Coordinates: Maps and Art
Exploring shared terrain
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GE-OG’-RA-PHY is from two Greek words: ge “the earth,” and grapho, “I write.”

Smith’s First Book in Geography:
An Introductory Geography Designed for Children
Roswell C. Smith, A. M., Philadelphia: 1854


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The David Rumsey Map Center’s hallmark in the universe of maps has been to push the cartographic envelope, as it were, having its collections and technologies engage with a multitude of disciplines within each of Stanford’s Schools. Our exhibition, *Coordinates: Maps and Art Exploring Shared Terrain*, accompanied by a day-long symposium of artists in conversation with academics and each other, is no exception. Both the symposium and the exhibition are pioneering in a myriad of ways: They pair the Center’s cartographic works with works of art borrowed from across the country and to allow a full day of active engagement between artists and academics with the pieces on display in the exhibition. These interchanges, however, are distinctive, as they are leveraged by the Center’s signature digital technologies, ripe for germination of extraordinary ideas.

The diverse nature of the pieces exhibited is of import—landscape pieces, photographs, children’s conceptions of maps, views from space, ballooned tunnels paired with maps which defy definition. Therein lies the crux of this exhibition—the opportunity for the viewer to ponder new visions in her or his mind about both the map and the art piece and to liberate pre-conceived notions about what either is. There will be pairings in the exhibition that will orchestrate epiphanies in your mind; others you might find pique your curiosity or simply strike you as tastefully eccentric. This, as you might imagine, is infinitely fine—we each have our favorites; and then there are those that we relegate to the farthest reaches of our mind.

The pairing that struck a special chord in my being has to be Andrew Ward’s *Sofas of LA*, paired with a couple of choropleth maps. The seemingly pedestrian images of sofas on the street sandwiched between Richard Saul Wurman’s maps depicting personal income and the density of housing bring to life the cogent reality of the urban landscape. The sofas move from the curb to the corners of the living room and then back to the curb in a seemingly endless and battered life, completely antithetical to the utility of providing cushion to the creatures that it comforts. The map too has this dual quality—prosaic circles of varying intensity aggregating families of similar income in one case and that of crowded clusters of humanity in the other. Symbols akin to circular farms, they highlight both the plight and pluck of humanity.

Another striking pairing, incidentally, also has to do with the urban American West. I am referring to Kent Dingle’s piece titled *United Shapes of America Maps Drawn from Memory by Las Vegas Teenagers* and its pairing with six marvelous exemplars of children’s maps, all girls, from the Center’s collections. The Dingle piece is a contemporary work that provides a remarkable window into the perceived shape of the United States in the mind of a group of Las Vegas teenagers. It is in stark contrast to the fastidious and artistic penmanship by girls drawing maps between 1819 and 1850. In particular, Frances H. Henshaw’s (1829) remarkable drawings and text of many US states, a rare and singular copy, and the equally remarkable maps and artistic descriptions by Harriet Baker (1819), are monumental pieces in their own right. Paired with the Dingle work, we are left to contemplate how thinking about space has changed over the centuries.

Your own experience will be undoubtedly different from mine. I have had the fortune of seeing these pieces early and often, mounted digitally and then physically; transporting me from the ordinary to the multidimensional to the ethereal. You might realize, as did I, that maps or art are not exclusively one or the other. They are interspersed and forever bound.

G. Salim Mohammed
Head and Curator, David Rumsey Map Center

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*B. M. Norman, A. Peresac, J. H. Colton, Chart Of The Lower Mississippi River, 1858.*
The visible has been and still remains the principal human source of information about the world. Through the visible one orients oneself … It is thanks to the visible that one recognizes space as the precondition for physical existence.
—John Berger, *And One Face, My Heart, Brief as Photos*

It’s all about looking. At first glance, maps and art appear to represent the world from radically divergent perspectives and have different ends in mind. Cartographers strive to create an objective depiction of space that is faithful to the facts on the ground. Artists, firmly grounded in their individuality, will represent the same site from a subjective viewpoint—a walk through a city metered by the artist’s footsteps, a globe redrawn as a pyramid, a view of the Earth framed by an airplane window. But in capturing a specific part of the world in an image, mapmakers and artists face the same daunting questions: Where are we? How do we know? What is in the frame? What is left out? Through which lens? How do we make what lies beyond visible in the mind’s eye?

