2 The art of deep mapping

Denis Wood

Pick up a map. How many stories can you tease out of it? Hundreds if the map's any good, thousands if it's a rich topographic survey sheet. The stories lie latent in the things on the map. They can be assembled in any order required. That's the difference between a map and a *deep* map. A deep map *tells* the story, or stories, it was created to embody.

Let me start with a simple example (Figure 2.1). Some people may not want to call this a map. They'd prefer to call it a plan, but what's the difference? It's the floor of the big gallery in the Brattleboro Museum and Art Center in Brattleboro, Vermont. It used to be the lobby of the train station the museum's in. This is where, in 1990, I mounted *The Portrait*, an exhibition that culminated the museum's two-year *Our Town* program, intended to reintegrate the museum with the people who paid for it. An introductory text on the map's other side, wrapped around an empty frame, said:

> Whether painted or taken with a camera, written in music or in words, most portraits consist of thousands of small marks or gestures—bits of pigment or sound, flecks of emulsion or ink—working together to convey, at some other scale, a coherent image. This portrait is no exception. Thousands of individual *objects*—photographs, maps, family trees, antiques and contemporary artifacts, video tapes, oral histories, yearbooks, drawings, plans, models, air photos, panoramas—have been welded together to create, at another scale, a coherent image. The difference is that this image is a frame, a frame for the portrait visitors paint or draw or snap as they not only "put together" what's here, but to which they contribute—literally—through interactive displays. This frame encourages a dialectic view of Brattleboro, first by opposing a view from *within* to a view from *without*, then by setting in tension a view from the *past* with one of the *future*. "Brattleboro," the town the visitor paints, is suspended within this frame. Neither determined by an artificial past nor prescribed by a single future, neither absorbed in the insider's view nor lost in that of the outsider, the real Brattleboro remains . . . somewhere else.

This frame very much wanted to be experienced in a particular order, first the introductory materials, then the view from within, next the view from the past, then the

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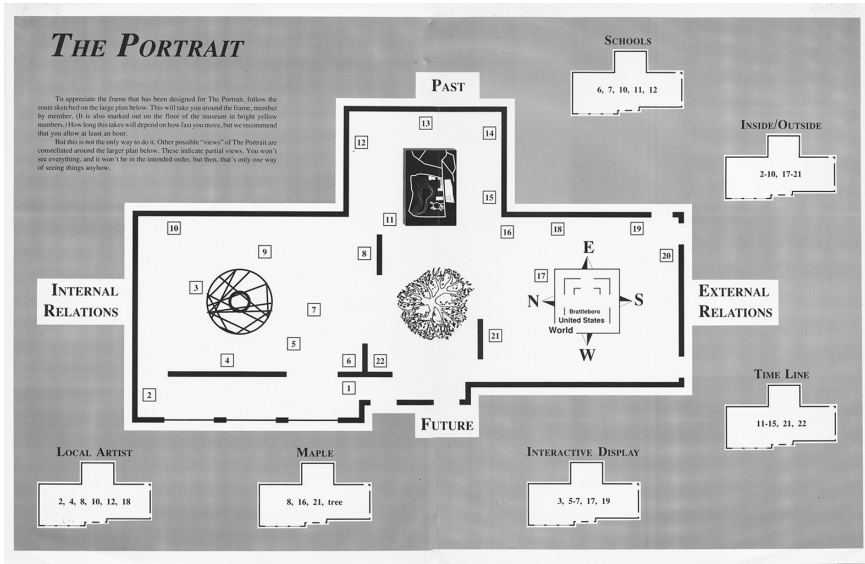

Figure 2.1 The map inside the Brattleboro Museum and Art Center's exhibition guide, *Town Treasures 8: The Portrait* (1990). I wrote the introductory text on its other side and the block of explanatory text here.

view from without, and finally the future, which visitors would encounter—and begin creating—as they left the museum.

The view from within—internal relations—consisted of a number of elements. One of these was the 1,210 photos professional photographer Bob George had taken in Brattleboro over the years. These completely covered the "internal relations" wall (we provided a telescope for viewing images above eye level). This not only called into question the unitary feeling of "portrait" but also began to sketch the genuine richness of Brattleboro life. Another was a very large ring mounted on a Lazy-Susan-kind of base. Visitors were to fasten name tags to this, in alphabetical order, and then to run strands of colored yarn to the name tags of others to whom they were in any way related (by blood, friendship, obligation, or neighborliness), attaching tags for these people when they weren't already there. This not only tied visitors *into* the exhibition but also embodied the idea that cities ultimately consist in their connections. Beyond this lay other interactive "sculptures" that explored themes of family, church, and school (here kids wrote their names on leaves they attached to their teachers' branches of a tree, to which teachers were attached by ribbons to their teachers, and so on). The past was dominated by a wall covered with 600-some historical postcards that had been collected by William Flemming, overlooking banks of oral histories that could be listened to, videos that could be watched, historic sugar-mapling artifacts, and the like. "External relations" was dominated by a wall-size aerial photo of Brattleboro,

and a cascade of chains hanging from the ceiling with Brattleboro in their center. Again visitors attached themselves to the exhibit, tying a tag to the Brattleboro chains, and then yarn out to tags they'd attach to chains at the distances of the rest of the state, the nation, the rest of the world—wherever connections subsisted. Now one could see that although Brattleboro consisted of a web of internal connections, it was simultaneously suspended in a web of external connections; and visitors were encouraged to bring in and fasten to the relevant chains "envelopes or tea bags, greeting cards or bills of lading, 'Made in China' tags or movie tickets, long distance phone bills or shopping bags." By the time the exhibition closed this had become an impenetrable mass embodying Brattleboro's place in the world, as the internal relations ring had become a thick mat of local connections.

Our map (Figure 2.1) imposed an order, from the intimate local, through the past, to the world at large and finally the future, which gave the exhibition of heterogeneous stuff a palpable structure, *that let it tell a story*, a story that pushed attendance well beyond historic highs. People loved the show. Maps are useful because they're open, but people love stories, and that's what deep maps give them. This may be a startlingly shallow example of a deep map (though the exhibition to which it was an introduction was *very* much deeper indeed), but it lays out one dimension of the deep map—its directed quality—in a straightforward way. This is an essential quality.

Deep maps owe their name, and a lot of their inspiration, to William Least Heat-Moon's *PrairyErth: A Deep Map*, which he published in 1991, but the endeavor, a deep, close reading of place, is much older, with antecedents reaching back to Gilbert White's *Natural History and Antiquities of Selbourne*, to Henry David Thoreau's *Walden*, to Wallace Stegner's *Wolf Willow*. Fellow travelers include the English topographers of the eighteenth and nineteenth centuries, French psychogeographers of the 1950s and 1960s, and contemporary English psychogeographers like Iain Sinclair (e.g., *London Orbital*). But I too, a geographer with deep roots in art, literature, and maps, had fallen into a similar practice, with broadly equivalent commitments. In fact, I owed my involvement with Brattleboro to a deep map I'd been working on in Raleigh, North Carolina, where I'd found myself on the landscape architecture faculty in the School of Design at North Carolina State University.

