

cartographic perspectives

Number 53, Winter 2006

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Letter from the Editor

Dear Members of NACIS,

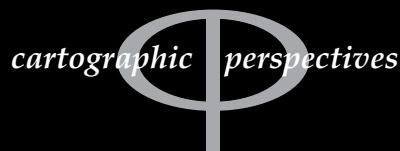
Welcome to CP53, the first issue of *Cartographic Perspectives* in 2006. I plan to be brief with my column as there is plenty to read on the following pages. This is an important issue on *Art and Cartography* that was spearheaded about a year ago by Denis Wood and John Krygier. It's importance lies in the fact that nothing like this has ever been published in an academic journal. Ever. To punctuate it's importance, let me share a view of one of the reviewers of this volume:

...publish these articles. Nothing more, nothing less. Publish them. They are exciting. They are interesting: they stimulate thought! ...They are the first essays I've read (other than exhibition catalogs) that actually try — and succeed — to come to terms with the intersections of maps and art, that replace the old formula of maps in/as art, art in/as maps by

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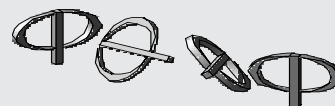
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about the cover



The cover image was created by Matt Knutzen, artist, cartographer and Assistant Chief Librarian of the Map Division of the New York Public Library.

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(letter from editor continued)

engaging with the ideologies of "map" and "art." This work might be done elsewhere...[but]...I feel, [it would be] constrained by the old formula...[this work] isn't being done anywhere near cartographic journals and it desperately needs to be!...

Cartographic Perspectives really is setting new ground with this issue. I congratulate the four authors here on creating a volume that will significantly impact research and discussions on art and cartography. I also want to thank John Krygier and Denis Wood for pulling this issue together. These papers weave a story that includes an historical account of map art (Wood), a discussion of cognition and map art from the 1960s to 1980s (Varanka), a snap-shot of present day map art undertakings (kanarinka), and finally a focus on one present day map artist (Krygier). This issue ends with a catalogue of map artists (Wood). Enjoy!

As always, I welcome your comments and suggestions.

Warmest Regards,

Scott Freunds Schuh, Editor

*A note from Christopher Mixon,
Cartographic Collections
Section Editor*

In the entrance to Auburn University's Library we have a bulletin board where the campus community posts items such as "Subleaser Needed" and "Motorcycle for Sale." There are never any maps there. So, when I started editing this column, I had proposed a name change from the old *Map Library Bulletin Board* to something more than postings and pushpins. I wanted the column to become a prominent feature and to attract more substantial works. I also wanted to open the door to articles about collections that may not reside in libraries as we know them. My personal interest lies in the exploding number of digital collections to be found. And, I have noticed that the Western Association of Map Libraries (WAML) is working to create a clearinghouse for these digital collections.

I didn't make a formal proposal about a name change until we had our board meeting in Portland, Maine, in 2004. No changes were made at that time. Another year passed and the subject came up at our board meeting in Salt Lake

City. Thinking it was high time to resolve this issue, I blurted out, "How about Cartographic Collections?" and after a brief discussion, the change was made official. The name change first appeared in our last issue, CP 52, as you may have noticed. So, from now until someone decides differently, the *Map Library Bulletin Board* will be known as *Cartographic Collections*.

If you have some ideas for articles that deal with entire collections—or even a particular map—whether it covers cataloging, shelving, paper maps, or digital maps, please consider submitting your work to *Cartographic Collections*. Submit your work to me, preferably as an email attachment and a MS Word document to mixonch@auburn.edu. Submissions via regular mail are gladly accepted and should be sent to me at RBD Library, 231 Mell St., Auburn University, AL 36849-5605.

Christopher Mixon

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Art and Mapping: An Introduction

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For cartographers, geographers, and the many other people who produce, use or variously engage with maps, these are interesting times. Technology means that the map is everywhere in daily life: endlessly flexible, manipulable, reproducible and labile. Spatial referencing and coding give to cartographic reason a centrality in business, in administration and in daily consumption that is already unprecedented and seemingly boundless in its growth. With the ubiquity of maps and mapping comes increased reflection and critical response among academics and activists to be sure, but also from artists. So, while the claims and conventions of scientific cartography have been debated and ruthlessly deconstructed within the academy, in the creative worlds of the arts, maps and the processes of mapping have proved astonishingly fertile material for artistic expression and intervention.

The converging attention to maps and mapping demands comment and understanding, and this is beginning to happen in many places. The contributions that this special issue of *Cartographic Perspectives* have brought together here—in which scholars and artists comment on each others' cartographic activities—are the latest evidence of a burgeoning critical literature on the convergence of art and cartography. Although philosophical in nature and perhaps conservative in terms of art practices, Edward Casey's *Earth-Mapping* (Minnesota, 2005) is one of the first sustained reflections on the contemporary convergence of art and mapping to appear in print, and it follows his earlier discussions of the history of landscape and mapping in art and science. To add to the growing number of academic articles, exhibition proposals and conference discussions, I am aware of at least two other proposals currently being considered for book-length studies of the relations of art and cartography. As Denis Wood himself has put it, there is a cresting wave, and it awaits skilled surfers.

The papers by Wood and Krygier demonstrate that they are among the most experienced board riders in this particular ocean, their papers bringing strong evidence not only of the excitement of a current con-

vergence, but of how it may be understood historically and critically. Their particular interest is in a much more activist and interventionist approach to cartographic art than is represented in Casey's work, and there is no question that this is a dominant concern among many artists who embrace maps and mapping today. This concern is very apparent from Kanarinka's discussion of the inheritance of Situationist mapping. Whether Varanka is correct to suggest that there exists a deeper cognitive bias towards the graphic representation of spatial knowledge: a 'natural mapping ... that creates personal images of places, movement, and landmarks, highly invested with meaning, free to draw on the unconscious and memories, but experimental in depiction,' is debatable, but she is completely correct to say that 'it was only after cartography acknowledged its relation to Post-Modernism [i.e., the relativity of its own claims to objectivity and truth] that cartographic theory could include the mapping terms of artists.'

There is much more to be said about the extraordinary convergence of artistic creativity, technology and criticism that surrounds mapping. Some current myths about both cartographic and artistic assumptions and activities—even some that find voice in these papers—will need to be thoughtfully and carefully examined before the wave of interest in these questions passes. But the contributions gathered here represent a significant step in a process that is critical for all aspects of mapping practice.

Map Art¹

Denis Wood
Independent Scholar
Raleigh, NC

Artists make maps. Inspired by maps made by the Surrealists, by the Situationists, by Pop Artists, and especially by Conceptualists of every stripe, artists in increasing numbers have taken up the map as an expressive medium. In an age less and less enamored of traditional forms of representation – and increasingly critical – maps have numerous attractions for artists. Beyond their formal continuities, maps and paintings are both communicative, that is, constructs intended to affect behavior. As the energy of painting has been dispersed over the past half century into earth art, conceptual art, installation art, performance art, video art, cyber art, and so on, it has dispersed the map as a subject along with it. The irresistible tug maps exert on artists arises from the map's mask of neutral objectivity, from its mask of unauthored dispassion. Artists either strip this mask off the map, or fail to put one on. In either case artists simultaneously point to the mask worn by the map, while they enter unmasked into the very discourse of the map. In so doing map artists are erasing the line cartographers have tried to draw between their form of graphic communication (maps) and others (drawings, paintings, and so on). In this way map artists are reclaiming the map as a discourse function for people in general. The flourishing of map art signals the imminent demise of the map as a privileged form of communication. The map is dead! Long live the map!

Keywords: Map art, maps, earth art, performance art, graphic communication

Introduction

When I open the daily paper, in Raleigh, North Carolina, and find map art splashed across the front page of its Life section – as I recently did – I know that map art's arrived. There was a color detail from one of Joyce Kosloff's recent collage maps, a headline, "Charting worlds of ideas," a subhead,

"Joyce Kosloff aims to map the contours of perception," and a story about an exhibition of her *Boys' Art* drawings and a talk she was giving about them. The story continued inside where there was a color reproduction of the full drawing and a photograph of the artist.²

I was familiar with the drawings. I'd seen an advertisement in the November, 2003, issue of *Art in America* for their inaugural exhibition at DC Moore, Kosloff's New York gallery, and had called to see if there was a catalogue. There was, and they'd be glad to send it along. It arrived in a large box together with a bill for \$125.³ After I got over the shock I was delighted, for the drawings were beautiful and lavishly reproduced. Across lovely, pencil renderings of military maps – from the Han dynasty through the second half of the twentieth century – Kosloff had collaged figures drawn by her young son Nik, by Hergé, by Posada, and by many others, all of them of men (or superheroes) attacking or being attacked with knives, swords, spears, guns, and other weapons, *boys' art*, as Kosloff saw it, like that her brother Bruce had drawn when he and she were growing up, or that she had watched her son draw while he was growing up.

Kosloff has been working this vein for a while. In a map art show at the Tang Teaching Museum at Skidmore College in 2001, Kosloff showed *Targets* (2000), a walk-in globe which surrounded the viewer with sections from U.S. military maps of the countries the U.S. had bombed since World War II and which Kosloff had repainted.⁴ She also showed three smaller globes from her *Knowledge* series (1998-1999). The *Knowledge* works, mostly smaller, flat frescoes, had toured the country in 1999. These were redrawings of maps, mostly from the Age of Discovery, in which Kosloff explored issues of power and knowledge.⁵ Since the early-1990s, Kosloff's work has increasingly revolved around maps.⁶

Overtly political (and currently active with Artists Against the War), Kosloff stumbled – her word – into map art in the days when she was largely involved with public art projects. The first thing clients would

send her were site maps. "The maps I was sent," she's said, "were a kind of structure to put my content into, and in the early 1990s I realized I could do that in my private art."⁷

A Little History

Every artist tells a different story, but since the early 1990s more and more of them have been explaining to interviewers how it was that they began making art with maps. This wasn't something artists used to have to explain. There *was* earlier map art, and in the sense that we're using the term today, but there wasn't much of it. In 1924 the Czech proto-Surrealist, Jindich Štřrský, had made a "pictur e-poem" that incorporated a map of the Gulf of Genoa.⁸ In 1925 Salvador Dalí had made a collage that incorporated map fragments of the Sea of Japan and Greece.⁹ In 1929 the Surrealists had published their Surrealist map of the world.¹⁰ In 1933, in response to Hitler's seizure of power in Germany, Max Ernst made "an end-of-the-world allegory," *Europe After the Rain I*, in the form of a relief map of Europe.¹¹ In 1936 Joseph Cornell had begun making boxes that incorporated maps of the moon (*Soap Bubble Set*, 1936), the South Seas (*Solomon Islands*, 1940-42, *Object (Roses des vents)*, 1942-53) and European cities (*Medici Slot Machine (Object)*, 1942, *Medici Slot Machine*, 1943); and later he'd work with world maps (*Trade Winds No. 2*, c. 1956-58), diagrams of the solar system (*Untitled (Solar Set)*, c. 1956-58), and star charts (*Observatory Colomba Carrousel*, c. 1953).¹² In 1943 Marcel Duchamp had made his *Allégorie de genre*, punning a map of the United States with the head of George Washington;¹³ and Joaquín Torres-García had made his south-up map for La Escuela del Sur.¹⁴ In 1950 the Letterist, Maurice Lemaître, had published *Riff-raff*, a ten-page "metagraphy," which included a sequence that zoomed from the solar system through a drawing of the earth to maps of Europe, France, and Paris, and finally one of Saint Germain de Près.¹⁵ More famously, in the later 1950s, the Letterist dissident and founder, first of the Letterist International, and later of the Situationist International, Guy Debord, made "psychogéographique" maps (*Discours sur les passions de l'amour*, 1956, and, with Asger Jorn, *The Naked City*, 1957).¹⁶ In 1962 Max Ernst painted his *Le Jardin de la France*, and collaged elements of maps into later work (*Configuration No. 16*, 1974).¹⁷ But by this time map art was beginning to pop up all over the place.¹⁸

Robert Rauschenberg was making making art with maps as early as 1956,¹⁹ but more notoriously, in the early 1960s Jasper Johns had begun making paintings of maps (*Map*, 1961, *Map*, 1962, *Map*, 1963). Johns was at the height of his notoriety and his *Map* paintings were widely reproduced. His largest map painting, a mural for Montreal's Expo '67 based on one of

Buckminster Fuller's Dymaxion projections, attracted widespread international attention.²⁰ In a related but highly individual vein, Claes Oldenberg began producing stuffed maps of Manhattan (*Soft Manhattan No. 1 (Postal Zones)*, 1966), while Öyvind Fahlström worked on board-game maps of the world (*World Map*, 1972; *Garden (A World Model)*, 1973).²¹ Fluxus artists – including Yoko Ono, Robert Watts, George Brecht, Robert Morris – were making map pieces too, notably Yoko Ono's early *Map Piece* (1962) and Watt's *Fluxatlas* (of the 1970s).²² At the same time, earthworks artists such as Robert Smithson, Walter De Maria, Dennis Oppenheim, Adrian Piper, Christo and Jeanne-Claude, Nancy Holt, James Turrell, and others began working with maps to plan, execute, and document their work.²³ Smithson's *Map of Clear Broken Glass Stripes (Atlantis)*, 1969, with its collaged and pencil-drawn maps, was a "sketch" for the outline of Atlantis that Smithson was to lay out on in sheets of glass in the Jersey Meadowlands. Piper's *Parallel Grid Proposal for Dugway Proving Ground Headquarters*, 1968, used maps to lay out an enormous, two-mile-square steel-grid proposed to float on I-beams a half-mile off the ground. As the sun moved across the steel beams it would cast a moving coordinate grid over the Dugway headquarters. Christo and Jeanne-Claude could never have constructed their landscape pieces, from *Valley Curtain* (1970-1972) through last year's *The Gates* (1979-2005), without maps, first, as an essential aspect of the drawings Christo sells to raise money to support their projects; then as planning, approval, and construction documents; and finally as aides to the appreciation of the work. The Environmental Impact Statement for *Running Fence* (1972-1976), for example, ran to over 450 pages, many of them maps; while last month, thousands and thousands of *The Gates Map* were sold to help visitors negotiate their piece in Central Park.²⁴ With Nancy Graves churning out maps of the moon (as in her suite, *Lithographs Based on Geologic Maps of Lunar Orbiter and Apollo Landing Sites*, 1972), Susan Hiller performing and drawing dream maps (as in her *Composite Group Dream Map, Night of 23/24 August*, 1974), and Sol LeWitt cutting holes in air photos of New York (*Photograph of Part of Manhattan with Area Between the John Weber Gallery, the former Dwan Gallery, and Sol LeWitt's Residence Cut Out*, 1977), maps were all over the post-Minimalist landscape.²⁵

This is glaringly apparent in hindsight, but the editors of *artscanada* picked it up as early as 1974 when they devoted an entire issue of their magazine to maps and mapping, prefacing with a history of the mapping of Canada, articles about the map art of Vera Frenkel (including *Map with Gates*, 1973-74), Nancy Graves, Michael Snow, William Wiley, Claude Breeze (with special emphasis on his *Canadian Atlas* series), and a survey of the art of others.²⁶ By the time David

Woodward came to publish a lecture series on art and cartography in 1987, he was able to refer to the independent appearance that very year of four major exhibitions on the theme.²⁷ When Robert Storr organized the exhibition, *Mapping*, for New York's Museum of Modern Art in 1994, he had to note that unbeknownst to him Frances Colpitt had been organizing another exhibition, under the very same title, that was to tour Texas.²⁸ Since then Kathryn Charles has curated *Mapping Lessons* for the William King Regional Arts Center in Abingdon, Virginia (1996); Robert Silberman has curated *world views: Maps and Art* for the Frederick R. Weisman Art Museum at the University of Minnesota (1999); Ian Berry has curated *the World according to the Newest and Most exact Observations: Mapping Art + Science* for the Tang Teaching Museum at Skidmore College (2001); Lize Mogel and Chris Kahle have curated *Genius Loci* at SCI-Arc in Los Angeles (2002);²⁹ Jane England has curated the massive *The Map is Not the Territory* exhibition for England & Co. in London (2002);³⁰ and Elli Crocker has curated *Mapping* for the Schiltkamp Gallery at Clark University (2005). Kitty Harmon's *You Are Here: Personal Geographies and Other Maps of the Imagination* (Princeton Architectural Press, 2004) included over four dozen contemporary map artists. Since its publication, so many artists have sent Harmon work she's already contemplating a second volume.³¹ More than two hundred contemporary artists appear in the catalogue that is part of this special issue of *Cartographic Perspectives*, and it's far from complete.

What's This All About?

One thing it's certainly about is the growing ubiquity of maps. The growth of map art is almost like a fever chart of the growth of the map industry itself. I'm fond of provoking historians of cartography by insisting that 99.99% of all paper maps ever made have been made in the past hundred years, the preponderance of them in the past fifty. There's really no way of proving this, but consider the following: these days, not counting Sundays, *Raleigh's News and Observer* prints close to thirty *million* maps a week.³² Fifty years ago the paper might have printed about thirty *thousand* maps a week. Fifty years before that the paper might not have printed any maps at all. The numbers of maps have always risen with wars, but what's really driven them up have been changes in technology and the ever-increasing competition from more graphic media. The institution of map features, such as the weather page, has been a factor too. As a result, newspapers have become map factories: a middling paper like the *News and Observer* is printing over one and half *billion* maps a year.³³ Similar increases in map production can be seen in other graphic media, especially in news maga-

zines, but also in textbooks, and this is to say nothing of television which adores maps, or the Web.³⁴

During the twentieth century entirely new map genres have come into existence, some proliferating until they're as taken for granted as indoor plumbing. Take the automotive highway map. It was born with the twentieth century, grew up with the car, and was pushed by oil, rubber, automotive, and other interests until it flooded glove compartments and overflowed kitchen drawers. State governments alone print millions and millions of copies a year.³⁵ Another twentieth century innovation, field guides to trees, birds, wildflowers, reptiles, and so on, feel it incumbent upon them to include range maps for every species. Popular field guides can have hundreds of maps in them. Millions of copies are printed. I could go on.

The point, by no means trivial, is that in so far as artists deal with the world around them, during the past half century maps have become an increasingly prominent part of it. Because our society is more map-immersed than any that has previously existed, contemporary map artists have grown up bathed in maps to an unprecedented degree. It's true that they've grown up bathed in many things, not all of which have become compulsive subjects of artmaking, but the unique properties of the map make it an exceptionally apt subject for an art which, while it has grown less and less enamored of traditional forms of representation, has become increasingly critical. Maps have numerous attractions. In the first place, like paintings, maps are graphic artifacts. There is substantial formal continuity, especially with the painting of the second half of the twentieth century and its grab-bag of commitments to abstraction, surface, flatness, pattern, and formal systems of sign-making. Then too, like paintings, maps are communicative, that is, are constructs by which one human (or group of humans) affects the state or behavior of another (or others) in a communication situation.³⁶ That is, both maps and paintings are more or less permanent, more or less graphic artifacts intended to shape the behavior of others. As the energy of painting has been dispersed in the past half century through the forms of earth art, conceptual art, installation art, performance art, video art, cyber art, and so on, it has dispersed the map as a subject along with it.

What Maps Do

The special role of maps – normative maps, the everyday maps of our everyday lives – is to serve the descriptive function in human discourse that links behaviors through the territorial plane.³⁷ For example, the map links my living here with my son's going to school there, or my registering this deed here with my being able to extract ores there. Maps achieve these

linkages the more effectively as the maps are taken to be descriptions of *the territory* – as descriptions of a school district, of a tract of property – rather than descriptions of *the behaviors linked through the territory* – my son having to attend a certain school because of where we live, my right to dig up the earth because of having registered a deed in a particular courthouse. That is, it is one thing, and comparatively inoffensive, to say that we live in such-and-such a school district. It is another thing, and often contentious, to point out that my child is being forced to attend school there because we have a house here. It is comparatively innocent to remark that we have a deed to this property, another to observe that it gives us the right to dynamite a hole in it. Maps pass as descriptions of the territory most readily when they appear to be describing an objective state of affairs, to be reporting on an existing reality; and they appear to be doing this when they wear masks of impersonal authority. That is, maps pass as descriptions of the territory when they project the sense of being unauthored or, if authored, then by a machine-like medium through which the territory passes ... merely to effect a convenience, a change, say, in scale or focus.³⁸ This mask, for so long worn by painting, makes maps an irresistible target for contemporary artists who either take the map's mask off, or refuse to put it on.

How does all this work?

Maps create links by fusing signs, under the control of at least ten codes, onto the plane of the map. Five of these codes, the intrasignificant codes, operate within the map, at the level of what Roland Barthes used to call language; the other five, the extrasignificant codes, operate outside the map, at the level of what Barthes called myth. Within the map, signs are subject to an *iconic* code concerned with their *whatness* (say, streets and schools); a *linguistic* code concerned with their names; a *tectonic* code concerned with their spatial relations (within which *scalar* and *topological* codes can be differentiated); a *temporal* code concerned with their temporal relations (within which codes of *duration* and *tense* can be distinguished); and a *presentational* code concerned with the structure of their ensemble. At the level of myth, the *thematic* code organizes the signs of the iconic code into a theme (it's a map of school districts); the *topic* code organizes their spatial relationships into a place (they turn into a county, say, Wake); the *historical* code organizes their temporal relationships into an epoch, into an era (for example, the coming school year); the *rhetorical* code organizes their presentation into a style (that most advantageous to the myth that these *are* the school districts); while the *utilitarian* code organizes the whole for the uses to which the map is intended (to achieve the complicated

goals of the school board).³⁹

To create a map of school districts like this, we draw streets and school districts on a single sheet of paper. This sheet of paper is the common plane, the plane of the map. Drawing the signs in the same plane fuses their signifieds, in this case, legal residences, and the schools to be attended by children of specified ages or grades. The fairy tale of the neighborhood school – which has always been a fairy tale – is dramatically belied in our age of compulsory attendance, busing, satellite attendance zones, magnet schools, and the rest of apparatus associated with the apportioning of educational resources, most of which are negotiated through the map. Among other signs on the map are those connoting trustworthiness – which is to say objectivity – and these “seal” the map as an independent object, in effect masking the interests motivating the behaviors. Since other coded graphics can also link things through the territorial plane – for example a painting can – it is this air of detachment, finally, which makes a map a map.

What are these signs of detachment?

Certainly the least of them are such formal attestations of authority as scales in multiple forms, arcane grid ticks, and the names of projections. Though these are necessary, they are radically insufficient. Instead of concentrating its authority in a single mark – like an artist's chop on a print – the “objectivity” of a map is dispersed evenly across its surface to infect every mark. Essential to such an appearance is a measured and mechanical uniformity, an evenhanded approach to every sign, one that exudes detachment and impartiality, and so neutrality, and so finally objectivity. This uniformity reduces the number of potential expressive elements to a handful, and is responsible for the characteristic formality of most maps (and their family-like resemblances). Long before the hand had altogether been severed by the digital revolution, it had pretty much disappeared from mapmaking. Emblematic were the lettering devices common through the 1960s. In the Normograph – isn't that a great name? – and the Wrico systems, the mapmaker had to push his pen (actually a small tube designed to insure an even flow of ink) through perforated templates. In the Leroy system the hand was constrained to trace debossed letters with a scribe while an attached pen – again a tube – reproduced them on the page. There were endless ruling pens, pantographs, imprinters, preprinted symbol sheets, splines, curves, and other devices for controlling the wayward hand. The acknowledged purpose of this constraint? “The tools and media,” Arthur Robinson wrote in the first edition of his widely influential textbook, “... are designed primarily for the purpose of making it easy to obtain precision.”⁴⁰ Ah, *precision*.

Here we find a “scientific” rationale – that is, mask – for the impersonal appearances designed to mask the social construction of the map. How did R. D. Laing put it? First we forget. Then we forget we forgot.

Not content with imposing themselves on the signs of the map proper, that is, on the signs comprising, at the level of language, the map *content*, the phatic codes – presentational, rhetorical, and utilitarian – churn out an elaborate array of signage of their own, this designed to make clear to the least perspicacious the map’s objectivity.⁴¹ These include, but are by no means limited to, formal frames, rules, borders, attestations to the depth of consultation with experts, descriptions of projections, scales in multiple forms, arcane grid ticks, notes about magnetic declination, inset maps, inset diagrams, and graphs and photographs, these themselves often encrusted with their own armamentarium of titles, borders, and credits. Among these would fall the formal attestations of authority: “Prepared by the Wake County Board of Education.”

The combination of uniformity, *of a restraint*, at the level of the map content, with this gush of authoritarian impedimenta, is irresistible. It comes to a paper incarnation of Robert Boyle’s seventeenth century program for the *construction of assent* necessary to establish the existence of *matters of fact* (all of which is about building feelings of confidence). At the beating heart of Boyle’s program was the laboratory, conceived as a disciplined space where experiments could be collectively controlled by competent participants. Is it merely coincidental that mapmaking spaces in universities have traditionally been called labs? That they’re crammed – and always have been – with “scientific” equipment (finely machined, exactly calibrated)?⁴² To this disciplined space Boyle coupled a modest and “naked way of writing;” and he advocated “a philosophical rather than rhetorical” form of prose.⁴³ Is it also coincidental that following the seventeenth century, maps became progressively less and less *decorative* and more and more “just the facts, m’am”? Or that Boyle’s eagerness to encumber his reports with the names of respectable and well-known witnesses found its parallel on maps in the increasingly frequent imprimatur of important scientific organizations (“based on the Work of the Geological Survey”) or government agencies (the United States Army Map Service), often reduced to impressive acronyms (NOAA), all solidifying the weight of the authority standing behind the frail sheet of paper?

Once the map’s social construction has been masked by every conceivable sign of dispassion; once its authority has been rendered unquestionable; once its ability to transmit the world *as it is* has been secured beyond doubt; the map is free to commit any violence it chooses. It can display, for example, in lurid pinks and greens and purples, a world smashed into

nation-states and pass it off as ... *only natural*.

How Have Artists Responded to This?

Let’s consider the Surrealist map of the world of 1929, here in Patrick Waldberg’s description:

The only cities shown are Paris and Constantinople, but without France or Turkey. Europe consists only of Germany, Austria-Hungary and an immense Russia, which also takes up half of Asia (the other half of which is composed of China, Tibet and an outsized Afghanistan next to a rather small India). By contrast, the islands of the Pacific occupy two-thirds of the world and carry as banners the marvelous names of Hawaii, the Solomons, New Hebrides, New Zealand, the Marquesas and the Bismarck Archipelago. The North American continent, from which the United States is missing, presents a gigantic Alaska, the Charlotte Islands, Labrador and Mexico. Further down, Easter Island is as large as all of South America, which is reduced to a single country: Peru.⁴⁴

Of course all this corresponds perfectly to the permanent orientation of the Surrealist ideal, but how have the artists wrenched the map free from the Mercator on which it is so patently based? In the first place there is a complete absence of phatic signage, no border, frame, neatline, no scale, grid ticks – no grid! – inset maps, et cetera. While there is a notable uniformity of line weight in the portions of the map traced directly from the model, there is none in the lettering, which – no Normograph used here! – has obviously been drawn freehand. The letter-spacing is particularly idiosyncratic. Because the equator tries to pass through the points on the map through which it would pass on the globe, it wanders all over the place, here nearly rolling into a semicircle, there running straight as a ruler. Size distortions come with the Mercator, but the exaggerations of the size of New Guinea, the Bismarcks, and especially Easter Island and Tierra del Fuego arise solely from the heat of Surrealist desire. As for nation-states, while one *can* imagine that those of Europe, Asia, and South America have in general simply not been displayed, where the Mexican and Canadian borders run together there is simply no room for the forty-eight United States at all: they, with their detested plumbing, have been silently expunged.

Or not so silently. In fact their absence is a roar challenging not simply the Western Christian civilization which so revolted the Surrealists, but the authority of Western Christian cartography to map the world. This is a map which strips the mask off and, in so doing, points to the presence of the mask on the normative maps of Western Christian culture.

Leap forward to the summer of 2003. Mona Hatoum has poured 3,300 pounds of clear glass marbles on the floor of a gallery at the Museum of Contemporary Art

in Los Angeles. From a distance the floor seems simply to shiver like the air above a radiator, but as you approach you realize that you are looking at a map of the world, shimmering-marble land against matte-floor oceans. Not only are no nation-states in view, but everything shifts with the light, and you are never far from imagining your legs flying out from under you on the slippery surface. Hatoum has rendered the opaque transparent, the rigid unstable, and all that is solid threatens ... to roll away. In Hatoum's earlier *Marble Carpet*, 1995 – in which she laid down a carpet of marbles – she unsettled viewers' physical and perceptual footing. In *Map*, 1999, Hatoum unsettles our cognitive footing, asking us to question the stability of our image of the world, and so its necessity.⁴⁵

So striped down is Hatoum's *Map* it seems superfluous to point out that it too has stripped off the mask. Again there is an absence of phatic signage, or rather it is *there* – it's that little didactic on the wall – but the confidence the didactic calls for is in the *curatorial acumen* that these marbles constitute *a work of art*, not in their layout as a map of the world. The map has been displaced *within* the work of art. Nevertheless, *Map* depends on our accepting it as a map of the world, as indeed it is. Only this acceptance mobilizes the marbles, with their potential freedom of motion, to query the necessity of the lines fixed in ink on other world maps. Similarly, it is only our familiarity with other world maps that permits the absence of the U.S. on the Surrealist map of the world to signify Surrealism's rejection of American materialist values. Both maps contest the *authority* of normative mapping institutions – science, government, the news media – to reliably map the world, at the same time that both maps reject the *world* that such institutions bring into being.

Art maps are always pointing toward worlds other than those mapped by normative mapping institutions. In so doing art maps unavoidably draw attention to the world-making power of normative maps. What is at stake is the nature of the world we want to live in. In pointing towards the existence of other worlds – real or imagined – map artists are claiming the power of the map to achieve ends other than the social reproduction of the status quo. Map artists do not reject *maps*. They reject the *authority* claimed by *normative maps* uniquely to portray reality as it is, that is, with dispassion and objectivity, the traits embodied in the mask. The history of Situationist mapmaking is explicit in this regard. Debord's *psychogéographique* maps “first originated in reaction against city-planning schemes for the modernization of Paris which threatened the old Bohemian areas on the Left bank;”⁴⁶ Abdelhafid Khatib's *psychogéographique* maps of Les Halles were “meant in part as a riposte to redevelopment plans that had been hanging over the area for a number of years;”⁴⁷ and the *psychogéographique* map-

ping of Copenhagen and Amsterdam carried out by Asger Jorn, Constant, and others had similar motivations. In fact, Debord explicitly called for a “renovated cartography” as a way to *intervene* in redevelopment activities which, in the case of Paris, were far more extensive and devastating than those carried out under Haussmann during the Second Empire.⁴⁸ More was involved here than the abandonment of the usual phatic signage. Indeed caught up in this *renovated cartography* were the iconic, tectonic, and temporal codes (for Situationist psychogeography implied altered notions of scale, distance, and direction), and as a result the thematic, topic, and historical codes as well. Yet Debord insisted – and I agree with him – that his maps charted social and cultural forces that were every bit as “real” as those charted by the planners whose efforts the Situationists were attempting to combat. It was indeed a war of maps such as I advocate in the closing pages of my *Power of Maps*; and if Debord was out-gunned at the time, his psychogeographic heirs continue to gain ground today.⁴⁹

Yet there is an alternative to taking off the mask and that is to never put it on. This is the option pursued by map artists like Newton and Helen Mayer Harrison, who for more than thirty years have been creating an environmentally beneficial art in which maps have loomed large:

Often beginning with preexisting maps, the artists extensively rework them, redrawing, digitally altering, painting over, and reorienting the original images so that familiar landmarks such as cities, borders, and roads tend to disappear while little noticed topographical and land-use patterns come to the fore. Pioneers of “Eco” art, the Harrisons use maps to emphasize one of their ongoing themes – namely the arbitrary nature of national boundaries and the way they often hinder ecologically responsible thinking.⁵⁰

This concern with boundaries is a theme common to much map art, but the Harrisons' approach is not to draw attention to these boundaries by playing with the map codes but by altering the map *content*. Indeed, except for the handwriting that often appears on them, the Harrisons' maps can resemble the maps produced by normative institutions. One of their most recent projects, *A Vision for the Green Heart of Holland* (1995-96), includes three maps. One of these, entitled “Bad Government,” shows what the Harrisons think Holland will look like if developed without deference to ecological considerations. The Harrisons' proposal, entitled “Good Government,” leaves the existing “green heart” of Holland undeveloped, and projects green rays into the areas that would have to be more intensively developed. The third map was a laminated, walk-on, aerial photograph with the Harrisons' proposal in transparent green. Residents could walk – or crawl – on this to find their own homes and

see other details. There's an accompanying video and listening pads. The artists were hired by the Cultural Council of South Holland, and the piece has won the Groeneveld Prize of the Dutch Department of Agricultural. Embraced by Holland's Green Party, and at one point accepted by the Dutch Ministry of the Environment, the plan was once abandoned with a change of government, but is now again part of the official future.

Why isn't this simply planning? In the first place because the Harrisons are artists, not planners. In the second, because their intervention is usually at the request of arts groups. The Harrisons also "maintain that their position as artists allows them to cut through red tape, ignore professional territorialism, and present ideas in a form that general audiences can understand," but something needs to be said about their visions as artists too. As such they bring a wholly different set of values to environmental planning. The Harrisons' many, often large, and very beautiful maps, make no pretense about being objective, neutral, or dispassionate. Quite the contrary. Strong points of view, passionately advocated for, lie at the heart of the Harrisons' nonetheless remarkably subtle art. Committed to a positive art of unmasked advocacy, the Harrisons do not have to strip off a mask they never put on; and so their maps give us a glimpse of what mapmaking might have been had it never been yoked to the social reproduction of the status quo. The very different work of the exciting New York map artist, Jake Barton, has a similarly positive cast, and like the Harrisons' work, simply refuses to put the mask on.⁵¹

The examples I've just given – the Surrealist map of the world, Mona Hatoum's *Map*, the maps of the Situationists, and those of the Harrisons – were all constructed within an explicitly contestatory framework. Not all map art has been this straight-forward about its social posture, but no map art has failed to contest one or more aspects of the normative mapping program. Johns' maps, to take a uniquely painterly example, with their gestural expressionism, toss "precision" right out the door. So do Oldenburg's stuffed maps. The map made by the Conceptual Art collaborative, Art and Language, *Map to not indicate* ... (1967), where my ellipsis indicates a list of fifty-seven places *not shown* on the lithograph where you do find Iowa and Kentucky, tramples on map claims to be inclusive.⁵² One variations on this theme is Kathy Prendergast's *Lost* (1999), a map of the United States that only includes places with the word "lost" in their name.⁵³ Another are the maps in Marina Roy's *sign after the X* _____ that only include places beginning with X or have the X names circled.⁵⁴ John Hurrell's map-paintings carry this idea to an extreme: he blacks out everything on maps except those segments of streets that intersect a drawing, say of a face, that he's

projected onto the map, works he refers to as "a kind of geographical sandwich."⁵⁵ Even these, as remote as they may seem from the interventionist activism of the Situationists and the Harrisons, relentlessly poke at the pretensions of maps to portray the world as it *really* is.

The power of maps lies in their ability to support discourse through the territorial plane. Map artists are all about reclaiming that power from the institutions that have held a near monopoly over it for the past several hundred years. In this they find themselves allied with an even larger and more energetic counter-mapping movement composed of indigenous mappers, Greens, and social activists, who are contesting the maps made by science, government, and the news media, not with letters to the editors and supplications at formal hearings, but with maps every bit as powerful – sometimes more so – than those produced by the agencies in power. Counter-mapping and art maps have come of age at the same time: both have exploded since the 1960s, and really gained authority during the 1990s. Their growth has paralleled the democratization of mapmaking capabilities that the computer, and especially the net, have promoted. I find it impossible to imagine that the three trends are not related. I see heralded in their vigorous health what I called in a recent editorial in *Cartographic Perspectives* ... the death of cartography. By this I meant not the end of mapmaking, but the end of mapmaking as an elite preserve of university-educated cartographers. As the map art in this issue of *Cartographic Perspectives* makes perfectly clear, the map is not going anywhere when cartography kicks the bucket.