Now look again. These pairings of maps and art reveal that their answers converge in surprising ways, so much so that it’s sometimes difficult to determine which is “the map” and which “the art.” Both rely on visual symbols and their codes of association to convey meaning. Both play with scale. Neither represent terrain literally, stripped of all symbology, or in a one-to-one scale. A map is not so much a visualized topography as an interpretive guide to it; just as an artwork is not an illustration but an investigation of how to look with an eye that widens from the concrete to envision an abstract concept. As an aesthetic gesture, a map is inherently an art: tracing, interlacing, erasing. As a document of interpretation, art becomes a map of meaning.

Picturing Earth and beyond in forms that transcend human scale—and, significantly, reveal how much we cannot see—maps and art are modes of observation that are distinguished chiefly by intent: maps stipulate what to see, while art questions how we see. Each begins with a choice of framing and are thus subjective. But the two genres differ in the admission of that subjectivity. Cartographic biases are often more implicit, while it is taken as a given that artworks come from a singular point of view. The former often takes an objective, panoptic view of the world, the latter is seen through the eyes of the individual artist in a particular place at a particular time.

In guiding how we absorb information, maps and art contribute to the public construction of memory through a pluralism of witnesses. They rescue the impermanent from collective amnesia. Memories disintegrate into entropy. But maps and art, recording human experience pictorially, help us to remember the world in its in calculable diversity. Like memory itself, these media are rich in meaning because their omissions are as significant as their inclusions. As artifacts of memory, they capture human consciousness in all its ambition, ambivalence, and imperfection. What we think we see in the map and art can be a lie or distor tion. It can slip away from the firm grasp of the viewer and maker alike.

In the following pages you will find maps and art pursuing kindred inquiries, aligning in pairs and in constellations. Learning to read them as unique works and also as coordinates in overlapping territory—geographical and metaphorical—is an exercise in media literacy that is crucial for our time of ubiquitous and all too transparent media. The pairings defy the limits we habitually place on them as “maps” and “art,” thereby beckoning us to explore the visible—and invisible—in new ways.

Emily Prince, Cartographic Metadata Librarian, Stanford University
David Rumsey, Founder, David Rumsey Map Collection

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Index of Maps and Art

Index of maps and art arranged by case at the same scale in the exhibition
In the old days, map-makers took certain liberties. That's how Emily Prince, the Cartographic Metadata Librarian and co-curator of this exhibition, explains it to me. If an intrepid explorer of the 17th century, for example, wasn't quite certain how this river fed into that tributary, or how this mountain range gave way to that valley, they made it up. Science, as we presently understand it, didn't yet exist; knowledge was fungible and unconfirmed, possibly unconfirmable. The term “scientist,” in fact, wasn't coined until the 1830s, when it began to replace the more ponderous “natural philosopher.”

Emily sits across an enormous wooden table—ideal for unfolding maps—from David Rumsey, an artist turned entrepreneur turned esteemed map collector. We're in the ground floor library and study of David's San Francisco home, which holds thousands of maps collected from across the last 500 years. The space has that curious antiquarian quality of being simultaneously dark and perfectly well lit. The future, however, has undoubtedly arrived: a wall-size grid of computer monitors hovers in one side of the room, displaying a near-symphonic cascade of images. It's from here that David and Emily envisioned Coordinates: Maps and Art Exploring Shared Terrain, an exhibition in the Stanford University Map Center that bears David's name and houses the bulk of his collection.

David and Emily go on to describe the massive epistemological shift in 19th century cartography, which, among other things, included the admission of ignorance. Apparently, science shepherded great expanses of blank space onto the modern map, rendering conjecture obsolete.

Coordinates embraces this spirit of uncharted territory by constructing an open-ended constellation of meaning between maps and works of contemporary and conceptual art. The exhibition aims to provoke questions and draw parallels between these distinct but related practices without didactic explanation or subordination of either field. This makes the show rare. Further, maps don't often find their way into art museums and artworks don't generally wind up in map libraries.

I should mention that the exhibition organizers are uniquely equipped for the task. David's former art collective, Pulsa, experimented with light and space environments in the 1960s and 70s from “Harmony Ranch,” a commune just north of New Haven, where he studied and later taught at Yale. Emily has shown her sensitive works on paper at the 2007 Venice Biennale, among other venues. Not your average map librarians.