Wherefrom

That I'd ended up there was due to an earlier series of engagements that begin my first semester in graduate school, at Clark University's School of Geography. This was in 1967. As an undergraduate I'd triple-majored, entering college to study Medieval history, moving on to geography (originally to fulfill a lab science requirement), and finally to English, in which I graduated. I applied to graduate schools in all three subjects and ended up in geography because Clark offered me the most money. There, in my first semester, Martyn Bowden introduced us to the work of J. K. Wright, pointing with particular emphasis to Wright's essay, "*Terrae Incognitae*: The Place of Imagination in Geography."[1] Here Wright

introduced the idea of *geosophy*, "the study of geographical knowledge from any and all points of view." Wright meant "any and all," insisting that he was talking about the geographical knowledge of fishermen and businessmen, Hottentots and Bedouins, kings and kids. Reading this I wondered, why not the geographical knowledge of a sixth grader, a sixth grader who'd just moved from a housing project on the West Side of Cleveland to a strip of apartments in Cleveland Heights? Me, in other words. No doubt I was also homesick—being at Clark was the first time I'd lived away from home—but it wasn't the first time I'd thought about this. When we'd moved to Cleveland Heights we kids rode in the closed-in back of the moving van—for the thrill—so that when they opened the doors and let us out it was almost like, I don't know, being born again. There was light snow on the ground. Everything else was new.

> And then, little by little, it wasn't.
> How did *that* happen?

That is, how did cognitive maps get built? In my doctoral work we would collect maps from kids every other day, so we were able to track this, *were able to watch their memories being built*, and I'd hoped it would be a "speeded up" version of what I'd wanted to explore here about the growth of my knowledge of Cleveland Heights. Was it? I don't know, but in the event I make a bunch of maps. The first three were attempts to map my earliest impressions: the apartment building, its driveway, the garage and backyard, the walk to the sidewalk and street, the facades of the apartment buildings we could see, a playground. There are notes like, "I knew the street continued but no more," and "discriminate between areas known and noticed, *known*: my apartment, sidewalk to playground, playground; *noticed*: the rest." Clearly this was an exploration of my memories, and fairly deep memories at that, but memories were all I had. Three more maps explored my increasing awareness of the walk to school, this variation, that. Next came a couple that tried to get at our explorations, mine, my brothers' (we were inveterate explorers). And then I made a map to update the map of my first impressions (Figure 2.2). I called this "Second State Overlook Impressions Organization" because Overlook was the name of the road our apartment was on. I guess it was the name of the neighborhood too. In a highly directed way this map tried to discriminate places where I felt at ease—which are blue in the original—from those where I didn't, either because we could be hassled by janitors or because I was intimidated. I was mapping a bigger area too. This was no longer the space in front of my apartment, but some four or five blocks. In the end I made, depending on how you count, 20 maps, all sketches, one of them as late as 1976, none of them ever polished. Four of these went even further back into my memories, to explore my walks, on Cleveland's West Side, from our apartment there to my elementary school.

But I never quite knew what to do with them. They just hung around in my files until 2012 when Becca Hall and Cara Bertron asked me to contribute something to the first issue of their *Pocket Guide: to the known world*. I wrote "Thinking about my paper routes," which had been the focus of my 1976 map, and I illustrated it

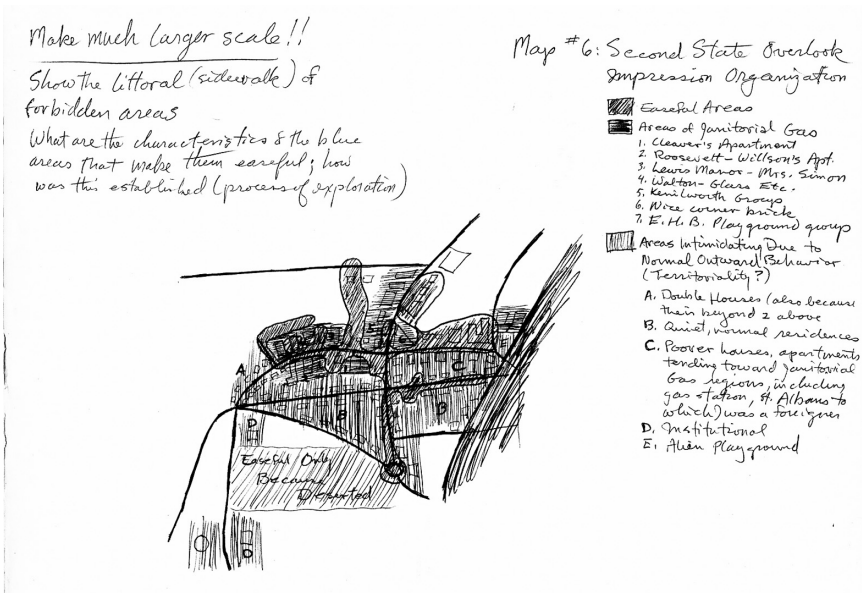

Figure 2.2 Second State Overlook Impression Organization was the sixth in the series of maps of Cleveland Heights I drew in 1967 inspired by J. K. Wright's geosophy. The map organizes the neighborhood along a comfort dimension as it probes for the sources of ease. In the original the easeful areas are in blue.

with the map (Figure 2.3).[2] Later that year the publishers at Visual Editions asked me to contribute something to their crazy box book, *Where You Are: A Book of Maps That Will Leave You Completely Lost*, and I decided to pursue the paper routes. This time I asked my brother, Chris, with whom I'd shared my first route, and Mark Salling and John Bellamy, both of whom had had routes in the neighborhood at the time I had, to add their two cents. After all, they'd all attacked my memory in the original piece in *Pocket Guide*. "The Paper Route Empire," by me, John Bellamy and Mark Salling came out the next year.[3]

The book box contained 16 individual booklets, by Alain de Botton, Geoff Dyer, Olafur Eliasson, and others. My booklet included four of my maps from 1967 and the one from 1976, along with a big foldout map by Salling (Figure 2.4) and two from Bellamy (as well as a paragraph from my brother). And okay, none of this *solved* the problems of our memories, and the piece *certainly* didn't end up answering the question how I came to know my Cleveland Heights (that's still open). But the paper routes were completely tangled up in our lives, in the emotional lives of who were, after all, teenage boys, teenage boys growing up in the 1960s, if that matters (I think it does), and *however* I came to know Cleveland Heights, this had to be a big part of it. (I'd had the routes for 10 years.) "The Paper Route Empire" is pretty damn deep, and an interesting model for the exploitation of memory, the exploitation of memor*ies*, in deep mapping.

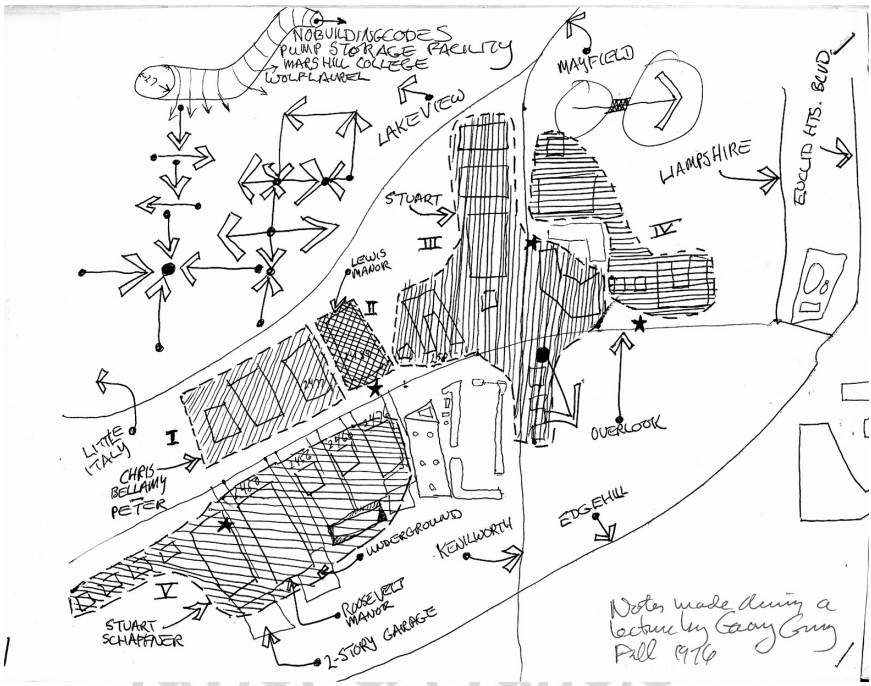

Figure 2.3 This is the map of Overlook I made in 1976 showing the location of my paper routes.

