. The map postulates this world by proposing links – which it presents as facts – through the territorial plane: links between homes and zoning ordinances, links between residences and tax rates, links between residences and police protection, links between residences and leaf collection areas, links between residences and candidates, links between location and ownership, links between birthplaces and rights and obligations, links between borders and laws, links between highways and states, links between places on the earth's surface and nations, links between trees and slopes, links between outcrops and theories about the history of the

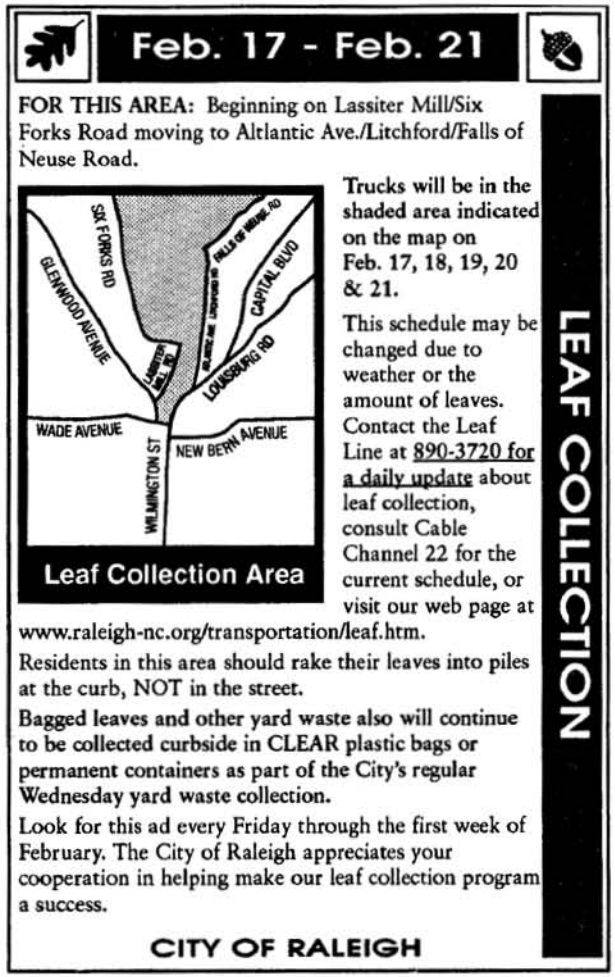

Figure 15.2 This City of Raleigh map published annually in local papers links residents of Raleigh living in the shaded area with a vacuum leaf machine that will be at their curbsides at the times indicated

earth. I've been prone to illustrate such links with two maps, one of leaf collection areas from the City of Raleigh (Figure 15.2), the other from the Smithsonian of a species of tree as a slope specialist (Figure 15.3). But maps can link anything together. For these links to become facts, people only have to act as though the links *were* facts. (That is, they have to rake their leaves to the curb when the map tells them to.)