The map is dead! Long live the map!

Endnotes

¹ An earlier version of this paper was given at the Higgins School for the Humanities, Clark University, Worcester, Massachusetts, 2005, in conjunction with the opening of the exhibition *Mapping* in the university's Schiltkamp Gallery.

² Ellen Sung, "Charting worlds of ideas," *News and Observer*, February 6, 2005, 1G and 6G. Sung was interested in Kosloff's early role in the Pattern and Decoration movement of the 1970s. Sung also provided a guide to a number of Kosloff's public-art sites.

³ Joyce Kosloff, *Boys' Art*, Distributed Art Publishers, New York, 2003. There was a limited edition of 55 copies with a hand-tinted, collaged etching. Robert Kushner wrote the neat introduction.

⁴ In the catalogue by Susan Bender and Ian Berry, *The World According to the Newest and Most Exact Observations: Mapping Art and Science*, The Tang Teaching Museum, Skidmore College, Saratoga Springs (New York), 2001, Kosloff's work is on pp. 42-43. Some of my own work was included in this exhibition as well.

⁵ Janet Koplos reviewed this work in "Revisiting the Age of Discovery," *Art in America*, July 1999, pp. 86-87.

⁶ Some of this earlier work is reproduced in Katherine Harmon, *You Are Here: Personal Geographies and Other Maps of the Imagination*, Princeton Architectural Press, New York, 2004, on pp. 60, and 160-161.

⁷ Sung, op. cit., p. 6G.

⁸ *Souvenir* is dated to 1924 in Brandon Taylor's *Collage: The Making of Modern Art* (Thames and Hudson, New York, 2004) where it appears

on p. 63. At the time he made *Souvenir*, Štřrský was a Poetist but had been aware of Surrealism for at least two years. In 1925 he and Toyen (Marie Cermínová) moved from Prague to Paris where they created Artificialism, "the Czech contribution to Surrealism." In "picture-poems" montage was used to make "film-like poems," and Taylor describes *Souvenir* as "laid out horizontally around the motif of a cartographic panorama" (p. 63).

⁹ *La Casamiento de Buster Keaton (The Wedding of Buster Keaton)* is dated November 1925 in Ian Gibson et al., *Salvador Dalí: the Early Years* (South Bank Center, London, 1994) where it appears on p. 124. The piece consists of two sheets of paper, with elements of the solar system on the first, and map fragments – the Sea of Japan, Greece – on the second, together with a diagram of sea breezes. The indications are that, except for newspaper clippings related to Keaton, all the elements came from a geography text. Apparently the collage accompanied a letter to Federico García Lorca, and it seems that Dalí wanted to include it in the *Book of Putrefaction* he and Lorca had planned to publish (see page 137). Dalí opposed putrefaction and astronomy.

¹⁰ *Le monde au temps des Surréalistes* was published in a special issue, "Le Surréalisme en 1929," of the Brussels journal, *Variétés*, June 1929, pp. 26-27. The artist of this widely reproduced map is unknown.

¹¹ The description is Robert Storr's in "Past Imperfect, Present Conditional," in Werner Spies and Sabine Rewald, eds., *Max Ernst: A Retrospective*, Metropolitan Museum of Art, New York, 2005, pp. 51-65, the quotation on p. 62. This amazing painting, rarely reproduced, appears in color on p. 69. In his contribution to the retrospective, "'Max Ernst in America,'" pp. 66-79, Spies says that the painting, "suggests how the coming disaster will change the face of the European continent" (p. 69). In Edward Quinn's *Max Ernst* (New York Graphic Society, New York, 1977) – where the painting is misdated to 1934 – U. M. Schneede is quoted as saying, "In the year of Hitler's takeover of power came the first version of *Europe After the Rain*. The continent is deformed, laid waste, all traces of civilization are wiped out. What remains after the destruction is scarcely identifiable. When Joyce saw the picture, he found a play on words which acts as a verbal equivalent: 'Europe – Purée – Pyorrhée,'" p. 201.

¹² With two exceptions these are all reproduced in the lovely *Joseph Cornell: Shadowplay Eterniday*, with essays by Lynda Roscoe Hartigan and others (Thames and Hudson, London, 2003). *Soap Bubble Set*, 1936 (actually *Untitled (Soap Bubble Set)*, c. 1936), is reproduced in Ecke Bonk et al., *Joseph Cornell/Marcel Duchamp ... in resonance*, The Menil Collection/Philadelphia Museum of Art, Houston/Philadelphia, 1998, p. 171. Whenever it was made, it was exhibited at The Museum of Modern Art in the important *Fantastic Art, Dada, Surrealism* show of 1936. *Object (Roses des Vents)*, 1942-53, is reproduced in Kynaston McShine, ed., *Joseph Cornell*, Museum of Modern Art, New York, 1980, plate XVII.

¹³ See Bonk et al., op. cit., pp. 145-146, where the *Allégorie de genre* proper – if I can call it that – is accompanied by variants in Joseph Cornell's *Duchamp Dossier*, as well as by a preliminary piece in the version of the *Boite-en-valise* (Series A, XI/XX) that was initially owned by Orin Raphael (see the note under 1944 [Spring] on page 287 of the chronology). Cornell himself probably assembled this copy of the *Boite*.

¹⁴ This is also often reproduced. See Robert Storr, *Mapping*, Museum of Modern Art, New York, 1994, p. 9. The date of 1934 given in Harmon, op. cit., on p. 133 is incorrect. Torres-García has dated it himself, 43, just to the right of his initials in the lower left of the drawing.

¹⁵ Several pages from this metagraphy are illustrated in Jean-Paul Curtay's *Leterism and Hypergraphics: The Unknown Avant-Garde, 1945-1985*, Franklin Furnace, New York, 1985, unpaginated, but like halfway through.

¹⁶ The literature on Debord is immense and growing. Simon Sadler's *The Situationist City*, MIT, Cambridge, 1998, makes a good introduction to Debord's maps, reproducing and discussing both of them at length, though to see *Discours sur les passions de l'amour* in color, check Out Storr, op. cit., p. 33. Essential for appreciating the maps are David Pinder, "Subverting Cartography: the Situationists and

Maps of the City," *Environment and Planning A* 28, 1996, pp. 405-427; and Peter Wollen, "Mappings: Situationists and/or Conceptualists," in Michael Newman and Jon Bird, eds., *Rewriting Conceptual Art*, Reaktion, London, 1999, pp. 27-46. Wollen discusses a third map image, *Life continues to be free and easy*, c. 1959 – a collage Debord made by pasting hand-colored figures of soldiers over *The Naked City* – better reproduced, however, in Sadler, as cover and frontispiece. (Debord's collage anticipates Kosloff's *Boys' Art*.) Sadler also reproduces a page with a map from Debord and Jorn's *Mémoires*, Permil and Rosengreen, Copenhagen, 1959, which is reproduced nearly life-size and in color in Taylor, *Collage*, op. cit., p. 190. At one time Debord promised three other *psychogéographique* maps: *Paris sous la neige*, *The most dangerous game*, and *Axe d'exploration et échec dans la recherche d'un Grand Passage situationiste*, but if he made them no one's ever seen them (see Sadler, footnote 48, p. 182, and Pinder, personal communication). Let me note that Wollen reads Debord's maps in the light of the map codes I developed with John Fels in "Designs on Signs: Myth and Meaning in Maps," *Cartographica*, 23(3), Autumn, 1986, pp. 54-103.

¹⁷ *Le Jardin de la France* is also widely reproduced, but both it and *Configuration No. 16* can be found in Edward Quinn's *Max Ernst*, New York Graphic Society, New York, 1977, pp. 332-333 and 421.

¹⁸ Note that I've made no reference to the maps of John Held, Jr., Saul Steinberg, Seymour Chwast, and others working in the tradition of magazine and advertising illustration, despite ardent admiration and inner doubts. *The New Yorker* published a gorgeous portfolio of Steinberg's maps in its February 21 & 28, 2000, issue, pp. 216-223. I'm also an admirer of the maps of Maaira Kalman and Rick Meyerowitz whose post-9/11 map of the "Stans" is already a shower-curtain icon. Their more recent *The New York City Sub Culinary Map* is another laugh riot (*The New Yorker*, September 6, 2004, pp. 142-143). I'll try to justify this exclusion more meaningfully in what follows.

¹⁹ A map composed of collaged fragments of a map of the United States and another of Europe lies at the heart of Rauschenberg's *Small Rebus* (1956). See the treatment on pp. 52-53 – which includes a reproduction of the piece and a detail of the map – in Thomas Crow's "Southern Boys Go to Europe: Rauschenberg, Twombly, and Johns in the 1950s," in Stephanie Barron and Lynn Zelevansky, eds., *Jasper Johns to Jeff Koons: Four Decades of Art from the Broad Collections*, Los Angeles County Museum of Art, Los Angeles, 2001. It also seems likely that Rauschenberg gave Johns the map that led to Johns' map paintings. For example, see the recent article by Calvin Tomkins, "Everything in Sight: Robert Rauschenberg's New Life," *The New Yorker*, May 23, 2005, pp. 68-77, especially the quotation from Johns on p. 75.

²⁰ The Johns literature is also enormous. When the image is famous (and the *Map* paintings are very famous), and it is in one or another of the map show catalogues, I'm just going to note its location in the catalogue, in this case, for *Map*, 1963, Storr, op. cit., p. 25. Storr also reproduces a preliminary drawing for the Expo mural on p. 8. Storr's *Map* is a later map painting, grayer than the bright *Map*, 1961, though not as gray as *Map*, 1962. All three, plus the map based on the Fuller (*Map (Based on Buckminster Fuller's Dymaxion Air Ocean World)*, 1967-1971), are reproduced in Kirk Varnedoe, *Jasper Johns: A Retrospective*, Museum of Modern Art, New York, 1996, which also includes shots of Johns working on the Fuller, and as it was installed in Montreal.

²¹ For the Oldenberg, see Storr, op. cit., p. 46; for Fahlstrom's *World Map* see Harmon, op. cit., pp. 112-113, for *Garden*, Storr, p. 29. There's a substantial monographic literature on both these guys.

²² For a discussion of Ono's *Map Piece* in the context of Conceptualist and Situationist mapmaking, see Wollen, op. cit., pp. 42-43.

²³ Stephen Bann has written about this practice, as an art practice, in a piece about "Land Art"; and while mostly about the distinctive practices of Richard Long and Hamish Fulton, Bann also writes about those of De Maria and Oppenheim, and so the rest by implication. See Bann's "The Map as Index of the Real: Land Art and the Authentication of Travel," *Imago Mundi* 46, 1994, pp. 9-18; and as substantially excerpted in Jeffrey Kastner and Brian Wallis, *Land and*

Environmental Art (Phaidon, London, 1998), pp. 243-244.

²⁴ All the earthworks artists made *rafts* of maps. In Storr, there are examples by Holt (on p. 39), Smithson (on p. 49), and Piper (on p. 51). See, among others, Lucy Lippard, *Overlay: Contemporary Art and the Art of Prehistory* (Pantheon, New York, 1983), especially the chapter "Time and Again: Maps and Places and Journeys," pp. 121-158 (maps by Richard Long, Smithson, Patricia Johanson, and Hera). For cool color pictures of the work itself, see John Beardsley's *Earthworks and Beyond* (Abbeville, New York, 1984) (plus on p. 38 there's a reproduction of one of James Turrell's meticulous maps). *The Gates Map*, which carries a mini-history of Christo and Jeanne-Claude's work, as well as reproductions of numerous Christo drawings related to *The Gates*, bears the Central Park Conservancy logo, but was copyright 2004 by United Arts Group.

²⁵ For Graves' lithographs, see Harmon, p. 71; Storr reproduces one of Graves' drawings, p. 40. This work was heavily covered in the periodical press. Also see the article on Graves cited in the next footnote, which treats the paintings and sculpture in a maps and mapping context. For the Hiller drawings, see Harmon, pp. 40-41, but for a photograph of the dreamers in their sleeping bags among the fairy circles, see Lippard, p. 161. For LeWitt, Storr, p. 43. Again, all these artists are subjects of monographic review.

²⁶ *On Maps and Mapping*, *artscanada*, 188-189, Spring, 1974. In retrospect the issue is even more extraordinary than it seemed at the time. The history of the mapping of Canada, by John Warkentin, gives the art maps that follow a cartographic context too often missing from discussions of art maps. Much of the work deserves to be much better known, especially that treated in Joe Bodolai's survey.

²⁷ David Woodward, ed., *Art and Cartography*, University of Chicago Press, Chicago, 1987. The papers collected here had originated as lectures in the 1980 Kenneth Nebenzahl Lectures in the History of Cartography. My "lengthy, spirited commentary" on this collection – editor Ed Dahl's words – appeared in "Commentary on David Woodward, ed., *Art and Cartography: Six Historical Essays*," *Cartographica* 24(3), Autumn, 1987, pp. 76-82, followed by David's "equally spirited reply," which he opened by agreeing with the substance of many of my criticisms, if not my manner (though privately, over dinner, he even supported my manner (note the seven years it took to get the book to press!)). (How I miss David!) The sad fact was that the book didn't deal with art and cartography but the tired – no, *exhausted* – theme of art in cartography, and that mostly of the Renaissance and its baroque exfoliations. The sole reference to what we're calling map art here is a paragraph in David's introduction, a valuable paragraph, worth quoting in full: "In the twentieth century, and particularly in the past decade [that of the 1970s], the mapping instinct has manifested itself in modern painting to an astonishing degree, as evidenced by the four exhibitions referred to earlier in this Introduction. More recent artists such as M. C. Escher, Jasper Johns, William Wiley, Christo, Claes Oldenbourg, Thomas O'Donohue Ros, Misch Kohn, Beth Shadur, Newton and Barbara Harrison, Hundertwasser, Stacey Farley, Martha Glowacki, Michele Turre, Richard Lutzke, Nancy Graves, Masako Miyata, Richard Long, Roger Welch, and many others have used maps as their subjects or as artifacts in their paintings. An example is shown in color plate 1" (p. 5), where we find a reproduction – not even indexed – of Jane Lewin's lovely *Rheidol Collage* – not even dated. As far as I can tell only three of the exhibitions were actually devoted to map art (as opposed to art in maps): Four Artists and the Map: Image, Process, Data, Place, at the University of Kansas' Spencer Art Museum, in Lawrence, 1981; cARTography, part 2: Cartographic Images in Contemporary American Art, at the John Michael Kohler Arts Center in Sheboygan, Wisconsin, 1980-1981; and Mapped Art: Charts, Routes, Regions, a traveling exhibition organized by New York's Independent Curators, 1981-1983.

²⁸ Storr, op. cit., p. 23. Unbeknownst to me, while I was writing this text, Denis Cosgrove was publishing "Maps, Mapping, Modernity: Art and Cartography in the Twentieth Century," with its subheads, "Avant-garde Art and Cartography," "Duchamp and Johns," "Surrealism and Situationism," and so on, in *Imago Mundi*. I've only read the text, which Denis was kind enough to mail me, but inevitably

we plow a lot of the same ground.

²⁹ This was a collaborative presentation of The City of Los Angeles Cultural Affairs Department, The Los Angeles Municipal Art Gallery, and the Southern California Institute of Architecture. They published a brochure – folded like a map – which had brief essays by the curators and Denis Cosgrove, together with artist biographies. There was also a related symposium at which, among others, Denis Cosgrove, Matt Coolidge, Norman Klein, and I spoke.

³⁰ This was accompanied by an extremely valuable catalogue.

³¹ Personal communication.

³² In a typical week the daily *News and Observer* will print a couple of world maps, a dozen U.S. maps, another dozen or so maps of North Carolina, another dozen of the local region, a half dozen of Raleigh, and twelve dozen maps of local roadwork, crime, and event sites, together with advertising locator maps. The mix varies, and some weeks are especially map heavy, others map light. That is, each subscriber gets about 175 maps a week. Through the period the paper's circulation has been about 170,000. It's printing a lot of maps.

³³ For a less anecdotal treatment see Mark Monmonier, "Maps in *The New York Times*, 1860-1980: A Study of Journalistic Cartography," *Proceedings of the Pennsylvania Academy of Science* 58, 1984, pp. 79-84, and "Maps in *The Times* (of London) and *The New York Times*, 1870-1980: A Cross-National Study in Journalistic Cartography," *Proceedings of the Pennsylvania Academy of Science* 59, 1985, pp. 61-66. More generally, see Monmonier's *Maps with the News*, University of Chicago Press, Chicago, 1984.

³⁴ See Susan Schulten, *The Geographical Imagination in America, 1880-1950*, University of Chicago Press, Chicago, 2001. Schulten considers newspapers, news and other magazines (including *National Geographic*), and textbooks. If we consider maps made on or through the Web it may well be that 99.99 of all maps ever made have been made in the past decade!

³⁵ See Douglas Yorke, John Margolies, and Eric Baker, *Hitting the Road: The Art of the American Road Map* (Chronicle, San Francisco, 1996) for a colorful introduction.

³⁶ Colin Cherry, *On Human Communication*, MIT, Cambridge, 1957, p. 306. Cherry was Reader in Telecommunications at Imperial College, University of London, and he wrote *On Human Communication* to introduce the MIT Press's series "Studies in Communication." The idea is fundamental to all social theories of communication.

³⁷ See my paper "What Makes a Map a Map?," originally presented to the 1993 Yale-Smithsonian Material Culture Seminar, but published in *Cartographica* 30(2&3), Summer / Autumn, 1993, pp. 81-86.

³⁸ The mask is what makes a map a map. Again, see my paper, "What Makes a Map a Map," op. cit., where I use the presence or absence of the mask to discriminate among sketch maps, experimental sketch maps, and maps.

³⁹ For a more detailed treatment of these codes, see Wood and Fels, op. cit., or my *The Power of Maps* (Guilford, New York, 1992), pp. 95-142, where Wood and Fels is reprinted. In addition to Wollen's use of these codes to compare Situationist and Conceptualist maps (Wollen, op. cit.), Irit Rogoff uses them in her work on what she calls "geography's visual culture" – which includes our map art – in her *Terra Infirma: Geography's Visual Culture*, Routledge, London, 2000, especially pp. 74-76.

⁴⁰ Arthur Robinson, *Elements of Cartography*, Wiley, New York, 1953, p. 80.

⁴¹ Linguists would include this "air of detachment" among the *phatic* functions of communication, that is, among those exploiting speech or gestures to reveal or share feelings instead of ideas. The ideas in a map would include the existence and locations of things. The feelings would be about confidence.

⁴² This is not the place to rehearse academic cartography's battle for its place in the university against those who would dismiss it as mere *craft* – a category usually missing from the hassle over whether cartography is an art or science – but the mere fact of the engagement is instructive.

⁴³ For the laboratory as a disciplined space, see Steven Shapin and Simon Schaffer in their *Leviathan and the Air-Pump: Hobbes, Boyle and the Experimental Life* (Princeton, Princeton, 1985), p. 39; for the

"naked way of writing," see p. 66. I cannot say how much my thinking owes to *Leviathan and the Air-Pump*. For a (much) broader but concurring perspective on the rise of utilitarian prose in English, see Robert Adolph's *The Rise of Modern Prose Style* (MIT, Cambridge, 1968).

⁴⁴ Patrick Waldberg, *Surrealism*, Thames and Hudson, London, 1965, pp. 23-24.

⁴⁵ LAMOCA bought *Map*, 1999, in 2001. An earlier *Map* was made for Hatoum's one-person exhibition at the Kunsthalle Basel in 1998. For an extended treatment of Hatoum's map piece, *Present Tense*, 1996, about the territorial divisions of Palestine reached under the Oslo Accords, and made with glass beads and soap, see Rogoff, op. cit., pp. 86-91.

⁴⁶ Wollen, op. cit., pp. 30-31, but for an extended treatment – and Wollen's source – see Simon Sadler, *The Situationist City*, op. cit.

⁴⁷ David Pinder, "'Old Paris Is No More': Geographies of Spectacle and Anti-spectacle," *Antipode* 32(4), 2000, pp. 357-386 (the quotation is from p. 372), where Pinder reproduces two of Khatib's maps.

⁴⁸ Guy Debord, "Introduction to a critique of urban geography," in K. Knabb, ed., *Situationist International Anthology*, Bureau of Public Secretes, Berkeley, 1981 [1955], pp. 17-25 (the quotation is from p. 7), which I learned about in Pinder, "Subverting Cartography," op. cit.

⁴⁹ See for example, David Pinder's "Ghostly Footsteps: Voices, Memories and Walks in the City," *Ecumene* 8(1), 2001, pp. 1-19. Debord is not even mentioned in this treatment of three walking-artists – Janet Cardiff, Rachel Lichtenstein, and Iain Sinclair – but his spirit in everywhere implied, especially since Pinder opens and closes his paper with quotations from André Breton's *Nadja*, the 1928 Surrealist masterpiece that stands behind so much of Debord. (Richard Howard translated *Nadja* for Grove Press, New York, in 1960.) Or go to www.psygeocon.org to learn about the psy.geo.conflux which annually "brings together visual and sound artists, writers, urban adventurers, and the public to explore the physical and psychological landscape" of New York City, involving, among other things, "experimental walks with altered maps." One of last year's panels was entitled, "Can Psychogeography Change the World?"

⁵⁰ Eleanor Heartney, "Mapping a Better World," *Art in America*, October 2003, pp. 114-119, the quotation from p. 114. The Harrisons too have attracted a sizeable literature, but they also produce plenty of their own. See their remarkably moving catalogue for *The Lagoon Cycle*, Herbert F. Johnson Museum of Art, Cornell University, Ithaca, New York, 1985, which is not only stuffed with maps and equipped with an appreciation by Michel de Certeau, but written in the Harrisons' characteristic diaristic-dialogue. (Thanks, Dante!) Agnes Dene, another map artist, is sometimes associated with Eco art, which emerged in the late 1960s out of the land art or earth-works movement. When Lippard wrote about the Harrisons in 1983 in *Overlay*, op. cit., she called them "'artist farmers' concerned with with imaginative, large-scale recycling of wastes, community, and labor" (p. 231-233).

⁵¹ Much of Jake Barton's work is on-line and most of it can be visited there. Go to www.localprojects.net.

⁵² The map is discussed and illustrated in Deborah Carter Park, "'Metaphysical Continental Drift': Fictions of Place and Space," *The Operational Geographer* 10(1), April 1992, pp. 3-6; Wollen, op. cit., also discusses it pp. 43-44; and it's illustrated and discussed in Kastner and Wallis, op. cit., pp. 176 and 273-74, who reproduce Art and Language's notes which also describe two other related maps: *Map of a thirty-six square mile surface area of the Pacific Ocean west of Oahu*, and *Map of itself*. Art and Language produced the influential journal, *Art-Language*, from May 1969 on. There's an extensive literature.

⁵³ This is reproduced in Harmon, pp. 92-93. At this size, it's pretty hard to read.

⁵⁴ Marina Roy, *sign after the X* _____, Advance/Artspeak, Vancouver, 2001. The map of Mexico with only Xochicalco, Xcosmil, and so on on it (called "Central American Tribal Groups" in the list of "illustrations, tables, graphs, & maps") is on p. 99. A map of "South American Language Groups," with those beginning with X circled, is on p. 101.

⁵⁵ John Hurrell, "Painting with Maps," *The New Zealand Map Society Journal* 7, 1993, pp. 137-139. One of the paintings illustrated is called "Self Portrait iii," where the self-portrait is one drawn by Joseph Albers. When the street segments are of any density, the lines are hairy and delineated "as if it were a cluster of capillaries or electrical wires."

Interpreting Map Art with a Perspective Learned from J.M. Blaut

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Map art has been mentioned only briefly in geographic or cartographic literature, and has been analyzed almost entirely at the interpretive level. This paper attempts to define and evaluate the cartographic value of contemporary map-like art by placing the body of work as a whole in the theoretical concepts proposed by J.M. Blaut and his colleagues about mapping as a cognitive and cultural universal. This paper discusses how map art resembles mapping characteristics similar to those observed empirically in very young children as described in the publications of Blaut and others. The theory proposes that these early mapping skills are later structured and refined by their social context and practice. Diverse cultural contexts account for the varieties, types, and degrees of mapping behavior documented with time and geographic place. The dynamics of early mapping are compared to mapping techniques employed by artists. The discipline of fine art serves as the context surrounding map artists and their work. My visual analysis, research about the art and the artists, and interviews with artists and curators form the basis of my interpretation of these works within varied and multiple contexts of late 20th century map art.

Keywords: Blaut, cognition, cultural universal, spatial development, mapping behavior

INTRODUCTION

Art that takes maps or mapping as its subject matter has found a place in the cartographic literature since at least the 1980s. Yet, literature on map art remains scarce. The cartographic significance of map art has been trivialized, and the subject lacks a developed theoretical base. This may be because prevailing cartographic dogma holds that, because of its subjectivity and individuality, art has only peripheral relevance to cartography. A passage in Robinson's influential *The Look of Maps* (Robinson, 1952) exemplified this attitude

when it "implied that artistic thinking is often the cause of design failure" (Montello, 2002). Although the question about the degree to which cartography is art or science has been more or less resolved (Krygier, 1995), map art remains marginalized. In the few instances where map art is taken seriously, its understanding remains stuck at the interpretive level. My assertion in this essay is that map art is rooted in universal human map-modeling behavior, but it is motivated by different values than what motivate conventional map-making.

Art and Design

Most of the professional literature about map art takes a post-modern approach. The viewpoint is that art uses social and semiotic strategies to deconstruct modern map concepts in an effort to restore values excluded from modern cartography. This is done to especially highlight the ethics of mapping and its historical contexts. Curnow (1999) interprets map art as challenging the claims of cartographic objectivity, and as questioning the hegemony of the visual that is implicit in the inscribed map. Silberman (1999) looks at map art from a post-colonial perspective: maps reflect the governing assumptions of the cultures that made them. For example, Silberman (1999) interprets the painting of Miguel Angel Ríos, *Magellanes en la confusión encontró un océano*, #3 (1994), as destabilizing the Cartesian geometric order of the European explorers. Oliver (2003) takes a similar position: "Artists use maps to bring into the work an area from outside the work—to claim an area within a piece of work in order to comment on it. In the same way that maps have been used to claim physical space, maps are used in art to lay psychological claims to concepts."

Such post-modern interpretations are often powerful, especially where critical theory addresses the political uses of cartography, but these interpretations do not always work for map art. To an extent the problem

lies in the difference between art and design. As is true of critical cartography (Wood, 1992; Pickles, 2000; Harley, 2001; Crampton, 2002), postmodern criticism of map art works because the maps are (at least partially) the product of design, not art (Wood and Keller, 1996). The history of art is convoluted but it is emphatically distinct from the history of design. During the Renaissance and Enlightenment, painters exploited keen perceptions of the world around them to realistically reproduce the appearance of things (Gombrich *et al.*, 1972; Arnheim, 1974). Early modern artists developed their skills in progressive studies of volume, space, and color, and their representations attempted to capture feelings and other emotional qualities. Though the increasingly abstract art of the later-nineteenth and twentieth centuries abandoned mimesis to focus on less representational content—and more recent art is even more broadly decoupled from representational skill—there are few criteria for evaluating its utilitarian qualities.

In contrast, visual design is utilitarian first and foremost. It exploits elements of visual language, the sign and symbol systems whose meanings are broadly shared by members of a society, to compose cohesive messages (Kress and van Leeuwen, 1996). Of course, visual design shares with painting, as with every authored “text,” a profoundly rhetorical dimension. That is, art and design both intend to persuade. As products of cartographic design, then, maps communicate a message that is coded as utilitarian but which is also ideological, and both of these dimensions are present in art that takes maps or mapping as its subject.

Map art expresses perceptual, aesthetic, and attitudinal qualities about places through mapping and other visual language systems. Universal map-modeling skills are what bring the map to map-art, and are what provide its cartographic foundations. Map artists make maps that intuitively draw on cognitive way-finding and orientation skills. Rather than detract from cartography, the qualities of map art augment and enrich cartography. Because it is art, aesthetics is a high-priority, but like conventional cartography, art maps are also representations of places in the world.

Mapping as a Cognitive and Cultural Universal

The ideas in this paper about mapping as a cognitive and cultural universal draw on theories advanced by James M. Blaut and others. Blaut sometimes referred to his central idea as “natural mapping” (Blaut, 1991), but also called it “map-like modeling behavior” (Blaut *et al.*, 2003). In experiments from the 1960s through the 1990s, Blaut and various colleagues asked children in numerous cross-cultural settings to perform a number of spatial tasks. These tasks included identifying features on an air photo and drawing routes between

these features, creating representative landscapes of real places by using toys, and using simple maps to find things hidden in the immediate surroundings. It was observed that distances and directions roughly corresponded to the real world, as was characterized by the representations created by the children. Many three-year-olds and most four-year-olds could demonstrate geographic behaviors including orientation and way-finding. The conclusion was that children develop and exhibit map-making abilities at a very early age.

Blaut argued that these experiments proved that map-like model making was like language, and that it did not depend on formalized cartographic, geometric, or other learning. Though the ways that specific skills were expressed varied from culture to culture, some sort of map modeling behavior was an innate human ability. Blaut argued that the universal nature of mapping was to be expected if you took an ecological approach to human cognitive and behavioral development. He asserted that mapping serves a universal need for humans to move through and function in the world, and to communicate with others about it by making visible, from a single vantage point, what is otherwise too large to see (Blaut, 1987; 1991; Stea *et al.*, 1996; Blades *et al.*, 1998; Blaut *et al.*, 2003).

Spatialization has been postulated as the basis of all cognitive functioning (Jaynes, 1976), but Blaut argued that natural mapping is a specific cognitive development that predates the understanding of systems of visual representation, linguistic rules, the exigencies of dealing with the macro-environment, conventional developments in cartography, and art. Natural mapping begins with imagining large landscapes (acquired through some experience with them), cognitively projecting an overhead viewpoint onto this landscape, and attaching geographical meaning to signs about it. This mapping, the translation of macro “place” to micro “object”, is an adaptive behavior. Map-like models are the ecological and probable evolutionary source of cartographic maps (Stea *et al.*, 1996). This paper proposes that map art draws from this same source.

Natural mapping differs from conventional cartography because it proceeds without the need for social conventions in the codification of features. It also has no broadly shared conceptualization of orientation, units of distance, degrees of direction, projections, or of an advanced technology capable of constructing these systems. Nor does natural mapping necessarily involve linguistic interpretation. While representational systems are critically affected by linguistic categories, natural mapping signs often are based on direct perception. Natural mapping is a form of imagination that creates personal images of places, movement, and landmarks that are highly invested with meaning. It draws freely on the unconscious and memories, and

is experimental in forms of depiction. All these are characteristics of map art as well. Unlike conventional cartography that can be reduced to points, lines, and areas within grids and is accompanied by legends, natural mapping creates landscape-type representations without atomizing its features. Without formal categorizations and boundaries, representative systems in natural mapping are highly flexible.

Blaut strictly differentiated two important concepts of space that tend to get confused in the study of environmental behavior (Blaut, 1999). The first refers to a geographical place, delimited in some way, no matter how naively. The second refers to abstract space, such as the space of geometry. A cognitive map of a geographical place is not the same thing as a cognitive model of pure space. Pure space is distilled or abstracted from experience in space and time, exists only in the mind, and plays important roles in mathematics, engineering, and science. The two spaces, geographical and pure space, each have roles in cartography. One appeal of map art may derive from the fact that “the particular opportunities maps provide visual artists—and their special appeal to modern sensibilities—result from their being the ultimate pictorial coincidence of exacting representation and total abstraction” (Storr, 1994, 13).

Cognitive mapping skills can appear in children before extensive environmental perceptual and navigational experience, because these skills can be practiced using creative play as a surrogate (Stea and Blaut, 1973). In toy play, children remain stationary and move their toys around them, controlling the environment, labeling landscape features, building landscapes and communities with gestalt names, and recognizing consistencies in shape carried between scales. Many sensory modalities are being brought to bear: touch, smell, and taste. By manipulating the environment, children experience an enhanced sense of change over time. In short, spatial learning and mapping involve more than spatial perception. They involve movement, various descriptive modes of sensory inputs, and a framework for their integration over time. This too is true of map art. The art is a surrogate for the elements of landscapes and communities, controlled by the artist through manipulations of these elements, a kind of environmental toy-play for adults.

Formal Elements and Analysis in Map Art

Of course, artists map the world the way they see it or the way it strikes them. The world is aesthetic to artists, and map art abstracts reality aesthetically. Artists “see the world through new eyes” much the way children or non-native residents do. In an effort to come to terms with this art as a type, a catalogue of sixty some examples was compiled (see Varanka, 1987). These

examples adhered to criteria developed by combing the literature on cartography, art, and design. These criteria included a view of the land from a high angle, signs representing features on the earth, and depictions at comparatively small scales. In some highly abstract cases, titles, for example Calder’s *The River: Chicago* (1974), were taken into account [see Figure 1]. This is an arrangement of flat, two-dimensional forms against a white background. Although it is uncertain if Calder intended any use of naturalistic color, the blue band at the lower right hints at a river. The lower black quadrilateral slopes towards the river, crosses it, and narrows to an acute angle, as if in bird’s-eye perspective. Is this a map? In this collection it stands at the extreme edge of abstraction.

More commonly, design elements in the art made explicit references to cartographic conventions (such as borders and neatlines), or suggested an implicit equivalency to the representational nature of maps. These elements comprised a hypothetical map-art system that included view, surface plane, borders, scale,



Figure 1. Alexander Calder. *The River: Chicago* (1974). Gouache. Museum of Contemporary Art, Chicago. (see page 70 for color version)

color, orientation, signs, and text; all of these were used to make sense of a given piece of map art. But because Blaut postulated that natural mapping underlies, and thus precedes formal visual systems (Bertin, 1984; Rose, 2001), this analysis also involved a degree of intuitive reading. For instance, some works of art appeared map-like despite the comparative (or total) lack of visual clues to identify them as such simply because of their "expressive content." Public statements about the content and meaning of the art found in letters, exhibits, publications, biographies, art history, interviews with artists and curators, and the reactions of other viewers were also used in this analysis.

Of course, the way elements of map art worked together to create a total impression or message transcended the aesthetic dimension. Artists effectively drew on maps and mapping to reflect on the rising environmental movement, on issues of social equity, and on human relationships generally. Because it depends on universal map-modeling behavior, map art is not confined to any particular movement of twentieth-century art, and indeed is found in movements in conflict with each other.

The Mingling of Subjectivity and Objectivity

Although landscape in perspective has been a primary subject of art for centuries, early modern art embraced geometrical perspectives of the kind used in map projections. Map-like aspects were enhanced by the rotational view around the subject, and the planar organization of space; both characteristics of Cubism (Golding, 1981). The reduction of scale and the use of figurative representation were already established in the art of earlier periods, but representational means were expanded in the early twentieth century to include other types of visual systems as well, such as numbers, letters, and other conventional signs. After Constructivists and other geometrical abstract artists of the early twentieth century appropriated science and mathematics as sources, the approaches and objectives of science were broadly incorporated into art. Already masters of visual perception (displayed in the skills of depicting the recognizable world via visual illusion), artists in modern art movements experimented with more abstract studies of color and motion as well. Futurism, Orphism, and Synchronism are principle examples of this.