Source: From Becca Hall and Cara Bertron, eds., The Known World, Pocket Guide, 2012, unpaginated.

I went on to explore how cognitive maps get built in my thesis and dissertation, the former of which quite incidentally approximated a deep map. *Fleeting Glimpses; or Adolescent and Other Images of the Entity Called San Cristobal las Casas, Chiapas, Mexico* is an intense analysis of the "mental maps" drawn by 300 high-school students in San Cristobal, a city I'd visited constantly over the previous 10 years.[4] I'd fallen in love with San Cristobal my first night in the Hotel Español—the blankets on the bed, the fire in the room—and it never abated. I loved Zinacantan—I had sort of a second family there—and Mitonic and other villages in the surrounding highlands, but most of all I loved las Casas itself. I went back again and again. I knew the place intimately. I'd been in its city hall but I'd also spent a night in its jail. I'd walked every street. I'd been in many of the homes. As the first sentence of my thesis put it, "Love and long association with a city make it both extremely difficult and all too easy to write about," and I had the responses to 300 questionnaires, long questionnaires that sought lots of answers, many of which had to take the form of maps. I submitted the thesis in 1971 and, promptly published by the Clark University Cartographic Laboratory, it gained a certain notoriety. There were maps galore here (Figure 2.5), and if this wasn't a

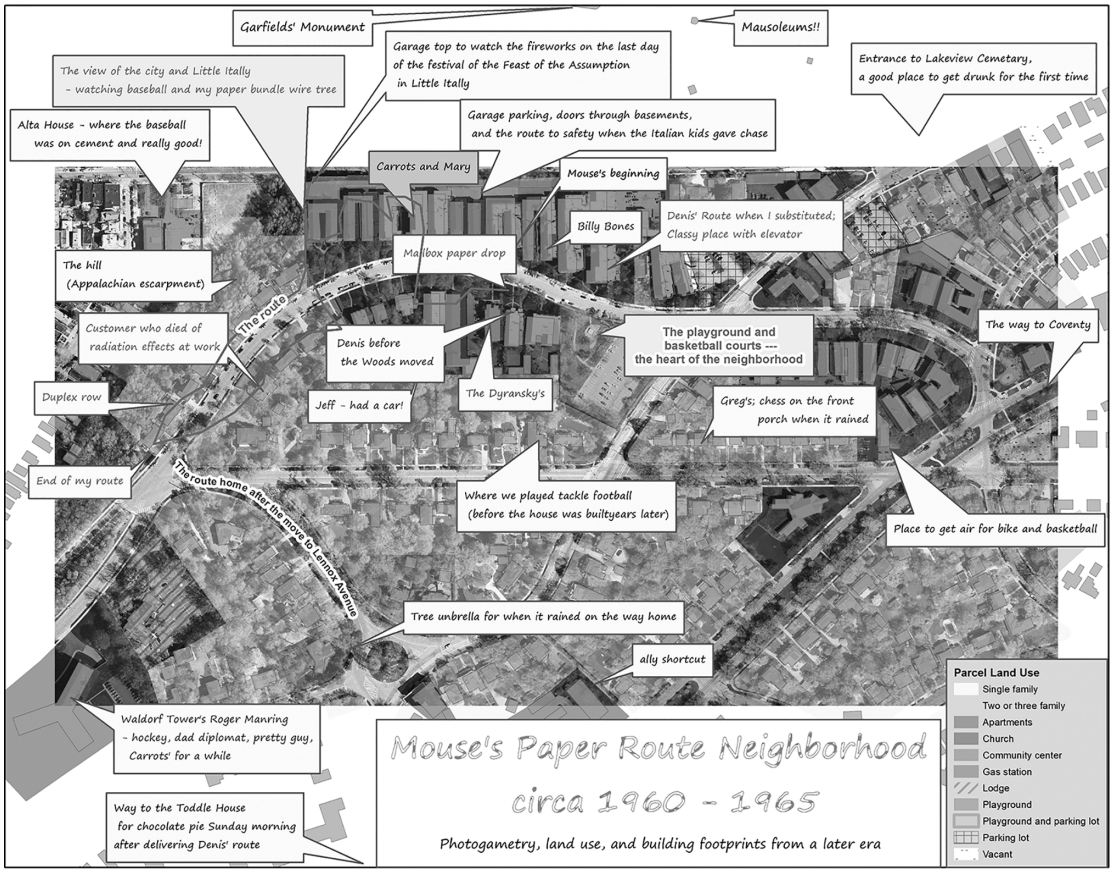

Figure 2.4 Mark Salling's map of his paper route and environs.

Source: From "The Paper Route Empire" in Visual Editions' Where You Are: A Book of Maps That Will Leave You Completely Lost (London 2013).

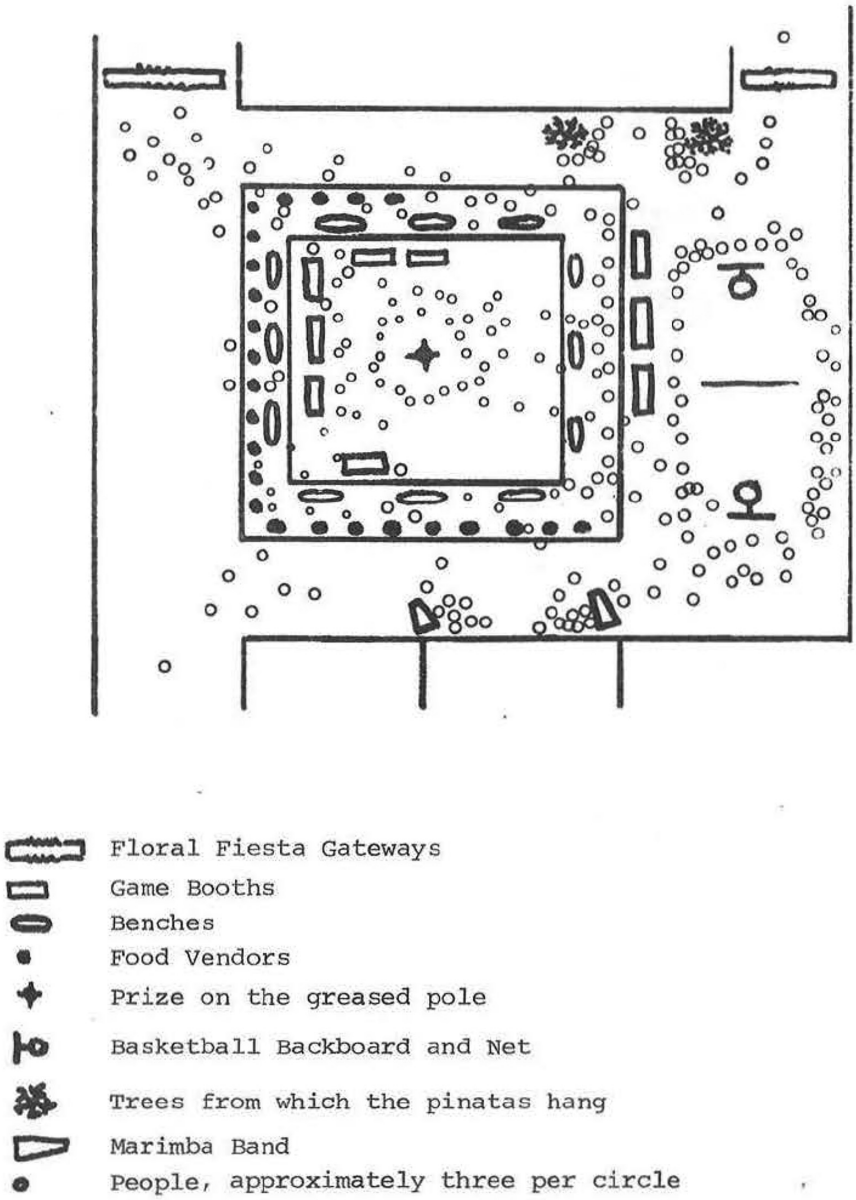

Figure 2.5 One of the maps from my master's thesis, Fleeting Glimpses: the plaza in San Cristobal's Barrio Mexicanos at 4:00 p.m., August 14, 1969 during the fiesta in honor of the Ascension of Mary.

deep map, it came close, one that suggested how directedness and memory could be supplemented by questionnaires and observation.