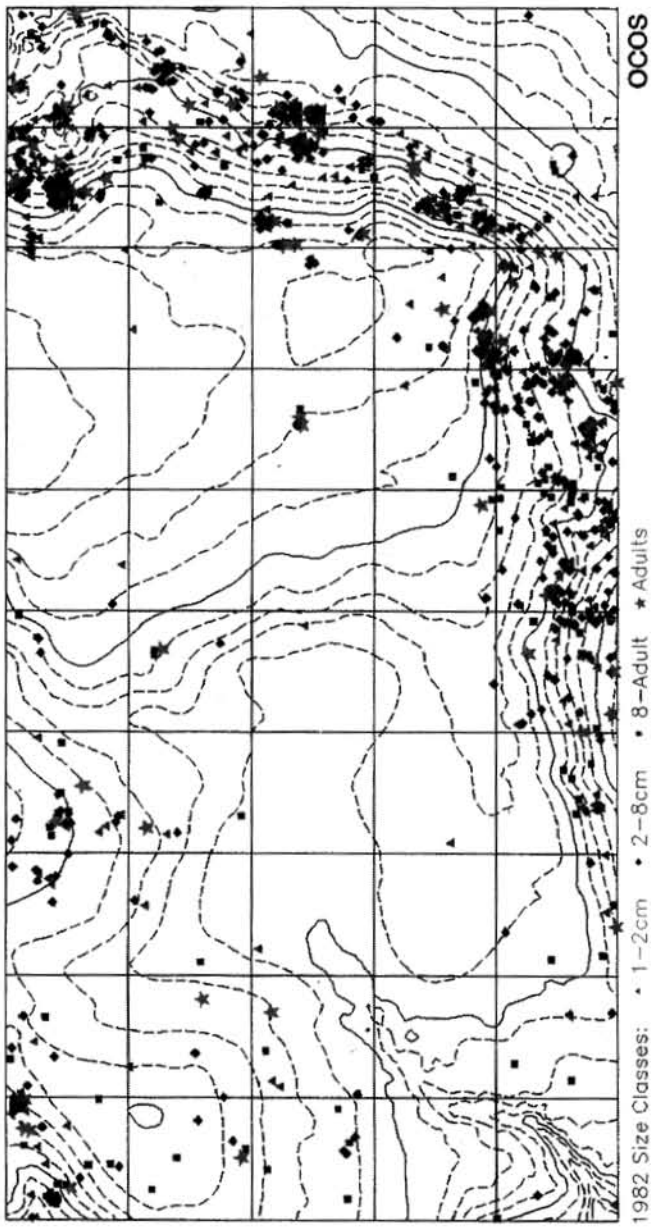

Figure 15.3 The distribution of *Ocotea skutchii* on Barro Colorado Island. This map links the topography of the island with the occurrence of the tree to demonstrate that *Ocotea skutchii* is a slope specialist

Maps encode these links by fusing signs onto a common plane, that of the map. It is the coexistence of the signs on the plane that links them. The signs are subject to no fewer than the 10 codes Fels and I enumerated in 'Designs on Signs: Myth and Meaning in Maps': the iconic, the linguistic, the tectonic, the temporal, the presentational, the thematic, the topic, the historical, the rhetorical and the utilitarian. More or less permanent sign systems that make links through the plane of territory subject to *fewer* codes fail to rise to the level of the map. Typically these lack presentational coding. Examples include sketch maps (which we distinguish from maps precisely as we distinguish preparatory drawings and sketches from paintings) and experimental sketch maps (mappers don't 'seal' experimental sketch maps because it's precisely their subjectivity that's of interest).[6]

The restriction of maps to incontestably authoritative objects (by excluding sketch maps, experimental sketch maps, paintings, photos and the like) gives maps immense power. For the past half millennium people *armed with maps* have stolen land from others (often stealing the others themselves along with the land), have taken property, mowed down forests, despoiled streams and rivers, forced people to pay taxes to support foreign wars, drafted them into armies, forced them to move to the other sides of borders, sent their children to schools they may not have wanted them to go to, and stopped them from selling tomatoes out of their garage. Of course all these things can be accomplished without maps – they used to be (and often still are) – but the map – an authoritative image of the world as it is – makes it so much easier: 'Look, it's not *me* insisting on this. See, it's right here on the map. If you live here, you can't sell tomatoes. Retail sales are not allowed in residential zoning districts. It's really that simple.'

The precedent existential proposition

Fusing signs onto a common plane. What did I mean by this? Fifteen years later, in 2008's *The Natures of Maps*, Fels and I thought we might have figured this out too, that is, might finally have accounted in detail for the mystification enveloping the map. What we'd observed was that linking things together depended first on their establishment. *Their establishment!* That is, the map had first to declare, insist upon, vouch for, postulate, or propose that the things *were*, that they in some way existed. The map had to say of each: *this is*. Fels and I think about these declarations as *precedent existential propositions*, where a proposition is simply an affirmation that something is or is not.

I want to stop here for a second. It's easy to glide on through this part to where the 'this is' gets hooked up to a 'there' to make the 'this is there' posting out of which maps are constructed (and through which things get linked together); but it's this existential proposition part of the puzzle that map-makers have been pretending doesn't exist with all their nonsense about representations. If maps *had* been representations then all the stuff on the maps *pre-existed*. It was all *out there* somewhere. All map-makers did was see it, or have it brought to their attention. They weren't responsible for its existence.