Although there are examples of map art to be found in the early part of the twentieth century (see Wood, this issue), the rise of map art as a significant body of work takes place in the 1960s and 1970s. Earlier examples might include Joan Miro's *Object* (Miro, 1936) and Joseph Cornell's boxes of the 1940s. Cornell constructed boxes with maps and small artifacts that seem to the viewer to carry the imagination to some

other specific time and place, set against the larger spatial context represented by the map (Cornell, 1969). Cornell's compositions of objects in space transcend scale in symbolic and spiritual ways. The important developments in map art of the 1960s and 1970s can be traced to the influence of Cornell's friend, Marcel Duchamp, whose work, perhaps especially his "found objects," inspired the movements that would launch the map as a source for important art. (Duchamp himself made map art. See Housefield 1992, and Wood in this issue.)

Duchamp had a particularly profound influence on the precedent-setting work of Johns and of Cage. Johns' intentions, and the meaning of his map paintings (*Map*, 1961; *Map*, 1962; *Map*, 1963) are obscure, but Johns is broadly credited by critics with highlighting American icons, especially objects that served as important symbols, such as the outline map of the United States that Johns took as his subject. Johns was particularly sensitive to the constant change in life and to society's attempts to maintain stability and constancy (Yau, 1996). His maps suggested a kind of fluidity in the image of the United States. At one moment the states seem to be recognizable, but then they fragment or dissolve. Cage, a close friend of Johns', also equated art with living, and exploited maps in his musical compositions (Cage, 1978; Cage 1987). Rather than attempting to impose control on his art, Cage allowed it to emerge from a creative interaction with a world that was largely beyond his control. The resulting incorporation of real-life experience in his art, in a systematic and engaged way, was an empirical experiment. Both of these influential artists sought a deep epistemological engagement with art, the world, life, and knowledge, but distanced by a calculated irony about the nature of existence. Rivers was another transitional artist who used maps in his work, most notably about Africa (1962, 1963) (Harrison, 1981).

Drawing on the examples of Duchamp, Johns, Cage, and Rivers, Pop and Minimalist artists of the late 1950s and 1960s set out self-consciously to construct an ontology and epistemology of their work with "cool" sensibilities. These artists forsook associations with the subjective to view things for themselves. The stress now was on the object, not on its human originator. During the later 1960s and the years following, these developments would open the way for the incorporation of maps and mapping in work that reached out toward the environment, especially in what became known as Landscape or Earth Art, but little of this is conceivable without the example of Pop Art.

Pop Art drew for its subject on the objects of mass consumption and disposability characteristic of American material culture. Unlike earlier usages of found objects in collage or assemblage, the visual vocabulary emerging from Pop Art was sometimes indistinguish-

able from that of the mass-produced objects it was based on, especially since much of the art was produced by commercial and other mechanical means. This eliminated the mark of the artist's hand from the depiction of objects. In this way the image was dissociated from the mental or cultural ideal of transcendence traditionally associated with art. The everyday subject matter, the anonymity of the original designers, the mechanical means of production, and the indifference toward the audience's reaction made Pop Art indistinguishable from conventional commercial mapmaking. Although commercial maps are made for people, maps are void of people, as if the places were uninhabited. Pop Art strove for precisely the level of shallow subjectivity achieved by most mapmakers.

Though Pop Art rejected human expression, gesture, or interpretation, criteria of quality remained in the choices of subject matter and in the formal composition. Certain formal elements, including scale, context, and borders were transformed in their appropriation from the American commodities landscape. These transformations are what made the images art, and are where the images' meanings lay (Curnow, 2002). Art maps didn't eliminate the map's "map" qualities, but instead pointed to aspects of these qualities obscured by conventional design and use. For example, by twisting the actual function that road signs play in a city, Robert Indiana's *South Bend* [Figure 2] gave the public a view of the symbolic or cultural meaning of maps. Similarly the cool aesthetic of Warhol's map of missile bases, with its numerous locational symbols of missiles, conveys Cold War militarism in stark, plain, black-and-white line work [Figure 3].

Pop Artists also used maps to reflect on places. For example, Oldenburg explained that his work grew out of his relationship to places and his attempts to reconstruct his experiences. The greatly exaggerated scale of Oldenburg's objects, including his soft sculptures, recalls the roadside advertising of highway travel. Oldenburg was first noticed for his "happenings," but in 1961 he opened an actual store filled with sculptures of everyday objects, including food items, made of plaster. Soon he and his wife were making gigantic versions of these out of vinyl and canvas, and these soon included sculptures of homes, street scenes, and cities. *Soft Manhattan* (Oldenburg, 1966) is a soft sculpture of Manhattan Island Zip Code zones. The introduction of postal Zip Codes in 1963 was an attempt to handle the booming business mail made possible by new computers, but the status associated with the social spaces designated by Zip Codes allowed Oldenburg to create a map of Manhattan unrelated to the intention of the Zip Code designers.

In the spirit of the sixties, there was less focus on judgment in relation to human values, but quality still mattered and was debated in art circles. Disas-

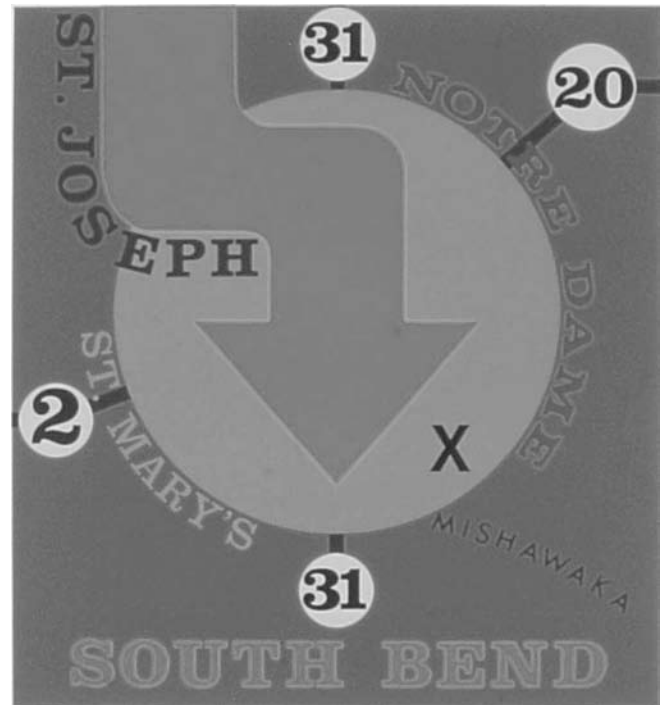


Figure 2. Robert Indiana. *South Bend* (1978). Museum of Contemporary Art, Chicago. (see page 71 for color version)

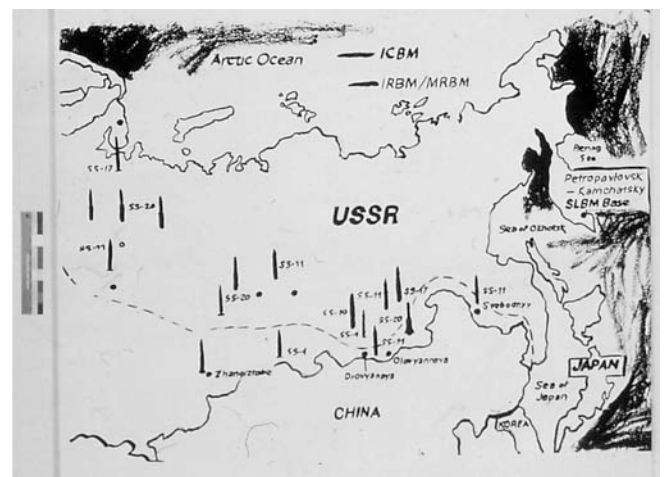


Figure 3. Andy Warhol. *Map of Eastern U.S.S.R. Missile Bases* (1986). Andy Warhol Foundation for the Visual Arts, New York. (see page 72 for color version)

sociated and relative, criteria of quality moved fluidly across the boundaries of style, object, and setting. The attitude spilled over into a broader acceptance of wider forms of art, as long as the art was well done. In contrast to the cool New York school, in California the sensuality and eccentricism of Dada and Surrealism led to Funk Art after 1960. Funk artist Wiley drew on national fantasies about the western frontier. For instance *Thank You Hide* (Wiley, 1972) ambiguously suggests both a naturalized and political United

States [Figure 4]. That map artists made map art in all of these styles is not surprising if they were indeed drawing on map-modeling skills that were universal. Furthermore, the map art of these diverse movements made reference to places but also played with ideas of pure space; this too in keeping with the confusion between the forms described by Blaut.

Later Developments

Social and physical environments were priorities that moved to the forefront of art in the 1970s. Earth Art opened a geographical side to art by turning outward toward the world for the materials to make art, and by using maps and mapping to document and explain that art. The concern of art with environment was paralleled by an analysis of the relationship between art and space inherited from the concerns of Minimalism. Art moved beyond isolated objects, such as paintings on canvas or prints on paper, into the "visual field" of the viewer. The form this work took sometimes resembled the landscapes of traditional figurative art, and sometimes the form of an installation, where instead of viewing it from outside the viewer could step inside the space of the work of art. In some cases, it was the process of creating this art, accomplished in a given place or bounded space, that was the object of attention.

Just before 1970, this art moved outdoors. Earth Art is a term that refers to art made from large displacements of natural materials on the earth's surface. Central themes of Earth Art included attitudes toward the landscape, the play of natural processes, and themes revived from nineteenth century American art, such as the sublimity of nature, and the romance of the West. Because Earth Art was destined to succumb to entropy from natural forces, a central concern of Smithson's work, it would eventually deteriorate and disappear, so the artist in various ways, including maps, documented it. Debate followed (and continues) about whether the earth work itself, the map and other documentation, or both were the actual art objects.

Other Earth Artists were motivated by environmentalism and anti-commercialism. Artists joined the environmental movement, which arose in counterpoint to consumerism and its resulting shallowness of values. This art expressed concern for the land as a personal and public value (Harrison and Harrison, 1985; Romey, 1987; Heartney, 2003) [Figure 5]. Likewise, artists recognized the geographical elements of social problems and the social aspects of geopolitics. Chunn exhibited a series of paintings in the 1980s that speak to the tensions of political oppression in places around the world [Figure 6]. Blaut argued that man-land relationships, such as Earth Art explored, are a form of directly negotiated environmental learning and behav-

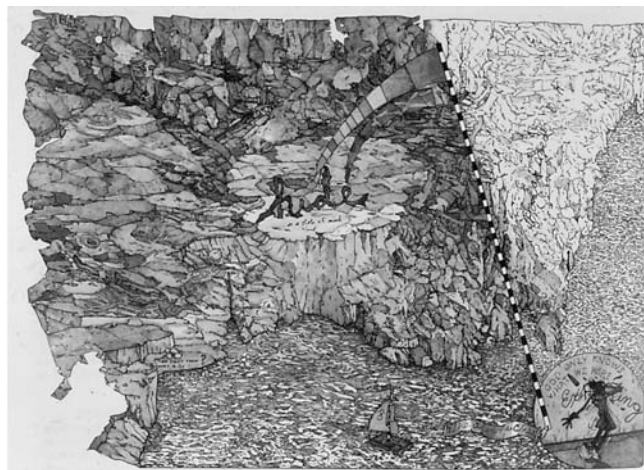


Figure 4. William Wiley. *Thank You Hide* (1972). Art Institute of Chicago. (see page 73 for color version)



Figure 5. Newton Harrison and Helen Mayer Harrison. *The Lagoon Cycle* (1973-1985). Ronald Feldman Gallery, New York. (see page 74 for color version)

ior rooted in his concepts of natural mapping.

Conceptual Art also arose around 1970. Conceptual art elevated the artistic idea to the main focus of attention. Whether an object was ever constructed or executed didn't matter since the art was lodged in the idea. Though conceptual art was non-material, it often used material forms for presentation; but because these weren't essential, the objects didn't need to be aesthetic, though an aesthetic of ideas could be considered as criteria for whether an idea was good or bad. For maps, the space of Conceptual Art was mental imagination. The mental mapping behind the material presence of maps in Conceptual Art was the art. The question to artists was not "can art be a map," but rather "is a map art." Even though a map follows all of the cartographic conventions, though was conceived



Figure 6. Nancy Chunn. Korea: Divide and Rule (1988). Ronald Feldman Gallery, New York. (see page 75 for color version)

by an artist to further the conceptualization of an artwork, is a map art?

After 1980, post-modern impulses in art established critical positions with respect to the broadest movements of the modern period. These impulses expressed themselves in art through an eclectic borrowing of a wide range of styles, often for furthering personal initiatives at the expense of any kind of social cohesion. Jameson (1991) has written that culture is inexorably linked to capitalism, producing an array of cultural signs that are detached from significance, and that are manipulated for commercial purposes, thus lack meaning for people. An example of map art that at least one critic feels falls into this category is

that of Schnabel (Hopkins, 2000). Post-modern art also flourished, however, as a reassessment of modernism in the world, particularly in its colonial and capitalist forms. Maps and mapping in post-modern art reflect the shifting relations between the artists, their subjects, and their audiences.

The cartographic literature from the 1960s through the 1980s was not capable of accommodating map art within its terms. Blaut's theory of natural mapping is one way to ground the artistic use of maps, a way that holds potential for explaining the wide range of styles and movements that have made use of maps. When negotiating unfamiliar situations, whatever they may be, people turn to innate cognitive mapping and way-finding skills to orient themselves. Artists are no exception to this general rule, and once they were freed from the bonds of mimesis, they were able to use maps themselves in their work of cultural orientation. Given this explanation, we should expect the use of maps in art to expand as the need for orientation becomes ever more acute.

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Art-Machines, Body-Ovens and Map-Recipes: Entries for a Psychogeographic Dictionary

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A map is more than a picture, but what are artists doing about it? "Mapping" has exploded as an artistic practice. Artists are making geographic maps, psychogeographic maps, sound maps, demographic maps, data-driven maps, and emotional maps. Artists are performing maps—enacting and documenting location like never before. With the advent of new media art, GIS and mobile technologies, the concern with data collection and mapping through locative media is pursued with both romance and criticality. This article presents a dictionary of terms and projects that demonstrate the variety and complexity of these map-art practices. These projects utilize the map in a political and social dimension to produce new configurations of space, subjectivity and power. Their methodology is based on an ethics of experimentation; the map is a tool to experiment with a particular territory in specific ways in order to reach unforeseen destinations.

Keywords: psychogeography, art, technology, political mapping, social mapping, public space, urbanism, performance, counter-authorship, cooking

INTRODUCTION

The diagram is no longer an auditory or visual archive but a map, a cartography that is coextensive with the whole social field. It is an abstract machine. It is a machine that is almost blind and mute, even though it makes others see and speak.

Deleuze (1988)

"Cartography" refers to the choice of new worlds, new societies. Here, the practice of the cartographer is immediately political.

Rolnik (1998)

Let's get it all on the table: I'm no cartographer and this essay can't tell you what cartography is, or where it has been, or where it's going.

What I can tell you is that practices near cartography, often involving cartography, have exploded as an artistic practice. Artists are making geographic maps, psychogeographic maps, demographic maps, data-driven maps, emotional maps. Artists are performing maps—enacting and documenting location like never before. With the advent of new media art and mobile technologies, the concern with data collection and mapping through locative media is pursued with both romance and criticality. What I've attempted here is a dictionary of terms and projects that demonstrate the variety and complexity of these map-art practices.

As an artist, what I have seen in the past few years is an exciting convergence of artistic and cartographic practices under the term "psychogeography" (see Psychogeography). The interesting thing is that the practices that are emerging might be unrecognizable to professionals in either field. The projects I describe might not qualify as cartography and they might also not be art. Where then are these projects located? Perhaps they are located in a third space (or fourth, fifth, or *n*th space that has yet to be given a name). What is certain is that all of the projects have an interest in the articulation of space, in social and political engagement, and in geographies of various kinds. Whether the projects qualify as art or as cartography is not necessarily the most interesting question. What's more important is the kind of agency that these projects propose: in other words, what do these projects do?

What is a Map? It's Not a Picture

Like making a painting, making a map is traditionally associated with representation and the "totalizing

eye"; the desire to see, know, and grasp the world in its totality. As DeCerteau (1984) acknowledges in his book, *The Practice of Everyday Life*:

The desire to see the city preceded the means of satisfying it. Medieval or Renaissance painters represented the city as seen in a perspective that no eye had yet enjoyed. This fiction already made the medieval spectator into a celestial eye. It created gods. The totalizing eye imagined by the painters of earlier times lives on in our achievements. The same scopic drive haunts users of architectural productions by materializing today the utopia that yesterday was only painted. [...] The panorama-city is a "theoretical" (that is, visual) simulacrum, in short a picture, whose condition of possibility is an oblivion and a misunderstanding of practices (92).

Mapping in this traditional sense is associated with spatial, pictographic practices, that is to say, with the creation of a representation of the world. A map is a picture of reality – a representation of the earth's surface; a real, neutral, objective representation, just like a photograph. A picture of an apple describes an apple. Right? Wrong. Beep. Sorry.

Any representation of the world that asserts its neutrality and objectivity is immediately suspect. Representations, pictures, descriptions must be considered in the light of their production and the politics of power. Whose apple? Whose map? Whose city? Making art, like making maps, is about making a selection from the complexity of the world, choosing to highlight certain things while others go unnoticed. As Deleuze puts it at one point, "many cities and always another city in the city" (Rajchman, 2000: 74). So many perspectives, so many people, so many politics. This can often leave an artist (and a cartographer, I imagine) in a perspectival quandary – how does one do anything at all?

Compounding the problem is the accelerated pace at which the world now operates. If the information revolution and the knowledge economies of the past half-century have taught us anything, it is that the dimension of time is of utmost consideration. Fixed representations rapidly decay into unusability and anachronism. As the rates of information transfer and physical production accelerate, the picture cannot keep up. The workings of this complex world of informational capitalism, a term coined by Castells (2000), have conspired against the inert picture:

What characterizes the current technological revolution is not the centrality of knowledge and information, but the application of such knowledge and information to knowledge generation and information processing/communication devices, in a cumulative feedback loop between innovation and the uses of innovation (16).

Cartographers used to make maps. Artists used to

make pictures. What do we do now? Do we now need to make pictures that incorporate time? Do we make pictures that incorporate time and assert our own politically fallible, class/race/culture-based subjective perspective?

That sounds way too complicated.

It's Not About Making a Better Picture

The question now for artists (and likely for cartographers) is emphatically not how to make a "better" picture or a more "accurate" map. The world, in fact, needs no representations at all. It needs new relations and new uses: in other words, it needs new events, inventions, actions, activities, experiments, interventions, infiltrations, ceremonies, situations, episodes and catastrophes. We have departed from a world of forms and objects and entered a world of relations and events. But we still desperately need art and maps.

Is it possible to think of a map not as a representation of reality but as a tool to produce reality?

Maps: Recipes for the Future

As Deleuze (1988) says, a map is "an abstract machine. It is a machine that is almost blind and mute, even though it makes others see and speak" (34). The map is a machine oriented towards experimentation with the real. It is "abstract" because the map in no way represents what is already actual and determined, but instead offers a field of potential space, an array of potential uses of the actual. It is a "machine" because of its ability to bring heterogeneous elements of a system into connection with one another.

The map is software in this sense. It is intimately associated with the performances that make use of it, something like a cooking recipe. A recipe is an abstract set of instructions designed for concrete use. Recipes can be more and less specific (a dash of this or that), but are never fully determined without being enacted and performed.

Who or what performs a recipe to make a turkey, for example? A combination of bodies and machines (the chef/s, the knives, the oven), and you could never mistake a recipe—usually a set of instructions on paper—for the turkey that it produces. The recipe doesn't depict the turkey, describe the turkey, or say anything at all about any turkey it's ever produced. A recipe is a machine that produces a turkey when combined with certain concrete agents, bodies and situations (the chef, the turkey, the oven, the holiday). Recipes don't just produce turkeys – they can produce cookies, good cheer, changes in blood sugar, social mishaps, and so on.

The recipe includes its baking performances and social outcomes in a "virtual" space (which is distinct

from cyberspace's "virtual") that stretches out into a quasi-infinity of potential uses. There are so many different turkeys that one could bake, so many holidays to have. Like a recipe, a map needs to be activated and used—supplied with particular agents, goals, ingredients, data and other specifics—in order to do anything useful. And, as with most software, performance (not representation) is the issue that is really at stake.

Some Disclaimers and Caveats

This is not a comprehensive survey of map art practices. As I am primarily a practitioner, these are some examples that I have come across in the past two years through direct experience, contact and/or participation. I also discuss a number of projects that I have been involved with as an artist and that form part of my own artistic practice. Though different projects are discussed in relationship to particular entries (complexity or psychogeography), many of the projects could fit equally well into other categories. These terms are, in a sense, a set of common interests and strategies for the artists discussed here.

Finally, the practices and projects included in this dictionary make absolutely no claim to originality. The artists have probably stolen, hacked, and appropriated most of their ideas. Historically speaking, these projects have borrowed from and been informed by diverse sources from street theater to complexity theory. As specific art practices, influences such as the Futurists, Dada, Fluxus, and the Situationist International are apparent. However, tracing these influences is outside of the scope of this small, incomplete dictionary of the present. What follows are concepts and projects important to artists working in, with, near, around and through maps.

The Incomplete Dictionary of Key Concepts in Contemporary Psychogeography

Complexity: *The degree to which the structure and behavior of a system is difficult to understand due to its intricacy, size, number of relationships between components, and mutations/interactions over time.*

A situation of complexity necessitates the use of a strategy that is very different from the panoramic eye of representation and picture-making, for how can one represent something that (1) is constantly evolving in unpredictable ways and (2) is never, at any point in time, fully determined. Rather than describing such systems in deterministic ways (for example, painting a picture of the system), complexity theorists speak of patterns of behavior—recurrent behavior, typical behavior, spheres of attraction, phase transitions, bifurcations—that unfold over time.

So what constitutes a complex system? The thing is, everything is complex! When you shift perspective, change your scale of investigation (see Scale), things that we think of as simple building blocks are revealed to be parts of large, cooperative systems and contain within them complex systems of their own. At different scales, we homogenize some things in order to see other things.

Along with an ethics of experimentation, many artists are forming a commitment to the excavation of complexity—to pointing out just how much difference, singularity and particularity lurks beneath a homogenized surface. For example, *Sifting the Inner Belt* (2004-2005) is a year-long "social research and performance project" that takes as its starting point a small, community garden in Boston's South End neighborhood. For one year, Hiroko Kikuchi, Jeremy Liu, and a collaborative team of artists, community activists and residents (myself included) investigated the Berkeley Street Community Garden and its relationship to the changing landscape of the South End, a diverse neighborhood bordering Chinatown, which is witnessing increasing gentrification. Using a variety of techniques from ecology to ethnography (see Transdisciplinary), the project seeks to document and create relationships between the gardeners, residents, and visitors and use performance art as a methodology to conduct social research.

Among the sub-projects of this initiative, each month we conduct a "Bridging Performance," an activity designed to create a "bridge" (linguistic, performative, metaphorical) between the garden itself and the Boston Center for the Arts, a large art complex across the street. These two spaces, though physically positioned only a few hundred feet apart, have vastly different audiences and constituencies. A destination relevant to one community (like a community garden) might have gone entirely unnoticed by another.

During the Bridging Performance on June 3rd, 2005, the project used a photocopied map of the South End neighborhood in a survey about zoning. The U.S. Department of Housing and Urban Development (HUD) designated Boston an "Empowerment Zone" in January 1999. This designation carried an award of over ten million dollars dedicated to generating "economic self-sufficiency for individuals, families, and communities through job creation and human development" (U.S. Department of Housing and Urban Development, 1999). Ten million dollars is a lot of money to get just because HUD declares you an empowerment zone. Interested in the power of language to shape funding and strategic urban development in relationship to zones of the city, the project created a small-scale, informal survey about "Empowerment Zones". Pairs of researchers were deployed to different strategic locations in the South End. These included our main

geographic foci of the Berkeley Street Community Garden and Boston Center for the Arts, but also included areas at the high and low end of the economic spectrum of the neighborhood, including the SOWA Arts Complex, the Castle Square projects, and the Villa Victoria projects. We stopped people in public spaces and asked each person to identify their empowerment zone on a photocopied map of the neighborhood [see Figure 1].

The responses were diverse. A police officer in the projects circled the areas that South End gangs fight over. Many visitors to the galleries in the SOWA Arts Complex, often not residents of the neighborhood, circled the Boston Center for the Arts and the commercial district on Tremont Street. An African-American woman hanging out with several men on a street corner next to the SOWA Arts Complex named the Division 4 police station as her zone of empowerment, stating, "I own them." A middle-aged Caucasian woman, looking uncomfortable, stated that she felt most comfortable in Cape Cod so she circled the highway that led to it. A movie buff, not a resident of the neighborhood, circled the video stores that he travels miles to rent from. A middle-aged Caucasian man circled all the places where he and his wife owned property. A Caucasian woman traced her walking route through the neighborhood. A young Latino man circled his cousin's house. A suburban wife stated that her zone of empowerment was her husband's wallet. One wealthy couple complained vehemently about the lack of parking in the area. When asked to participate, a man carrying a beer in a brown paper bag stated that he was too drunk.

Using one map, we collected a different story and a different empowerment zone for every person that we surveyed. There was a distance between many of these

people (and between us, the researchers) that belied our geographic proximity. On the map, we were all more or less in the same place, but it is clear from the survey that the people we stopped inhabited distinct worlds.

As a mapping exercise, this performance and the larger Sifting the Inner Belt project serve to highlight the social, political and economic limitations of any purely geographical measurements of proximity – How close are the gardeners to the Boston Center for the Arts? How close are the art patrons to Chinatown or to the projects? The project seeks not to visually map these measurements and relationships, but to map them in an embodied, performative, particular manner: to actively engage with the diverse communities that surround the Berkeley Street Community Garden and to create awareness of the difference and heterogeneity that exists in a small geographical space.

Related Terms: Data Collection, Scale, Transdisciplinary

Related URLs: Sifting the Inner Belt (www.siftingtheinnerbelt.com)

Collaboration and Cooperation: *Work done together for a common purpose.*

Note that collaboration and cooperation may be with other people, an institution, a landscape, even an hour of the day. Groups of artists have always worked collectively, but recently it has been increasingly important to explicitly label these practices as collective versus individual. Art collectives are often composed of semi-anonymous, often temporary or fluctuating members such as Glowlab, iKatun. If members of the group are anonymous, there might be political reasons for concealment of identity (for example The Institute for Applied Autonomy), or specific philosophical experimentation with agency and the production of subjectivity (for instance, spurse). Sometimes what is presented as an art collective is actually an individual acting as a collective of one, such as Swoon or The Atlas Group. There are almost as many models for collaboration as there are art collectives (see list below).

The rise in explicit acknowledgement of collaborative practices points to an important shift in how we are imagining agency in the world. The individual used to be the primary site of agency: the artist used to be a tormented, brilliant genius. Probably he was a guy and lived in a dusty garret/penthouse/loft in fashionably bad neighborhood. Perhaps he threw paint around in fits of anger/sadness/other expressive emotions. Think of stereotypes like Jackson Pollock or Hollywood tropes like the movie *Shakespeare in Love*.

Though it still sells well, there are clear limitations to imagining agency as purely individual. First of all,



Figure 1. Residents of Boston's South End were asked to circle their "Empowerment Zone" for the project *Sifting the Inner Belt* (2004-5). (see page 76 for color version)

the rise in transdisciplinary practices and new technologies means that it is increasingly difficult for one person to master all the tools she needs to make interesting work (see Transdisciplinary). The very idea of “mastery”, in a technical sense, is not what is at stake in art-making anymore. Operating as a loose collective can support shifting members, fluid skills, varying degrees of expertise and engagement. Also, very simply stated, collectives get more accomplished.

Most importantly, the collective can be thought of as an explicit act of cultural resistance in that the group functions as a refusal of an increasingly engineered individual subjectivity. In a political economy of global capitalism, it is directly in the interest of the communications industries to produce individual subjectivity, that is to say, to cultivate, nurture, and feed the myths of the individual. In the current advertising climate, it’s all about me, what I want, how I feel, what I might need to consume in order to feel better about me. From the images to the slogans—“Find Your Own Road,” “Make It Yours,” “Accelerate Your Life,” “Celebrate the moments of your life,” “Grab life by the horns,” “Thousands of possibilities. Get Yours,”—the production of *me* as a daring, passionate individual and consumer is incessant.

Displacing agency to the collective is a structure that works to neutralize that communications machine. Working collectively is a way to work around and outside the production of the individual. Reimagining our agency as collective opens up new possibilities for social and political action that are unthinkable if we can only imagine agency situated at the level of the individual human being.

So what does agency have to do with artistic practices of mapping? A lot. Beginning to think about maps as recipes (instructions for use) means that we also need to rethink the role of the mapmaker-artist. It’s no longer possible for the mapmaker-artist to be a “celestial eye” that sees reality and then depicts it. This privileged panoramic view of the world is witnessing increasing dispersion, fragmentation, and displacement. The mapmaker-artist, the stable agent with a fixed identity who used to possess this view, is undergoing the same displacements and fluctuations in identity. She is becoming increasingly susceptible to difference (heterogeneity vs. homogeneity), sensitive to time, and aware of complexity at the smallest scales (see Scale). The art collective and collective action, in general are ways to creatively engage with the instability of complexity and the dispersion of agency.

Some semi-cartographic collectives: Bureau d’études, Bureau of Inverse Technology, Center for Urban Pedagogy, Critical Art Ensemble, Glowlab, iKatun, Multiplicity, N55, Nomads+Residents, spurse, subRosa, Swoon, The Atlas Group, The Bookmobile Collective,

The Institute for Applied Autonomy, The Institute for Infinitely Small Things, The Yes Men, xurban

Related Terms: Political, Scale, Transdisciplinary

Data Collection: *Gathering data and collecting samples. Assembling archives. Borrowing techniques from field research in geography, ethnography, biology, and anthropology (see Transdisciplinary).*

Artistically, this practice is related to the series or the multiple. Technologically, this practice can be associated with the database. A collection is, first and foremost, a heterogeneous group of related elements. As an artistic practice, it is often employed strategically, as a technique to demonstrate the variety and multiplicity of something we might gloss over as homogeneous or simple (See Complexity).

For example, the collective Glowlab is engaged in a project called One Block Radius (2004) that is collecting psychogeographic samples for the purposes of mapping a single block in New York City. Commissioned by the New Museum of Contemporary Art, the block in question spans the area from Bowery to Chrystie Street, and from Stanton Street to Rivington Street. This block is the site of a new building for the museum with construction slated to begin in 2005.

For One Block Radius, Glowlab and collaborators collect photos, video, texts, audio recordings, and interviews with residents and passersby. At the time of writing, they have collected 474 data samples. Each one is tagged with the date, the location on the block where it was collected, the name of the collector and relevant categories. Samples collected range from photos of crushed paper cups [see Figure 2] to text interviews with local business owners. Finally, each item is carefully logged on an interactive map on the project’s website.



Figure 2. One Block Radius, image courtesy of Glowlab. (see page 76 for color version)

The importance of One Block Radius is not that it creates a portrait or map of a single block, but lies, rather, in its treatment of particularity and difference. Where the “celestial eye” might neutralize the block depicting it as one in a city of blocks, Glowlab uses data collection to strategically excavate an unimaginable complexity and expose a landscape of difference and duration in a tiny geographical space.

Related topics: Complexity, Transdisciplinary, Urbanism

Related URLs: Glowlab (www.glowlab.com); One Block Radius (www.oneblockradius.org)

Dispersion & distribution: *Spatially – the quality being scattered over an area or volume. Temporally – the quality of being spread out over time. Artistically – A situation in which the work of art takes place in diverse physical and virtual spaces at different times.*

Our artwork is becoming as asynchronous and networked as our communications. Distributed projects make use of a variety of places and times in a single project in order to reach multiple audiences, to facilitate multiple and diverse collaborations, and to produce new forms of dialogue and exchange across space and time. For example, my project *Funerals for a Moment* (2004) invited collaborators from around the world to submit inconsequential, ordinary moments to a website. We collected 55 such moments from people around the globe (See Data Collection). The moments presented a wide range of recollections of mundane events such as riding the subway, crossing the street, and waiting for somebody. A moment contributed by Dillon Paul, for example, occurred at 9th St. and 2nd Ave on Tuesday, December 19th, 1995 at 8:45 AM: “I ordered a bowl of borscht, again, from Veselka.”

Each moment was linked to the date, time and location in New York City when it occurred and presented in an online gallery on the project’s website. For the *Psy.Geo.Conflux* festival, I created a laminated Funeral Manual with instructions for performing a funeral for each moment submitted [see Figure 3] and then led a group of collaborators in a 2-hour processional walking ceremony where we performed funerals for eight of these ordinary, passed moments.

In terms of distribution, there were many events in different locations at different times: the original ordinary moments that occurred in New York, the individual “uploading” events in which online collaborators wrote about their moments (scattered across the globe and spaced over the 1.5 months leading up to the festival), and the performances of the funerals in public space. The actual space-time of the work was composed of all of these small, singular events.

For the project *Following the Man of the Crowd*



Figure 3. *Funerals for a Moment* guidebook, moment #27, front and back of page. (see page 77 for color version)

(2004), the artists Christina Ray and Lee Walton did a project inspired by Vito Acconci’s famous *Following Piece* (1969) in which he spent one month following passersby through the streets of NYC until they disappeared into a private space (see *Public Space – The Commons*). In Ray and Walton’s piece, the artists followed people on the street and communicated via text messages on their cell phones over a period of 24 hours [see Figure 4]. While one artist followed a person in one location, the other rested in a different location. Once the person being followed had disappeared into a private space, the artist stopped, text messaged the other, and rested at that location.

Ray and Walton documented their followings with text and images on a blog site that they updated in real-time using their cell phones. Audience members “following” the project from different locations around the world could sign up to receive text updates to their cell phones whenever Ray or Walton text messaged each other or posted an entry to the blog site.

What is curious about this project is that the action and audience is, in a sense, entirely distributed. There were most likely no audience members present while Ray and Walton were actually, physically following people in the street. However, there was a large online audience that “followed” Ray and Walton through text messages and the website just as Ray and Walton followed people in physical space.

So, what is important about distribution in space and time as a mapping practice? The “celestial” view of the city (New York City, in both cases) is displaced and scattered across multiple perspectives and diverse locations. The map is situated in a temporal context and composed primarily not of visual icons but collections of particular events (viewing events, following events, remembering events, funeral events) that take place around the globe.

Related Terms: Data Collection, *Public Space – The Commons*, Urbanism

Related URLs: *Funerals for a Moment* (www.funeral)



Figure 4. One of the people followed for *Following the Man of the Crowd* (2004) by Christina Ray and Lee Walton.

alsforamoment.net); *Following the Man of the Crowd* (<http://glowlab.blogs.com/following/>)

Experiments: *A controlled test or investigation into the world.*

Artistic experiments involve varying degrees of explicit mapping, structure and formality. For example, Lee Walton's piece, *Making Changes* (2004), splices together many short video clips of the artist "making changes" to the urban environment. These changes include actions such as moving a coffee cup from one post to another, placing bananas in the apples bin at the corner store, and turning store mannequins to face backwards. Each action is small and practically unnoticeable, but offered to the viewer to be considered as a "what if..." experiment in small, located actions.

The Italian artist, Cesare Pietroiusti, has done similar projects. In 1995, the artist was invited to do a project in the Santa Maria delle Croci church in Ravenna. On December 23, 1995, Pietroiusti opened each and every door in the seventeenth century church. This included main and secondary entrances, doors to adjacent spaces (toilets, boiler room, hallways), and doors that opened onto the street. For one day, every single door in the church stayed open [see Figure 5].