This catalog is a companion to the exhibition and mainly focuses on a key thread of the show—the act of pairing. I, too, have been paired, as a kind of correspondent, tracing the contours of their work and reporting back in the form of this writing. Thankfully, and unexpectedly, the organizers have assured me that there is no wrong way to read a map. While I don't believe them, perhaps my aim is somewhat similar to theirs: to unsettle the ground between the perceived objectivity of maps and subjectivity of art; to loosen—even if slightly—our grip on knowing; and to take a closer look at what terra incognita might mean in the context of their efforts.

* *

Time, once upon a time, was disparate. Before railroads invented standardization, Charleston, South Carolina ran about five minutes faster than Savannah, Georgia. Austin was 33 minutes further along than Santa Fe. The extraordinary Johnson and Browning map [p. 41] in the exhibition depicts a network of clocks in concentric rings of relativity around Washington, DC. Their varied faces indicate that the time of day was a local matter, as I suppose it is to artists in some metaphorical way. “Agree to disagree!” the diagram seems to clang.

Maps generally connote consensus. They are reasoned—a declaration of sense and a presentation of fact. Final until proven otherwise and intended to be read in particular ways, their telos is distinct from that of art. Like railroads,
they enable speed, produce efficiency, and require synchronicity. The clocks, however, inspire me to imagine knowledge not as a great equalizer, but instead as a complex, agreed upon, and weirdly precise system of difference. What if the study of maps were an examination of wildly varying subjectivities? An investigation into what we thought we knew, and the ingenious and peculiar ways we thought we knew it? From a certain vantage, this appears to hold up. Art is a radical reflection on maps as divergent pursuits, like living through history and watching a documentary. In other words, this exhibition is not getting anyone to Half Moon Bay in the least amount of traffic by 5pm this afternoon. Meanwhile, art is decidedly not a floor plan, subway navigator, or chart of the Lower Mississippi. It gets us plenty of places, but no place precisely. More than the sum of its parts, it delivers the world, and a desire to either protect or condemn artwork primarily on the strength of its values. I’d argue that a work of art exists a world apart from whatever its maker did or didn’t have in mind for it to communicate. Additionally, such an approach “robs us of what is messy and tense and chaotic and extrajudicial about art,” recently asserted Wesley Morris of The New York Times.1 It’s a different story with maps. In this catalog alone, we get a good look at top secret US military bases, principle mining districts of Mexico, and the 1901 boundary between the US and Mexico, marked with iron “monuments.” Maps are often conceived within ideologies of exploitation, and while this project is not about these concerns, per se, it’s hard not to identify them from cover to cover. Knotty and compromised origin stories raise the stakes of romping in the realm of not knowing. One map in particular scrambles my conceptual take on Terra incognita beyond recognition. “Map Of An Exploring Expedition To The Rocky Mountains” [p. 22], from 1845, is a richly rendered drawing of what J. C. Fremont, a topographical engineer, “saw close to the route of his journey.”2 We see the defined edges of our western coast, winding rivers, sprawling lakes, and dozens of forts. Most of all, we see mountain ranges, which are surrounded by heaps of negative space. This document is notable, according to the exhibition organizers, on account of its gaps; it’s not complete in and of itself, as most maps are. This, it initially strikes me, is a nice definition of art: to only show what was seen along the route of a particular journey. Now notice the swiftly sweeping text across the Great Basin, its “contents almost unknown, but believed to be filled with rivers and lakes which have no communication with sea, deserts and oases which have never been explored, and savage tribes, which no traveler has seen or described.” Pause. Simple question. If no one has seen or described these details, how exactly are they believed? Zoom out. Consider that like the clock diagram, this map also revolves around Washington, DC, though less literally. It was commissioned by Congress, a body that two decades before the Civil War had an active interest in building a great, undivided nation and advancing ever-westward, manifesting their destiny as widely as possible. Plainly said, maps like this one were tools for colonization and settlement. The United States government wasn’t funding studies of individual cities at this time, for example, but instead creating and disseminating maps to identify, claim, and legitimize resources, Terra incognita by another time. Wisely, this is paired with an image by conceptual photographer John Pfahl [p. 23] in which a sunny day at the beach becomes a meditation on the arbitrary nature of delineating a space, any space, in the natural world. Straight lines of rope extend from sand to infinite surf, disappearing under the tide. With the help of a pointy rock in the distance, what initially appears as a receding rectangle snaps into focus as a triangle, the rock as its crown. The picture confronts the various distortion fields that accompany the rendering of three-dimensional space onto a two-dimensional plane—a quality shared by most maps and photographs. I also think it reflects our innate desire to mark territory, if even for an afternoon, and the surreal perversities of private land ownership.