To realize what tommyrot this is all you have to do is think about political boundaries for a second. Dido may have laid out the boundaries of Carthage by laying out a strip of rawhide, but that's not how the boundaries of, say, modern Europe were laid out. They were laid out on maps at Versailles at the end of the First World War. Which is how in 1949 the Green Line was laid out in Palestine, on a map. Which is how legislative districts in North Carolina are being laid out as I write this, on maps.[7] That is, these boundaries – almost all boundaries – are created by map-makers; they're map-made. They're 'cartefacts'. And when I say 'almost all boundaries' I don't just mean 'almost all *political* boundaries', I mean almost *all* boundaries. In *The Natures of Maps* Fels and I demonstrate how true this is for range maps of plants and animals, for maps of geology, for maps of eco-regions, for maps of parks. The boundaries weren't *out there* until after the maps made them.

In 2010's *Rethinking the Power of Maps* I go on to demonstrate the ontological role played by map-makers in the geology of Mars, the racial composition of American classrooms, US political polarization, the size and shape of Kashmir, the extent of the Pamirs, of the Karakoram, even of the very idea of a mountain range. (I advance an elaborate argument founded in mereological nihilism.)[8] Here let me simply point to the careful maps once made ... *of the canals on Mars* (see Lane 2011). The English astronomer Nathaniel Green, the Italian astronomer Giovanni Schiaparelli and the American astronomer Percival Lowell were all certain – 100 per cent certain – that with their powerful telescopes they were seeing canals that actually existed *out there* somewhere and no more than transcribing, *representing* them on paper. Today we're certain they were *seeing* things ... but not things on Mars. Yet at the turn of the nineteenth century their maps of Martian canals were taken as seriously as we once took Colin Powel's annotated air-photos of Iraq's weapons of mass destruction,[9] as we take the maps showing the extent of radioactive danger from Japan's crippled Fukushima reactors today. What's the difference between these maps and those of the canals on Mars?

There isn't any.

Of course I'm not saying there's no difference between the imaginary Martian canals and the very real danger from the radioactivity released by the damaged Japanese reactors. But I am saying that the maps that established them as realities for us – the canals at the turn of the nineteenth century, the radioactivity as I write this – do so in precisely the same way, very carefully posting very carefully collected data. As maps brought into popular consciousness the fact of the canals on Mars, so the map in this morning's *New York Times* establishes as fact for us the zones of danger: within a mile from the reactors, 'death within weeks'; 1–2 miles, 'possible death in two months'; 2–3 miles, 'bleeding from mouth, throat'; and so on through nausea, vomiting, hair loss, and changes in blood chemistry. The hairlines used to delimit the zones, the subtly shaded relief map into which they're inscribed, the graphs, scale bars and charts, all conspire to say, 'Believe me! I'm real.'[10]

Furthermore, the maps do this in two distinct registers simultaneously. For in order to post a zone of danger to a map, the map has to attest both to the existence of the conceptual type, 'zone of danger', *as well as* to the existence of a particular instance of that type, 'death within weeks at Fukushima'. This is true for every map sign no matter how self-evident the category may seem (river, mountain), and is an inescapable consideration for determining the *mark* that posts the instance (the mark for river, the mark for zone of danger). It is foregrounded, however, when *the category is created by the map*. A 'zone of danger' is an example of such a category,[11] but others are more commonplace. At the moment I'm thinking of Vilhelm and Jacob Bjerknes' work on cyclonic weather systems that leads to the weatherman's daily chant about cold fronts sweeping in from there or warm fronts moving offshore here. Fronts are cartefacts like boundaries. You can't *measure* a front, you can't *see* it. You can measure the temperature, you can see the clouds, you can listen to the rain, but ... those aren't fronts. Fronts are abstractions of generalizations made about weather data posted to maps. It took an enormous amount of weather data and bright men with lots of maths and physics *years* to figure out fronts (and to go on and devise the map marks for them[12]); and only since 1941, when the US Weather Bureau finally adopted the approach, did an awareness of fronts begin to enter popular consciousness. *Fronts were discovered and promulgated on maps.* As Vilhelm Bjerknes put it: 'During 50 years meteorologists all over the world looked at weather maps without discovering their most important features. I only gave the right kind of maps to the right young men, and soon they discovered the wrinkles in the face of the Weather.'[13]