My dissertation, *I Don't Want To But I Will*, was legitimately notorious and, while in no way a deep map, it more or less got me the job at North Carolina State . . . where I became a deep mapper.[5] It was 1974—I'd spent the previous couple of years teaching high school—and this was my first experience teaching college. The fall semester was adequately unnerving, but the spring semester promised to be calamitous: I had been assigned an undergraduate landscape architecture studio to teach. Studios are the primary from of instruction in design schools, settings in which students work at drafting tables on projects set by the studio master, the teacher, me. Classically I was to set the problem and then wander among the tables, instructing and commenting on the students' work. Periodically the students would put their work up and we'd all comment on it. (We called these crits.) Then back to work. I was desperate: *I knew nothing about landscape architecture*. But I did know something about making maps and I thought: why not use mapping as a way of selectively focusing the students' attention on those aspects of the landscape that, in the instrumentality of their training as future professionals, they were apt to overlook: the way the land smelled, the way it felt in their legs when they walked it, the sound of the wind in the oaks after all the other leaves had fallen (Figure 2.6)? The university was surrounded by neighborhoods, including mine, and we mapped one of them. It turned out to be a lot of fun and gave me an opportunity to explore weird modalities of mapmaking (out of food, with different textures, etc.) while simultaneously exploring my new environment, practically with a microscope.

I kept giving this studio until 1982 when I suggested to Robin Moore, who lived across the street from me and with whom I was to co-teach the studio that semester, that we aim for an atlas this time, that is, for a coherent *bunch* of maps that at the end of the semester we could photocopy and distribute to our Boylan Heights neighbors.[6] This meant that the students would have to discuss what they wanted to map, and figure out who'd be doing what. After wandering around the neighborhood, we landed on some surprising topics: the sewer system, the gas lines, the water mains, the electric grid, the phone system, the trees, the mail route, the stars overhead, the fences, the graffiti, the night lights, yards, property ownership, oh, yeah, and the streets! The streets became a problem, a serious problem. Of course we made a map of them, measuring them to get them right, but otherwise we couldn't get rid of them. No matter what the subject was, the streets always came along for the ride: *what would the neighborhood be without the streets?* What, I responded, would be it be without houses, water mains, trees, night lights?

What, in other words, if the mapmaking were an *expressive art*, a way of *coming to terms* with place, with the experience of place, with a love of place? I'd never been able to do the wandering-among-the-tables routine, so pretty much we had crits every day. This day we were dismantling a map of streetlights, together, as a group, and we just kept paring away the inessential, the map crap (the neat line, the scale, the north arrow), the neighborhood boundaries, the topography,

Figure 2.6 The color of the leaves in Boylan Heights in the fall, 1982, with the typefaces used in the version that appears in Everything Sings (Siglio Press, Los Angeles, 2010).

finally the streets: first the scaled streets, then a schematic grid of the streets, finally even a hint of a grid of the streets. None of this was easy. Daylight finally went too—that default daylight that most maps take for granted—so that we were fooling around with circles of white on a black background. This made it clear that the map wasn't about the lamp *posts*, but about the lamp *light*, and light was something we weren't sure how to deal with. Certainly, the uniform white circles we'd been drawing caught nothing of the way the light frayed away at the edges; and one night, armed with a camera, we scaled a fence and climbed a radio tower on the edge of Boylan Heights hoping to catch the night lights on film. What a disappointment! The view from above was *nothing* like walking in and out of the

pools of dappled light on the streets below. But I had a pochoir brush at home and when Carter Crawford—who'd put himself in charge of atlas graphics—used it to draw the circles it was magical (Figure 2.7). Nothing but blotches of white: that *was* the way it felt to be walking the streets at night!

The usual "efficient" map would have located everything on the street onto a single sheet, that is, different marks for lamp posts, fire hydrants, street signs, trees. Our *inefficient*, but highly directed map, concentrated on a single subject, and rather than the lamp *posts* it brought the *pools of light* into view. No legend, no north arrow, no neat line, none of the usual apparatus. Instead, a sense of poetry, on a map attentive to the experience of place.

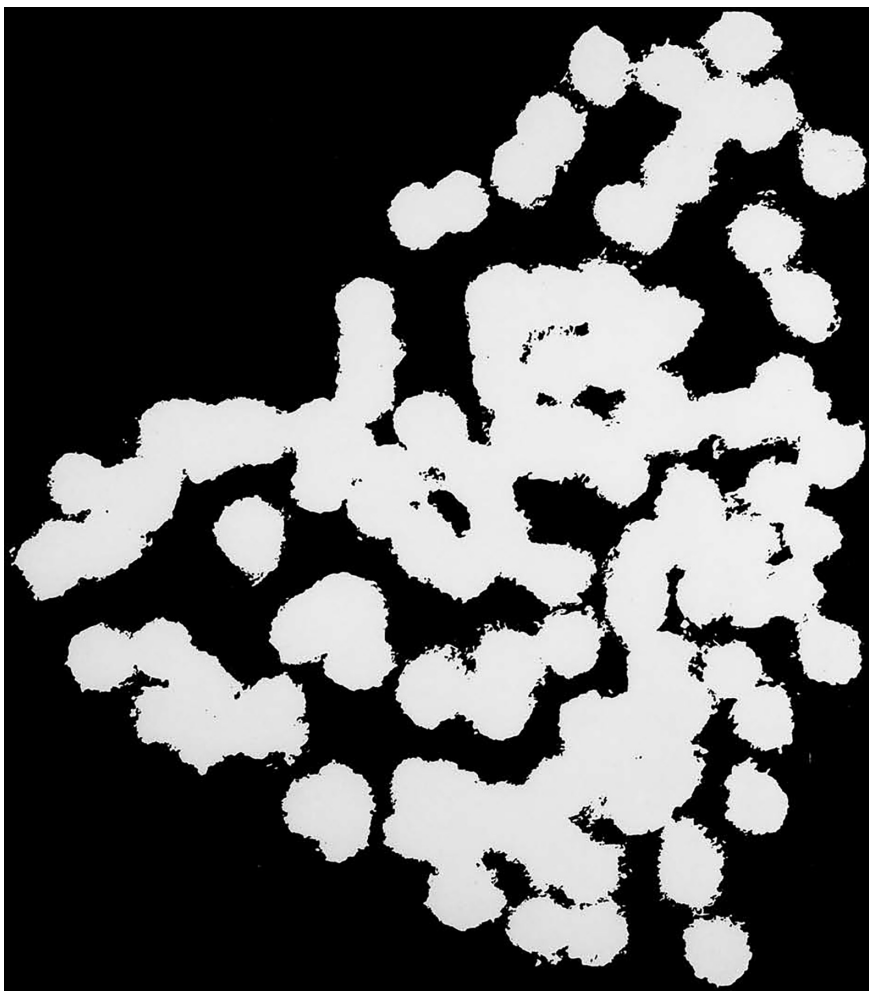

Figure 2.7 The map of the streetlights Carter Crawford drew with my pochoir brush (Everything Sings, Siglio Press, Los Angeles, 2010).