2 https://www.davidrumsey.com/luna/servlet/detail/RUMSEY-V-1-1818-170044

1 https://www.guggenheim.org/exhibition/on-kawara-silence

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1.1 J.C. Fremont, *Map of an exploring expedition to the Rocky Mountains . . . ,* 1845. Map, 30.3 x 51.6 in.

1.6


1.5
2.1 Baron F.W. von Egloffstein, Geological map and profiles of some of the principal mining districts of Mexico, 1864. Map, 23.2 x 29.5 in.

2.2 Tauba Auerbach, Untitled (Fold), 2010. Acrylic on canvas, 40 x 30 in. © Tauba Auerbach. Courtesy the artist and Paula Cooper Gallery, New York.


2.6 U.S. Department of Agriculture, Weather Bureau, *United States Weather Map*, 1901. 6 maps, 17.7 x 22.8 in. each.
Trevor Paglen, STSS-1 and Two Unidentified Spacecraft over Carson City (Space Tracking and Surveillance System; USA 200), from series The Other Night Sky, 2010. C-Print, 48 x 48 in. © Trevor Paglen. Courtesy the artist and Altman Siegel, San Francisco.

3.3 Trevor Paglen, Open Hangar, Cactus Flats, NV, Distance ~ 18 miles, 10:04 a.m., from series Limit Telephotography, 2007. C-Print, 30 x 36 in. © Trevor Paglen. Courtesy the artist and Altman Siegel, San Francisco.


44 A.J. Johnson, Diagram Exhibiting the difference of time between the places shown & Washington, 1860. Map, 15.7 x 13.4 in.


6.2 International Boundary Commission, Línea Divisoria Entre México y Los Estados Unidos, 1901. 1 map, 28.15 x 41 in.
6.3 [Above]
Joseph Salway, Plan of the Road from Hyde Park Corner to Counter’s Bridge, 1811. 3 sheets of 15-sheet map, 24 x 28 in. each.

6.4 [Below]

San Shintaro, secretary to the shogun, Japan, Shrine Pilgrimage, c. 1700-1750. Manuscript atlas, closed 8.8 x 6.8 in.


Robert Smithson. 12 map parts with pencil. 4 x 7 ¾ in. (each); diameter 15 in. This item is believed to have been produced c. 1968, and relates to Smithson’s body of research into nonsites. Collection the Estate of Nancy Holt. © Holt/Smithson Foundation, licensed by VAGA at ARS, New York. Courtesy the Estate of Nancy Holt.

Edmond Guillemin-Tarayre, Carte Panoramique de la Region metallifere de Washoe (Etat de Nevada), 1864. Map, 29 x 22 in.

Charles Joseph Minard, *Carte figurative de l’émigration du globe, 1858*. Map, 20 x 27.6 in.

Notes on Maps and Art Pairs
Emily Prince and David Rumsey

1.1 This is one of the most important U.S. government visions, which often shows how maps were used to create cartographic knowledge of the West by including the first accurate depiction of the Great Salt Lake, the Sierra Nevada range in outline form, and the course of the Colorado River. Interestingly, the map only shows what Fremont saw close to the route of his journey. As such, it leaves many areas blank and unmapped. In the Great Basin, which Fremont left unmapped, he noted, “the Dymaxion Map reveals a One-World Island in a One-World Ocean.” The legend shows color codes for Mean Low Annual Temperatures for land areas. [p. 24]

1.2 On the island of Bermuda in 1975, as part of his Preferred Landscape photography project in which he playfully inserted objects into the environment, John Pfahl created a triangular outline with strings secured into the sand, showing only the bottom half of the triangle, allowing the top to remain under the plane of the image. Alluding to the infamously dangerous Bermuda Triangle, lines lead the eye to fill in the image, but what is known to reveal what is unknown. In both cases, the viewer is drawn to the abences where the mind is stimulated to conjecture.