The polar front. The jet stream. Rossby waves. The thermohaline circulation. The Gulf Stream. The Open Polar Sea. North American geosynclines. The Delta Culture Region. Continental drift. The Great American Desert. Country Music Substyle Regions. Spheres of Influence (the Anglosphere, the Sinosphere, the Arab World). Tectonic plates. Shatterbelts. The Middle East. Gondwana. The hole in the ozone. The geographic centre of the United States. Hadley cells. Pangaea. Mackinder's Heartland. The Sunbelt. Each of these, like cold fronts and zones of danger, exists solely on, through or by virtue of a map. Each is a cartefact. Are there any others? Sure. The border between the Federated States of Micronesia and the Northern Mariana Islands. Germany. Any El Niño-Southern Oscillation. The world as a whole. The United States. The International Date Line. The border between Niger and Chad. *Any* border – every single one of them – but also, in decreasing degree, mountain ranges, forests, watersheds, rivers. I've argued all these elsewhere. Here it is merely important to understand that the *conceptual type* is not something map-makers necessarily absorb from the *zeitgeist*; it's something map-makers are involved in creating or, when not creating, then maintaining, promoting and propagating.

The posting and the performative

Map-makers *can* post purely conceptual types, though what they post them to is less a map than ... a teaching aid. Here's an example from a nineteenth-century geography textbook/atlas (Figure 15.4). The image is populated with purely generic mountains, rivers, coastlines, bays, that is, with what Bertrand Russell thought about as *general* as opposed to *atomic* propositions, the *category* 'bay' as opposed to an *instance* of a bay.[14] What is it about these features that bespeaks their generality? Mostly it's their lack of location. *Instances* of the conceptual type 'bay' always have a location, they're always somewhere, somewhere which, thanks to the unique indexicality of the map plane, we can visit in the flesh. And look! Here we are steaming through the Narrows into New York Bay, there's the Statue of Liberty, and beyond it the towers of Manhattan! In posting to a map an instance ('New York Bay') of a conceptual type ('bay') (Figure 15.5), the existential 'thisness' – 'I'm a bay' – acquires a geographical 'thereness' – 'north of the Narrows, south of Manhattan, west of Brooklyn'. That is, the 'thereness' acquires a 'thisness' at the same instant that the 'thisness' acquires a 'thereness'. The simultaneous assertion that 'this is there' and 'there is this' constitutes the posting – 'New York Bay' – and postings are the 'what' out of which maps are built.

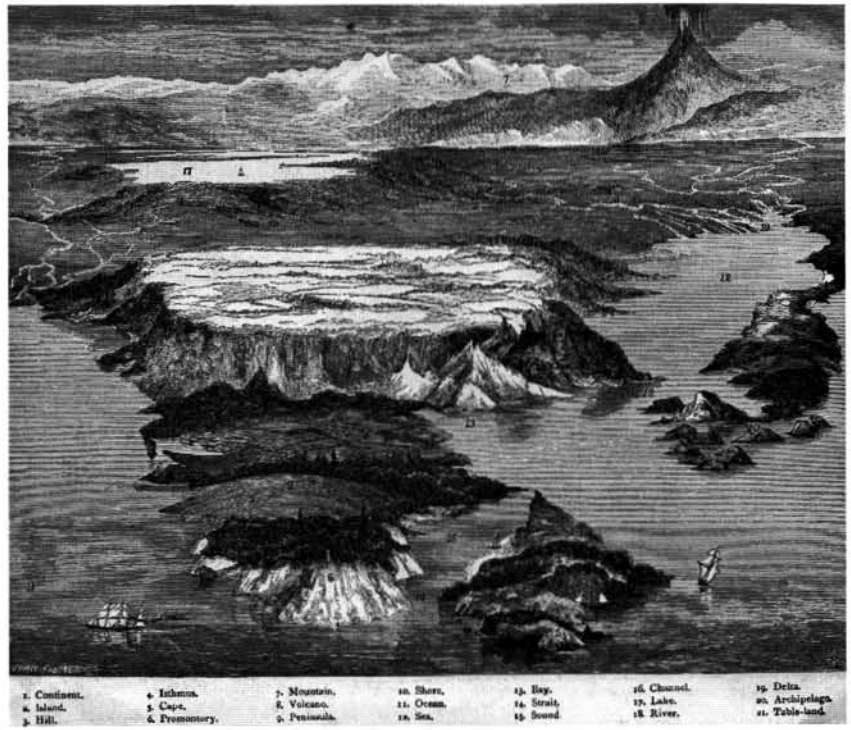

Figure 15.4 The landforms here are purely generic, and point to no actual cape, bay or delta on earth. That is, the indexical function here is less spatial than lexical