An ever-smaller number of students and I worked on this atlas for the next couple of years. From the beginning we'd explored a range of data sources and this expanded. We made maps from remembered data, observed data, data from questionnaires, archival data from the city, county, state, and various service providers (the gas company, the electric company). We explored different ways to make maps: we drew them with pens and pencils, we painted them, we rubbed things for them, we collaged them. With very primitive software we made the tree maps on a mainframe computer, outputting the maps to a flatbed printer.

Then, as so often happens with my projects, it ended up in a box in the back of a closet. A chance mention to Ira Glass, who was interviewing me for *This American Life*, ultimately led to its publication as *Everything Sings* in 2010. By then without students, I'd had to turn to Adobe Illustrator to complete the atlas, making or remaking half the maps on the computer. An enlarged and enriched edition came out in 2013, and today there's an electronic version you can stream.[7] *Everything Sings* is an authentically deep map!

But before I'd finished working on the atlas with my students, I'd already begun work on what would become *Home Rules*. This was an analysis of the rules my family observed in the living room of our home, well, of the rules, the things in the room, the room itself, and the living. Though I coauthored it with Robert J. Beck, it also has the names of my wife and sons on the title page because it was their book as much as it was mine and Bob's.[8] What Bob did was to interview me, Ingrid, and our two boys, Randall and Chandler, about the rules attached to everything in the living room, starting with the front door, wandering through all the furniture and accessories, and ending with the switches for the lights (which, in the last line in the book, we turn off). This 329-page book can be entered along a number of routes, but privileged is the map of the room spread across the book's endpapers where everything is numbered in the order in which it's encountered in the book (Figure 2.8). This excessively deep map reaches back through Denis and Ingrid's parents to their parents, and so on, as it probes, object by object and rule by rule, for the roots of the room as an institution; as well as for the room's existence as a thing of wood, plaster, and paint, back through the history of the room's situation in the house, the house's place in the neighborhood (Figure 2.9), the neighborhood's place in the history of Raleigh (Figure 2.10), and so on. This deep map drew on every conceivable source of data, starting, obviously, with the interviews, but including memory, every useful archive, and intense observation. How deep is *Home Rules*? It's damn deep. Taken together *Home Rules* and *Everything Sings* constitute as deep a map as you can make. There's an awful lot you can do without buying an airplane ticket!

Settling down with place

I'm a geographer so for me what these deep maps are all about is getting out into the field and living in it. Living in the field is essential, is the very most of field work, though I doubt it's much discussed in field work courses. And obviously when I say "living in the field" I'm talking about, yes, getting out and

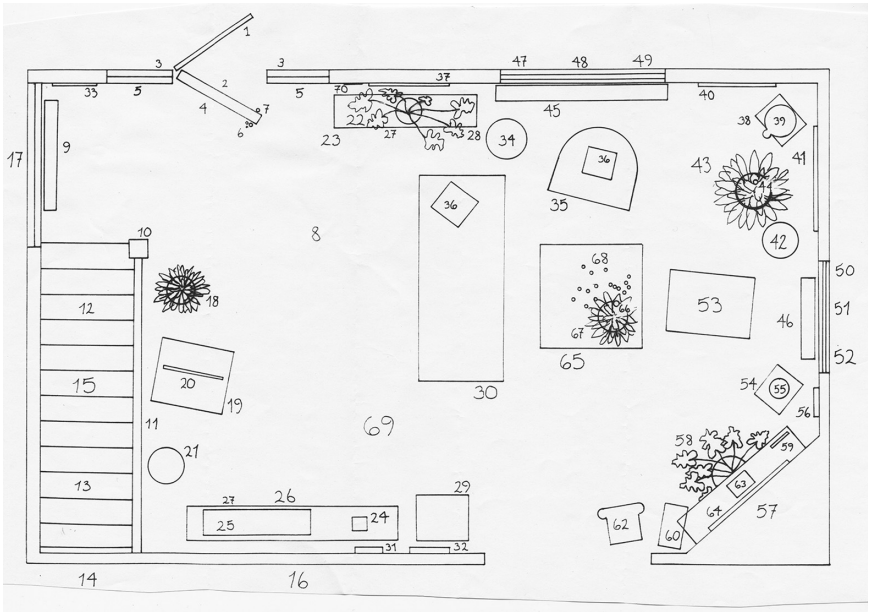

Figure 2.8 The map of my living room at 435 Cutler Street, which runs across the endpapers of Home Rules (Denis Wood and Robert Beck, Home Rules, Johns Hopkins University Press, 1994). The objects in/of the room were ordered in the book as numbered here.

tramping around (a lot) but also about asking questions, formally as well as informally, about raking through archives of every imaginable variety, and heaven knows about reading very, very widely. It's not evident in most of my work how widely I cast my net, but in *Everything Sings*, for example, the simple maps "Absentee Landlords" (Figure 2.11) and "Local Rents"—which explore property ownership—could only have been made after spending hours in the offices of the Wake County Register of Deeds where we ran ownership back to William Montfort Boylan whose death in 1899 led from his estate to the creation of Boylan Heights. From there we created a tree of descent to the ownership pattern present in 1982. It was a mammoth amount of work and generated a drawerful of cross-referenced file cards. The map of "Assessed Value" involved a similar tedious labor, though I made the map itself (Figure 2.12) by smoothing the tax values of 333 residential lots across a 281-cell grid and interpolating contours across the grid. Then I glued strings to the contour lines and made a rubbing of the strings. Today, of course, all these data are available online and often have already been mapped, but in 1982 that was very much in the future.

On the other hand, the map I made for an article about the atlas for *Places Joural*, "Porch Ceiling Colors," could only have been made by peering up at the porches' ceilings from the sidewalk.[9] This was also a riposte to an observation