The artist Alex Villar experiments with the

urban environment in similarly small, performative ways. In his project, "Dribbling the Field", he conflates the action of dribbling in a soccer game with the experience of finding one's way in the city (see *Urbanism*). This overlay of actions is complicated by the fact that he only "dribbles" going backwards. The video shows

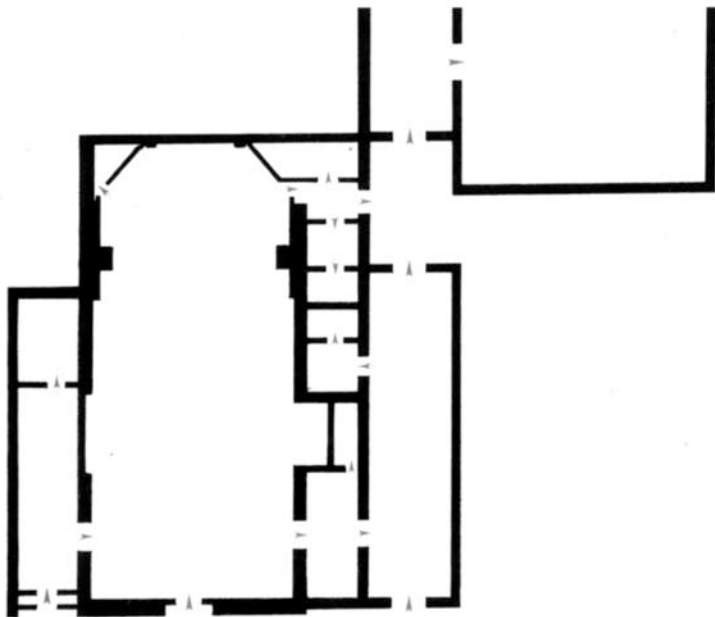


Figure 5. Architectural plan of the church Santa Maria delle Croci with all doors open, a microperformance by Cesare Pietroiusti.

ing archive, and an oral history project. All of these approaches, including, most importantly, the boat as a tool to (literally) mobilize location, are engaged as mapping technologies in this project.

As a research method, this approach is rigorously particular and experiential; more concerned with mapping differences and making connections at a sub-local level than creating general explanations or conclusions about the changing nature of the working coasts. There is, in a sense, no privileged point of view from which to view these coasts. The continuous displacement of the researchers throughout the project serves to enact this both conceptually and physically. This is not to say, however, that no results are yielded from the mobile lab. spurse conducted over one hundred interviews in the course of the project and produced as many psychogeographic maps of the working coasts. Through conversations and diagrams, spurse generated new connections, new collectives and new voices.

Other mobile projects, such as the Mobilivre-Bookmobile (2000-2005) by the Bookmobile Collective and Traveling Magazine Table (2003-2005) by Nomads+Residents are concerned with mobility as an alternate means of information dissemination. Both traveling projects showcase collections of independent magazines, artists books and other materials that otherwise have no publisher [see Figure 7].

Mobility is also leveraged for political purposes, to assert a point about geographic displacement and the changing demographics of a city or neighborhood. Artists from the Fort Point neighborhood in Boston, including John Osorio-Buck and Matthew Ward, have

been increasingly pushed out by the influx of businesses and professionals who can afford to purchase real estate in the area. When Osorio-Buck and Ward received news that their leases would run out, they began to design a 9-foot-by-8-foot raft that they constructed from plywood and PVC [see Figure 8]. During the fall of 2004, Osorio-Buck and Ward lived on their raft as part of the project W.T.L.F.P.A.P.T.O.T.L. (2004) which stands for "Will the last Fort Point Channel artist please turn out the lights?"

In total, the pair spent several weeks living on the raft floating up and down the Fort Point Channel, developing relationships with residents, postal workers, and construction workers in the area. The raft served to call attention to the politics of place but also functioned as the invention of a new nomadic space—temporary and shifting—near the margins of the neighborhood.

Related Terms: Collaboration, Data Collection

Related URLs: Mapping the Working Coasts of Maine (www.spurse.org/mappingmainecoasts.html); projet MOBILIVRE-BOOKMOBILE (www.mobilivre.org); Nomads+Residents (www.nomadsresidents.org); W.T.L.F.P.A.P.T.O.T.L. (www.bostonraft.com)

Performance: *Carrying out one or multiple actions over a period of time.*

Performance, for my purposes here, is squarely located within the context of the real (as opposed to the theatrical or the imaginary). Using performance, many of these artists experiment with real life. They pose real situations with real people that are challenged to enact a real politics, a real ethics, and a real sociality in order to respond.

The Canadian artist Natalie Loveless, for example, creates durational wall drawings as maps of collaborative performances. For the project Working Notes (Participatory Democracy) (2004) at Art Interactive in Cambridge, MA, Loveless invited collaborators across the city into the gallery space for a conversation about democracy and the political process in the U.S. Each collaborator brought in objects to use as talking points. Loveless asked them to attach the objects to the wall using a variety of fixatives (from pins to tape to



Figure 7. Bookmobile/Mobilivre project.

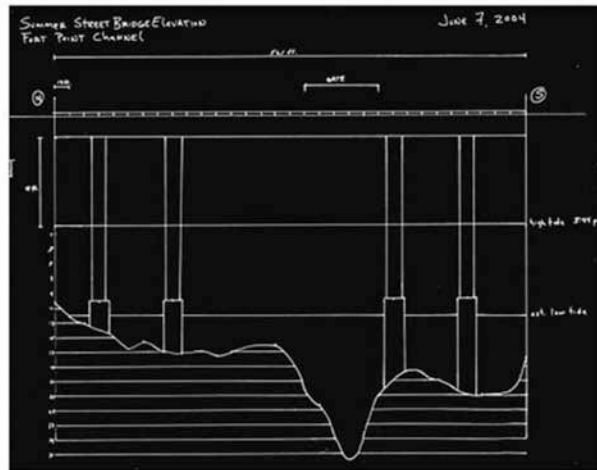


Figure 8. W.T.L.F.P.A.P.T.O.T.L. (2004) by John Osorio-Buck and Matthew Ward.

chain to glue). After the conversation, the objects were removed and, using particular rules based on connections and relationships, Loveless would map the traces that remained in silverpoint. Over the course of several months, Loveless conducted twenty-eight conversations, mapping together more than one hundred objects in a delicate, intricate drawing [see Figure 9] on the wall of the exhibition space.

Loveless' maps serve, in this case, as abstract documents of a series of conversational performances. Though they might be considered documentation of events, the maps are not pictures: they do not "represent" the conversations. It would be impossible to reconstruct the conversations that took place from looking at these maps. Loveless' wall drawings speak to a real space that is not geographical, the virtual space of perception and memory that transforms action into residue and residue into future action. Her maps live simultaneously in the past, present, and future, in and through time, the basic element of all performance.

The annual Psy.Geo.Conflux festival acknowledges and explores this intimate connection between maps and performance, action and documentation. Each year, artists, academics, and members of the public come together to investigate the field of psychogeography (see Psychogeography). All of these investigations make use of a performative engagement with geographical space. Projects at the Psy.Geo.Conflux involve

absurd tours, live music performances incorporating environmental sound recordings, walking projects, and unauthorized "noise parades".

Though the projects might be variously absurdist, obscure, academic and/or carnivalesque, note that they all operate in the real. The city street and urban grid (see Urbanism), along with all of the social, economic and political relationships present there, are viewed not as the background to an imaginary story or a theatrical play but as the very substance with which one performs. For these projects, the geographical space becomes a sort of collaborator with an agency of its own.



Figure 9. Participatory Democracy (2004), detail by Natalie Loveless. (see page 77 for color version)

Related Terms: Urbanism, Psychogeography

Related URLs: Natalie Loveless (www.loveless.ca); Psy.Geo.Conflux (glowlab.blogs.com/psygeocon/)

Political: *Of or related to the power relationships in a given society.*

The practice of mapping is immediately political, as Suely Rolnik notes in one of my epigraphs. Artistic choices are just like cartographic choices: they highlight one thing at the expense of an infinity of others. What is chosen constitutes a new world, a new life, a new society. This exercise of this power of invention is situated squarely within the realm of the political.

Some projects are more explicitly political than others. For example, the Institute for Applied Autonomy's mission is "to provide technologies which extend the autonomy of human activists" (Institute for Applied Autonomy webpage). To this end, the Institute for Applied Autonomy released a piece of software called txtmob (2004) just before the Republican National Convention (RNC) in New York City. Activists with cell phones signed up to a text-messaging list-serve. Once they had signed up, each member could send messages to the group. The software was used during the RNC to alert protesters to police arrests at particular locations, to broadcast strategic meeting points (e.g. a message like "18:15:50 Tue., Aug 31: A31 party mtg at SE corner of Union Sq." would appear on one's cell phone), and to coordinate foot traffic (see Mobility) (Di Justo, 2004). Using txtmob, activists bypassed radio and TV reporting but still leveraged the power of a one-to-many broadcast format for the purposes of grassroots, real-time political organization in physical space.

Another project from the Institute of Applied Autonomy is i-See (2001), a web application that maps the location of surveillance cameras in lower Manhattan and plans a pedestrian route based on coordinates entered by the user in order to pass by the fewest number of surveillance cameras [see Figure 10]. iSee begins with a critique of the politics of a surveillance culture.



Figure 10. *i-See* (2001) by the Institute for Applied Autonomy maps the path where you are least likely to be watched. (see page 78 for color version)

Where does surveillance footage go? Who has access to it? What do they use it for? What is its potential for abuse? Surveillance, according to the Institute for Applied Autonomy, involves an imbalance of power and an absence of accountability and oversight. iSee, the solution they have configured, takes the user on the "path of least surveillance" in relation to this problem.

A Paris-based collective, Bureau d'études, has created the Tangential University to facilitate new research into critical cartography, capitalism, and the study of knowledge/power configurations in society. The Bureau also creates info-maps of power relationships in society with titles like *Governing By Networks* (2003) and *infowar/psychic war* (2003) [see Figure 11] that are reminiscent in intention to the artist Mark Lombardi's diagrams of influence. The maps at the Bureau d'études disclose hidden facts and relationships in order to critically examine the past and present political situation.

Related Topics: Mobility, Public Space – The Commons, Urbanism

Related URLs: The Institute for Applied Autonomy (www.appliedautonomy.com); Bureau d'études & the Tangential University (www.utangente.free.fr)

Psychogeography: *The production of affect in relation to the geographical environment.*

Psychogeography is a term originally coined by the Situationist International (SI), an international political and artistic movement from 1958 to 1972, which included Guy Debord, Asger Jorn, Michele Bernstein and Raoul Vaneigem. Psychogeography has previously been defined as "The study of specific effects of the geographical environment, consciously organised or not, on the emotions and behaviour of individuals" (Anon., 1958). The Situationist International (SI) sought to revolutionize art, politics and everyday life and played a major role in the 1968 student uprisings in France and across Europe. SI is often associated with the practice of the *dérive*, a way of walking with awareness (of one's emotions and behaviors) in urban space that breaks with habitual patterns of usage such as the commute or the stroll.

Contemporary groups and artists have appropriated this term as a nod to the influence that the SI continues to exert long after its dissolution, however contemporary practices are more diverse (due in part to the explosion of mobile technologies) and the political circumstances are radically different. Psychogeography has expanded to include not only the study of the effects of the geographical environment on the behavior and emotions of individuals, but the production of affect in relation to the geographic environment.



Figure 12. *awa-ka-amaciwet piwapisiko waciya/climbing the iron mountain* (2004) by Cheryl L'Hirondelle. The artist scales a parking garage stairwell in her bare feet with a pirate radio rig in tow.

corporate command is a slogan in the imperative that instructs the viewer to do something. These run the gamut from the familiar—"Just do it!" (Nike), "Think Different" (Apple)—to the strange—"Surrender to smooth and creamy galaxy" (Galaxy Candy Bar), "Try being more of a woman" (Coty perfume). The Institute asserts that these commands not only play a significant role as a social force (shaping attitudes and behavior) but that they are also worthy of a more in-depth investigation through performance. So how does one begin to explore the influence of corporate messaging in public space? By treating each corporate command as a map (a recipe) to guide a concrete experimentation with the surrounding geography.

We are all inundated by advertising messages (3000 per day is the oft-cited figure), though most of us claim to ignore them. What happens when we stop ignoring them and start using them to test the environment around us? What happens when we attempt to enact what these commands are telling us to do? As an extension of the online collection, the Institute researches certain corporate commands more thoroughly by staging a performance of the command in the location where it occurs in public space. Donning white lab coats for these performances, some of the researchers perform the command while others take field notes, shoot digital photos or interview passersby. For example, on February 26th, 2005, the Institute performed "Rollover" (Cingular Wireless). Five researchers lay down underneath the "Rollover" poster and blocked

the sidewalk in Central Square, a busy commercial district in Cambridge, MA. When pedestrians approached, the group would yell "Rollover!" and make way for the person by rolling over [see Figure 13].

The point of "Rollover" was not to convince people in Central Square not to use Cingular Wireless, nor to do something wacky or "crazy" to make people look at us as artists. In "Rollover", as with all the corporate commands, we were interested in posing the questions, "What happens when one takes Cingular seriously and rolls over right here? What will change in this environment? What will this action produce?"

By treating each command as a map (as instructions for use) and by using commands developed in the private

sector to stage public activities, the Institute effects a reconsideration of and dialogue around the corporate presence in public space.

Related Terms: Experiments, Urbanism, Data Collection

Related URLs: Cheryl L'Hirondelle (www.ndnnrkey.net);

Alex Villar (www.de-tour.org); The Institute for Infinitely Small Things (www.infinitelysmallthings.net); Corporate Commands (www.corporatecommands.com)

Scale: *Experimentation with orders of magnitude.*

As the sciences have begun to measure the world in light-years and nanometers, we have seen a parallel increase in artistic investigations of the assumptions and implications of scale. Scale is often leveraged strategically by artists to effect a reconsideration of "the human"; particularly the narrow scale of the human. Affecting a shift in scale has the consequences of multiplying truths and complexifying perspectives. What is invisible at the human scale is revealed at the nano-scale. It's no longer so easy to believe that the aerial view map is the only way to describe our geography.

As part of spurse's project on urbanism (See Urbanism) for the exhibition "The Interventionists: Art in the Social Sphere" at the Massachusetts Museum of Con-



Figure 13. "Rollover", research performance by the Institute for Infinitely Small Things (2005).

temporary Art in 2004, artist Brian DeRosia conducted an experiment into the relative distances between the cities of Portland, ME (where he lives), North Adams, MA (the location of the museum), and Mexico City, Mexico (the most populous city in North America). These took the form of two books [see Figure 14], each containing a single line that travels across the pages which maps the distance between the cities, in miles, at a scale of 1 inch = 1 mile. Though the North Adams-Mexico City book has more pages than the Portland-North Adams book, you can still hold it in your hand and flip through the pages. In global conditions of urbanism and free market exchange, perhaps the semi-rural North Adams is not as far away from the megapolis Mexico City as we might think.

At the Institute for Infinitely Small Things, we leverage scale strategically and semantically in order to provoke participants to think on a different scale. As part of the project, *The Analysis of Infinitely Small Things* (2004), we invited members of the public to go on expeditions to find infinitely small things at a particular site. This exercise is primarily about the production of a question about scale itself—"What is an infinitely small thing?"—which we hear repeatedly during each expedition.

Transformations of scale can happen in the reverse as well, when something small becomes human-size or larger. Artist Sharilyn Neidhardt organizes *Human-Scale Chess Games*, projects in which participants

use the grid of the city as a giant chess board. Two experts play chess in a central location and their board is transposed on city streets (see *Urbanism*). People dressed as chess pieces stand on street corners until they receive directions to move via a cell phone.

Other groups have experimented with explicit juxtapositions and equivalencies of scale. For the exhibition *1:100* (2004) at the DCKT Contemporary Gallery in Chelsea, NYC, Glowlab enlarged the gallery floor plan and placed it over the a map of the surrounding neighborhood at a scale of 1:100 (1 foot in the gallery = 100 feet in the neighborhood) [see Figure 15]. Invited artists were requested to respond to their location in the gallery/neighborhood by creating new projects both inside and outside the gallery space. The artist Shih-Chieh Huang, for example, created a sculptural installation of plastic containers, relay circuits, and microcontrollers, all found or purchased at dollar stores, pet shops and hardware stores in the neighborhood. Street artist Swoon inserted peep-holes throughout the neighborhood's street signs, through which one sees fictitious scenes of urban life. These miniature images are then reproduced as large-scale three-dimensional works in the gallery. By linking these two scales—interior and exterior space—in a relationship of equivalency, Glowlab affects a sort of cognitive imperative to consider the outside from the position of the inside. When in the gallery, one is always wondering what the relationship of the materials is to the neighbor-

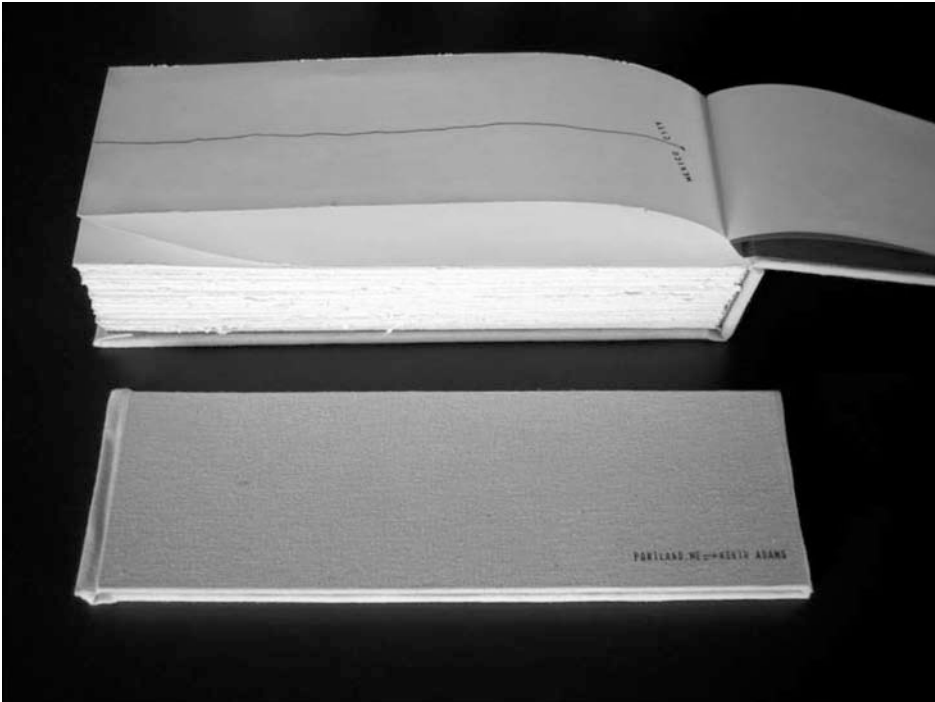


Figure 14. *Portland-North Adams, North Adams-Mexico City, 1 inch=1 mile (2004)*, by Brian DeRosia.

hood, what performances led these objects here, and whether something related to the inside might be hidden in the surrounding space.

Related Terms: Complexity, Public Space – The Commons, Urbanism

Related URLs: 1:100 Exhibit (glowlab.blogs.com/1_100/); The Institute for Infinitely Small Things (www.infinitely-smallthings.net)

Transdisciplinary: Working and studying simultaneously in/with/through multiple disciplines and, additionally, always paying attention to what falls outside of their scope and what they do not include.



Figure 15. *The exhibition 1:100 (2004) at the DCKT Contemporary Gallery in Chelsea. Image Courtesy of Glowlab, Map design by Red Maps. (see page 78 for color version)*

Artists have always borrowed from other fields of study and activity. Perhaps it is only the pace that has accelerated—new and strange disciplinary combinations seem to arise every day. For example, spurse's *Mapping the Working Coasts of Maine* (see *Mobility*), utilizes techniques from statistical psychology, ethnography, performance art, and maritime studies to conduct its psychogeographic research into the changing landscape of the coasts.

The Institute for Applied Autonomy is one of the rare organizations in which the work has not only borrowed techniques from disciplines such as software engineering, robotics, performance art, and political activism to create a transdisciplinary space, but is also contributing to an ongoing dialogue within the disciplines of design & engineering. The Institute for Applied Autonomy writes software to “extend the autonomy of human activists” and tests it in commercial and political situations (see *Political*). The Institute also gives presentations and publishes research about this work in the design and engineering communities, allowing the work “outside” the disciplines to flow back “inside” and contribute to shaping and changing the borders of these disciplines themselves.

Related Terms: Mobility, Political

Related URLs: The Institute for Applied Autonomy (www.appliedautonomy.com)

Urbanism: *The condition of living in a city.*

Over half the population of the world currently lives in an urban context. Because of this, the collective spurse makes the claim that “we have crossed a threshold and entered into a global condition of a new and radically urban geography” (Thompson, 2004). Central to spurse’s claim is that, in a world of explosive urbanism, it is no longer tenable to think of urban vs. suburban, city vs. country, human vs. nature, as if these categories were for things that were separate from each other. What is urban is increasingly and inextricably a factor in everyone’s lives, whether they live in a penthouse or on a farm. Especially in the world of the Internet and massively distributed systems of manufacturing and production, how can we begin to reconceptualize where one city begins and the other ends?

To explore these questions, spurse developed a research institute at the Massachusetts Museum of Contemporary Art devoted to the investigation of the conditions of urbanism, particularly as they relate to Mexico City (where a number of spurse members live) and North Adams, Massachusetts, (the small, rural town where MassMoCA is situated). Called *sans terre*: a temporary institution for the investigation of urbanism (2004), the institute is composed of documentation from walks between and around Mexico City and North Adams, over 100 different maps, psychogeographic diagrams, physical material samples, interviews and a host of other materials [see Figure 16]. The exhibit is laid out in a three-dimensional map that traces spurse’s route from Mexico City to North Adams. The group has a call for researchers posted at the installation of this institute/exhibition that invites people to come and use the institute’s archives (see Data Collection) for their own investigations.

Artists Anna María Bogadóttir and Malene Rørdam investigate this question playfully in their project *New Copen York Hagen* (2004). The two Danish artists superimposed a map of Copenhagen on New York City and proceeded to lead a tour of Copenhagen through the streets of Manhattan. Participants are handed postcards of famous tourist attractions in Copenhagen and encouraged to describe their impressions and send the postcard “home”.

In these projects, geographical space is increasingly malleable and flexible, subject to overlays, transformations, and transpositions. Hybridizing physical space (e.g. by cross-breeding two or more cities) serves to call attention to the condition of urbanism, what other cities and spaces are implicated in the urban, and who participates in the urban. These projects invent new spaces for experimentation with these questions.



Figure 16. 16 *sans terre*, a temporary institution for the investigation of urbanism (2004, by spurse).

Related Terms: Mobility

Related Urls: *sans terre* (<http://www.spurse.org/sansterre.html>);

New Copen York Hagen (http://glowlab.blogs.com/psygeocon/2004/02/participant_06.html)

Where to Go From Here: an Ethics of Experimentation

Thinking of maps as recipes opens an array of possibilities for critical, political, social, and aesthetic experimental engagements with the world. Many of the projects discussed in the dictionary are exactly this: experiments in the production of space, the production of subjectivity or the production of power. Rather than knowing exactly where to go, what to produce and how to get there, these artists use maps and other technologies in order to go somewhere else. Note that it’s not about going just “anywhere”; an ethics of experimentation is anything but arbitrary. What an ethics of experimentation proposes is the development of open systems that will produce emergent outcomes. All of these artists experiment with a particular territory in specific ways in order to reach unforeseen destinations.

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Jake Barton's Performance Maps: An Essay

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Jake Barton, a New York-based designer, creates public maps that generate social interaction, personal expression, and collaborative storytelling. Barton's work is centered on performance, drawing attention to the performative capacity of maps, a seldom-explored facet of cartographic design and theory. Examples of Barton's projects, realized and unrealized, are detailed, with a focus on the manner in which maps are designed to evoke performance.

Keywords: Jake Barton, public maps, performance maps, social interaction

INTRODUCTION

Jake Barton doesn't call himself a map artist or cartographer. He calls himself a designer. Yet much of what Barton designs has a map at its heart, a map that talks or that lights up or that changes shape or that tells stories or that collects stories or that does all of these things at the same time; a map that performs and, in turn, evokes performances from those who encounter it. Indeed, Barton's work elucidates a simple and common characteristic of maps that is seldom discussed or analyzed: their performative capacity. Barton's *City of Memory*, for example, is a narrative map of New York that allows visitors to create a collective, online memory by submitting their stories (see Figure 1). Visitors can link stories together by themes to create "neighborhoods" of narrative that then can be explored by others. Visitors can read, listen to, and see the stories that others have contributed. This interaction evokes more stories and more interaction with the maps, opening the way to a different way of understanding and being in their city.

Barton says that *City of Memory* makes the idea that "there are a million stories in the naked city" real, though "actually there are millions of cities," he cautions, "each created inside of an individual New Yorker." By sharing stories of these cities "we can find



Figure 1. *City of Memory* screen-shot. (see page 79 for color version)

out more about how similar and different we really are. *City of Memory* tries to collapse the distance that is between us by encouraging exploration in ways other than physical space."

Barton's project aims to connect New Yorkers through a collective narrative of their city. The project site consists of a map of the city at once abstract and familiar. Barton came to this friendly map through a process of evaluating reactions to the project. People had had trouble with earlier versions: for example, when he had the map oriented north up, people wondered why Manhattan was tilted. Barton realized that subway and other maps had habituated New Yorkers to a particular "view" of their city, one that he adopted while stripping it down to the minimum necessary for New Yorkers to see the map as New York. The sparseness makes Barton's New York easy to navigate. Marks indicate rich clusters of stories, and these explode into individual stories as, exploiting the site's powerful zoom function, you drop down anywhere in the city, which becomes correspondingly detailed. Touching a story icon opens a text panel, or you can listen to the story being told. You can explore the stories of a given

area, or explore stories through thematic linkages, or you can submit a story of your own.

City of Memory simply and effectively gets people to talk to and hear each other within an affective narrative space that they create, that is tied to and accessed through a map of New York, a physical space “vibrating with the world’s energies” and “haunted” (Barton’s word) by people’s collective experience. It’s this idea of space as a living memory that gives Barton’s maps, which otherwise look like simpler versions of the maps you can buy at newsstands, their remarkable inner life. Touch them and they come alive, which is what Barton insists the space of the city is, alive. So: how do you make a map of a space that’s alive, that’s continuously morphing, *performing*, with affective resonance?

A Little Background

Like most artists and designers working with maps, Barton came to the map obliquely. Growing up in Brooklyn’s Park Slope, Barton began high school at Brooklyn Public High School, but completed it at Phillips Andover. Someone Barton admired suggested he might want to check out Northwestern University’s Performance Studies program. Based equally in theory and practice, and committed to performance studies as an evolving practice engaging performance at every front, Northwestern’s program instilled in Barton a profound respect for narrative and an interest in polyvocality and the public.

After graduating in 1994, Barton found himself back in New York working as an exhibition designer for Ralph Applebaum Associates. There Barton worked on the American Museum of Natural History’s Hall of Biodiversity for which he won a number of awards. In the Museum Barton found himself confronting both the innate conservatism of large institutions and the monolithic, top-down style of institutional curators. Both of these were at odds with his comparatively radical, populist instincts. In such a situation, Barton asked himself, how could one possibly deal with controversial content?

The Lower East Side Tenement Museum suggested a couple of answers to Barton’s question. As its name suggests, the Tenement Museum is a tenement building at 97 Orchard Street on Manhattan’s Lower East Side. 97 Orchard Street operated as an immigrant tenement from 1863 to 1935, during which period over seven thousand people lived in it. The museum has carefully restored a number of apartments in this tenement to reflect the periods they were occupied by selected residents, the Gumpertz, the Baldizzi, the Levine, and the Rogarshevsky families. These apartments, and two un-restored apartments left to bear witness to the impact of the nineteenth century reform

movement’s campaign for improved housing, can be experienced only on tours whose guides, standing in the actual kitchens, the actual bedrooms of the immigrants, interpret for visitors the experience of living at 97 Orchard Street. Providing further depth and context are the rich archives the museum maintains, and the walking tours it offers of the Lower East Side.

The museum’s mission also resonated with Barton. This was to promote tolerance and historical perspective through the presentation and interpretation of the variety of immigrant and migrant experiences on Manhattan’s Lower East Side, a gateway to America. The embodiment of this mission in the very site of the museum’s subject connected the Lower East Side Tenement Museum to museums elsewhere in the world, equally determined to exploit the power of place for understanding the past and shedding light on the present. Organized as the International Coalition of Historic Site Museums of Conscience, these include, among others, The Workhouse in Southwell, England; the Maison des Esclaves outside Dakar, in Senegal; the Terezín Memorial in the Czech Republic; the Japanese American National Museum in Los Angeles; Memoria Abierta in Buenos Aires; Bangladesh’s Liberation War Museum; the National Civil Rights Museum in Memphis, Tennessee; the Gulag Museum at Perm-36 in Russia; and the District Six Museum in Cape Town.

Barton has commented on the particular significance of the District Six Museum in Cape Town to the evolution of his thinking. In 1966, South Africa’s apartheid regime declared Cape Town’s Sixth Municipal District, which since 1867 had been a mixed community of freed slaves, merchants, artisans, laborers, and immigrants, a “white area” under the Group Areas Act of 1950. Shortly thereafter this regime began bulldozing the homes of 60,000 people, forcibly removing them to the barren, outlying area of Cape Flats. The museum, dedicated to telling stories of forced removals and to assisting in the reconstruction of the District Six community, is built around a cache of seventy-five street signs that had been secretly saved from the bulldozers, together with a huge floor piece, the Map-Painting, across which sprawled visitors annotate the sites that continue to live in their memories. This simple recreation of place stimulates an outpouring of memories, allowing people literally to map themselves back into the heart of Cape Town. As they do this they also keep alive the memory of their forced removal as a hedge against the reoccurrence of forced removals generally. Forced removals are similarly commemorated by the Maison des Esclaves, the Japanese American National Museum, the Terezín Memorial, the Gulag Museum at Perm-36, and Bangladesh’s Liberation War Museum.

Here, then, was one answer to Barton’s question: attaching stories to spaces was evidently a powerful

way to make the most controversial subjects come vibrantly to life. Confronted with the simple realities of District 6, "Gulag Camp," a Japanese American internment center and Lower East Side tenement, who could fail to be moved by the self-evident oppression and violation of human dignity. *You're standing in a room. The guide is telling you a story about a family that lived there. The story comes alive in this space.* There's no need to talk about oppression, about poverty. These subjects arise infallibly from the floors, seep out of the walls. Together the spaces and the stories speak for themselves: "It's natural," Barton says. "People attach memories to space" (interview with Barton, May 2005).

Barton realized by using analogues for the rooms of the tenement, for its *spaces*, that he could do *at any scale* similar things to those being done by the Historic Site Museums: *the key was to attach the stories to spaces.* Preeminent among analogues for space, Barton realized, was the map. With a map you could do what the Lower East Side Tenement Museum did for the Lower East Side, but for the entire city. But the map alone was not enough. Ultimately, for Barton, the map is a "ruse" to lure people into the affective narrative space of the city itself. It's the resonant living city that Barton's interested in, not the map of it, which remains for him no more than a kind of locative, georeferencing automaton, churning out the 'where' that his story-tellers infuse with the richness of their stories.

Unlike many other artists working with maps, Barton is not really interested in the map in and of itself, and thus has little interest in critiquing it. "No side-tracking on philosophical issues with maps," Barton has said and so, in the generally contestatory world of map art, his stands out, marked by its uncharacteristically positive, even sunny glow (interview with Barton, May 2005). Constructed as it is from the bottom up by the very people who use it, Barton's may be a radical, and perhaps radicalizing art, but it is so friendly and unthreatening, so well-intentioned and constructive, that it comes off as anything but.

Memory Maps

Barton's first foray to this new locative direction was *Memory Maps*, co-designed with Nancy Nowacek. *Memory Maps* was mounted on the Mall in Washington D.C. where every June as many as a million visitors gather across a two week period to participate in the Smithsonian's annual Folklife Festival. Each year the festival highlights the cultures of three different places, and in 2001 one of these was New York. Given the richness of New York's stew of cultures, this was a serious challenge. Barton's solution was ingenious. Inside a structure wrapped in fluorescent construction mesh that was intended to recall a subway car, Barton

mounted a system of enormous maps of the city (see Figure 2). Here visitors were invited to share their stories of the city by writing them on slips of vellum that they then pinned to the map where their experience occurred. Other visitors reading the stories had their own memories stimulated and were so prodded to produce further stories. During the festival's two-week run, more than 2000 people festooned the map with their memories, creating rich and layered mappings of the city's neighborhoods.

In the 1960s, city planners associated with Kevin Lynch had made memory maps. Lynch believed that people's images played significant roles in mediating their lives in cities (Lynch 1960). He believed it was important for planners to understand what these images were, and he advocated asking people about the cities they lived in. The results of these inquiries were frequently mapped. For instance Lynch's colleague, Appleyard, typed onto a map the responses he'd received to a survey about life on streets with different traffic densities. For example, "The street life doesn't intrude into the home ... only happiness comes in from the street," on a street with little traffic (Southworth and Southworth, 1982, 186). More notably the planning firm Arrowstreet made a map of Washington, D.C. out of comments it had collected about the city. The map is composed of nothing but words (Lynch, 1980, 158-159). Lynch referred to these maps as "speaking landscapes," which he understood as "sketches with verbal comments appended directly to the locations where they were made, or about which they were made" (Lynch, 1980, 114). The recurrence in different contexts of the idea of attaching commentary to maps says something about its potential, but there are real and important differences between Lynchian "speaking landscapes" and Barton's Memory Maps.

For one thing, the planners' inquiries were comparatively narrow, were focused on the built environment, and largely consisted of assessments and evaluations.



Figure 2. *Memory Maps*. (see page 79 for color version)

Even so, many planners regretted that these “data” were so “qualitative,” and indeed it was out of efforts to “correlate the different insights for consistency” that the idea of displaying them on maps arose (Lynch, 1980). Finally, no matter the publicity received by these “speaking landscapes,” in the end they were directed from people to planners, that is, *up* from the people to a higher center of authority. In a word, the “speaking landscapes” were a way for experts to collect geographic facts from people. Bunge’s (1970) work in the 1960s countered Lynch’s people-to-planners approach, and is peripherally related to Barton’s work. Bunge worked to collect and map facts not for planners or authorities, but for the community, as a means of solving community problems, enhancing community image, and explicitly promoting political engagement. Bunge’s methods provided a way for community members to collect geographic facts for themselves.

Alas, Barton is not interested in facts; he’s interested in stories. And he’s not interested in collecting stories; he’s interested in sharing them. Instead of funneling stories from people to a higher authority, Barton is interested in spreading people’s stories around among other people. It’s not, with Barton, people-to-experts but people-to-people, and so it’s not about enabling experts but about building and enriching community. Barton has in common these larger goals with Bunge, although each map is distinctive: Bunge focusing on quantifiable data (dead pedestrians, rat-bit children, white flight) and Barton on qualitative stories. Bunge is explicitly political; Barton seems a-political, but may be suggesting a very different kind of political action in his choices of what and how to map and, as a consequence, what worlds to create.

You can imagine Lynch’s “speaking landscapes” as a method for displaying the results of debriefing sessions, which could have taken place in small conference rooms, containing planner and citizen, where the fundamental problem for the planner is the extraction of intelligence. You can imagine Bunge’s politically charged, data-focused maps, showing both negative and positive community attributes, emboldening a community, for its own sake, or for the political struggle for justice. The extraction of intelligence is still vital: yet it is both from and for the community. You can imagine Barton’s *Memory Maps* as the spatialized narrative debris left by people performing their stories on a stage in front of other people. Barton, then, is not so much about extraction as about performance. Indeed, the fundamental issues here (and in much of Barton’s work) are entirely performative, and in *Memory Maps* you can see at work all the concepts that had galvanized Barton at Northwestern— narrative, polyvocality, and public—producing a map fluttering with the pinned memories of people happy to share their stories with others.