1.3 Fuller’s map uses his Dymaxion projection, a projection he created in the 1940s. It was the first cartographic projection to receive a U.S. patent. It shows all the continents without distortion and emphasizes the connections between all the world’s land masses, seemingly floating in the surrounding sea. The map easily folds to create a multiaction globe. In Fuller’s own words, “the Dymaxion Map reveals a One-World Island in a One-World Ocean.” The Legend shows color codes for Mean Low Annual Temperatures for land areas. [p. 24]

1.4 In her series of map drawings (1973 and 1979), Agnes Denes invented alternative projections, such as triangles rather than spheres in picturing the Earth. Denes described her process of reshaping planetary geographies as “working with a paradox, defining the elusive, visualizing the invisible, communicating the incommunicable.” Specifically, she described “transform[ing] the globe” into several trigonometric shapes, while keeping correct mapping measurements and recalled that “when Buckminster Fuller, whom I met a few years before his death, saw the book exclaimed, ‘I should have done this!’” He was so impressed, he sent me his dymaxion map as a present.” Denes further detailed that “the longitude and latitude lines are unraveled, and the continents are allowed to float in space and assume new configurations. Mathematical forms are projected over fluid space to create maps that are wily and mysterious.” [p. 25]

1.5 Frost made this celestial chart, coloring it in tones of blue, white, yellow, and green, showing the Newtonian sun-centered universe, in contrast to the Earth-centered universe in which he believed. Frost was a scientist and prominent member of the mid-19th Century religious sect known as the Muggletonians. “Frost was instrumental in the refinement of the Muggletonian’s astronomical theory that the Earth was the center of the universe. This map was originally published with five other maps under the title “Two Systems of Astronomy,” 1846, and likely circulated only to members of the sect. It was printed by George Baxter, who employed his innovative oil color printing technique that permitted subtle gradations for a glowing effect and was engraved by Chubb & Son, London. Baxter’s works are rare because although the production of color produced are quite beautiful, the process was too expensive to sustain commercial manufacture. [p. 27]
2.1 This full-color engraved geological map has 13 geological provinces. To make the map, Egloffstein invented a unique way to show topography by scored lines of different thicknesses which creates the impression for the viewer of looking at a three-dimensional scene, lit from the side. His map shows major cities, volcanoes, lakes, etc., and includes this note: “The geological profiles constructed from altitudes obtained by series of barometrical observations made along the lines indicated in white.” Prime meridian is Mexico. Egloffstein used the same scored lines technique to map the Grand Canyon. [p. 28]

2.2 To create this painting, one of a series begun in 2009, Auerbach cramped a piece of canvas and then spray painted it from various angles so the paint hit the canvas “like raking light.” When the painting is fully stretched, the pattern on its surface visually replicates its previously fielded form through what appears to be light and shadow and thus “has a 1:1 mapping or indexing of its previous contours.” Auerbach is interested in the relationship between a 2D surface and a 3D object. They point to the possibility of perspectives orconsciousness beyond our own, and reveal the limits that shape our ability to perceive what might exist beyond the scope of our knowledge.” [p. 29]

2.3 Baron F.W. von Egloffstein, Geologische map en profiler van een deel van de principaals mining Artikel van Mexico, 1864

2.4 John LaWitt, A Circle of Manhattan showing a Grid, 1976-79

2.5 On Kawara was born in Kariya, Japan in 1932 and lived in New York City from 1964 until his death in 2014. He is known for “strapped-down works containing mundane details—a date painted on canvas in plain text—carried out in epic multidraws over years. The J W ist series totals over four thousand drawings from 1968 to 1976. ‘Kawara traced his movements over the course of a day in red on a state map that he stumped with the date. He eventually preserved the maps in plastic sleeves and assembling them in three-ringer binders. Kawara created at least one map per day for the length of the series. If he left the area repre- sented by the map, he used arrows and notes to describe where he had gone and his return route. Kawara marked the location where he began the day with a red dot. On days when he didn’t leave the house, the map solely bears that mark. If the artist was out after midnight, then the next day’s map begins at that location. Kawara achieved a consistency in size and appear- ance in this series by cropping and altering the maps through photocopying.” Through massive series, Kawara’s drawings on maps coalesce to reveal—like a twist ending—the profound singularity of every walk, every day, every life. [p. 32]