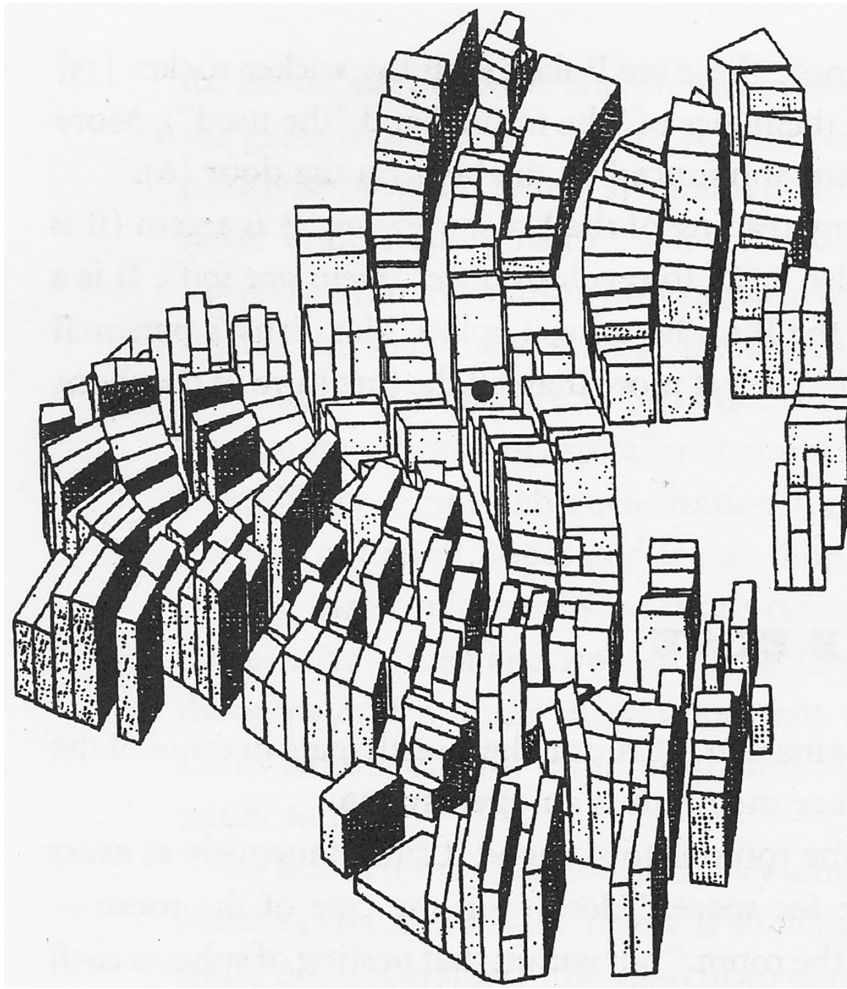

Figure 2.9 The place of our house (with the dot on it) in Boylan Heights, where each oblong indicates, in its plan, the shape of the lot it's on; while its height indicates its conformance to the Boylan Heights norm, taller being closer to that long, narrow lot with a bungalow or shotgun on it.

Source: This is from Home Rules, but another version also appears in Everything Sings.

by an aficionado of remote sensing data who claimed he could have made the atlas without leaving his desk. Part of our field work had consisted of walking the neighborhood house by house and noting everything we thought might be useful for making maps. Among these were the colors of the front porch ceilings. We hadn't originally made this because the map had to be in color and the atlas was black and white; but once de rigueur in the South, and reportedly still

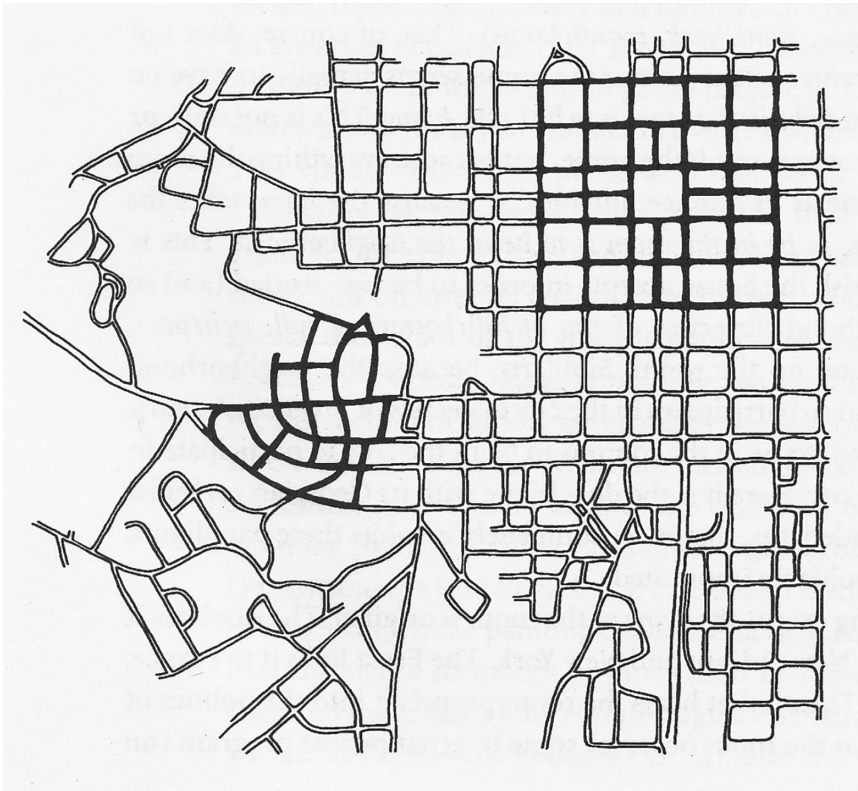

Figure 2.10 The place of Boylan Heights, curvy streets, darkened, left center, as laid out at the beginning of the twentieth century, in the context of downtown Raleigh's orthogonal street plan, the late eighteenth-century core, darkened, upper right.

Source: This is from Home Rules, but similarly it also appears in Everything Sings.

predominant, blue porch ceilings were but a small minority in Boylan Heights (at least in 1982). Most ceilings were white, but green and even yellow were more common than blue. When your ceiling wasn't white, people in Boylan Heights noticed.

For us there were clearly maps that demanded immersion in archives of every variety, but just as certainly others couldn't have been made without wearing out shoe leather. If your field is a couple of hundred years old, patently you're going to be spending a lot of time in libraries. But contemporary or ancient both are fields, arrays of data in which you've got to *immerse yourself*. I suppose fieldwork can be parsed into phases, though I hesitate to make it sound more organized than I want it to. But it *has* to start with *getting into the data*. That's the essential, I-can't-emphasize-this-strongly-enough part of it, getting into the data.

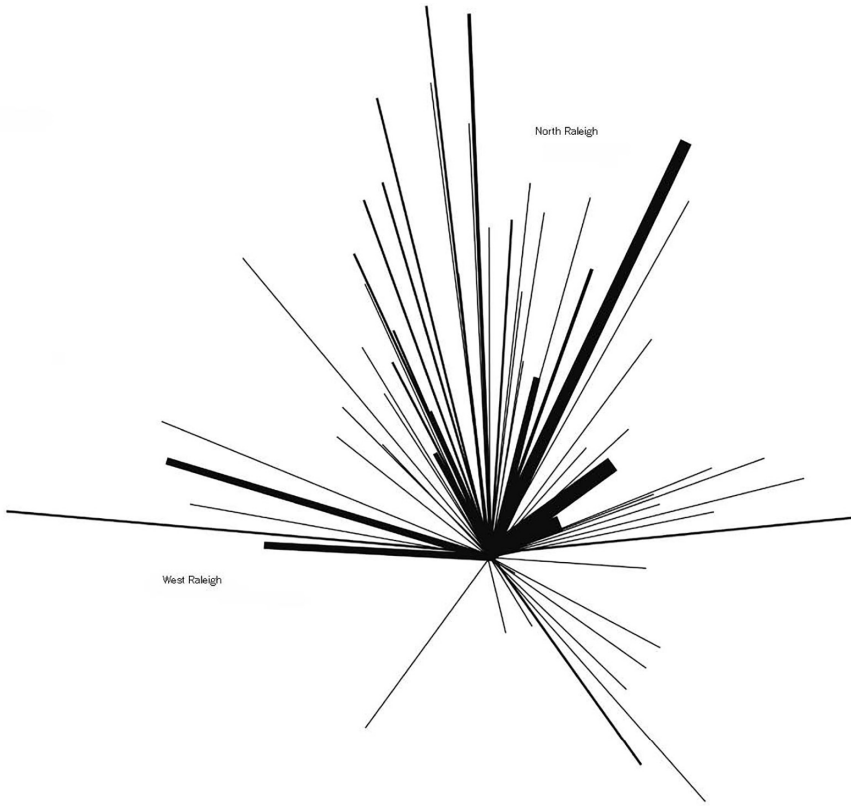

Figure 2.11 This is a map of the "Absentee Landlords" living in Raleigh. Those elsewhere in the state and nation showed up on smaller maps on the facing page (Everything Sings, Siglio Press, Los Angeles, 2010).

"Embark on a garden with a vision but never with a plan," Ian Hamilton Finlay wrote, and it's as a good maxim for our kind of work as I can imagine.[10] Embark with a vision . . . You don't even want the vision to be too heavy-handed but god knows *you don't want a plan*. What you're doing is keeping yourself loose, open, absorbing, settling into the material, with the vision lightly directing your gaze. Lightly. What you want to be able to do is *see*, but also to be able to shift your gaze if that's what the data are . . . suggesting? promoting? encouraging you to do? You're relaxed, but you're alert. I could say this 60 different ways, but the bottom line is: no plan!