Fels and I refer to the posting as the *fundamental cartographic proposition*, and in *The Natures of Maps* we detailed the graphic logic through which postings are manipulated to generate territories, transmit authority, and otherwise link things together to circulate meaning and create the mapped world. Here I want instead to draw attention to the way the posting resembles a ship's christening. A christening is the ceremony through which a ship is named and launched. Babylonians, Egyptians, Romans – peoples everywhere – have christened ships, early on with sacrifices, later with 'standing cups', more recently by breaking a bottle of wine across the bow and uttering the formula, 'I name this ship the *Queen Elizabeth.*'

I choose this example because it's one J. L. Austin used to explain what he meant by a 'performative' utterance. A performative utterance is one that not only says something, but in the saying does something.

Figure 15.5 This map posts New York Bay, an instance of the conceptual type 'bay'

In the case of a ship's christening it names the ship. Other examples include saying 'I do' in a marriage ceremony, saying 'I'm sorry' to someone you've offended, offering a dare, offering a bet, making someone welcome, or making a promise. The phrases or sentences involved in these cases aren't describing anything, but are carrying out the act in question. To promise is to say to someone, 'I promise you that I'll ...' To say the words is to make the promise. To say the words is to do it. You may deliver on your promise; you may not. That affects how people take your promises – seriously or otherwise – but not the making of them.

The big news here was that up until Austin noticed this it had been pretty much taken for granted, with the exception of specialized grammatical forms (exclamations, imperatives, questions), that utterances consisted of propositions, statements, descriptions of fact – what Austin

referred to as *constative* utterances (where 'constate' simply means 'to state positively'). All have the property of being true or false: it's raining, she's taller than he is, today is 22 March. As Austin observed, 'We have not got to go very far back in the history of philosophy to find philosophers assuming more or less as a matter of course that the sole business, the sole interesting business, of any utterance – that is, of anything we say – is to be true or at least false.'[15]

Now this, of course, could as easily be said of maps. That maps did anything but assert things that were either true or false – or more or less precise or accurate – was unimaginable. It was unimaginable that maps did anything but *represent* the world more or less faithfully. That maps were performative in Austin's sense, that they carried out actions, well ... that was simply ridiculous. *It would defeat the whole purpose of a map.* But in drawing political boundaries maps are incontestably performative. Though doubtless responsive to the wills of those drawing them, boundaries represent nothing on the ground. Only in their posting to maps are boundaries brought into being: they less *correspond* to facts than *constitute* them. Once posted to the map boundaries may assume material form on the ground, but the signs, fences, walls, guard posts – all are after the map. Just as *saying* 'I name you *Queen Elizabeth*' turns the ship *into* the *Queen Elizabeth*, so it is the *drawing* of the boundary on the map that separates the reach of one polity from that of another. (Whether the boundary is respected is a whole other question, like that of the quality of a promise.) This all may be easier to think about when the boundaries are less fraught than national boundaries tend to be, perhaps because fewer rights and obligations are involved. State and provincial borders, county lines, city limits, the edges of legislative districts or school zones usually have no presence on the ground at all. Because of this they illustrate the map's power to bring the world into being in a peculiarly strong form. Stronger still, though, is the power of maps that lay down the future. Right now I'm thinking about the map, 200 years old as I write this, that at a time when most of the island's inhabitants lived in the welter of streets we know today as Greenwich Village, Tribeca, Soho and Wall Street, laid out the grid for the remaining 80 per cent of Manhattan.[16]

Represent?