Unrealized Maps, Worldview

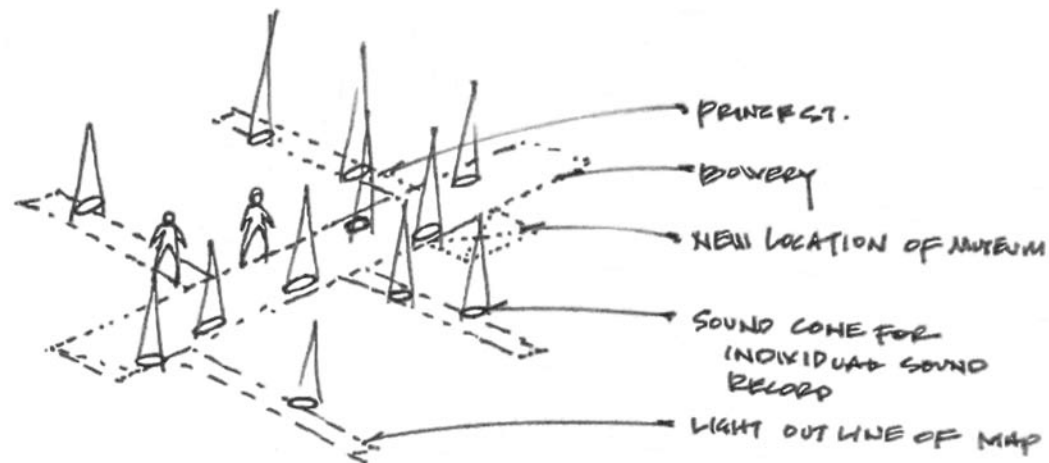
The limitations of Memory Maps are physical: you can pin only so many vellum strips to the map at any one point; the stories overlap and obscure one another; you have to be physically present to read, or add a story; and there’s no index. Putting the map on the Web as the City of Memory was a way to overcome these limitations. While he was developing *City of Memory*, however, Barton was also thinking about other things he could do with maps.

Many of these ideas remain unrealized. There was the Sonic Map, for example (see Figure 3). This would have consisted of a highly schematized map of lower Manhattan projected onto the floor of a gallery in the New Museum. Visitors stepping into a “lighted” square would have heard its “sound” coming from highly directional loudspeakers. Stepping into smaller circles of light would have triggered recordings of individual stories. As Barton described it:

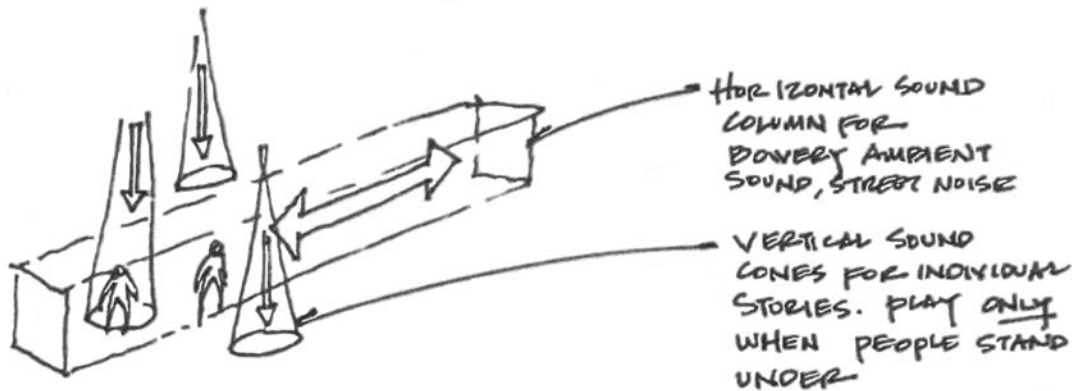
The visitor enters the room and sees a map made of rectangles of light on the floor, labeled Bowery, Prince Street, Spring Street, etc., with the New Museum’s new location in the center. There is the hum of sound but specifics are inaudible. Small dim caches of light populate the map. As visitors walk into the rectangle labeled “Bowery” it’s like walking into a column of sound – they hear all the ambient noises that evoke the Avenue, its industrial trucks, its chatter in Chinese. When they walk into the dim circle just north of the new museum, the light rises, and an audio clip about the Sunshine Hotel plays. The sadness of the voice mixes with the directional sounds of trucks and traffic to create a full audio image of place.

These clips want to get close to the ephemeral “spirit” of locations, to what people refer to as its energy, how it feels haunted through people’s collective experience. They will be collected, found, commissioned, or submitted. The wealth of audio material on the area, from existing radio documentaries from the Sunshine Hotel, to CityLore’s “American Talkers” series, will be augmented by new oral histories on the sea-change now occurring on the Bowery, or about the generations of artists from the Lower East Side. Audio “found sounds” will evoke the neighborhood’s daily rituals, from kids yelling outside the Catholic School on Prince Street in Nolita, to arguments in Chinese outside a restaurant supply store.

The media of light and sound could scarcely be more different from the pins and paper of *Memory Maps*, or the computer graphics of *City of Memory*, but



SONIC MAP VISUAL DIAGRAM



SONIC MAP SOUND DIRECTION DIAGRAM

Figure 3. Sonic Map concept.

the idea of anchoring experiences to places remains the same, as does the concern with the haunting of space by the collective experience of the public. The sources of these experiences have gotten richer. Sonic Map would not only have been dependent on submissions, but would have actively found, collected, and commissioned sounds as well. (A similar elaboration of sources also took place in the evolution of *Memory Maps* into *City of Memory*.)

Global/Local engaged a map to demonstrate the international ties made between the museum's neighborhood and the rest of the world by immigration, trade, and art making (see Figure 4). Barton's walkthrough for the proposal read:

Seeing a group of posters on the Bowery, I approach to find a map of different Global/Local connections, a map of the ways in which the surrounding block vibrates with the world's energies. Three different maps show connections of trade, immigration, and artistic influences. A label lists the museum's website where I can go to look, and input my own country of origin, as well as the influence that South African Musicians has had on my painting. I'm amazed to find there are some South Africans from that same city living a block from me!

Though this city is less haunted by memories than it is vibrated by the world's energies, it is still one filled with a wildly diverse public, and here this public ties

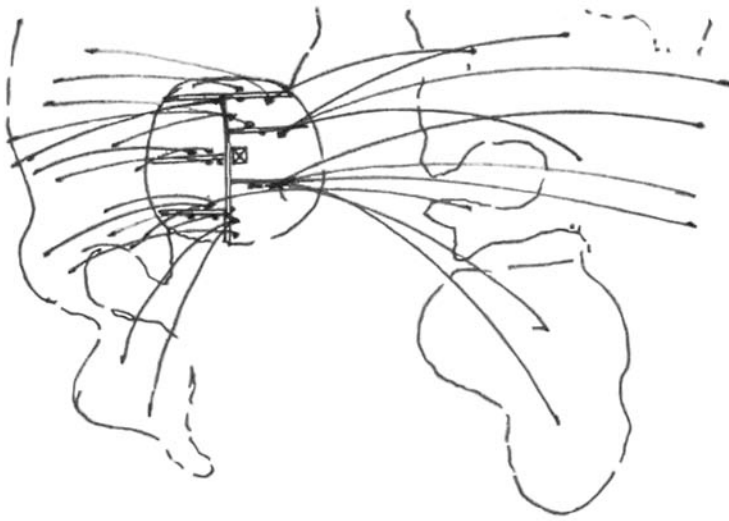


Figure 4. Global/Local concept.

the place to other places in the world, comprising, in some way, a conduit for the world's energies, which Barton imagines gushing out onto the streets of lower Manhattan.

A third project for the New Museum, Emotional Map, would have reversed the inside/outside perspective of Global/Local to get "inside" the neighborhood's "emotional landmarks" (see Figure 5). As Barton tried to describe it,

There would be two "views" of the digital map. The opening view would be a typical "neighborhood view" map, with different stories, photos, and anecdotes anchored to their locations. Filters could be applied to look at stories dealing with "love" or "sadness," or to create a map of "joy" for the area. The second, the "emotional view," would be from a

first-person perspective, as if standing at street level "inside" the map. Story icons would rise up in front of the viewer, or recede to a distant horizon beyond. Instead of being arranged by location, the icons would be clustered by emotional content, bringing stories of love from Nolita right next to stories of love from the Lower East Side. This would create new groups of stories, new neighborhoods of emotion that could be explored.

Aside from the "neighborhoods of narrative" idea that was to become a facet of *City of Memory*, what's interesting here is the new perspective on "here." In the earlier iterations, "here" was an irreducible place, almost a point, to which experiences, memories, sounds, and international relations could be attached. In contrast, in Emotional Map "here" becomes an Alice-in-Wonderland rabbit hole through which we can dive to look out onto a

wholly new landscape.

Doubtless there were many reasons these projects were not realized – figuring out how emotions would rescale the "inside" view in Emotional Map was just one of them, but two other projects suggest some of what was at stake in these proposals of Barton's. One of these projects was PDPal, in which New York artists Scott Peterson, Marina Zurkow, and Jason Bleecker successfully grappled with the comparatively simple problem of collecting certain aspects of the public's subjective reading of places online. Another was Barton's own Worldview in which he struggled with the problem of "emotionally rescaling" a projection of the world (see Figure 6).

In an interesting way, PDPal falls somewhere between a Lynchian "speaking landscape" and the radically affective space of Emotional Map. PDPal

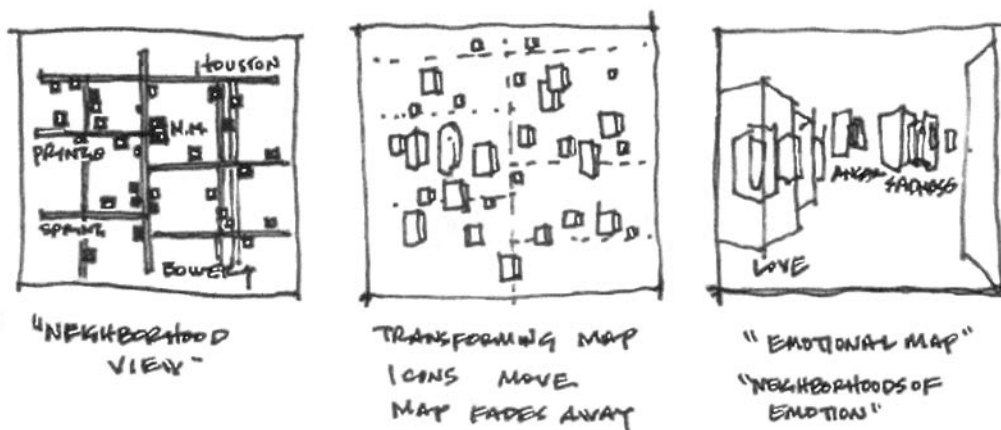


Figure 5. Emotional Map concept.

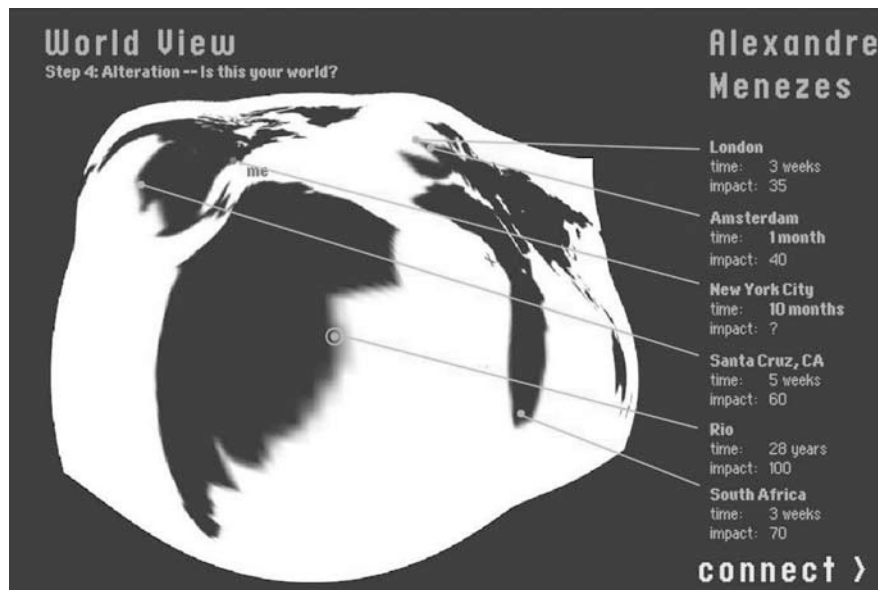


Figure 6. Worldview world map projection. (see page 80 for color version)

is definitely a site where you can deposit traces of your personal city and share it with others by making maps of it, but only by limiting yourself to the choices offered by the site. Actually there are several of these sites, one of the garden at the Walker Art Center, another of Minneapolis-St. Paul, and a third of Time Square. Each offers you a map and dialogue boxes with pull-down menus. These let you identify a place on the map with a "rubberstamp" that you choose from a palette, and then let you describe it by giving it a name, a rating and an attribute (both chosen from pull-down menus), and annotating it. You can do much the same for routes that you can trace with your mouse. Guiding you through the process is a cool but excitable Urban Park Ranger. On the palette of rubberstamps a jet takes off next to a crib, a Taj Mahal and a triumphal arch rub shoulders with tents and a teepee, unisex couples mix it up with the birds and the bees, with martinis, stoplights, baseballs, and test tubes, with guns, dice, candles, and clouds. It's like a pictographic definition of heterogeneity, yet it's presented in a numbered and lettered grid: the automatic rifle is at F-10, the scooter is at R-2.

The ratings you're allowed – *prudishly, tamely, lustily, faintly, visibly, boldly* – are not those of the telephone pollster, and they're not those of planners, architects, or psychologists either. The attributes include *bright, dark, crowded, comfortable, lawless, delicious, soggy, and haywire* too. It's like a survey, but a survey administered in a dream. Prompts ask: *What is closer, past or future? Map the place you miss, the places you imagine. What is noisier, Godzilla or a garbage truck? Map the beasts that roam your landscape. What is bigger, your cubicle or your cranium? Map your taste for consumption.*

You can install PDPal on a Palm™ PDA and use it

to map places while you're actually at them. Later you can download these annotations to the maps you've made on the web. There's no limit to what you can record on your map as you transform it dynamically into a "city you write." At the web site you can share your maps with others; this does achieve Barton's goal of sharing our personal cities with each other.

If PDPal somehow managed to get some aspect of the affective onto the map, Barton's Worldview tried to do the same with Emotional Map's idea of rescaling. Online between November 2002 and October 2003, Worldview was a "creative cartography" tool that attempted to "remap" the world from the user's "emotional point of view":

Through a series of questions, you mark locations of personal importance on a world map, which is then run through a "fish-eye" algorithm, distorting or exaggerating the globe to fit the user's "perspective." The user is then immediately invited to compare his or her map with the "most different" person in the database for comparison. Drawing inspiration from centuries of maps that were inaccurate, incorrect, or simply what was imagined to be true, Worldview takes the current accepted image of the world map, and makes it emotionally precise for each individual user.

Worldview makes numerous assumptions about the relationship between emotions and space, including the one that we would all use the same algorithm for "projecting" our world. Yet the very different worlds tossed up by the user and his or her "most different" mapper do make graphically apparent some kind of difference, and this at the very least provokes an awareness of what it might mean to say that we each inhabit our own individual worlds.

Emotional Map, PDPal, and Worldview have in common an interest in dissolving the "objective" city, or world, in the solvent of human affectivity, even as they commit themselves to sharing the "solutes" with others, which has the effect, in some sense, of "reobjectifying" them. The resulting personal yet public images obligate us to think about what we mean by "objective" and "subjective," as well as what we mean by "place," and even by "experience." The ultimate effect of Memory Maps, Global/Local, City of Memory, Sonic Map, Emotional Map, PDPal, and Worldview is to destabilize fixed social and spatial categories, all

common to maps, pushing us toward an extremely fluid and highly social view of existence. This is either very scary, or highly liberating.

The Chronoscope, Timescapes, City of Memory

Barton's more recent projects, for large institutional clients, are more conservative than Emotional Map, Worldview, or even Global/Local. Timescapes and City of Memory are both being developed for the Museum of the City of New York, while The Chronoscope was the concluding feature of the Times Square Centennial Exhibit (see Figure 7). A movie version of Chronoscope played on the Jumbotron for the Centennial New Years Eve in 2004, and it is permanently installed at the Times Square Visitors Center. The Chronoscope is more or less a sophisticated, "three-dimensional" locator map. Visitors "fly" through an abstracted "now" that is peppered with dated circles. Each of these circles frames a view that when selected is transformed into an historic photo of the past. The fleeting moment caught by the photo is then brought to life with sound and camera movement that turns it into a mini-documentary. For example, selecting 1945 brings up Alfred Eisenstaedt's famous shot of the sailor kissing a girl at Broadway and 43rd on V-J Day. The Chronoscope does deal with many of Barton's obsessions. Its Times Square is clearly haunted by people's collective memories, and is also vibrant with the world's energies. The map is alive and The Chronoscope is located at the site of its subject. At the same time the project lacks the polyvocal public that pushes so much of Barton's work over the top.

The same might be said of Timescapes, which Barton co-created for the Museum of the City of New York with writer James Sanders (see Figure 8). This three-screen production, narrated by Stanley Tucci, is a twenty-five-minute linear history of New York that uses maps to examine how geography has shaped the city's development. It features an aerial view of New York that evolves with the city, displaying patterns of urban development that are explored in other ways



Figure 7. Chronoscope. (see page 81 for color version)

on the flanking screens. Timescapes is elegant and instructive, the map is lively, the project is concerned with urban memory, and it should garner kudos for

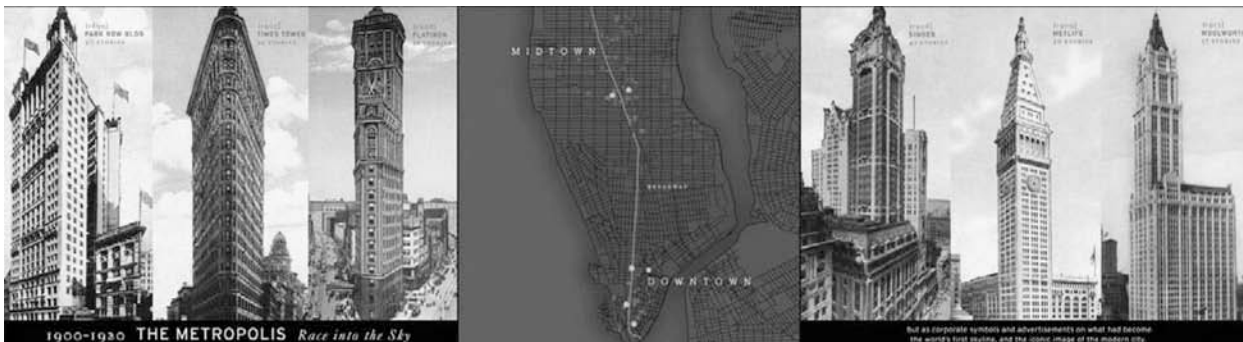


Figure 8. Timescapes. (see page 81 for color version)

Barton and Sanders, but again it lacks the polyvocal public, or indeed anything at all of the subjective.

But *City of Memory* pulls it all together in a triumphant synthesis of the personal, the institutional, and the public (see Figure 9). As we've already seen, Barton brought to *City of Memory* his longstanding interests in narrative, polyvocality, and the public, while the public brought the stories, which constitute its collective memory. What the Museum of the City of New York provided was the wherewithal, the institutional support that translates into a space where the public can flood Barton's animated maps with its unique and wildly multiple lives. Or rather spaces, for though there may be only one website, it is accessed at a physical installation in the museum, at street fairs, as well as online. The Museum also provides the cachet that has encouraged the participation of "cultural partners", CityLore and Place Matters, among others, which together with the Museum have contributed "place based content" that supplements the stories contributed by the public; stories which, it must be noted, are only added to the site after passing through curatorial filters. The contributions of the institutional partners and the curation do make of *City of Memory* something less than a collective unconscious, and this may make some people unhappy. But they also mean that the site has a deeper sense of history than it otherwise would, and a focus on the history of the city that permits its support by the Museum of the City of New York.

It is probably only through such a set of commitments, innovations, and compromises that you can make a map of a space as rich as New York that's alive and continuously morphing with explicit emotional resonance. Barton's work may not derive from the map art of the Surrealists, Jasper Johns, or Conceptual artists, and its affinities with the map art of the Situationists, while real, is muted. It is superficially related to Lynch's and Bunge's work in form, but not intent. It

is quite different from other contemporary cyber-based locative art, although it may ultimately share their political, world-making (or remaking) capacity. Barton's work also shares little with the traditional cartographer, whose work, mapping data extracted from the world by machines, ignores the performative capacities of maps. Barton's cartographic design explicitly invokes, and demonstrates *for* us and *with* us, public performance. In the process, Barton captures and maps the overlapping and interlaced narratives that together comprise the meaningful substance of the city, bringing life and humanity to the inert physicality of the roads, buildings, and other urban infrastructure that dominate "normal" maps.

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Much of this essay is based on material and quotations from Barton's Local Projects website (<http://www.localprojects.net/>, accessed April 2005), or from interviews conducted by Denis Wood (May 2005). Unless otherwise noted, quotations are from the website. The *City of Memory* will re-launch in early 2006 at <http://www.cityofmemory.org>.

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Information on the District Six Museum: <http://www.districtsix.co.za/>

Information on the International Coalition of Historic Site Museums of Conscience: <http://www.sitesofconscience.org/>



Figure 9. *City of Memory* concept. (see page ?? for color version)

Information on the Lower East Side Tenement Museum: <http://www.tenement.org/>

Information on PDPal: <http://www.pdpal.com/>.

Information on the Smithsonian Folklife Festival: <http://www.folklife.si.edu/>

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cartographic techniques

Cartographic Design on Maine's Appalachian Trail

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The Appalachian Trail (AT) is among the crown jewels of hiking trails worldwide. An opportunity to design the maps of the AT in Maine was more than just another job—as Maine residents and avid outdoorsmen we felt a personal responsibility, and honor, to take on this task. We embarked on a digital odyssey of sorts, manipulating terrain models and referencing existing paper sources, all the while designing with a strong humanistic element. These maps will be used to plan, attempt, and complete adventures in what some consider to be the most stunning trail landscape in New England. The project, similar to the trail, offered some unexpected challenges. This paper chronicles our journey along the design and production paths of Maine's Appalachian Trail.

Key Words: Appalachian Trail, map, design, terrain model, cartography

We had the opportunity in 2003 to redesign the seven-map series of the Appalachian Trail in Maine for the Maine Appalachian Trail Club (MATC). MATC was updating their 175-page guidebook, strip maps and hiker's overview maps. They contracted designers for each of these three tasks. Our role was to design and produce the color maps and elevation profiles, which comprise one side of the folded map, replicating the coverage of the existing series. We compiled available digital data and utilized paper map references using GIS and desktop publishing software. The finished maps were provided as Macromedia FreeHand files and printed on HopSyn by JS McCarthy printers in Augusta, Maine, spring of 2004.

Description of Project

These are strip maps, averaging 13 x 30 inches, folded to 6.5 x 3.75 inches, at a scale of 1:62,500; one inch to the mile. The seven map series begins at Katahdin,

the northern terminus of the Appalachian Trail (AT), and continue to the Maine-New Hampshire border. The precedent of so much detailed, existing trail information made coordination between the three representations (guidebook, abstract maps, trail maps) important, yet the different media made this difficult. The color trail maps show the AT in its truest representation as a solitary trail winding across the landscape. A terrain model and contour lines aid the hiker to understand the task at hand, or foot, as it may be. The black and white maps on the backside of the map are more abstract and designed to be read with sidebar text. The guidebook is yet another resource, without maps, representing the AT through the written word. Distance is the common thread between these works, and by referencing all three mediums the hiker is given the best chance of fully comprehending the AT, both spatially and historically, as they move through the landscape. Our task was to update only the color trail maps at 1:62,500.

Because of such precedent, MATC needed to replicate the size, scale and coverage of the existing maps produced in 1996. We were unable to contact the original cartographers for insight to the 1996 project—as such our assessment may not be completely accurate. The existing cartography had some legibility issues. Based on the date of 1996 we believe the map represents a hybrid workflow; the shaded relief was created using GIS technology, yet the text layers appear to be based on USGS film separates. All USGS text is one color (blue) and oriented in the default USGS north-up position. However, the AT maps are not all north up; many use a unique orientation based on the trail corridors relationship to the map sheet. This puts the text at angles contrary to the reader's orientation, combined with the use of blue italic text much of this information is difficult to comprehend. The terrain models are based on the Japanese cartographer Kitiro Tanaka's method of hillshading with illuminated contours. This interpretation uses yellow contour lines to imply sun angle on lit slopes, and gray contour lines for shaded areas. One visual deterrent to the Tanaka method is an appearance of terracing; the slope does not look continuous, rather a series of ledges and intermediate plateaus come to mind. The Tanaka method can be helpful in certain instances to visualize the landscape, but from a hikers perspective we felt the terracing was misrepresenting the Maine highlands (Figure 1).

Our approach was to utilize USGS and Maine Office of GIS (MeGIS) digital data, with National Park Service (NPS) digital data of the AT centerline and campsite/lean-to locations. Some of this data was in beta form, meaning it had not been verified, and was used cautiously with much cross-referencing. The terrain models were created using the USGS National Elevation Dataset (NED). Our first task was figuring out

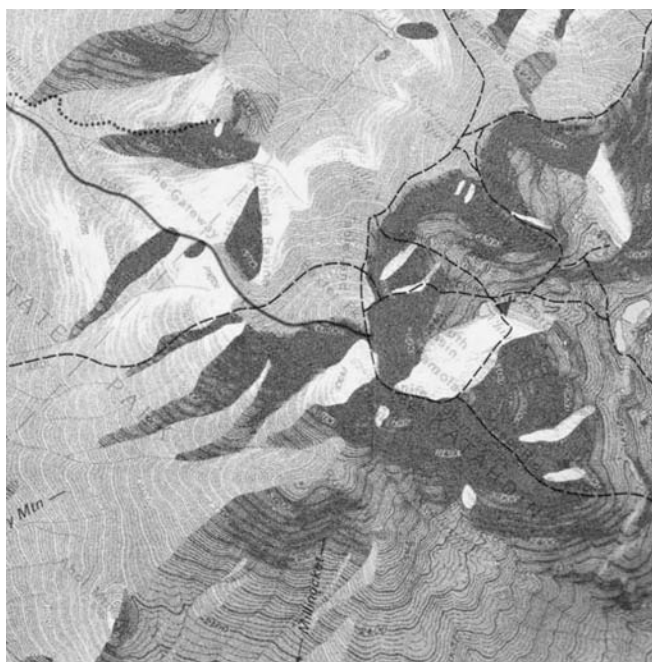


Figure 1. 1996 Edition focused on Katahdin, utilizing Tanaka method of illuminated contours (see page 82 for color version).

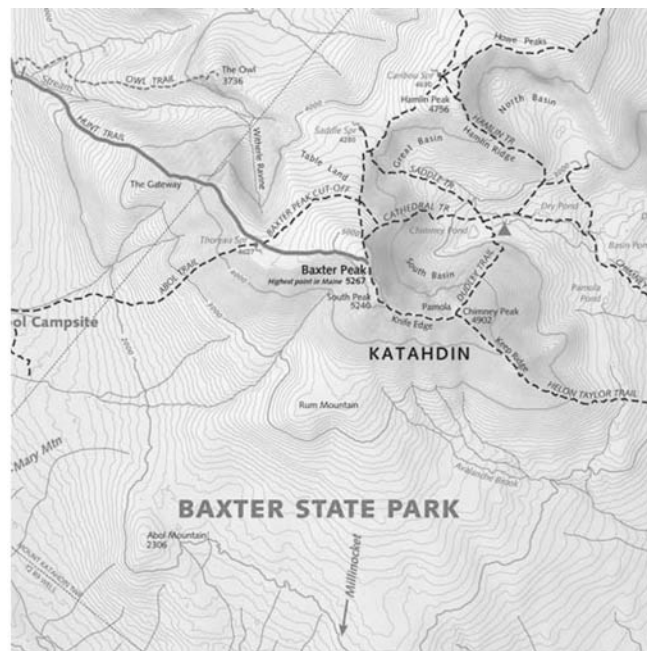


Figure 2. 2004 Edition focused on Katahdin, utilizing subtle hillshading and contours (see page 82 for color version).

the map extent (the four corner coordinates from the existing maps) and the rotation from north. This was a bit vague because the existing maps did not have a lat/long or UTM grid for reference. We compared the AT maps to other map resources to determine the corner points. This allowed us to crop the raw data within clipping paths associated with the coordinate extents, for both vector and raster (NED) resources. Each map is oriented differently based on the linear aspect of the trail: there is no consistent North-up flavor. We calculated the angle of rotation based on the existing north arrow and text elements that remained on a north-up baseline axis.

Digital Elevation Models

The terrain models were hillshaded individually based on their unique orientation to imply a sun angle from the northeast, a proven cartographic standard for maximum legibility and user cognition. Two raster images were produced and composited for the final relief; one a grayscale DEM (Figure 3) with hillshading, the other an elevation model utilizing a green to yellow to white color ramp (Figure 4).

Using Adobe Photoshop, these two layers were composited and edited (Figure 5). The opacity of the color model was adjusted to provide a subtle tinting that would not compete with the visual hierarchy of the vector and text data. The grayscale model was toned down using Photoshop's histogram controls to edit the color balance away from pure black, and

adjusted further using the brightness tools for integration with the color ramps. Multiple artifacts associated with the model need to be removed manually, most notably a corduroy artifact common among DEMs of Maine (Figure 6). The selective polygon tool and low threshold Gaussian blur worked reasonably well, although the offending pixelation could not be completely removed.

Vector Layers

One criticism of the original maps was poor contour line legibility (Figure 1). The combination of Tanaka hillshading and a 20-foot interval produced visually congested areas of steep slope. We generated contour lines at 50-foot intervals to increase legibility, and felt this was a useful measurement for hikers given the slope and height of terrain. We emphasized the 1000-foot contour breaks with a thicker line, similar to the traditional USGS style, but added custom placement of elevation text (Figure 2). Traditional USGS cartography places the elevation text at random across the map. In this case, we felt the hiker would be most interested where the elevation intervals cross the trail, and we placed the text accordingly. Borrowing from the British Ordinance Survey style of textual elevation terraces, we attempted to place the interval text in an ordered fashion along areas of continuous slope. Much of the contour line vector coverage was plagued with right angle artifacts resulting from the poor source data inherent in the DEMs (Figure 7). These were

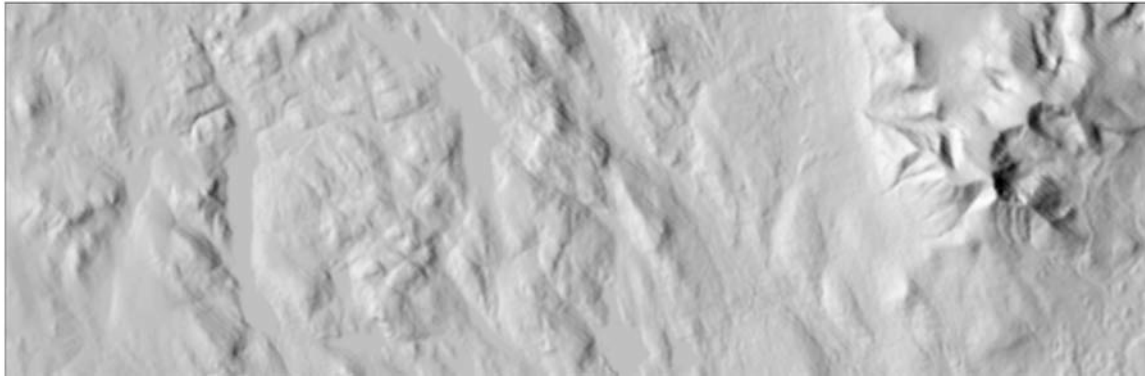


Figure 3. Grayscale DEM



Figure 4. Color Elevation (see page 83 for color version)



Figure 5. Composite image (see page 84 for color version)

removed manually in Freehand. The combination of using Photoshop to blur the effect on the raster model and manual node elimination in Freehand created an aesthetically pleasing result, although the task was tedious.

The majority of the vector data came from the State of Maine GIS depository (MeGIS), a web-based resource. Some data layers were missing or incomplete, and those we compiled manually from other sources. The AT centerline was cloned with a 100% yellow line set at a slightly thicker weight, which serves to highlight it as the primary piece of information on the map. This style was replicated from the previous cartogra-

pher's work. The road and trail data became a deletion puzzle requiring a tremendous amount of manual sorting. We estimate deleting 80% of the road and trail data provided by the USGS. The AT corridor traverses commercially owned paper company land which is actively being logged. Industry cuts a vast network of dirt roads to support logging operations, and these private roads dominate the landscape as a cartographic element. MATC does not show the majority of these roads unless they cross the AT. From a hikers perspective the existence of these roads is irrelevant, they are rarely visible or accessible from the trail corridor. This presented a cartographic conundrum; as mapmakers



Figure 6. Corduroy artifacts inherent in DEM data before editing in Photoshop.

we felt compelled to illustrate the known landscape, even though these roads may be inaccurate. MATC did not want to show this dense network of potentially irrelevant line work. Both arguments have validity, and we respected the client's wishes and deleted the roads.

A second piece of cartographic information was available from the National Park Service but MATC chose not to include. This is the polygon coverage of the federal lands that comprise the AT corridor. This is an interesting illustration of the AT due to the depth and breadth of the overall corridor. Instead of simply illustrating the trail itself, the actual corridor polygons serve to show the narrow areas as well as inclusion of individual lake shorelines and other property that has been preserved through federal acquisition. Without this piece of data, the reader has no reference of private or public lands unless a state park or similar public land area is traversed.

This geographer wonders what effect the true representation of roads and protected lands would have on public perception of the AT. The North Woods of Maine is steeped in myth as one of the last wilderness regions in the lower 48; in fact one section is called the Hundred Mile Wilderness. A glance at any highway atlas reinforces that myth: the lack of roads appears evident. But all that represents is a lack of paved, state maintained roads, when most of rural Maine is privately owned by pulp and paper conglomerates. A dense maze of dirt roads provides access to virtually every nook and cranny on both sides of the AT. The accuracy of these roads is vague at best because once logging operations pass through a region, the undergrowth may reclaim the roads, and public domain data may not reflect the current landscape. Although



Figure 7. Jagged contour lines resulting from corduroy effect on DEM data.

the hiker may not need this information while hiking, the environmentalist is easily fooled, perhaps envisioning a true wilderness area. By deleting the roads, the AT corridor appears insulated and protected, when in reality the logging operations cut within inches of the narrow buffer zone flanking the trail. Illustrating the harsh proximity of these roads may serve to increase the grassroots protection of public lands in Maine, and not hinder the aura of the AT.

Text Layers

We created an average of 17 text layers, each utilizing a separate style to maximize legibility. Our assumption was that features directly on the trail are of most importance to hikers; less important were places not accessible, and often not visible, from the trail corridor. This sort of visual hierarchy was not part of the previous map design, and reflects one of the most creative and utilitarian aspects of digital map design. We curved the text as much as possible to coordinate with physical features to add an organic aesthetic to the design. Following the previous cartographer's design, the use of red text keys elements specifically relevant to hikers; campsites, lean-tos and visible peak names with directional arrows comprise the majority of these layers. The red text is problematic on the green background so a text halo was created to lift the element off the page. A halo is created by cloning the text element, converting it to outlines, increasing the stroke, changing the color and placing on a separate layer. Some illustration software offers other ways to do this but they can be unreliable at press. The method described here is consistent on multiple output devices. A critical navigational aid in this part of Maine is township names, which were inconsistent on the previous edition. We included the political line and text in a legible, but not distracting, design across the series.