The thing is, deep mapping is an *experiential* science, not an experimental one. It's about *finding facts*, not creating them. Plans restrict experience. If you're looking for the Higgs boson, oaky, you need a plan, just to think about getting started looking for the Higgs boson you need a plan. But even if you imagine that

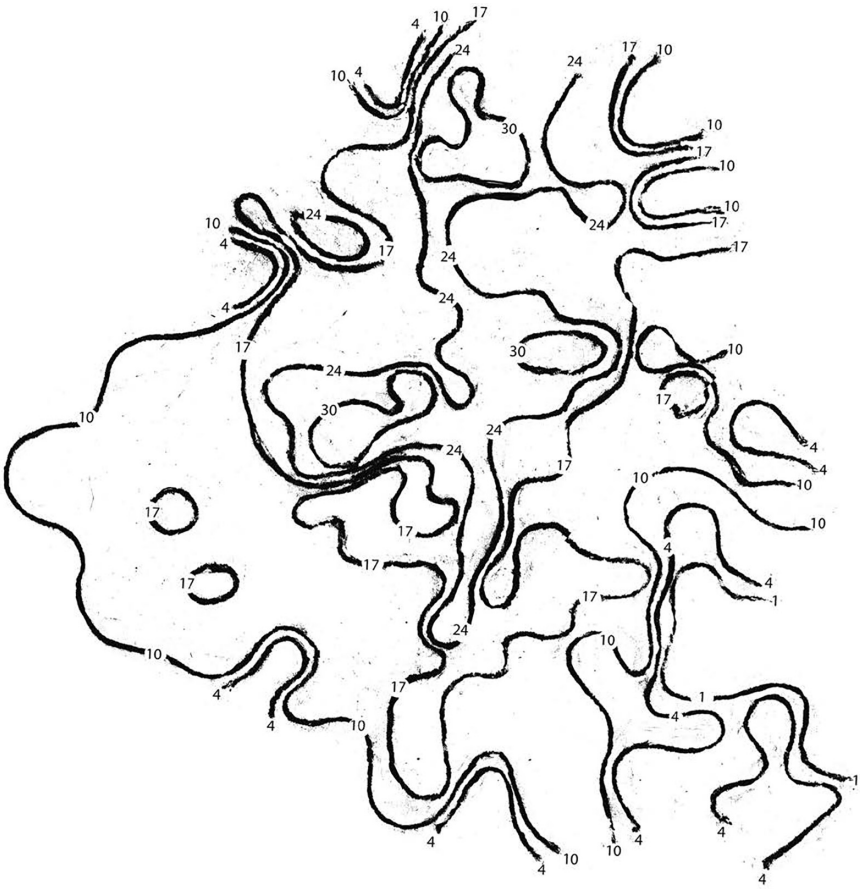

Figure 2.12 This is the map I made of "Assessed Value" in 1982. The numbers were in thousands. This was a long time ago. They're completely out of sight today (Everything Sings, Siglio Press, Los Angeles, 2010).

the search for subatomic particles only began in the nineteenth century, humans had been mucking around in that world for a *long* time, keeping their eyes peeled, wandering down this dead end and that, before beginning to make plans to look for stuff. And if it's deep mapping you're wanting to do, you're not going to be looking for subatomic particles. No, the rules for experimental science have little place here. Deep mapping is about *the experience of place*.

So you're out in the field—and this could be sitting on the terrace of a cafe watching the world go by or immersed in a sea of marriage certificates in some archive—and where you want to head is beginning to come into focus. This is when you begin to sense the *direction* you're heading, *the direction you want to*

take your deep map. The vision you came to the field with is growing concrete—you could do this, you could do that—and this kind of thinking (you could think about this as the opening of the second phase of the fieldwork) has a different character from the thinking you were doing when you were just lounging in the data. A project is beginning to take form in your head and you're beginning to think about its shape, about its scope. As you do, you're also starting to think about the work, about the sorts of things you'll have to do to get you what you're beginning to think you might need. I'm trying to suggest how loose this phase is, how open you are to other directions, other possibilities. You're beginning to think about the project's final form, mind-casting the results of the work into that form, but you're continually feeding back the consequences of each of these thoughts into any and/or all the earlier thinking. The final form? For a deep map, for *my* kind of deep map, this should be a collection of maps, but again this is going to depend on you. It *could* take the form of a performance on kettle drums.

Now: how to imagine the work given this vague idea of the project's form? If we're thinking about a collection of maps—and let's do that—it's got to consist of mappable stuff, stuff collected to make maps of. This is going to entail an ever-deeper acquaintance with the material as it is endlessly walked, analyzed, measured, photographed, rubbed, reviewed, collected, listened to, tasted, sampled, and otherwise encompassed. The goal here is to get as close to the stuff as possible, and to take this all in in such a way that it can be mapped. This is less hard than it may sound, but it's not necessarily easy and it *is* all time consuming. If you're going to give a performance on kettle drums, you're still going to need to get as close to the material as you can, though it won't be with the goal of making maps.

Crucially this means not imagining that anything is unmappable, not percussively expressible. But I know maps. Let me stay with maps. There's probably a better way to put it, but the bottom line is: if it exists, it does so in space. And pretty much, *therefore it's mappable*. Anything. Sometimes this might mean an unimaginable amount of fieldwork, of being on your feet, but other times it might require you to sift through reams of paper. *Imagination is key*. Invisible radio waves? Well, they're waves, they have form, they're emanating from propulsive forces somewhere. Locate the radio sources, the towers (Figure 2.13), and calculate the relevant wave fronts. Draw them. There's your map (Figure 2.14). But at other times it really is just plodding through the data as often and as *slowly* as necessary. And then you just have to commit everything to as many maps, or musical scores, or whatever as it takes. Collaborative prose helps too. And anything else.

And if, as you make these things, you realize you're missing something, then it's back to the data, back to the field. The scope's constantly changing, its form is morphing, the project is changing as you engage in the work of discovery and of explaining to people what you're finding. It should change your life. Because it should feed back into the place, even if not extant, it should change the life of the place moving forward. Deep mapping is a deep, highly directed, multifaceted engagement with place. If it's not, it's not a deep map.