But hold on a sec: before getting carried away, let's draw out the comparison between the performative and maps in a little greater detail. In a nutshell, a performative utterance is one 'in which to *say* something is to *do* something' (Austin 1962: 12). Now, to '*say* something' is exactly what our precedent existential proposition does; it says 'this is' (with respect to both instance *and* category). And '*do* something' is exactly

what our posting does by insisting that whatever the *this-is* is exists *there*, for example, this border (between France and Germany) exists there (where we draw it on the map); just as it insists that the border is *there* where the map says it is. It's *very* like a christening, almost identical in fact: 'I christen this part of the map France, and that part Germany.' I want to contend that everything on maps is brought into being this way: mountains, rivers, the whole schmear. Although you may resist the idea that saying, 'That mountain over there' is a christening-like performance, the fact is that until such a naming/mapping is performed, the there-thing (the 'mountain') is – and how to say this? – *un-thinged*. The mountain is not brought into being *as the mountain on the map* until the conceptual category is draped over it (Wood 2010: 270). Obviously this is easier to accept when we're talking about claims of colonial territory in the name of a king which is performative on its face (uttering the formula 'I claim this land in the name ...' while sticking a flag in the ground and making it so on a map[17]), but it's worth thinking about with respect to the mapped world in its entirety.

Performing the state

But I don't insist on it here because where I really want to go is to the performance of the state and we're almost there. By the time Fels and I came to write 'Designs on Signs' it had become obvious that maps laboured extensively in the service of the state. Or maybe this understates it, for certainly it was one of the principal assertions of the critical cartography that was then being born – the assertion that most enflamed the ire of the old guard – that maps had political agendas, that they were tools of the state. The papers given at the 1985 Nebenzahl Lectures at the Newberry Library and later collected under the title *Monarchs, Ministers, and Maps: The Emergence of Cartography as a Tool of Government in Early Modern Europe* began to sketch something of the range of the map's labours for the state; Fels and I something of their inwardness; and Brian Harley's 'Maps, Knowledge, and Power' of 1988 and later papers something of their penetration and ... grip (Buisseret 1992; Wood and Fels 1986; Harley 1988, 2001). In the lecture I gave to inaugurate the Power of Maps exhibition I simply took it for granted that the map was a weapon in the arsenal of state control, discussing the map under the headings of subjugation, intimidation and legitimation. But the state had many tools at its disposal: what was it about the map that the state found so valuable, especially the state emerging in early modern China, Europe, Japan and elsewhere?

It is important to observe that all the bureaucratic functions fulfilled by maps during this period *could* have been handled without maps, as they had been during the later Middle Ages. The historians of cadastral mapping, Roger Kain and Elizabeth Baigent, remind us that maps are not indispensable even for cadastres; and this leads them to wonder why so many states adopted cadastral mapping during the early modern period. 'Conviction of the merits of mapping was a precondition for mapping itself', they argue (1992: 343).

This is a theme in much contemporary scholarship where a particularly significant merit was the ability of the map to figure the new state itself, *to perform the shape of statehood*, to give the state what the historian Thongchai Winichakul calls a geo-body (1994).[18] The early modern state was in the opening phase of an evolution from an older structure in which loyalty had been offered to one's lord, one's immediate community and one's family (typified by a powerful sense of mutual obligations among face-to-face acquaintances), to a novel political organization with increasingly impersonal institutions and abstract character. This impersonal state required new forms for its embodiment. Contemporary scholarship is unanimous that the map possessed an all but unique power to give the elusive idea of this new state concrete form, both for those living within it and for those contemplating it from without; and has documented this for Japan, China, Russia, France, the United States, Mexico, Siam, British Guyana, Israel and elsewhere.[19]

The most striking feature about all these assertions is their persuasion that the map was an artefact that *constructed* the state, that literally *helped* to bring the state into being, that brought it into *focus*. It's almost as though it were the map that in a graphic performance of statehood conjured the state *as such* into existence: out of the territories of the recently warring daimyo of Japan, out of the far-flung possessions of Chinese emperors, out of the disjointed rabble of the American colonies.

As I noted, Winichakul calls this map-made construct a *geo-body* and has characterized the emergence of Thailand's geo-body as 'a victory of mapping' (1994: 129).[20] In his case the geo-body was produced by mapping in three distinct but interdependent ways:

> (1) The very act of mapping requires that the state be something mappable, that is, a *thing*, a geo-body with borders, which Thailand, as was common everywhere until the seventeenth-century spread of mapmaking, really didn't have.[21] It had frontiers. Borders are

brought into being through mapping, both by the imperative *to be mapped* and *through* the medium of mapping.

(2) These borders establish a shape, the nation's visual form; and this mapped shape becomes iconic, 'the map-as-logo' as Benedict Anderson has put it (1991: 175). In 'the image of the national map was one of the few visual artifacts demonstrating what many perceived to be either an abstract or even untenable fiction, namely that there could be a national union between disjointed regions and politically disparate people' (Brückner 2006: 121).