2.6 These maps are part of a large group of daily weather maps and forecasts of consecutive days over a six-month period in 1901, from January 1 to June 30, bound together in an atlas. The maps show weather conditions across the entire United States, indicating clear, partly cloudy, cloudy, rain, snow, and storm warnings. Storm tracks are shown, thunderstorms indicated, isolars and isotherms are shown. Narratives give weather conditions and general forecasts, as well as regional forecasts for all the states. River stages for major cities are given as well as barometric pressure, temperature, wind velocity and rainfall amounts. The weather maps provide, in one view, a comprehensive understanding of the national weather. Taken as a sequence over time, they provide an almost animated time sequence of the weather changes. [p. 33]

3.1 In this long-exposure photograph of the night sky Paglen captured the movement of government satellites embedded amongst a sea of star trails.” A practicing artist with a PhD in Geography from UC Berkeley, Paglen is known for his observational photography of obscurely located and intentionally difficult to capture US government operations and technologies. As part of his thesis The Other Night Sky, the image directs the viewer to observe their observers in the form of “classified American satellites, space debris, and other obscure objects in Earth orbit.” [p. 14]

3.2 This pictorial lunar chart and map of the world depicts the flight of the GOSS mission to the moon. Packed with information—abbreviations and acronyms, tables and explanatory text—it provides an extensive overview of the critical steps required during the Apollo flight. 122 numbered steps show a path that leads from the Earth to the Moon and back. The data flow of telemetry and communications is highlighted near the center. Key illustrated steps during the Apollo Saturn launch phase include ignition and separation of all stages, escape tower jettison, then orbital checkouts. A second moon in the diagram gives room for the steps required for the Lunar Module to leave the lunar surface, dock with the Command and Service Module, and prepare for the long engine burn to return to the earth. Several steps cover re-entry and splashdown in the Pacific Ocean. A note states “This chart has been purposely drawn out of scale to better illustrate the major events of the mission.” [p. 35]
3.3 Trevor Paglen, Open Oregon, Coast Line, NV. Distance: 1,900 ft. Air Force Restricted Master Plan 23200, 30 November 1952. This photograph is due to the use of imitative telephotography. This technology allowed Paglen to document a US military site invisible to a civilian’s naked eye. Part of what makes capturing images at such a distance difficult is the density of earth’s atmosphere. The blurred focus also represents the air we breathe, a part of our environment harder to see. Paglen documents the pervasive yet nearly invisible military activity that restricts our access to and understanding of such remote landscapes. [p. 36]

3.4 This map is from an atlas collection of the United States Air Force Restricted Master Plans, dated 1953. It comprises two index sheets and 288 maps, including municipal airport preliminary master plans and vicinity maps printed on both sides of sheets. On the last page: “This volume has been prepared under United States Air Force Contract AF-33(600)-23200 Dated 9 December 1952 by Richard Harding Cutting & Associates, Inc. Architects-Engineers Cleveland, Ohio.” Maps are in color and black and white, some folded, and show major cities, roads, railroads, rivers and mountains. Relief is shown by contours and spot height. The atlas is bound with hinging screws. The maps were considered secret and restricted information by top-down bureaucratic style “restricted” view of an Air Force base; and what is nearly visible to civilians through the haze of covert air in a remote location chosen to restrict visibility. [p. 37]

4.1 Richard Long, A Seven Day Circle of Ground, Air, Depth, Rhythm, Motion and Imaginary Circle 5 ½ Miles Wide, Dartmoor, England, 1966. [p. 40]

4.2 This map was issued first as a magazine advertisement; this version was available to readers by request. It includes a summary of the impact of the Air Age and how it affects our world view. With mankind no longer dependent upon water or land to travel, these basic elements of the environment are removed from the map. And what you are left with is a totally different take on who your neighbors are: Showing just city names and their approximate distance: it is a new, untested, unmeasured, unspoken geographical domain. [p. 38]

4.3 In 1964 Japanese artist and composer Shoumin Mieko (Chieko) was invited to New York City by George Maciunas, founder of the Fluxus network of artists, to collaborate with him on a number of projects. This Fluxus map is the first edition uncolored broadside issued in 1965, in 3 folds (now flattened), with title on the cover “A FluxAtlas. Mieko Shoumin. Event design, George Maciunas.” It includes outline maps of Japan, North America and Europe with notations indicating the locations of artists describing what they were doing at the time. In 1965 Shoumin conducted a series of time events that she called “Spatial Poems.” Each began with an invitation to friends and colleagues to respond to a simple instruction, which took the form of an intimate action poem. The accumulated responses she gut back constitutes the work and gives a glimpse of the artists who were connected through Fluxus activities. [p. 41]