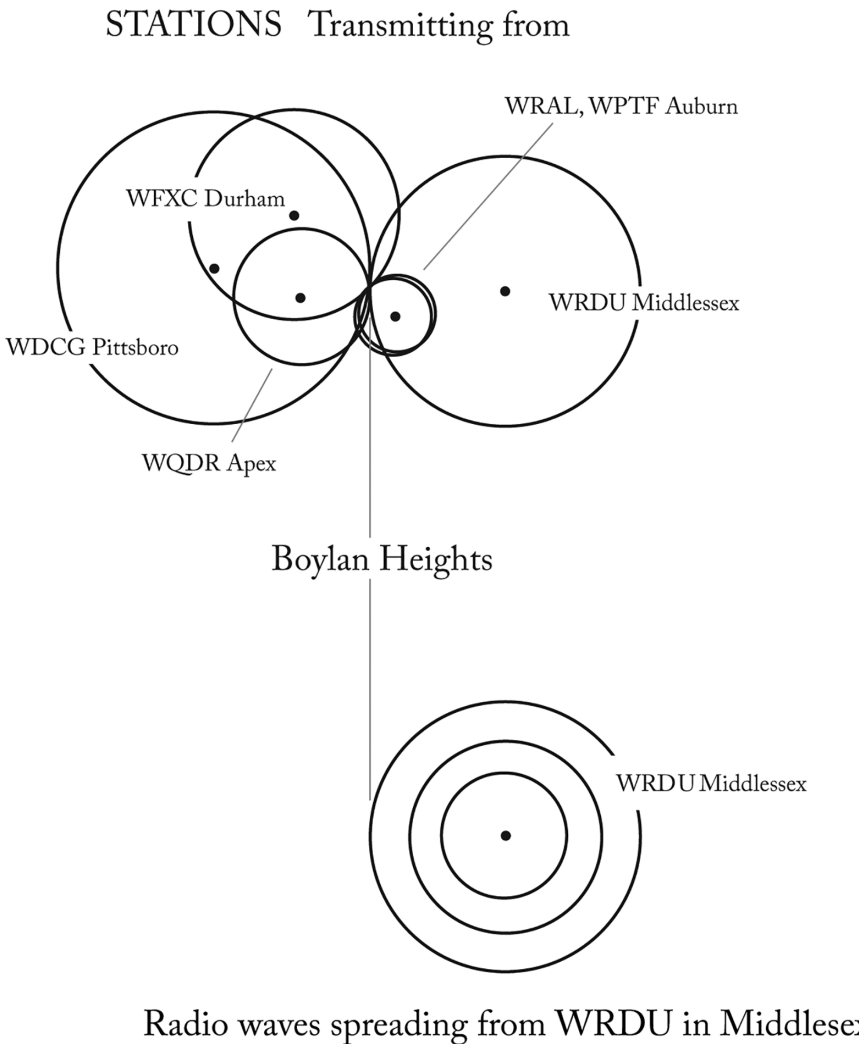

Figure 2.13 Boylan Heights is at the intersection of these wave fronts being generated by the towers indicated. The lower image indicates the shape of the WRDU wave front by the time it reaches the neighborhood (Everything Sings, Siglio Press, Los Angeles, 2010).

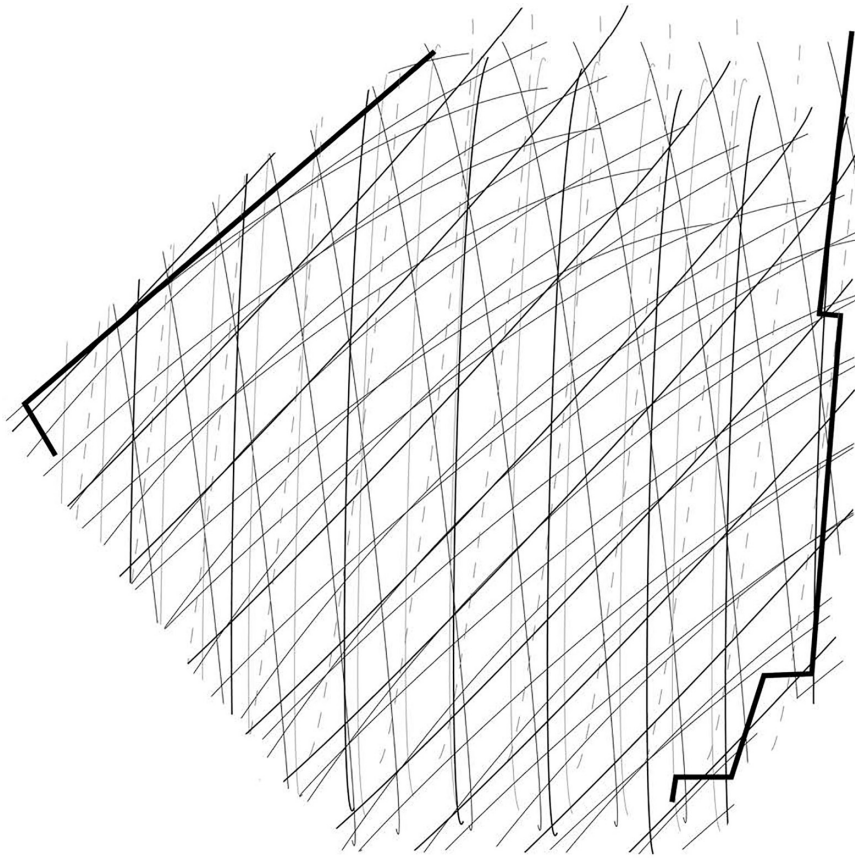

Figure 2.14 The wave fronts generated by the stations plotted in Figure 2.13 as they move through Boylan Heights (Everything Sings, Siglio Press, Los Angeles, 2010).

Notes

1 Martyn Bowden, on the faculty at Clark, was a huge Wright advocate. He encouraged me to buy, and read, J.K. Wright, *Human Nature in Geography: Fourteen Papers, 1925–1965* (Cambridge: Harvard University Press, 1966), where the one about geosophy is "*Terrae Incognitae*: The place of imagination in geography."
2 "Thinking about my paper routes," appeared in Becca Hall and Cara Bertron, eds., *The Known World, Pocket Guide* (2012), unpaginated, the first issue in their "foldy" project, a single sheet, folded, and sent through the mails from Seattle.
3 Denis Wood, John Bellamy, and Mark Salling, "The Paper Route Empire," in *Where You Are: A Book of Maps That Will Leave You Completely Lost* (London: Visual Editions, 2013), one of sixteen booklets (22 pages, fold-out map). It's online at http://where-you-are.com/denis-wood. A longer, online version appeared as "The Paper Route Empire," *Belt Magazine* (November 11, 2013). http://beltmag.com/paper-route-empire/.

4 Denis Wood, *Fleeting Glimpses, or Adolescent and Other Images of the Entity Called San Cristobal las Casas, Chiapas, Mexico* (Worcester, MA: Clark University Cartographic Laboratory, Clark University, 1971) is out of print but can be found online at www.deniswood.net.
5 Denis Wood, *I Don't Want to, But I Will* (Worcester, MA: Clark University Cartographic Laboratory, 1973). This too is online at www.deniswood.net, though you may also want to see the discussion at www.metafilter.com/117054/I-Didnt-Want-To-But-I-Did.
6 I've written about this in Denis Wood, "Mapping Deeply," *Humanities* 4, no. 3 (2015): 304–18, which is available in print in *Deep Mapping*, Les Roberts, ed. (Basel: MDPI, 2016), 15–29, and online at www.mdpi.com/2076-0787/4/3/304/htm.
7 You can hear the This American Life interview at www.thisamericanlife.org/radio-archives/episode/110/mapping. The atlas appeared as Denis Wood, *Everything Sings: Maps for a Narrative Atlas* (Los Angeles: Siglio, 2010); and in a revised and expanded edition, in 2013. The electronic version of the book is here: http://sigliopress.com/book/everything-sings/.
8 This really emerged from the ongoingness of both our lives, as Bob spent several weeks every summer in the vicinity while his wife worked at the American Dance Festival in Durham. Mulling what do with our time lead to Denis Wood and Robert J. Beck, *Home Rules* (Baltimore: Johns Hopkins University Press, 1994); Denis Wood and Robert Beck, "Do's and Don't's: Family Rules, Rooms, and Their Relationships," *Children's Environments Quarterly* 7, no. 1: 2–14 (1990); and Robert Beck and Denis Wood, "The Dialogic Socialization of Aggression in a Family's Court of Reason and Inquiry," *Discourse Processes* 16, no. 3 (1993): 341–62.
9 Denis Wood, "Everything Sings: Maps for a Narrative Atlas," *Places*, October 2011. https://placesjournal.org/article/everything-sings-maps-for-a-narrative-atlas/.
10 I found this in Jessie Sheeler's, *Little Sparta: A Guide to the Garden of Ian Hamilton Finlay* (Birlinn, 2015), 2; but it's from Finlay's *Detached Sentences on Gardening*.