(3) Through its presentation of the state as *an existent thing* the map obscures the origins of the state *in history*, assuming and so projecting the prior existence of the geo-body, especially colonial regimes that claimed to 'inherit' ancient geo-bodies by drawing, as Anderson puts it, 'historical maps designed to demonstrate, in the new cartographic discourse, the antiquity of specific, tightly bounded territorial units' that had in fact *not* previously existed. This was even more true for *modern* states like Germany, Italy, Israel, Iraq, the Sudan. This promotes rhetoric about the inviolability, and so the necessity of defending borders, which returns us to the first way maps produce the geo-body.

It was these interlocking benefits – fixing borders, giving a shape to the state, solidifying its claims to existence – that convinced leaders of early modern states of the general merits of mapping, and that constituted the necessary precondition called for by Kain and Baigent.

Large-scale property mapping may seem far removed from these sorts of national considerations, but the fact is that large-scale property mapping, state-scale mapping, and small-scale regional and world mapping were reciprocally supportive of the state. Once convinced of its merits states suddenly found the map indispensable for an ever-growing number of functions, first among which was all but invariably that of rendering fiscally legible its territory, that is, of reducing the welter of feudal landholding practices – especially forms of common ownership – to a simpler system at once 'precise, schematic, general, and uniform'. Whatever a mapped cadastre's defects, James Scott argues, 'it is the precondition of a tax regimen that comprehensively links every patch of land with its owner – the taxpayer' (Scott 1998: 44).[22] And the imposition of such a system could yield surprising state-building benefits. In late sixteenth-century Japan, for instance, Hideyoshi conceived of map-making as a localized and

incremental programme which, while an undoubted expression of state control, was, more importantly, *an instrument of conversion* through the collaborative, ongoing map-making labour itself. As Mary Elizabeth Berry concludes, 'Precisely because union was fractious and unfamiliar, cartography served the conquerors by instilling *a fugitive idea of cohesion*, not by reflecting any palpable reality ... In this way Hideyoshi and his successors not only normalized a nascent polity but invented, and instructed countless participants in the very imagining of "our country"' (Berry 2006: 79)

What do maps do with people?

The exact route the map took towards genuine indispensability varied with the unique circumstances of the state, but without exception the role of the map widened, penetrating ever more deeply into daily life. Think for a second about that North Carolina state highway map. I mean, even if we accept that it's just a map to help us get around – *this has become a state function?* It's hard to image a Lancastrian king of England accepting this as an obligation of the crown. Of course it's easier to understand North Carolina taking it on if we embrace the map's mythic functions, for these not only serve to project North Carolina as a state to other states as well as its own citizens – to say nothing of reflecting well upon the administration responsible for the map (which thus justifies the confidence of those who voted it into office) – but when exploited in the classroom help to construct North Carolina *and the very idea of statehood* in the minds of future generations. It is in such almost unnoticed, taken-for-granted ways that maps today perform the state.

It is instructive in this regard to think about how many maps straightforwardly involved the state in that catalogue of maps my family encountered during those 20 days in 1989: Chandler's map of France (including departments and capitals) for his school project; the world maps covered with states that Tom Saarinen showed us, and the world map Chandler made; the Pictionary maps made to illustrate 'Brazil', 'Taiwan' and 'Illinois'; the Risk game board; the Amtrak maps (a state-owned railroad); Randall looking up the Canary Islands for a school report in an atlas 'Dedicated by gracious permission to Her Majesty Queen Elizabeth II', crowned head of a constitutional monarchy; the Surrealist map of the world on my shirt with its reinvention of the world's states; and the North Carolina logo on Chandler's shirt. With the exception of the role-playing maps Randall and Chandler made,

and Chandler's water-park maps, all the rest of the maps *acknowledged* the state, which, after all, most everywhere these days grants cities their right to exist (city bus route maps, city road maps, city council planning maps, maps to contest those, and so on).

They're hard to escape, maps that one way or another are issued by, refer to, acknowledge or otherwise perform the state. And to the extent that in some way all the rest of the maps derive their power, authority, contestatory edge, *frisson*, form, tropes – *whatever* – from state maps, there's a powerful and extremely important sense in which it is not so much what people do with maps as it is what maps do with people. Though, of course, maps have no agency of their own (do they?), so really it's 'What does the state use maps to do with people?'