Early conversations with MATC suggested the addition of a lat/long/UTM grid for GPS users. Upon closer discussion MATC decided against providing this information citing concerns it would encourage short cuts along the trail. Although we do not have empirical data to support that concern, we did agree the AT is a well marked path that one does not need compass or GPS skills to navigate, hence no real need for a coordinate system on the map. A criticism of this decision still lies in the isolated cases of Search and Rescue (SAR), where a hiker may provide GPS coordinates from handheld unit (or transparently provided as cell phone 911-technology) and the searchers would not be able to rely on MATC maps for extraction.

Elevation Profiles

The elevation profiles were a separate task and one that we did not create from digital data as intended. We spent quite a bit of time analyzing data, writing and rewriting new programming scripts to adjust for error, but with limited success. Our computer-generated models produced slightly different profiles than the previously published models. We found multiple contradictions but could not determine which was truth. In places the profile does not reflect the exact elevation, but the line on the map may also be slightly off as it crests a rise or traverses a saddle. The GIS calculated a profile that averaged three miles less than the existing model (over a 25 mile section). Because the MATC publishes a detailed guide that is correlated to the existing profiles, we ended up scanning and tracing the current profiles and adjusting typography to improve legibility, but the overall slope and line is unchanged from the previous models. MATC gathered the info over several years using a rolling survey wheel on the trail; given the legacy and volume of scrutiny the trail receives we decided to simply trace the existing profiles for publication. However, we believe the truth lies somewhere between the two mediums.

The measured distance collected by a rolling wheel is effectively a line through the landscape at a scale of 1:1. While this information is an excellent resource for hikers, it would be impossible to show that much detail on the map and impractical to keep that much detail in a GIS. After overlaying the GIS version of the trail on a USGS elevation model, a very detailed profile of the trail was generated, but with one major drawback: the calculated distance along the trail was shorter than the actual trail distance.

Since the digital elevation data is a generalized representation of the terrain, the calculated distances are going to differ from the actual distances along the trail. As a result, the new profile based on the computer model was of no use despite the higher detail in the elevation profile. The differences in distances were irreg-

ular, so a simple scaling of the trail, graphically, could not produce a profile that matched the original. This problem of the measured ground distance not matching the GIS distance will always remain—even with a more detail trail location that could be created using a pack survey grade GPS unit. Millions of GPS points would be required to attempt to match the measured distance captured by a survey wheel, and even if such a data set were created, it would be impractical to keep such information electronically at this time.

One solution may be to include points along the trail with known distances and spread out the variance between the two known points. This would effectively hide the difference between the measured distance and the calculated distance. The differential would be minimized if it were spread out across the entire trail, so that a hiker would not notice it visually on the profile length and it would provide more elevation detail than the generalized profiles currently plotted by hand.

The existing MATC elevation profiles utilized an artistic abstraction that suggests lake and stream locations as well as side trails and road crossings. These are represented as shapes and forms floating in space above the profile, or obliquely distorted alongside. Our attempts to utilize the detailed lake polygons in a digital design world (using perspective and other warping tools) still provided a questionable aesthetic. They were more detailed, but not necessarily more useful. We were unable to significantly improve upon the abstractions, and simply replicated the generalized style created by the previous cartographer (Figure 8), adding our design modifications primarily through text and subtle aesthetics.

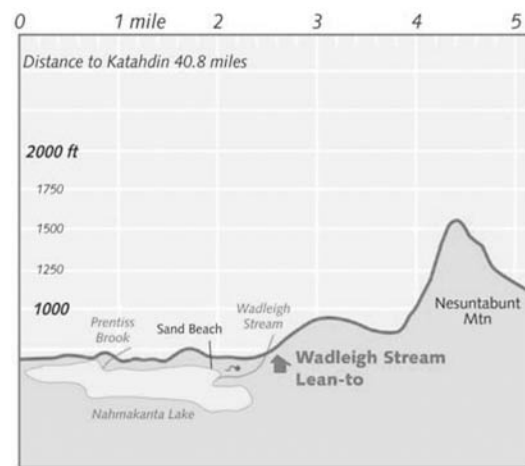


Figure 8. (see page 83 for color version).

Aesthetic Design

As the project progressed we were able to improve upon the overall look and feel of the maps. Designing a continuous series of maps has inherent difficulties. Design decisions made on one map may not be applicable to another; especially with the diversity of terrain the AT traverses in Maine. The northern terminus of the AT at Kathadin (5267 feet) drops to 600 feet within ten miles. No other map in this series illustrates that much vertical rise. Some traverse low wetlands, while others follow ridgelines. We wanted a consistency across the series, but wrestled with the design along the way. Creating an effective and pleasing look and feel of the colorized terrain model and contour lines involved much trial and error. Overall we believe we created a highly effective series of maps beneficial to the hiker, first and foremost, but also helpful to anyone interested in visualizing the AT corridor in Maine. The relief models are subtle; yet represent the undulations of the landscape, with contour lines for added reference. The AT is the most dominant piece of information, followed by the designated lean-tos and campsites. A hiker plans his or her day by the distance and topography between campsites. It was this mindset that governed our design decisions. As I worked on the map, I found myself vicariously hiking the trail; often resting as I came to specific attributes like a lean-to. The design should be equally effective for studying the maps around a kitchen table or huddling along the trail in a stiff wind and rain, perhaps aided by a flashlight. This is the mark of a truly effective design, one that bridges the artistic vision with pure utilitarian use; a map equally at home framed on the wall or crumpled up in the back pocket of an exhausted hiker.

Postscript: The 2005 ACSM/CaGIS 32nd Annual Map Design Competition recognized this series of maps with an Honorable Mention in the Recreational Map category.

See <http://www.acsm.net/cagis/04mapwinners.html>

cartographic collections

Illinois Historical Aerial Photography Digital Archive Keeps Growing

By Arlyn Booth, Map Coordinator and Tom Huber, Map Librarian

The Illinois State Library Map Department

The Illinois Historical Aerial Photography Digital Archive, representing the earliest Illinois statewide aerial photography acquired during 1938-1941 (Figure 1), has grown with the addition of twenty more counties. Forty-five counties comprising a total of 15,921 aerial photographs are now accessible through the Illinois Geospatial Data Clearinghouse located at <http://www.isgs.uiuc.edu/nsdihome/webdocs/ilhap/>. (Figure 2)

The aerial photographs for the latest 20 counties added to the web site, most of which are situated adjacent to the Illinois River, were funded by an Institute for Museum and Library Services (IMLS) grant to the Illinois State Library (ISL) and the Illinois State Geological Survey (ISGS). The ArcIMS interactive map service web pages (Figure 3) have been significantly updated with new layers aiding search strategy, including the USGS 7.5-minute topographic map index, USGS Digital Raster Graphic (DRG) files, and the 1998-2001 USGS Digital Orthophoto Quarter Quadrangle (DOQQ) imagery. Record-level metadata is available



Figure 1. A July 27, 1939 LaSalle County photo.

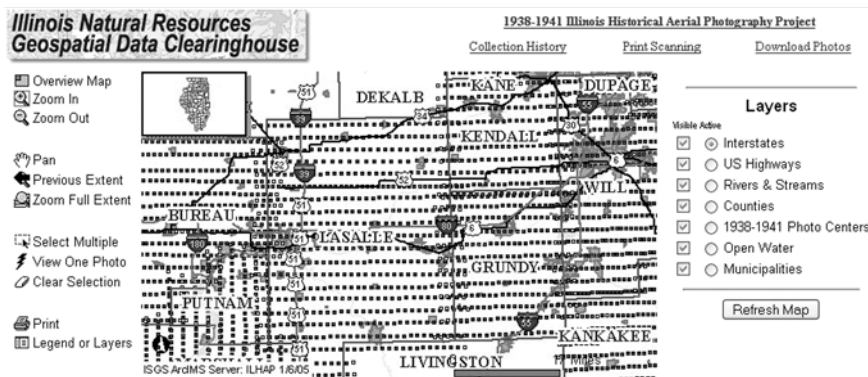


Figure 3. The ArcIMS interactive map.

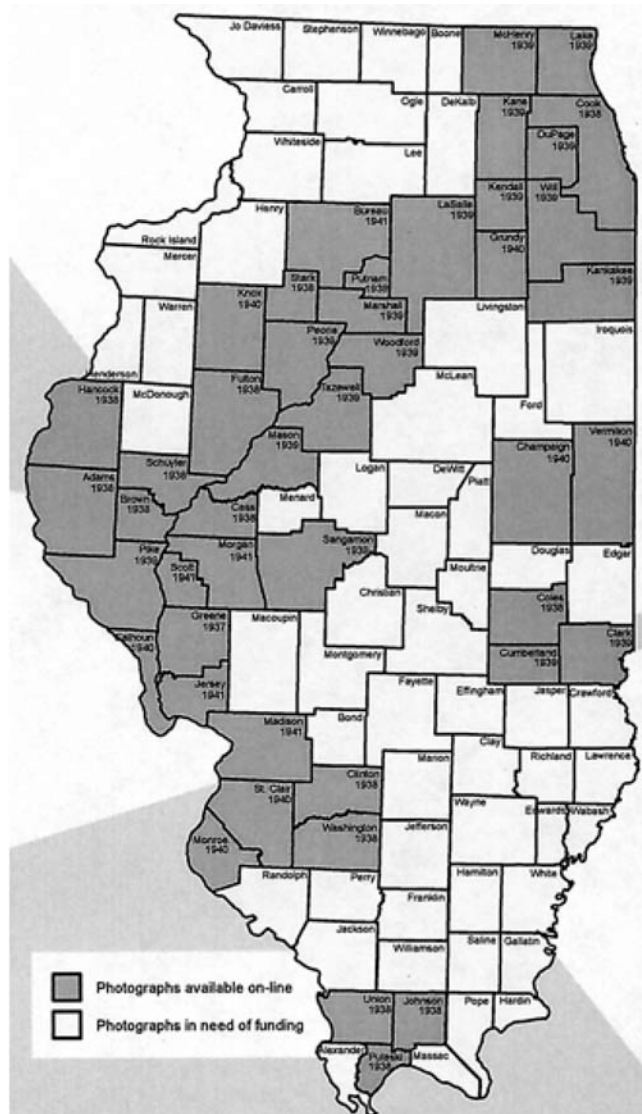


Figure 2. The 45 counties now on the Internet.

for each aerial photograph. Access and search of the aerial photography is also provided via text-based web pages for each of the 45 counties.

Scantech Imaging of Champaign, Illinois scanned the 7 x 9 and 9 x 9 inch paper prints, acquired from various aerial photography collections around the state, at 750 dpi in an 8-bit grayscale range, using a Crosfield 646IE drum scanning system. The county indexes were scanned on a large-format document scanner and have been georeferenced to serve as the basis for accessing and searching the digital archive.

The individual aerial photographs have not been georeferenced in order that they may serve as digital surrogates of the original prints, and so that stereoscopic viewing capability is maintained. All of the aerial photographs and county indexes are available for free download on the website. The aerial photographs are compressed into MrSID-formatted images, with an ExpressView Browser plug-in available on the web site for download. The original uncompressed TIFF images will be available on CD-ROM from ISL in the future.

ISL and ISGS hope to attract funding to eventually scan the oldest aerial photography for the remaining 57 Illinois counties. The goal is to preserve the oldest statewide aerial photographs first, since their original negatives no longer exist and little or no preservation methods are in place for the existing photographic paper print collections. When the 1938-1941 aerial photographs for Illinois are preserved, it is hoped that efforts can then turn to making later flights accessible via the Internet.

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reviews

Historical Atlas of Central America

By Carolyn Hall and Héctor Pérez Brignoli

Cartography by John V. Cotter

Published in 2005 by University of Oklahoma Press

336 pages, 140 color images, 405 color maps

\$34.95 softcover

ISBN 0-8061-3038-5

*Reviewed by Mary L. Johnson, Technical Writer, Remington & Vernick Engineers, Haddonfield, New Jersey
www.rve.com*

The *Historical Atlas of Central America* provides a unique look at the history of Central America by linking its political, social and economic development over the past five centuries to its distinct geographic characteristics. Central America's tantalizing location as the narrowest point of passage between two great oceans has made it an object of intrigue and contention for much of its rich history.

The authors, Carolyn Hall, retired Professor of Geography at the Universidad de Costa Rica, and Héctor Pérez Brignoli, Professor of History at the Universidad de Costa Rica, bring a combined total of over fifty years of academic experience to this authoritative collection of essay-style subchapters. John V. Cotter, Assistant Professor of Geography at Southwestern University in Georgetown, Texas, provides the integral cartographic support needed to create a truly comprehensive reference volume that can be useful for years to come.

The book is divided into five generous chapters, and each chapter is further broken down into approximately twenty-four two-page subchapters. Each subchapter is essentially a self-contained essay on a particular aspect of the chapter's subject matter and includes extensive maps, charts and photographs for in-depth illustration and reference.

Chapter One, Environment and Territory, deftly paves the way for what follows by introducing the reader to the pivotal location of the Central American isthmus, and by providing a general overview of its varied terrain, resources and climate. Through maps as well as text, the reader is imbued with a thorough understanding of how these combined factors have encouraged exploration and settlement by a variety of cultures throughout the centuries.

Although inhabited for many years prior to the arrival of European explorers, our geographical understanding of Central America begins with the Spanish

expeditions in the early sixteenth century. The first expeditions to Central America were for the purpose of colonization, but beginning in the eighteenth century explorations were conducted strictly to gain knowledge of the region. It is from these later French, Spanish, British and American adventurers that we learn about the mountainous interior, the coastal lowlands, the volcanic activity and the tropical rain forests, each locale with its own distinct climate and culture. Generous maps and illustrations show the reader this land of contrasts, including the many areas of seismic activity along the isthmus. The varied geography of Central America seems to have had as much influence on the region's cultural diversity as any of the explorers that have tried to conquer or otherwise subdue it. Maya, Hispanic and Caribbean cultures continue to co-exist there today.

Chapter Two, People and Places: The Patterns of Cultural Change, examines the cultural diversity of Central America more fully; beginning with a brief overview of the region and the arrival of the first settlers who crossed the Bering Strait into North America and ultimately migrated southward. Various Indian cultures and lifestyles were well established prior to the Spanish Conquest, but experienced a gradual decline thereafter. The Maya civilization is examined, and this subchapter includes a map of principal Maya archeological sites.

As the sixteenth century progressed, the Spanish Conquest occurred. This was not an instantaneous process, but was hindered by rugged and unfamiliar terrain, fragmented communities that required individual defeat, and even rivalry among the Spanish factions themselves. The maps for the Spanish Conquest trace the routes of exploration and occupation as well as the timetables for its progress. The influence of Catholic missions on the cultural whole is also explored in this chapter. I was particularly intrigued with the subchapters discussing the population growth, both collectively and by race. These subchapters are illustrated by a sobering progression of maps.

In Chapter Three, Colonial Societies, the reader is taken chronologically through the period of Spanish Colonialism, beginning in the sixteenth century and moving through the mid-eighteenth century. The maps and associated text examine the effects of religion, trade, Indian culture, pirates and even the American Revolution on Central America's development. Piracy and wars kept much of the population inland and away from coastal shores during this period. The inland areas sheltered the Spanish towns, Indian villages and agricultural pursuits of the region. Transportation systems began to develop. As early as 1530, thoughts of a great canal that would one day connect the Caribbean Sea with the Pacific Ocean were emerging. Maps show the reader what crops and livestock were being

cultivated for food during this period, as well as other products being raised for export and the routes that would bring them to market. During this time period, natural dyes were highly prized by European markets. The export of indigo dye in particular moved Central America onto the global scene.

Struggles for land and power between Spain and England often spilled over into Central American territory. Fortifications and regular military forces were established to protect Spain's interests. Beginning in 1585 and continuing sporadically through much of the eighteenth century, the English worked to found colonies in nearby Jamaica and the Bahamas, from which they could oversee their commercial pursuits on the Central American isthmus. At one point in 1762, English forces occupied Havana, Cuba to the east and Manila, Philippines to the west, but their attempt to establish a ground route across southern Nicaragua to link the two was unsuccessful. Spain ultimately remained in control of Central America throughout the entire period.

Chapter Four, *The Formation of National Societies*, begins in the mid-eighteenth century as changes occurring throughout the Western World ultimately impact Central America as well. Political revolutions created free societies in France and the United States, and the move toward industrialism changed the way goods were manufactured and sold. Central America lagged behind the surrounding nations in modernization to some degree, but still sought its rightful place in the new world order. Independence from Spain was seen as the key to the region's future.

Political independence occurred in 1821, but did not bring the prosperity that was once envisioned. The next few decades were spent infighting to establish alternate governments among the former Spanish provinces. Attempts at a Federal Republic failed, and economic difficulties ensued during the ongoing struggle for independence and identity. The maps in this chapter continue to keep the reader apprised of changes in boundaries and economic production that occur during these critical years. The meanderings between conservative and liberal rule are extensively covered, as well as the coffee and banana economies, and the establishment of better trade routes between regions and countries. But even as Spanish control dissipated, other countries, such as England and the United States, continued to exert their influence on Central America well into the twentieth century. This culminated with the opening of the Panama Canal, and the various treaties surrounding its control.

Chapter Five, *The Challenge of Development*, takes the reader into the twentieth century as the Central American states moved toward autonomous governments. Throughout the 1920s and 1930s, social rebellion began to reshape political ideologies. The outcome

of World War II encouraged the emergence of democratic reforms and participation in the political election processes. As Communism began to threaten Central America, the United States intervened, often through support for military regimes that promised anti-communist rule. The defense of the Panama Canal also became a high priority for the United States.

The second half of the twentieth century saw increased urbanization and economic growth in Central America through industrialization and divergent exports. But change did not come easily. Poverty remained an issue throughout this period, often fueling uprisings and guerilla activity, including the Sandinista Revolution. The 1980s were particularly volatile, sending more than a million refugees to neighboring states and even abroad in search of peace and safety. The end of the twentieth century saw Central America struggling with overwhelming environmental issues, such as deforestation and its ensuing erosion and flooding. The book leaves its readers with the understanding that Central America, whatever its future may be politically, will continue to play an important role in world events through its very location, astride two great oceans.

The *Historical Atlas of Central America* includes extensive notes organized by chapter, a helpful glossary of terms and a detailed index. Complete information has also been provided regarding preparation of the original maps illustrating this volume.

I would highly recommend this book to anyone with even a passing interest in Central America. The *Historical Atlas of Central America* provides a complete feel of the region in every sense, as if you could turn it over and over in your hands and examine it closely from every angle. It manages to be comprehensive without being boring. The chapters are very well organized, and each subchapter is presented in stand-alone format, making the book equally suitable for casual browsing or in-depth reference purposes. The maps are clear and well constructed, perfectly complementing the vivid text. Even the presentation style of the book is pleasing, with its off-white pages featuring cartographically inspired borders and fonts.

The main theme throughout the book is how pivotal Central American geography has been to the history, development and cultural diversity of its people. It will be interesting to see how this same geography will influence the region's future.

Mapping and Imagination in the Great Basin:

A Cartographic History

By Richard V. Francaviglia.

Reno, Nevada: University of Nevada Press, 2005.

xviii, 231 pp., maps, photographs, notes, bibliography, cartobibliography

\$44.95. Hardbound

ISBN 0-87417-609-3.

*Reviewed by Russell S. Kirby, PhD, MS, FACE
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In this engaging, well-illustrated monograph, Richard Francaviglia traces the evolution of spatial knowledge of the region now known as the Great Basin in the western United States as documented through careful examination of the archival cartographic evidence.

That the author chose a challenging subject matter for his book is an understatement – even with more than four centuries of exploration, atlases, and maps for use as guides, most Americans have only the haziest concept of exactly where the Great Basin is or what defining physiographic characteristics set it apart from other North American regions. That Francaviglia succeeds so admirably is a testament to his painstaking research, organizational skills, attention to details, and highly readable prose.

The book consists of seven substantive chapters, with an introductory chapter to set the stage and a concluding chapter reflecting on the role of cartographic history for the human experience. The central chapters successively explore the region's history through an examination of maps and atlases, beginning with the period prior to 1700. Chapters then focus successively on the era of Spanish exploration during the 18th century and the early nineteenth century, with three chapters to cover the remainder of the nineteenth century and a final chapter bringing the story from 1900 to the present.

The region we now refer to as the Great Basin did not at first exist as a region in any formal sense. Appearing in the earliest maps as an empty space with stylized features, it has, as a regional entity, undergone a series of transitions: from an unknown or empty quadrant into a zone of exploration and discovery (for potential western passages and natural resources), into a theatre of geopolitical conflict, into a landscape explored for transcontinental railroad routes, mineral deposits, and the quest for scientific knowledge, and ultimately, in the twentieth century, into a region rapidly traversed by air travelers and motorists who make infrequent stops at national parks, scenic vistas and regional amenity centers. Layered on this history are the interactions of explorers and settlers (especially, beginning in the 1840s, in the expanding area of Mormon culture and settlement) with native cultures

and the spatial knowledge thereby transferred.

Grand historiographic generalizations such as the Turner thesis do not guide Francaviglia's discussion, nor are there persistent myths that he seeks to refute through his careful analyses of the cartographic record of the region. His study contributes significantly to the monographic literature on the history of exploration and discovery, and it integrates research by historical geographers, cartographers, and historians of science with primary source materials and map interpretation.

One interesting observation Francaviglia puts forward is that the Spanish knowledge of the Great Basin region was probably far greater than the information divulged to European cartographers prior to the 19th Century. It is curious that, although this study is strongly grounded in extensive archival research in major libraries and holdings of map collectors, the author did not explore historical collections in Mexico City or Madrid that might have provided evidence to substantiate this claim.

The book is well illustrated, with numerous photographs, several maps, and many reproductions of historical maps. Several of the latter include additional detail maps of areas of special interest, although one wonders in some cases whether it was necessary to reprint the full map also at a smaller scale. The monograph received careful editing, and includes notes, bibliography, and cartobibliographic references as well as an index.

This book should take its place alongside classics such as John Logan Allen's *Passage to the Garden* (1974), the works of William Goetzmann on the exploration of the American West, and related studies on the history of science in the age of discovery. As one reads this highly integrative book, however, it is likely that the inquiring mind will wander in any of several directions, leading one to wish to read more.

visual fields

Catalogue of Map Artists

Compiled by Denis Wood, Independent Scholar, Raleigh, NC

This catalogue is largely based on the contents of ten map art exhibitions, as well as on a handful of books that deal with a significant number of map art pieces. Though it is without question the most extensive catalogue of map artists so far published, it makes no pretense of being complete. Its role is to document the fact that a lot of artists work with maps, and to provide a foundation for the work that remains to be done.

The artists have been arranged alphabetically. Where we have been able to determine these, we have provided, in parentheses, where the artist *lives/works now or predominantly* (in any event, not the place of birth or nationality), followed by the *date of birth* (and where appropriate, death). There is a brief description of artist's work, followed by a key to the sources. These are listed at the end of the catalogue.

Only the lightest culling has been attempted, but artists working today with but a single known piece of map art in their oeuvre have been less likely to be included than those with many or than those artists of the relative past whose work may have influenced the work of those active today.

As a work in progress, all additions, corrections, emendations, and suggestions are welcome, and may be addressed to either of the editors or any of the authors.

- 1) Australian Aboriginal paintings – (Australia, ...) raise all kinds of questions: are they maps? are they art? They are unquestionably beautiful artifacts, are currently sold in art galleries, and are widely regarded as maps. Individual map artists such as Polly Napangardi – who painted *Wild Orange and Bilby Dreaming* (1987) – or Barbara Weir – who painted *My Mother's Country* (1997) – undoubtedly deserve individual artist entries.
- 2) Walter Anderson – (Mississippi, 1903-1965) painted at least the *Map of Horn Island* (c. 1960): **18**
- 3) Art and Language [Terry Atkinson/ Michael Baldwin/ others] – (Britain, 1939- , 1945-), a widely influential British Conceptual Art collaborative, in 1967 made the *Map to not indicate ...*, where the ellipsis here indicates a long list of places *not shown* on the lithograph where, however, you *do* find Iowa and Kentucky. Art and Language described two other maps: *Map of a thirty-six square mile surface area of the Pacific Ocean west of Oahu*, and *Map of itself*. All three maps were apparently made by Atkinson and Baldwin, but prior to the founding of Art and Language: **6, 10, 11, 17**
- 4) Lisa Austin – (Maryland, ...) exploits "the poetry" of maps in installations such as *My Maryland*: **9**
- 5) Mojdeh Baratloo and Clifton J. Balch – (... , ...) produced *ANGST: Cartography*, initially in 1982 (for a group exhibition, *The Monument Redefined*), in 1988 (for an exhibition at New York's at P.S. 1), and in 1989 (as a book published by SITES/Lumen, New York); with photos, images of Gowanus Canal drawn from Sanborn maps, and a text from Italo Calvino's *Invisible Cities*
- 6) John Baldessari – (Los Angeles, 1931-) a Conceptual/book artist since the mid-1960s, in *The California Map Project, Part 1: CALIFORNIA* (1969), Baldessari constructed the letters in the state's name *on the ground* as close as possible to the site the letters occupied on a National Geographic map, "to see the landscape as a map": **10, 17**
- 7) Barford/Carter/Klauser – (London, 1977-, 1979-, 1977-) are Barnaby Barford, Kirsty Carter, and Andre Klauser, made bar accessories that included, in an interesting projection, a battleship game-map napkin, which is about "playing battleships in a smart cocktail bar," in, needless to add, London: **16**
- 8) Lane Barren – (LA, 1950-) manipulates aerial photographs to propose utopian alternatives:
- 9) Carol Barton – (Maryland, 1954-) makes art books out of and utilizing maps to deal with issues involving travel, space, and time: **14**
- 10) Jake Barton – (New York, ...) has mounted *Memory Maps* on the Washington Mall; and *City of Memory, WorldView, NY Observers on the Web; Digital Panorama* for the City Museum of New York is a work in progress
- 11) Leo Saul Beck – (... , ...) makes three-dimensional topographic maps out of pieces of plywood cut to outline shapes found in the wood: **18**
- 12) Lutz Becker – (London, 1941-) does collages on maps related to his pre-war map of Berlin, and how it was working with that mental map while growing up in a city of ruins: "maps contain our natural or urban environment in precise measure, but also ... the changeable topography of our imagination": **16**
- 13) Mark Bennett – (Los Angeles, ...) is a postal worker who makes maps of the settings of the sit-coms he's watched for years: **18**
- 14) Lee Birkett – (London, 1972-) stitches city plans and maps of places he has lived or visited on sheets and pillowcases: "the mapping of a city becomes a metaphor for the illogical sprawl of one's life": **16**
- 15) David Bligh – (Chestnut Hill, Massachusetts, ...) draws places as models or maps for emotions and memory: **19**
- 16) Joe Bodolai – (U.S. expatriate living in Canada, ...) compiled the survey of map artists in the *artscanada* issue devoted to map art, but is a Conceptual artist concerned with place in his own right, who uses maps as well: **2**
- 17) Alighiero e Boetti – (Italy, 1940-1994) influential Arte Povera member, made a lot of maps, widely reproduced, mostly of the world, often with flag imagery, sometimes out of cloth; as well as gazetteers and other geographical work; including *Duodeci formi di giugno* (1967), in which he etched the outlines of territories on 10 June 1967, and a *City of Turin* (1968) in which he wrote the names at their residences of all the city artists known to him: **1 (3/02), 7, 10, 11, 12, 17, 18**
- 18) Ave Bonar – (Austin, 1948-) is a photographer who uses maps to frame and contextualize her work, by pinning the photographs to maps as in her *Photological Travel Map of the Western United States* (1990) and/or by annotating the map as well as in her *Clinton Farm Map* (1994): **8**
- 19) Veronique Bour – (Barcelona, 1968-) makes collaged and painted maps of the world that portray movement: of birds, butterflies, intrepid adventurers: **16**
- 20) Robert Bowers – (Toronto, 1945-) a Conceptual artist concerned with place, and identified by Bodolai (which see) as one "whose work has been thoroughly pervaded with a consciousness of the issues of mapping," but without, as far as I can tell, making any maps, as in *Detail* (1969) or *Search* (1971): **2**
- 21) Rolf Brandt – (London, 1906-1986) the brother of photographer Bill Brandt, in the 1970s "made a series of small collages using maps," in the form of, say, a person running: **16**
- 22) Claude Breeze – (Canadian, ...) an important expressionistic landscape painter whose *Canadian Atlas* series pushed through more or less traditional 20th century landscape phases into one more strongly influenced by map iconography; with map imagery surging in his *Town Corner* series; and dominating in paintings like *Canadian Atlas: Pearly Channel* (1973): **2**
- 23) Marcel Broodthaers – (Belgium? Germany?, 1924-1976) revised numerous maps to celebrate/make hash of the systematization of them all: **7, 17**

- 24) Stanley Brouwn – (Netherlands, 1935-) a Conceptual artist, asked passersby to draw him maps to a given location which he assembled and published as a book, *This Way Brouwn* (Verlag Gebr. König, Köln-New York, 1961) among other participant map pieces: **2, 17**
- 25) Jason Brown/Eddo Stern – (LA, 1970- , 1972-) have made a text-based multi-user environment-fantasy based on a map of the LA freeway system that the user navigates as conditions change: **15**
- 26) Tara T. Bryan – (Newfoundland, 1953-) makes unique landscape art books combining images of landscapes with fragments of maps
- 27) David Bunn – (Los Angeles, 1950-) works extensively with maps and map projections, making map-involved objects, photographs, paintings, and videos, as in *Projection* (1984) and *The Torrid Zone* (1987) : **8**
- 28) Jane Bush – (London, 1955-) makes collage maps: **16**
- 29) Waltercio Caldas – (Brazil, 1946-) in the early 1970s (at least) made maps of places by drawing hints of parts of outlines: the map of the place becomes no more “legible” than our image of the people living there: **7**
- 30) Jonathan Callan – (London, 1961-) works extensively with maps which he dismembers, frames, manipulates: **16**
- 31) Joyce Campbell – (LA, 1971-) a New Zealander currently working in LA, Campbell captures, on photosensitive paper the paths of bacterial colonies which she has cultured from samples of soil and organic matter collected from different LA neighborhoods: **15**
- 32) Lewis Carroll – (English, 1832-1898) who was actually Charles Dodgson, made a map for *The Hunting of the Snark*, which was perfectly blank; also described maps made at a scale of 1:1 in *Sylvie and Bruno*: **18**
- 33) Center for Land Use Interpretation – (LA, 197?-) mounts elaborate exhibitions documenting, and road trips exploring, land use through photographs, maps, and other media (very cool outfit): **15**
- 34) Mel Chin – (North Carolina, 1951) does installation map pieces such as *Inescapable Histories* (1988), about Palestine and Israel, and *Degrees of Paradise: The State of Heaven* (1991), about the Kurds, among others: **12**
- 35) Christo and Jeanne-Claude – (New York, 1935-) make environmental art projects involving maps as planning, fund-raising, approval, construction, and appreciation documents, from *Valley Curtain* (1970-72) through *The Gates* (1979-2005): **3, 4, 10, 17**
- 36) Greg Colson – (California, 1956-) has made maps of urban American street systems out of scrap wood, metal: they’re reliefs or shallow sculptures: **7**
- 37) Constant – (... , ...) , an influential Dutch Situationist, made a map, *New Babylonian Sectors Superimposed upon a Map of Amsterdam*, c. 1963, which resembles in structure the maps Debord made with Asger Jorn: **11**
- 38) Houston Conwill – (American, ...) in collaboration with Joseph de Pace and Estella Conwill Majozo, makes projects consisting of various large maps installed on floors and walls with photographs and other elements as in *The New Cakewalk Humanifesto: A Cultural Libation* (1989) and *The New Merengue* (1992): **13**
- 39) Joseph Cornell – (New York, 1903-1972) used maps throughout his widely influential career in many series of his signature boxes: **12**
- 40) Marlene Creates – (Newfoundland, 1952-), often assimilated to a Hamish Fulton-Richard Long tradition, has been showing her “memory maps” at least since 1987 (then in Sault Ste. Marie); the “maps” consisting of photographs of older people at home, of actual maps they’ve drawn, of texts related to places on the maps, and of photographs of sites on the maps, often together with objects found at the site, most elaborately in her project *The Distance Between Two Points Is Measured in Memories*, Labrador 1988, but other map art too
- 41) Susan Crile – (...) switched from painting Oriental-rug subjects to aerial views of the earth in the 1970s: **5**
- 42) Théodore Coulombe/Alan Krathaus – (Brooklyn/Houston, 1963- , 1968-) work with air photos and maps to deal with issues of claims of conquest and actual control: **14**
- 43) Greg Curnoe – (London, Ontario, ...) a former surveyor, makes all kinds of map art, including a map of North American excluding the U.S. for the cover of the *Journal of Canadian Fiction* (Winter, 1973): **2**
- 44) Alasdair Currie – (Scotland, 1964-) made an installation piece consisting of models of buildings on a map on cloth that explores Lee Harvey Oswald’s memory, assuming Oswald to be alive and in an institution; about time, memory, obsession: **16**
- 45) Matthew Cussick – (New York, ...) recently began working with discarded road maps in a painterly exploration which led to *The Map Paintings* which he showed at Kent Chelsea in 2004 – a cool catalogue is available with a “legend”
- 46) Layla Curtis – (London, 1975-) makes maps that “invite us to consider such issues as disputed borders, international relations” and so on, in one example, by swapping countries, like China and the U.S.: **16**
- 47) Salvador Dalí – (Spain, 1904-) made a two-sheet collage called *La Casamiento de Buster Keaton* (*The Wedding of Buster Keaton*), dated November 1925, with five map fragments of the Sea of Japan, Greece, among other elements – it’s in the possession of the Fundación Federico García Lorca, Madrid
- 48) Norman Daly – (... , ...) made a map of Lihuro, an imaginary country (1972), which map appears in Michel de Certeau’s essay in Helen Mayer and Newton Harrison’s *The Lagoon Cycle* (Johnson Museum, Cornell, 1985); and which Wollen reproduces, essentially without comment: **11**
- 49) Adam Dant – (London, 1967) made a lithograph in 2000 of Shoreditch as globe (or at least round map)/Globe (Theater): **16**
- 50) Leila Daw – (Branford, Connecticut, ...) has been working with concepts of mapping in her painting and other manifestations since the early 1980s when she mapped native American sites in skywriting smoke over their former locations – now does large, map-based public art installations as the one at Bradley International: **19**
- 51) Guy Debord – (France, 1931-) immensely influential Situationist who, in addition to writing *Society of the Spectacle* and other Situationist polemics, made psychogeographic guides to Paris by pasting together cut-up tourist maps to create alternative narrative labyrinths organized by the body, by desire, with and without the collaboration of Asger Jorn: **7, 11, 17**
- 52) Wim Delvoye – (Belgium, 1965-) among much other stuff has made a series of over forty maps conflating geography and anatomy: **14, 18**
- 53) Michael Decourcy – (Vancouver, ...) works with photographs and all sort of mapping techniques in pieces like *The Atlas of Aerial View Regional Land Impressions of British Columbia* (1973) and *Background/Vancouver* (1974): **2**
- 54) Agnes Denes – (US, 1938-) explores the issue of map distortion by projecting the surface of the globe onto, among other surfaces, a tangent torus (doughnut) and a helical toroid (snail): **3, 4, 6, 10, 11**
- 55) Jan Dibbets – (Netherlands, 1941-) makes sensory maps of the artist’s experience of Holland as a flat, constructed place, mixing elements of artists like Ed Ruscha, Richard Long, and Marc Wise: **7, 10, 17**
- 56) [Elizabeth] Diller + [Ricardo] Scofidio – (New York? ...) etch a map of each state onto mirrors mounted in fifty open suitcases in their 1991 *Tourisms: suitcase Studies*, where the banality of the postcard sentiments undercuts the specificity of the places etched onto the mirrors which let you read the postcards, in their Whitney retrospective: **1** (10/03), **13**
- 57) Kim Dingle – (Los Angeles, 1951-) unlike Kerry Tribe, who simply exhibits maps she has asked ordinary people to make for her, Dingle makes paintings based on maps she has asked ordinary people to make for her: **7, 8, 12, 18**
- 58) Josh Dorman – (New York, ...) makes landscape paintings, often “with color inks on antique maps” whose topography “is often an inspirational starting point”: **1** (3/04)
- 59) Matilda Downs – (London, 1974-) does etchings with titles like

- Map of Cow Markings, Weather Chart: Hurricane Paths, and Map of London – Animal Kingdom*: 16
- 60) Margret Dreikausen – (New York, ...) makes paintings of the earth from an aerial perspective inspired by her work as a flight attendant in the early 1960s; her book, *Aerial Perception*, was her master's thesis: 5
- 61) Michael Druks – (London, 1940-) Israeli-born, Druks in his 1970s' *Flexible Geography: My Private Atlas* project, "use[d] international and visual language for individual purposes" to explore "borders and boundaries and their political implications": 16, 18
- 62) Marcel Duchamp – (French-American, 1887-1968) one of the twentieth century's dominant artists, made his widely-reproduced *Allégorie de genre* (1943), punning a map of the United States with the head of George Washington: 17
- 63) Gary Duehr – (Somerville, Massachusetts, ...) sepia tints large scale satellite imagery probing the intersection between nostalgia and homeland security, as in *Topeka #1* (2004): 19
- 64) Sam Easterson – (LA, 1972-) basically works with the world seen (understood) from the perspective of animals but has made a map of Manhattan "constructed" from the viewpoint of a deer, a mouse, a fox, etc. around 1000 AD; also *On the Farm: Live Stock Footage by Livestock* at CLUI: 14
- 65) Tracey Emin – (London, 1963-) wrote a poem about a war on a printed map: 16
- 66) Kate Ericson/Mel Ziegler – (US, 1955-1995, 1956-) made installation art dealing with economics, history, politics, occasionally taking map form; it's been just Mel since Kate died: 14
- 67) Luciano Fabro – (Italy, 1936-) made *Road Map Italy* out of lead and wood (1969) and *Golden Italy* out of gilt-bronze and steel cable (1971), as a participant in Arte Povera; and later a torch-cut a map of Germany out of plate steel in *La Germania* (1984), in a complicated installation piece/political commentary: 1 (3/02), 7
- 68) Öyvind Fahlström – (Brazil? Sweden? US?, 1928-1976) many of Fahlström's graphic/cartoon analyses of geopolitical situations may not be maps but plenty are; Storr acknowledges that his example is not strictly speaking a map but "an eccentric flow chart of international relations"; the same piece was exhibited in the Charles show in Abingdon; but the *World Map* (1972) in Harmon, and others, are absolutely maps: 3, 7, 9, 18
- 69) Simon Faithful – (London, 1966-) made a computer map with an inkjet printer that revisualized the world: "What should be a tool to interpret the world has become untrustworthy; what was familiar is now skewed and strange": 16
- 70) Heide Fasnacht – (New York, 1951-) made a floor piece as a thick map of Ohio with a hole where Columbus usually is and other complicated references: 7
- 71) Peter Fend – (New York, 1950-) runs Ocean Earth Development Corporation which uses maps extensively to plan, develop, execute, and exhibit financeable outdoor earthworks as functioning "architecture," as in *Ocean Earth: Europa* (1991) and *Ocean Earth: Oil Free Corridor* (1993): 10
- 72) Dan Fern – (London, 1945-) works with maps to explore memory, space, autobiography: 16
- 73) Vernon Fisher – (Fort Worth, 1943-) uses blackboard slating as support for maps, graphs, and diagrams, as in *Swimming Between Australia and Japan* (1993) with its swimmer on a map of the Pacific mounted on slate on wood: 8
- 74) Jane Frank – (...) dealt with the aerial view of landscape from the late 1960s through the mid-1970s, working on both day and night images: 5
- 75) Vera Frenkel – (Canadian, ...) works with maps and other spatio-temporal imagery in elaborate participatory installations such as *Map with Gates* (1973-74): 2
- 76) Glowlab – (..., ...) is an art collaborative involved in a variety of psychogeographic map work, including production of the psy. geo.CONFLUX, part festival, part conference
- 77) Hamish Fulton – (Britain, 1946-) makes conceptual map art, usually taking the form of a "spatial" act caught in a photograph, but also as literal maps (resembling concrete poetry), not unlike that of his friend, Richard Long: 7, 10, 17
- 78) Birgit Gehrt – (Berkeley, 1969-) among other things works cutting up maps in a manner similar to that pioneered by Nina Katchadourian: 15
- 79) General Idea – (Canada, formed 1969-) made a map in 1987, *A Mari Usque Ad Mare*, which ran the blue color of the ocean right over Canada thus literalizing the motto on the country's coat of arms (allied in spirit to the exclusion of the US from the Surrealist map of the world, and Curnoe's North America): 6
- 80) Adam Gillam – (London, 1970-) uses maps and mapping to explore his relationship to the places where he lives and works: 16
- 81) Joshua Glotman – (Israel, ...) made a map of Israel, but under camouflage, *Untitled* (1993): 13
- 82) Zbigniew Gostomski – (Poland, 1932-) a Conceptual artist in whose work schemata and documentation played with spatial constructions to form self-reflexive commentary on art's boundaries, at least one of which was done on a map of Warsaw in 1970, *Fragment of the System*: 17
- 83) Nancy Graves – (New York, 1940-) among other things, redraws moon maps, Nimbus satellite imagery, and other very high altitude aerial photography to make her influential drawings, paintings, and prints: 2, 3, 4, 5, 7, 12, 18
- 84) Hans Haacke – (New York, 1936-) is concerned with physical and biological processes, but as well with their relation to economic systems; used maps, photographs and other documentation in *Shapolsky et al., Manhattan Real Estate Holdings* (1971), and designed, for a competition, an architectural model, *Calligraphie* (1989), consisting of a thirty-some-foot wide map of France intended to be made up of seasonal crops grown in cycles, and others: 10, 13, 17
- 85) Jane Hammond – (New York? ...) made a ten by eleven foot painting in the shape of Connecticut creating a complicated map of the state reminiscent of a certain genre of tourist maps, but with a more personal iconography: 1 (9/97)
- 86) Newton and Helen Mayer Harrison – (San Diego, 1932- , 1929-) are ecologically self-conscious conceptual artists who have been making prominent use of maps in their art for years (for example their 1974 *If This Then That (the First Four): San Diego as the Center of the World* – which is a map mural – and their 1977 *Meditations on the Condition of the Sacramento River, the Delta, and the Bays of San Francisco*); Michel de Certeau's essay about them in *The Lagoon Cycle* is copiously illustrated with maps (Herbert Johnson Museum of Art, Cornell, Ithaca, 1985) while *The Lagoon Cycle* itself features numerous beautiful huge maps; as do *Peninsula Europe*; *Casting a Green Net: Can It Be We Are Seeing a Dragon?*; *Krimpenerwaard*; and *A Vision for the Green Heart of Holland*: 1 (10/03), 4, 10, 11
- 87) Mona Hatoum – (London? 1952-) does other map art too, but in 2003 she remounted at LA MOCA her *Map* originally created for her one-person show in 1998 at the Kunsthalle Basel, consisting of 3,300 pounds of clear glass marbles in the form of the earth's landmasses on the floor of the museum "forcing us to question the stability of our world geography": 13
- 88) James Hayward – (Moorpark, California, 1943-) uses streets maps of cities around the world to replace canvas as the traditional support for his paintings: 8
- 89) Michael Heizer – (Nevada, 1944-) is an influential earthwork artist who uses maps in planning and documentation, and later as screen prints: 8, 10
- 90) Susan Hiller – (London, 1940-) American-born Conceptual artist, did *Dream Mapping* (1974), in which ten participants slept three nights among fairy rings in Hampshire, recording their dreams each morning in map like diagrams which Hiller composed into Composite Group Dream Maps; *Dedicated to the Unknown Artist*, documenting tumultuous sea postcards using maps (among many other things); and so on: 4, 17, 18
- 91) David Hinton – (Vermont, 1954-) published *Fossil Sky*, an epic poem, lyrical map (54" x 54"), and Conceptual artwork (Archipelago Books, 2004)
- 92) Nancy Holt – (New York, 1938-) does site-specific sculptural installations oriented to the paths of celestial objects, but see

- especially *Buried Poems* (1969-71) which consists of maps and instructions for finding poems she buried, accompanied by details of history, geology, maps, samples: **3, 4, 7, 10**
- 93) Sharon Horvath – (..., ...) has long incorporated topographical imagery into her paintings: **18**
- 94) Douglas Huebler – (New York, 1924-1997) a key Conceptual artist, began making maps in 1968, such as *Site Sculpture Project – 42° Parallel Piece* (1968) and *Site Sculpture Project – Variable Piece #1, New York City* (1968), in which the maps are pieces of Site Sculptures; his mapped Duration pieces (1968-?); as well as self-documentation pieces, such as *Location Piece No. 1* (1969), *Rochester Trip* (?), and others which traced Huebler's routes through various environments: **4, 8, 10, 11, 17**
- 95) Abigail Hunt – (London, 1978-) cut a map into two books which were then subjected to further manipulation: **16**
- 96) John Hurrell – (Christchurch, New Zealand, ...) paints on actual paper maps, most notoriously by using black paint to isolate clusters of streets, which up-close can be identified, but from farther away read as heads, angles, marching figures, a bizarre trope on the Surrealist game of *l'une dans l'autre*; and other map art
- 97) Robert Indiana – (American, 1928-) made maps in his signature Pop art style, especially of the South during the years of the battles for civil rights: **12**
- 98) David Ireland – (San Francisco, 1930-) whose *Three Attempts to Understand van Gogh's Ear in Terms of the Map of Africa* is a pretty cool map version of seeing things in clouds: **7**
- 99) Patrick Ireland – (US? 1928-) is a pseudonym of Brian O'Doherty, an Irish protest artist who, in 1998 exhibited a reconfigured map of Ireland "in which Northern Ireland had been cut out and collaged over the Republic," cartographically recapitulating the unification O'Doherty achieved in 1972 by covering his body with orange and green paint: **1 (5/99), 4**
- 100) Yvonne Jacquette – (..., ...) exploits a high oblique view of the landscape to make paintings that run from the nearly realistic to an almost Nancy Graves-like abstraction: **1 (3/04), 5**
- 101) Alfredo Jaar – (New York, 1956 (Santiago, Chile) is an installation artist whose gallery-size *La Géographie ça sert, d'abord, à faire la Guerre* (*Geography = War*) (1989, and later installations) mounted large maps in light boxes, petroleum barrels, and photographs to talk about Africa, oil, and war. An interesting catalogue is Madeleine Grynsztejn, *Alfredo Jaar, La Jolla Museum of Contemporary Art, La Jolla, 1990*, which uses the Peters projection as its supervening graphic device; but also, with its many illustrations, Alfredo Jaar, *Geography = War*, Virginia Museum of Fine Arts, Richmond, 1991, with essays by W. Avon Drake, and others: **13, 17**
- 102) Jasper Johns – (New York, 1930-) famously made maps of the U.S., but also one of the world using Buckminster Fuller's Dymaxion projection, as a mural for the Montreal Expo: **7, 8, 12, 17**
- 103) Kim Jones – (New York, 1944-) makes maps of the battles between the Dot Men and the X Men: **7**
- 104) Ilya Kabakov – (New York, 1933-) is an installation artist who often works with themes related to his long life in the Soviet Union, but has also worked with maps, as in the seashore map in *Anna Petrovna Has a Dream* (1972-1975) and *The Globe in a Different Environmental System* (1999): **12**
- 105) kanarinka [Katherine d'Agnasio] – (Waltham, Massachusetts, ...) works with maps and mapping in a variety of ways with Glowlab, The Institute for Infinitely Small Things, and so on
- 106) On Kawara – (New York, 1933-) was originally Japanese, but moved to New York in 1965. A key Conceptualist, Kawara used maps in his series *I Went* (1968- 1979) to diaristically trace his trajectories through given cities, as in *I Went, 21 February 1969*, *I Went, Dec 25 1978*, until the project was ended on 17 September 1979: **2, 4, 11, 17**
- 107) Nina Katchadourian – (Brooklyn, 1968-) makes very cool things made from maps by cutting and collaging, or by cutting out the backgrounds of street and road maps to leave spaghetti, displayed either as it comes from the pot, or carefully laid out between Plex: **14, 18**
- 108) Tilman Kayser – (Germany? ...) draws on imagery of the earth seen from space to make paintings with connections to abstract expressionist aesthetics: **5**
- 109) Ellsworth Kelly – (New York, 1923-) in 1950 redrew a regional map of France with strips of blue paper to indicate field lines to make *Fields on a Map*: **7, 18**
- 110) Chris Kenny (London, 1959-) stages encounters between maps and Mondrian by using strips cut from maps to rebuild Mondrian's transitional paintings of 1912-18, reversing Mondrian's move from the specific to the universal, and otherwise works with maps, as in his *Fetish Map of London I* (2000): **16, 18**
- 111) Yves Klein – (France, 1928-1962) in the 1960s made large-scale terrain-like maps, as he made clear by inscribing, on the back of *Planétaire (Bleu)*, the phrase "planète-terre": **7, 17**
- 112) Joyce Kosloff – (New York, 1942-) Kosloff has paint frescoes based on ancient maps in her "Knowledge" series; she also deals with power, conquest, and bombing by restructuring maps and globes, including one huge, walk-in globe papered on the inside with target maps of places the U.S. has bombed since WWII (also the subject of elin slavick's work); recently produced *Boys' Art*, drawings of military maps with collaged fighting men: **1 (7/99), 12, 14**
- 113) Guillermo Kuitca – (Argentina, 1961-) makes map-paintings at scales covering apartment floor plans and the world, about himself and life: **7, 18**
- 114) Laura Kurgan – (New York, 1961) works extensively with GPS in her *You Are Here* series, and with satellite surveillance imagery as in *Spot 083-264, June 3, 1999, Kosovo* (1999): **12**
- 115) Charles LaBelle – (Los Angeles, 1964-) in his *Invisible Cities* (*Abandoned Mattresses*) project (1992-1993), LaBelle picked up mattresses from the streets of Los Angeles, took them to his studio where he painted on them the outlines of cities picked at random from a world atlas, returned the mattresses to where he found them, photographed them, and documented their location on a map; while his alter ego, Charles Bon, made a movie about it, *Invisible Cities (Los Angeles)* (1994); he also uses map flags stuck into pillows and his own body to simulate battle plans: **8**
- 116) Charlotte Land (London, 1980-) collected responses from randomly selected people about one day's journey in London and compiled them into an atlas, documenting the common grounds shared by people living individual and separate lives: **16**
- 117) Langlands & Bell [Ben Langlands and Nikki Bell] (English, ...) made a diptych *Air Routes of Britain (Day) and Air Routes of Britain (Night)* (2002): **18**
- 118) Julian LaVerdiere – (New York? ...) is interested in the cartographic representation and exercise of power, including in *FIRMAMENT: Upon Which Time Has No Mark by Definition*, for example, a 20-foot world map printed on Textalene, and making a print displaying the original and resolved UN logos: **1 (6/03)**
- 119) Mark Lazenby (London, 1975-) makes mixed-media collage maps – for example: "In *Lost* a boy is bewildered, utterly lost – the map makes no sense"
- 120) Annette Lemieux – (Massachusetts, 1957-) pieced together air photos of the northeast US to make a scroll which she has emerging from a typewriter whose key caps have been replaced with cameo photos of terrain features, as though you could type up a landscape: **7**
- 121) Jane Lewin – (..., ...) made a painting depicting meanders in a river, *Rheidol Collage* (nd), in color, which David Woodward reproduced in his *Art and Cartography* as his sole example of how "the mapping instinct" has "manifested itself in modern painting" after a list on which he included Escher, Johns, William Wiley, Christo, Oldenburg, Graves, Long, the Harrisons and others
- 122) Sol LeWitt – (Connecticut? 1928-) is an influential Conceptual artist who in the 1970s cut simple shapes out of air photos of Manhattan according to a system he'd set up": **3, 7, 17**
- 123) Micah Lexier – (New York, 1960-) doesn't really deal with maps qua maps but with issues around our representation of time and experience, which may involve maps: **14**

- 124) Lilla Locurto/Bill Outcault – (..., ...) scan the surface of their bodies with a 3D object scanner, and use GeoCart map projection software to flatten their bodies out as though it were the earth
- 125) Mark Lombardi – (New York, 1951-2000) made elaborate diagrams charting flows of influence and money in many of the political/banking/military/terrorist scandals of the 1990s which many refer to as “maps” or claim Lombardi “mapped” the relationships of the parties involved (11/03)
- 126) Richard Long – (Britain, 1945-) is an influential sculptor, earth artist, and conceptual map artist, who takes walks documented in photographs as well as on maps, e.g., *No Where* (1993), *Four Days and Four Circles* (1994), and *Concentric Days* (1996), and as maps, which may resemble concrete poetry as *Urinating Places Line* (1993), *Circle of Autumn Winds* (1994), *Splashing Around a Circle* (1997), *Circle of Middays* (1997), not unlike those of his friend, Hamish Fulton; and has also written “Notes on Maps 1994”: **4, 7, 10, 12, 14, 17, 18**
- 127) Robin Mackenzie – (Canadian, ...) works in a vein generally related to that of Richard Long and Hamish Fulton, except it’s more concerned with “declared space” – scale, grids: **2**
- 128) Satomi Matoba (London and Hiroshima, 1960-) Matoba seeks “to create a magical map that guides me out of this dislocation [of living in London and Hiroshima] and enables me to envisage a peaceful community of strangers; a map that shows the world differently” by manipulating maps with computers: **16**
- 129) Gordon Matta-Clark – (New York, 1942-1978) is Roberto Matta’s son who, in *Realty Positions: Fake Estates* (1973), purchased thirteen parcels of land “left over” after Queens was remapped and the property lines were redrawn, exhibited as deeds, site photos, and property maps; and done other map work: **10, 17**
- 130) John McQueen – (Saratoga Springs, 1943-) uses tree bark and leaves in traditional basket-making techniques to make big three-dimensional sculptures of lakes and rivers, which are, after all, three-dimensional in volume: **14**
- 131) Julie Mehretu – (Ethiopia, 1970-) paints “story maps of no location”: **18**
- 132) Michael the Cartographer – (..., ...) an anonymous Outsider mapmaker collected by Victor Musgrave, a couple of whose maps are in the Musgrave-Kinley Outsider Collection in London: **18**
- 133) John Miller – (New York, 1954-) covered a globe he created “with the color of lustrous excrement”: **7**
- 134) Michael Barton Miller – (Los Angeles, 1949-) makes paintings on supports shaped like the map of the city that is the subject, in some sense, of the painting: **8**
- 135) Dan Mills – (Lewisburg, Pennsylvania, ...) paints maps/meta-phors on wood as in *New Venice* (2003), in a series called *US Future States*: **19**
- 136) Barbara Milot – (Turners Falls, Massachusetts, ...) draws landscapes in map form, such as *Ribbon Map* (2003): **19**
- 137) Edwin Morgan – (..., ...) the Scottish concrete poet, made a map-poem, *Chaffinch Map of Scotland* (1965), by plotting the range of Scottish names for the chaffinch: **18**
- 138) Satoshi Morita – (Germany, 1974-) works with postcards and maps “to reveal the background of reality according to our perception of space”: **16**
- 139) Brian Moss – (LA, 1962-) makes filmic-photograph performance maps as records of movement and behavior in a domain also explored by Marc Wise: **15**
- 140) Lior Neiger – (Brighton, Massachusetts, ...) spins globes freely on paired video screens, stopping them randomly to create novel spatial encounters in *Globe* (2000): **19**
- 141) Mariele Neudecker – (..., ...) had an exhibition in the summer of 1999 called “Never Eat Shredded Wheat” (*Memory Maps*) at the James Harris Gallery in Seattle
- 142) Joshua Neustein – (New York, ...) uses maps extensively to mount meditations on boundaries, including *Territorial Imperative: Golan Heights* (1970s?) which involves a dog urinating and maps of the many borders; *Grid Over Europe* (1987) *Continental Tracker* (1987); *Germany Framed* (1992), and many others: **13**
- 143) N.E. Thing Co. [Iain Baxter/Ingrid Baxter] – (Vancouver, 1936-, 1938-), or NETCO, was founded in 1966 and disbanded in 1978, but did things like *Quarter Mile Landscape* (1969) documenting the readymade landscape with photographs and maps: **17**
- 144) Manuel Ocampo – (Los Angeles, ...) parodied the Thomas Guide in his 1987 *Untitled (Ethnic Map of Los Angeles)* and carved the city into “occupied zones” of dykes, kikes, fags, chinks, nips, etc.
- 145) Brian O’Doherty – see Patrick Ireland, but also: **17**
- 146) Claes Oldenburg – (New York, 1929-) in *Soft Manhattan #1 (Postal Zones)* (1966), he made one of his trade-mark soft sculptures out of the assembled postal zones – looks sort of like a side of beef – but he also made *Chicago Stuffed with Numbers* (1977): **3, 7, 12, 18**
- 147) Anna Oliver – (Sussex, 1964-) makes paintings of small sections of maps, of places represented in famous landscape paintings or, more recently, of places on war maps and again from other maps: **16**
- 148) Yoko Ono – (New York, 1933-) is an influential Conceptual artist who has done a number of map and globe pieces, most notoriously her *Map Piece* (1962) but also the more recent *Imaginary Map Piece V* (1999) and others: **11, 12, 17**
- 149) Dennis Oppenheim – (New York, 1938-) is a key Conceptualist who, working with a deep interest in space, and the idea that art may be a way of viewing rather than making something to be viewed (whereas a map is both?), used maps extensively to document and exhibit his work, but also drew the floor plan of galleries on the ground in *Gallery Transplants* (1969) and made an X on ground mimicking that on a map in *Relocated Burial Ground* (1978): **2, 3, 4, 10**
- 150) Nam June Paik – (New York, ...) made a map, *FLUXUS Island in Décollage OCEAN* (1963), one of a number of Fluxus maps (see Yoko Ono and Chieko Shiomi); and much later *Electronic Superhighway* (1995), in which televisions are embedded in a gigantic neon map of the United States (reproduced in Richard Leslie’s *Pop Art*, Todtli, 1997): **11, 17**
- 151) Cornelia Parker – (London, 1956-) burns maps with a piece of red-hot meteorite to mark mythic sites (i.e., like Paris, Texas): **16**
- 152) Lee Paterson – (London, 1955-) makes maps of his walks in museums: **16**
- 153) Simon Patterson – (Britain, 1967-) in *The Great Bear* (1992), renamed all the Underground stops to form a constellation of earthly stars (e.g., Janet Leigh) in the disposition of a subway line, and so a map that is also concrete poetry: **7, 13, 18**
- 154) Raymond Pettibon – (California, 1957-) did a drawing of the earth in a circle as seen from a point high over Buenos Aires with the words “a flat landscape extending in all directions to immense distances placates me” written on it: **7**
- 155) Danica Phelps – (Brooklyn, ...) uses maps in a variety of ways in her complex documentary activities: **1 (7/99, reviews)**
- 156) Tom Phillips – (London, 1937-) made *Mapwalk* in 1972/3 (which finds Nasca-like glyphs in the London street pattern by blacking out irrelevant streets; he’s also made *Humument Globes* and an *Extra-terrestrial Globe* (1992), and has referred to his “early desire to be a cartographer (for at school I always enjoyed map-making especially when drawing Scandinavian countries where I could improvise intricate fjords)”
- 157) Adrian Piper – (Massachusetts, 1948-) worked in an earthworks mode early in her career, in the process of which she produced documentary and presentation maps; and proposed orientation/map projects in a Nancy Holt vein: **7, 17**
- 158) Platform – (London, founded 1983-) is dedicated to “provok[ing] desire for a democratic and ecological society,” as in their *Still Waters* (1992) project about unearthing London’s buried Effra River: **10**
- 159) Kathy Prendergast – (Ireland, ...) made the map, *Lost* (1999) of the United States incorporating only places with “Lost” in their name: **18**
- 160) Margaret Proudfoot – (London, 1961-) modified an atlas by taking a bite out of its spine to “reintroduce the third dimension into

- a map of the world": 16
- 161) Marek Ranis – (Charlotte, ...) makes large paintings of bombing sites derived from imagery taken from cameras on military aircraft (2002); also tents with satellite imagery on them as installations/sculptures (installed in Cape Town, 2004)
- 162) Michael Rees – (Cornwall, 1962-) uses/makes maps on canvas "concerned with how a place forms you"
- 163) Julia Ricketts – (Seattle, ...) often makes paintings of landscapes from a very high oblique perspective with other map elements added: 18
- 164) Miguel Angle Ríos – (New York, 1943-) works with early modern maps to meditate on the Columbian encounter: 7, 12
- 165) Larry Rivers – (New York, 1923-2002) *Africa I* walks a line between Abstract Expressionism and Pop Art. Map like elements can also be found in some of his other work.
- 166) Laura Robinson/Leslie Kneisel – (Georgia? 1952-, 1952-) put together the extremely ambitious *Mappamundi* (1993-1994) for the Albany Museum of Art (Albany, Georgia), but which went on to play Pittsburgh, Johnstown (Pennsylvania), and Altoona, a map and history of the world filtered through imagery collected on the artists' 12,000 mile trip around the US in 1992
- 167) Lordy Rodriguez – (Houston, 1976-) repaints maps of subjects like New York, Wyoming, and the United States according to his desires and experiences: 14, 18
- 168) Charles Ross – (... , ...) coming from a scientized background like Graves, Ross uses drawing, painting, collage, and other techniques to make "solar burns," map-calendars and star maps, often shaping and cutting into the surface to mimic the idea of gores: 3, 4, 5
- 169) Marina Roy – (... , ...) includes three maps in her art book *sign after the X* ____ (Advance/Artspeak, Vancouver, 2001)
- 170) Ed Ruscha – (LA, 1937-) made strip books like *Every Building on the Sunset Strip* which may not be maps, but are visualizations from which spatial narratives can emerge; and drawings and paintings of intersections which are indubitable maps: 14, 17, 18
- 171) Georgia Russell – (Paris, 1974) uses a scalpel to cut away parts of maps à la Katchadourian, though Russell displays the spaghetti in bell jars: 16
- 172) Mark Schafer – (... , ...) showed map collages under the title *Invented Maps, Imaginary Landscapes* in 2001 at the Globe Corner Bookstore in Harvard Square, including *Shortcut: Boston-L.A./N.Y.C.-San Diego*, but also *United States* and *Shortcut Boston-Mexico City* (1994): 19
- 173) Paula Scher – (... , ...) began painting small, opinionated maps in the early 1990s, since when they've grown larger and larger and more obsessive: 18
- 174) Joe Scotland – (London, 1978-) makes stitched and patchwork maps that "re-work the conventional classification of places" and "attempt to reveal the constructed qualities of maps, being simultaneously representations and objects": 16
- 175) Maura Sheehan – (New York? ...) made *Geography Lesson* (1990), a piece commissioned by Virginia Commonwealth University in which Sheehan "in defiance of traditional cartography" painted maps (on old retractable movie screens) that were "upside down"; and other work: 1 (4/94), 9
- 176) Chieko Shiomi – (Osaka, 1938-) was a Fluxus artist who used maps in her two *Spatial Poems* (1965, 1966) to record the locations of everyone who wrote a word or words on cards that she distributed: 11, 12, 17
- 177) elin O'Hara slavick – (Chapel Hill, ...) has been working on a series called *Places the United States Has Bombed* consisting of aerial views of bomb targets or bombed sites
- 178) Susanne Slavick – (Pittsburgh, ...) has been working with maps from a feminist perspective since 1980
- 179) Jaune Quick-to-See Smith – (Salish and Kootenai Nation, ...) painted the United States à la Johns over a collage of clippings about native Americans' lives in *Indian Country Today* (1996): 12, 18
- 180) Robert Smithson – (US, 1938-1973) worked with/made maps at a variety of scales of a variety of phenomena, often but not always in preparing/documenting his earthworks. He constructed *The Map of Broken Glass* (Atlantis) [1969] (also known as *Map of Clear Broken Glass Stripes*, and *The Map of Glass* (Atlantis)) in the Jersey Meadowlands; and he taught/wrote about his *Non-site* pieces as "three-dimensional maps": 4, 7, 10, 17
- 181) Michael Snow – (Canadian, ...) makes projections of things like logs and ladders, but also works with air photos: 2
- 182) Naomi Spellman – (LA, 1964-) in 1999 had an exhibit at Harvard called, "GIS, Art, and the Harvard Map Collection"; and showed at SCI-Arc in 2002 doctored maps mapping the landscape onto the human body: 15
- 183) Mike and Douglas Starn – (... , ...) have made an enormous globe, *Spheres of Influence* (1990-92) out of tar, steel, maps, etc.; as well as other work using star charts and other exotic imagery: 12
- 184) Olivia Streeton – (London, 1973) makes mixed media constructions with titles like *Map for Situation Room*: 16
- 185) Henry Stein – (San Antonio, 1951-) covers the surfaces of shovels and saw blades with brightly colored maps in his ongoing *Map Tools* series, and makes assemblages with globes as in *Sound Barrier* (1994) : 8
- 186) Patty Stone – (Newton, Massachusetts, ...) does paintings based on flight maps inherited from her father as in *Flight Path 3* (2003): 19
- 187) *The Surrealist Map of the World*, or *Le monde au temps Surréalistes* was published in a special issue, "Le Surréalisme en 1929," of the Brussels journal, *Variétés*, June 1929, pp. 26-27. The artist of this widely reproduced map is unknown. For a map which similarly elides the U.S., see Greg Curnoe's cover for the *Journal of Canadian Fiction*, but also General Idea's related map of Canada: 18
- 188) Louise van Swaaij and Jean Klare – (... , ...) produced their *Atlas of Experience* (Bloomsbury, New York, 2000): 18
- 189) Paul Tecklenberg – (London, 1969-) makes map photograms of the northern lights and the aurora: 16
- 190) Fiona Templeton – (... , ...) a Conceptualist, used maps almost like a script to produce *You – The City* (1988), an interactive performance piece realized in a number of cities; the first realization was *You – The City, Manhattan Itinerary* (May-June 1988): 11
- 191) Valerie Tevere – (New York, 1970-) in 2001 exhibited something called *Mapping Memory* at the Vacancy Gallery in the Bronx; and in 2002 a video installation at SCI-Arc called, *Palm Trees on Madison Avenue/A New York Mapping of Los Angeles*, which consisted of responses to her questions to New Yorkers about LA, investigating the cultural production of the meaning of place: 15
- 192) Andrea Thompson – (Medford, Massachusetts, ...) makes constructions, mixing narrative potentials with interchangeable base maps, as in *Then and There* (2004): 19
- 193) Lincoln Tobier – (Los Angeles, ...) constructs models of "place in concentrated form," as giant panorama models of Tokyo and Los Angeles – *Panoptiramon* (1998) and (*It all comes together in*) *Ruckus L.A.* (1999 and continuing); and involved with short-term radio stations that Tobier creates to re-imagine, integrate, and intervene in intimate and official geographies, subjective and objective representations of public space
- 194) Joaquín Torres-García – (Uruguay, 1874-1949) the Uruguayan Constructivist, made a map of South America with south up for his *La escuela del sur* in 1943: 7, 18
- 195) Kerry Tribe – (LA, 1973-) prompts ordinary people to draw maps which she then frames and exhibits, as of LA drawn by people at LAX: 15
- 196) R. Gregor Turk – (... , ...) in 1992 walked and bicycled the 1,270 mile US-Canadian border west of Lake of the Woods to produce the *49th Parallel Project*, an ambitious multimedia work in which maps of the parallel have been sliced, diced, collaged, and blown-up to help explore the idea of borders
- 197) James Turrell – (Los Angeles, 1943-) is essentially concerned with light, but this has led him to the Rodan Crater project (1977-present; material – "volcanic mountain") which involves maps. John Beardsley reproduces one of Turrell's meticulous maps in *Earthworks and Beyond* (Abbeville, New York, 1984), p. 38; and Kastner and Wallis (see source list) his statement, "Mapping

- Spaces," pp. 219-220: **10**
- 198) Adriana Varejão – (Brazil, 1964-) makes paintings of maps that include gaping wounds or incisions as if the earth were living: **7**
- 199) Bill Vazan – (Montreal, ...) a Canadian artist, primarily makes large-scale drawings on the land, but also works with maps and air photos, as in his *Worldline* (1969-71), *Contacts* (1971-73), and *Regina Life Lines – 9 Mind Mappings* (1980-81), *tractor tire impressions*, 5000' x 3000' feet: **2,4**
- 200) Carmela Venti – (..., ...) seems to work in a variety of map genres: in 1994 she had a show at the Chicago Cultural Center in Chicago of works in an Yvonne Jacquette mode (*Art on the Map*); whereas earlier that year she showed reverse-silhouettes of heads filled with different maps at Bradley International Airport (*Map Portraits: the traveler*)
- 201) Jugoslav Vlahovic (Belgrade, 1949-) as a member of Team A3 in 1974 made and documented the *World Cow*, a world map painted on a cow: **16**
- 202) Deborah Waimon – (New Milford, Connecticut, ...) overprints fragments of maps from the 1950s to the present with small collagraph plates, as in *Cartography XVII* (2002): **19**
- 203) Jason Wallis-Johnson (London, 1966-) constructs/draws/and otherwise produces maps of places over time, imaginary cities, interventions in cities and so on: **16**
- 204) Roberts Watts – (New York, 1923-) made the *Fluxatlas* (1973-1978): **12**
- 205) William Wegman – (..., ...) makes elaborate "scrapbook-maps" utilizing paint and found postcards: **18**
- 206) Lois Weinberger – (Vienna, 1947-) who is known for his work with ruderals (plants that grow back when the natural cover has been disturbed by humans) developed, in *Course/Drift* (2001), a map of a fictitious geography (MASS MOCA)
- 207) Simon Wells (London, 1955-) erases, white-outs, and otherwise interferes with *A-Z of Londons*: **16**
- 208) Heidi Whitman – (Boston, ...) has been working on a series, *Brain Terrain*, that mixes other reference systems with maps as in *Cartographer's Daydream/Brain Terrain* #87 (2004): **19**
- 209) William Wiley – (Canada, ...) a painter working with map imagery, as well as concerned with the role of view in his work as, for example, in *How to Chart a Course* (1971): **2**
- 210) Emma Williams (London, 1976-) makes oil paintings of maps and/or of maps cum panoramas of London: **16**
- 211) Chris Wilson (Northern Ireland, 1959-) in such pieces as *Map, River*, and *Landscape* (all 2002) deconstructs maps in mixed media and in map and crayon on board: **16**
- 212) Kevin Wilson – (..., ...) makes map paintings based on atlases and AAA documents of places with personal significance to him: **18**
- 213) Marc F. Wise – (Brooklyn, 1964-) makes complicated video-map collations dealing with his experience on the subway and elsewhere: **14**
- 214) David Wojnarowicz – (New York, 1954-1992) used maps in paintings and sculpture throughout his brief career. He frequently painted on maps, but he also used them to collage mannequins of men and boys (*Untitled [Burning Child]*, 1984), sharks (*Untitled [Shark]*, 1984), and even globes (a world globe painted black, except for U.S.-shaped vignettes opening over Africa, Europe, and so on [*Globe of the United States*, 1990])
- 215) Adolf Wölfl – (Switzerland, 1864-1930) the Swiss Outsider artist, made maps as part of the imaginary life story he told in *From the Cradle to the Grave*: **18**
- 216) Denis Wood – (North Carolina, 1945-) makes maps at very large scale of Boylan Heights, the neighborhood he lived in for 23 years, of different aspects: of the stars you can see, of sidewalk graffiti, of underground pipes, etc.: **14,18**
- 217) Yukinori Yanagi – (Japan, ...) made a map of the U.S., *Broken Glass on Map* (1996), out of glass shards from the window of a room at Alcatraz shattered, possibly during the siege of the Native Americans who occupied Alcatraz in 1969, whose shards, negating the state boundaries, alluded to the broken promises
- 218) Marina Zurkow/Scott Patterson/Julian Bleecker – (New York,

...) created PDPal in 2003 for the Walker Art Center as a public art mapping application for the Palm PDA and the web to transform your everyday activities into a dynamic city that you write

Sources

- 1 = published in *Art in America*, month and year in parentheses
- 2 = inclusion in *On Maps and Mapping: artscanada 188/189*, Spring, 1974
- 3 = inclusion in Peter Frank, curator, *Mapped Art: Charts, Routes, Regions*, Independent Curators, New York, 1981 (only a couple of entries from which have been included in the catalogue – see the note following this list of sources)
- 4 = inclusion in Lucy Lippard, *Overlay: Contemporary Art and the Art of Prehistory*, Pantheon, New York, 1983, on Conceptual, earth works, Eco, and other art of the 1960s and 1970s
- 5 = inclusion in Margret Dreikausen, *Aerial Perception: The Earth as Seen from Aircraft and Spacecraft and Its Influence on Contemporary Art*, Art Alliance Press, Philadelphia, 1985
- 6 = inclusion in Ibor Holubizky, curator, *Curatorial Project #7: Atlas*, Hamilton Art Gallery, Hamilton, Ontario, 1991
- 7 = inclusion in Robert Storr, *Mapping*, Museum of Modern Art, New York, 1994
- 8 = inclusion in Frances Colpitt, *Mapping*, UTSA Art Gallery, University of Texas at San Antonio, 1994
- 9 = inclusion in Kathryn Charles, curator, *Mapping Lessons*, William King Regional Arts Center, Abingdon, Virginia, 1996
- 10 = inclusion in Jeffrey Kastner and Brian Wallis, eds., *Land and Environmental Art*, Phaidon, London, 1998
- 11 = inclusion in Peter Wollen's article, "Mappings: Situationists and Conceptualists," in Michael Newman and Jon Bird, eds., *Rewriting Conceptual Art*, Reaktion, London, 1999, pp. 2746
- 12 = inclusion in Robert Silberman, curator, *World Views: Maps & Art*, Frederick R. Weisman Art Museum, University of Minnesota, Minneapolis, 1999
- 13 = inclusion in Irit Rogoff, *Terra Infirmis: Geography's Visual Culture*, Routledge, London, 2000
- 14 = inclusion in Ian Berry, curator, *the World according to the Newest and Most exact Observations: Mapping Art + Science*, Tang Teaching Museum, Skidmore College, Saratoga Springs (NY), 2001
- 15 = inclusion in Lize Mogel and Chris Kahle, curators, *Genius Loci*, SCI-Arc Gallery, Los Angeles, 2002
- 16 = inclusion in England & Co.'s exhibition, *The Map is Not the Territory part ii*, 2002, catalogue written and edited by Jane England
- 17 = inclusion in Peter Osborne, ed., *Conceptual Art*, Phaidon, London, 2002
- 18 = inclusion in Katherine Harmon, *You Are Here: Personal Geographies and Other Maps of the Imagination*, Princeton Architectural Press, New York, 2004
- 19 = inclusion in Elli Crocker, curator, *Mapping: An Exhibition: Metaphor, Artistic Strategy, Graphic Device*, Schiltkamp Gallery, Clark University, 2005

NOTE: We have seen only the first few pages of the catalogue of curator Peter Frank's *Mapped Art: Charts, Routes, Regions* (Independent Curators, New York, 1981). These indicate that it was a most comprehensive show, the rest of whose artists need to be added to this catalogue.