It is unpleasant, in any case, this great map ritual of the state we all perform in (images of French revolutionary festivals) – but essential to keep in mind. I remain hopeful that we can undo this hegemony and reclaim the map as something truly human, but we're not going to be able to do that unless we keep in mind, if only in some corner, the fact that maps also perform the state at checkpoints, border posts and barrier walls. It's really important to keep in mind the way maps have us almost literally in thrall.

Notes

1. This was the first season's fourth episode, 'The Gauntlet', 1985.
2. T. Keung Hui, 'Social Studies Squeeze', [Raleigh] *News and Observer* 13 August 2003, pp. 1B and 9B.
3. I first published this catalogue in slightly variant form in *The Power of Maps* (1992a: 34–6).
4. I first published this in 'How Maps Work' (1992b: 66–74).
5. This is the burden of my paper 'What Makes a Map a Map' (1993: 81–6).
6. See 'What Makes a Map a Map', and my 'A Map Is an Image Proclaiming Its Objective Neutrality: A Response to Mark Denil' (2007: 4–16).
7. 'GOP ready to redraw N.C.'s political map', *News and Observer*, 26 March 2011, p. 1A, 11A. This is a decennial festival of fiercely partisan map-making.
8. See my *Rethinking the Power of Maps* (2010: pp. 46–51).
9. Maria Lane made this comparison at a presentation of her work on the mapping of Mars at a meeting of the American Studies Association in Washington, 2005.
10. Undercutting all this certainty is a head note that reads, 'based on a model that predicts potential radiation levels depending on whether the containment vessels remain intact, weather patterns, and other factors', all of them guessed at in order to run the model. *New York Times*, 18 March 2011, p. A11.

11. See Tom Koch's *Cartographies of Disease: Maps, Mapping, and Medicine* (2005: 19–24) for an early example of such zones in seventeenth-century maps of the plague in Bari, Italy.
12. See Mark Monmonier's *Air Apparent: How Meteorologists Learned to Map, Predict, and Dramatize Weather* (1999: 57–87 and plate 4).
13. From the Norwegian Geophysical Society obituary. At: www.ngfweb.no/docs/NGF_GP_Vol24_forord.pdf., page 18 (accessed 25 January 2012).
14. See Russell's *Our Knowledge of the External World* (1922 [1914]: 55–8).
15. J.L. Austin, 'Performative Utterances', in his *Philosophical Papers, Second Edition* (1970: 233–52). See also his 'Performative-Constative', in, among other places, Klemke (1983: 411–20), and 'Other Minds', also in his *Philosophical Papers* (1970: 76–116). *How To Do Things with Words* (1962) is a book-length treatment.
16. Sam Roberts, '200th Birthday for the Map That Made New York', with the subhead, 'Where Forest Stood, A Street Matrix For a City's Future', *New York Times*, 21 March 2011, p. A18.
17. This is pastiche, but for the real thing see Patricia Seed (1995).
18. Winichakul published 'Siam Mapped: A History of the Geo-body of Siam', in 1987 in the *Proceedings of the International Conference on Thai Studies, Vol. 1*, Australia National University, Canberra. His 1988 dissertation of the same name was published, with the same title, by the University of Hawaii Press (Honolulu) in 1994.
19. This is an essential body of work. For Japan see Mary Elizabeth Berry (2006) and Marcia Yonemoto (2003); for China, Laura Hostetler (2001); for Russia, Valerie Kivelson (2006); for France, among others, Tom Conley (1996); for the USA, Martin Brückner (2006); for Mexico, Raymond B. Craib (2004); for Siam, Thongchai Winichakul (1994); for British Guyana, D. Graham Burnett (2000); and for Israel, the eighth chapter of my own *Rethinking the Power of Maps* (2010: 231–55).
20. The following discussion of the geo-body is entirely derived from Winichakul.
21. See R. J. V. Prescott, *Political Frontiers and Political Boundaries* (1987) for the essential distinction.
22. The whole chapter from which I've plucked this quotation, 'Nature and Space' (Scott 1998: 11–52), should be mandatory reading.

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