There are other shows not even a page of whose catalogues have been seen, including, *Artists' Maps*, at the Philadelphia College of Art, in 1977; that same year there was also a show, *Maps*, at the Art Lending Services Gallery of the Museum of Modern Art; in 1978 there was a show we believe was called *Mapped Art* at the now defunct Nobe Gallery in New York.

Again, all additions, corrections, emendations, and suggestions, including copies of the catalogues just named, are more than welcome, and may be addressed to either of the editors or any of the authors.

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Interpreting Map Art with a Perspective Learned from

J.M. Blaut

Dalia Varanka



Figure 1. Alexander Calder. *The River: Chicago* (1974). Gouache. Museum of Contemporary Art, Chicago.

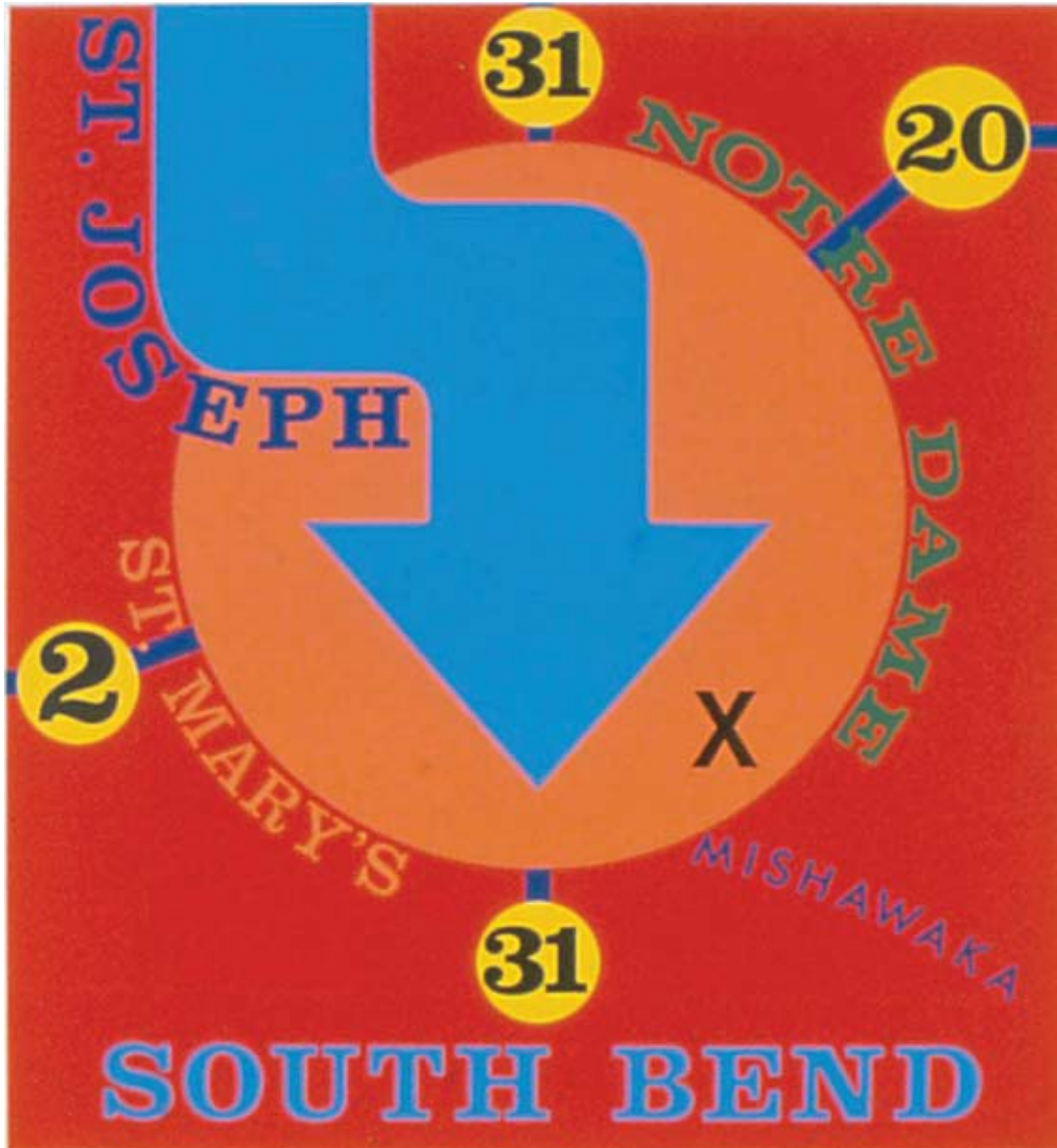


Figure 2. Robert Indiana. South Bend (1978). Museum of Contemporary Art, Chicago.

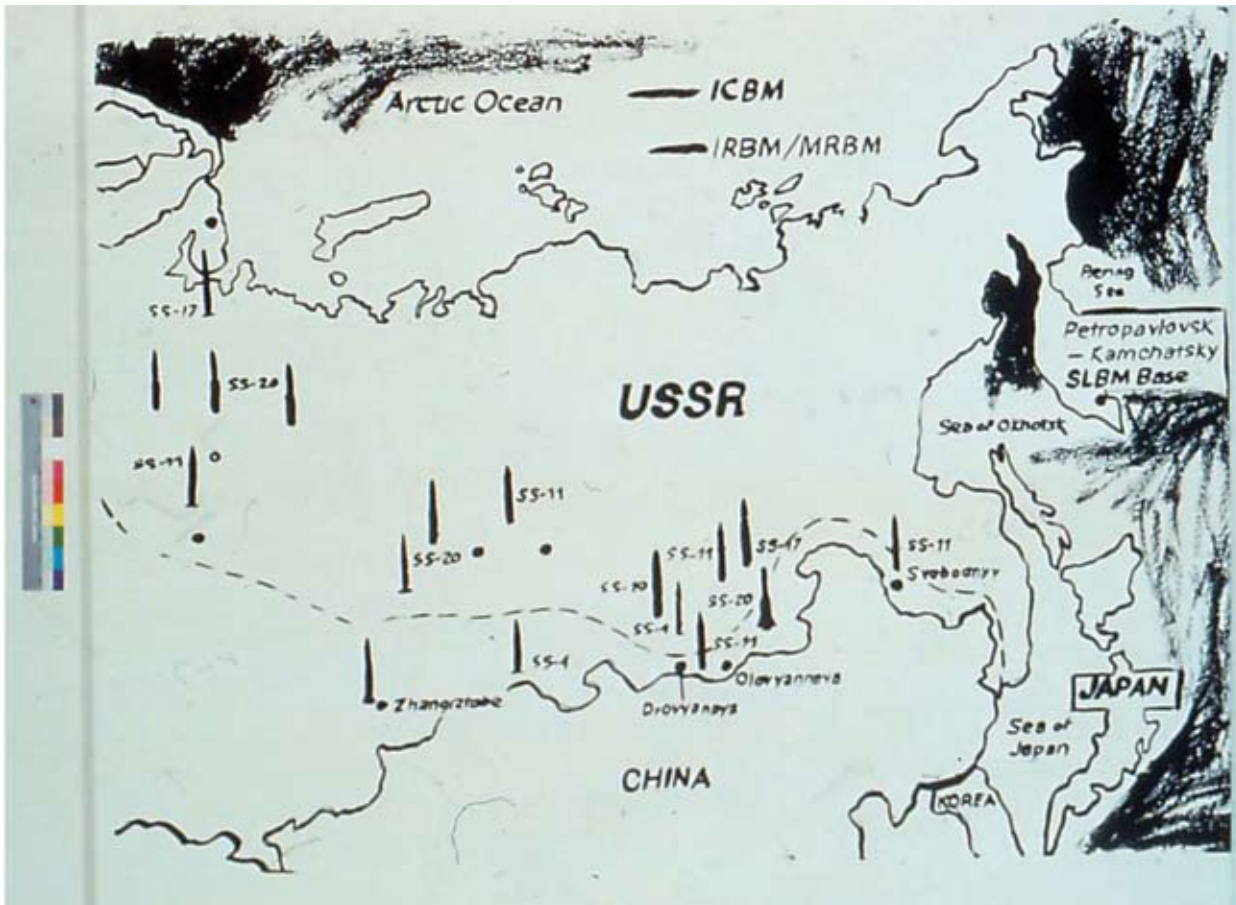


Figure 3. Andy Warhol. Map of Eastern U.S.S.R. Missile Bases (1986). Andy Warhol Foundation for the Visual Arts, New York.

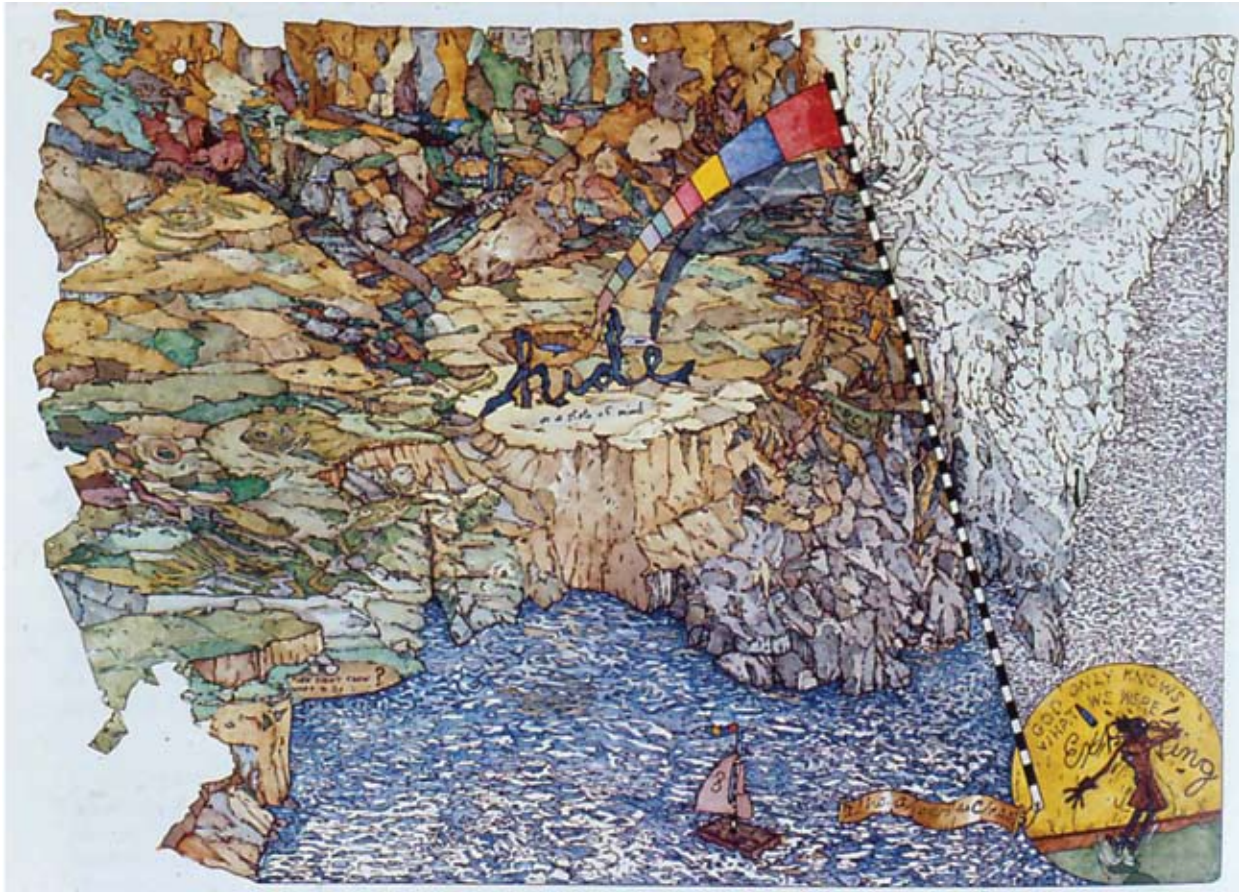


Figure 4. William Wiley. Thank You Hide (1972). Art Institute of Chicago.



Figure 5. Newton Harrison and Helen Mayer Harrison. *The Lagoon Cycle* (1973-1985). Ronald Feldman Gallery, New York.



Figure 6. Nancy Chunn. *Korea: Divide and Rule* (1988). Ronald Feldman Gallery, New York.

Art-Machines, Body-Ovens and Map-Recipes: Entries for a Psychogeographic Dictionary

kanarinka



Figure 1. Residents of Boston's South End were asked to circle their "Empowerment Zone" for the project *Sifting the Inner Belt* (2004-5).

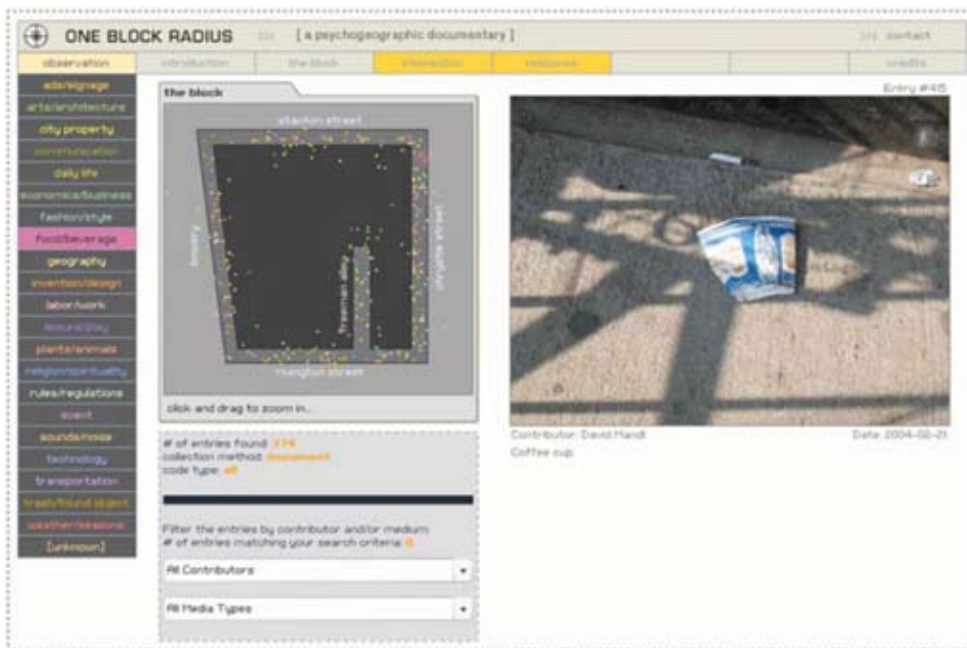


Figure 2. *One Block Radius*, image courtesy of Glowlab.



Figure 3. Funerals for a Moment guidebook, moment #27, front and back of page.

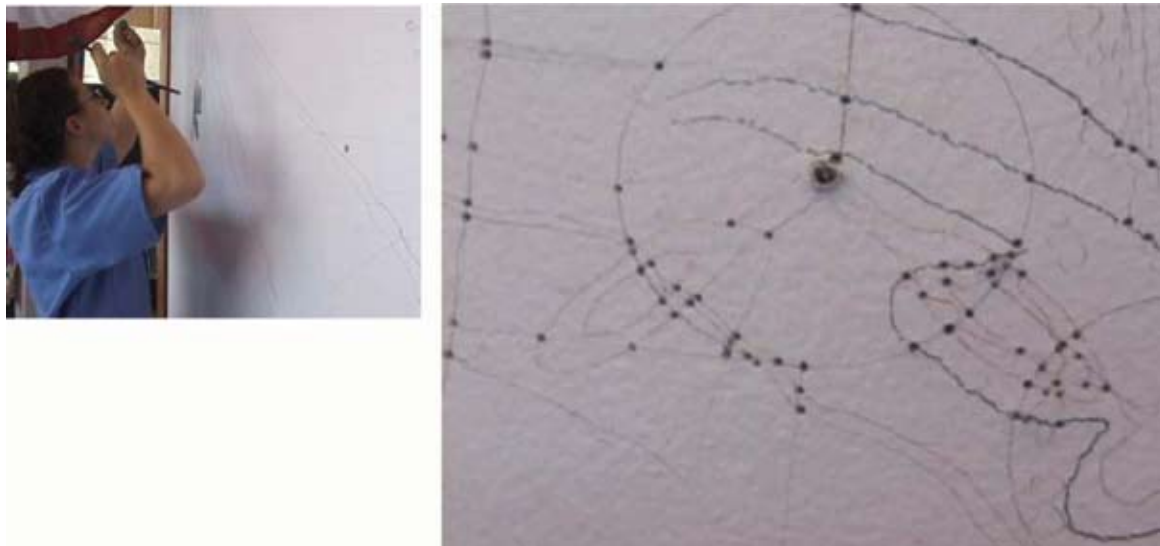


Figure 9. Participatory Democracy (2004), detail by Natalie Loveless.



Figure 10. *i-See* (2001) by the Institute for Applied Autonomy maps the path where you are least likely to be watched.



Figure 15. The exhibition *1:100* (2004) at the DCKT Contemporary Gallery in Chelsea. Image Courtesy of Glowlab, Map design by Red Maps.

Jake Barton's Performance Maps: An Essay

John Krygier



Figure 1. City of Memory screen-shot.



Figure 2. Memory Maps.

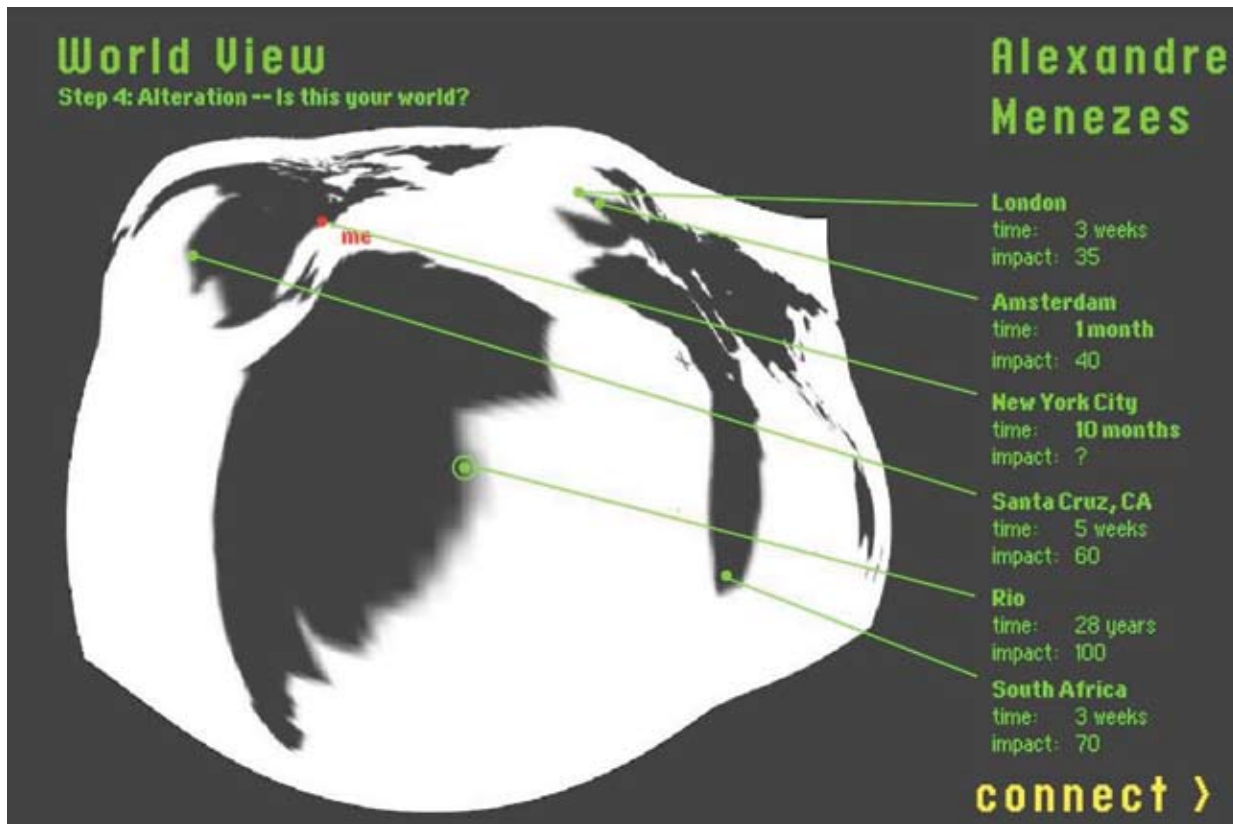


Figure 6. Worldview world map projection.

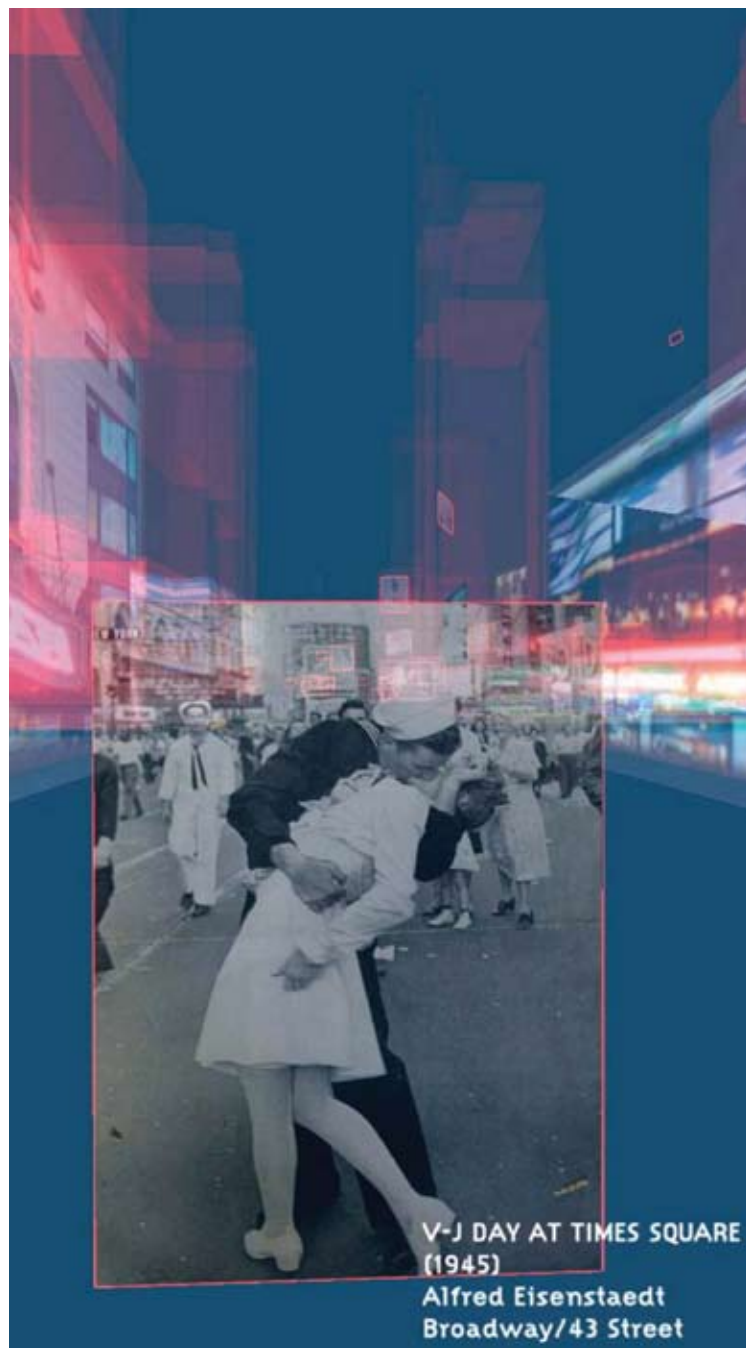


Figure 7. Chronoscope.

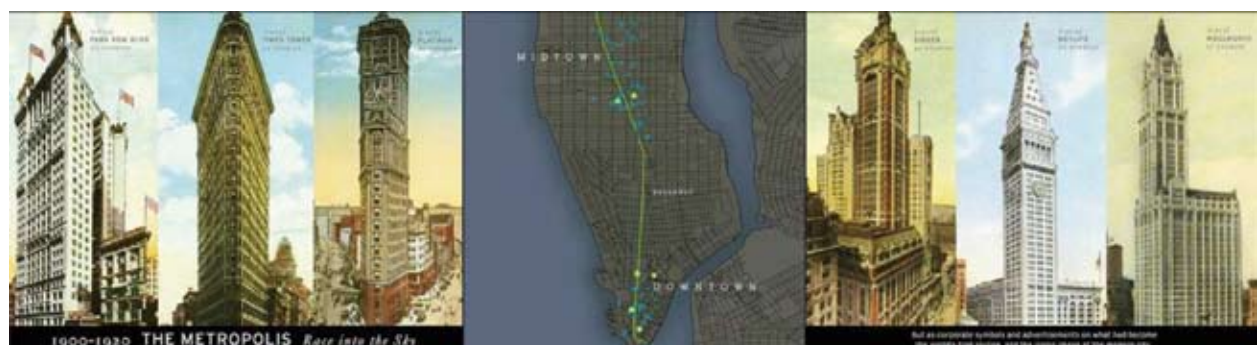


Figure 8. Timescapes.

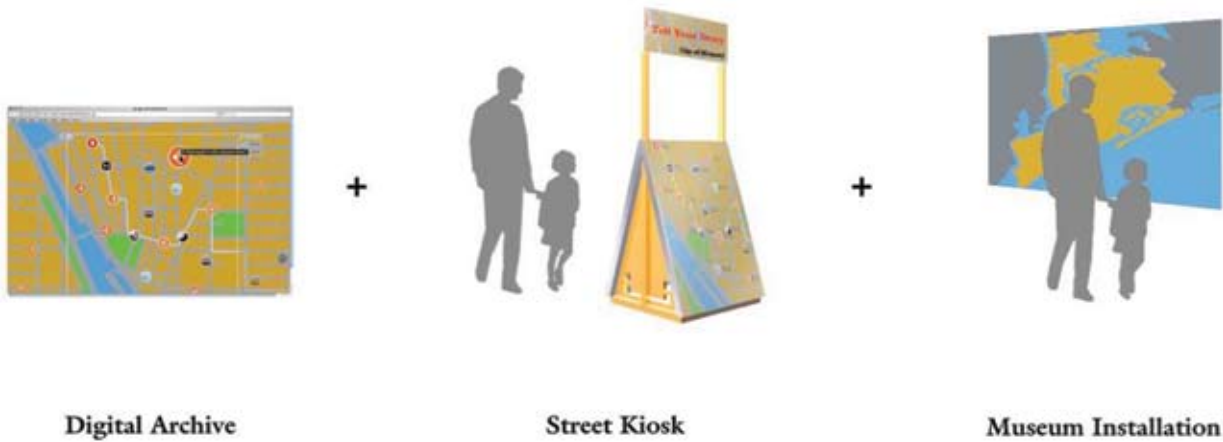


Figure 9. City of Memory concept.

Cartographic Design on Maine's Appalachian Trail

Michael Hermann and Eugene Carpentier III

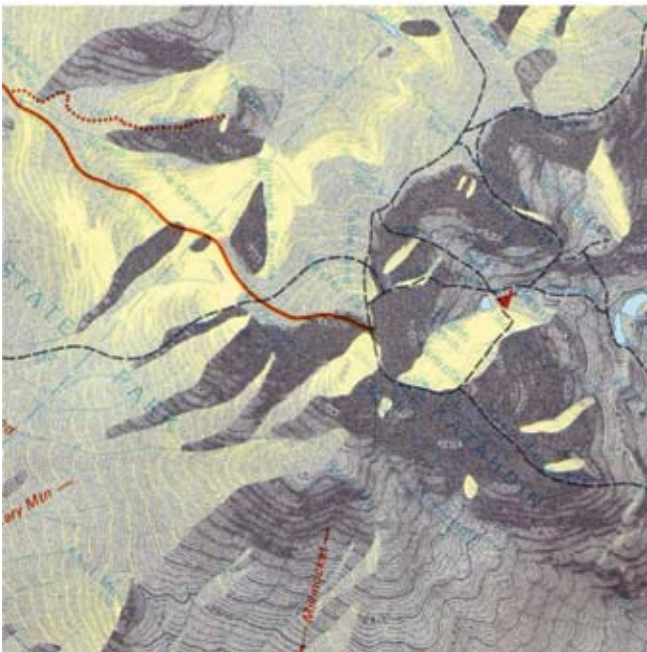


Figure 1. 1996 Edition focused on Katahdin, utilizing Tanaka method of illuminated contours.

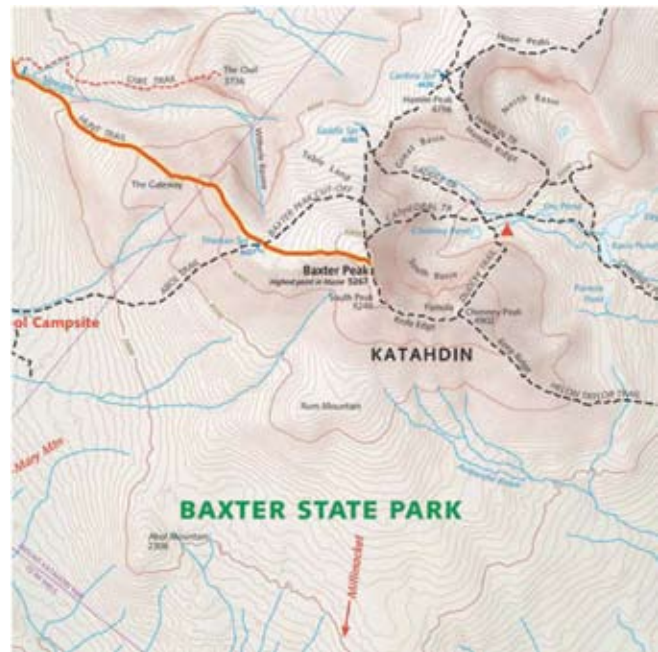


Figure 2. 2004 Edition focused on Katahdin, utilizing subtle hillshading and contours.

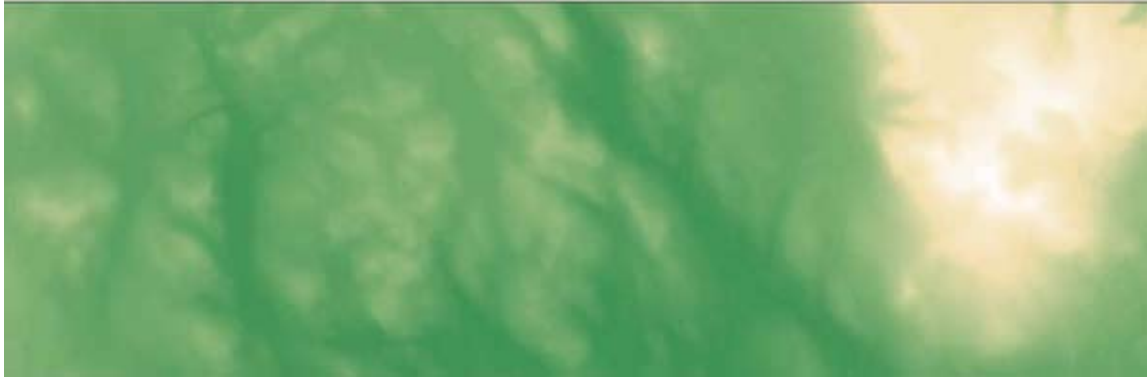


Figure 4. Color Elevation.



Figure 5. Composite image.



Figure 8.