4.4 The small clocks surrounding the large clock show local time when it is noon at Washington, D.C. The figures on the clock faces denote the “air line distances” from Washington, D.C. The diagram shows solar time, the standard time measurement in the US before the advent of time zones in 1883, following the request of the railroads to streamline schedules. The diagram shows the rich variety of local time across the country, including New York, San Francisco, and Santa Fe, as well as international cities such as London, Constantinople, and Peking. It appeared in multiple editions of Johnson’s Family Atlas in the 1860s. [p. 41]

4.5 Since 2012, Ward has been photographing sofas abandoned on sidewalks and city streets throughout Los Angeles. Each photograph is taken straight on, in a manner that Ward describes as a formal portrait. Like images of people one does not know, the details of the couches and their surroundings provide clues to the lives that have taken place around them. By showing these photographs together, Ward indicates the waves of movement into and out of Los Angeles urban environment and the spread of objects that wash up on sidewalks they wake. Through Ward’s documentation, domestic dereliction serves as an index to the permanent housing flux and consequent migration that occurs within an urban landscape. [p. 42]

4.6 This is a data visualization and map combined, showing the amount of personal income in different parts of Los Angeles, indicated by circles of varying densities of blue. It is taken from Richard Saul Wurman’s “Urban Atlas,” which was the first comparative statistical analysis of 20 American cities, all mapped at the same scale. This is a pioneering work in the history of information graphics. The atlas maps show population density, income levels, land use, and religion, both in space and over time. The overlays of different data are especially compelling, and the handmade aspect of the maps feels rich compared to current computer-generated visualizations. The atlas offers views of all 20 cities, that together remain powerful half a century later. This map shows the concentration of income in certain parts of Los Angeles and the lack of income in others. [p. 43]

1.4 Jerome Andre Martignoni, Carte Historique De La France Et De L'Angleterre Depuis La Naissance De Jesus-Christ Jusqu’a L’An 1700, c. 1721.

1.5 Dorothy Barnino encountered the “campesinos” (Spanish - Mised fields). She explained, “With no special interest I began to photograph the grave crosses. These seemed to be the last cultural expression of the Spanish-American—untainted or influenced by the entering Anglo. Here was found continuity of expression in honest devotion and love and passion.” Added to this series are two colored photographs of roadside memorials taken by Emily Prins—also in northern Mexico—during the summer of 2018, after a serendipitous finding of Barnino’s photographs in a Santa Fe antique store. [p. 50]

2.1 This massive and graceful installation of 2,152,780 square feet of heavy white nylon fabric was in place for only fourteen days. During this time it could be viewed from above (in plan format) together with a view from the same part of the road looking at the north side of the road profile. This creates for the viewer a hyperspace that combines both planimetric and frontal views. [p. 48]

2.2 This is a time-line map: a chronological flow chart of French and English historical events from the birth of Christ until 1710. It was prepared and published by the Italian scholar and poet Jerome Andre Martignoni. The title of his work resembles an “Explanation of the history of France and Britain since the birth of Jesus Christ until the year 1700,” and the map contains abbreviated key events of those kingdoms during the Roman Empire. Martignoni intended this work as a new means of teaching European history in an easy, comprehensible, and all-encompassing manner by means of historical maps composed in a particular methodical way. His work offered one of the first systematic visualizations of the stream-of-time metaphor, but it was far from the last. Martignoni stretched what could be shown in a single view to the very limit. What would appear at first to be world maps are in fact hybrid charts combining geographic and chronographic information. [p. 41]

2.3 Joseph Salway was a British artist and surveyor. The Kensington Turnpike Trust was formed by Act of Parliament in 1725 to care for several important roads to the west of London. Its Trustees employed Joseph Salway to create a plan of the Turnpike road from Hyde Park Corner to Counter’s Bridge, next to what are now the Olympia Exhibition Halls in West Kensington. Beginning his work in 1813, Salway created 17 large water color drawings (on 10 sheets) with a meticulous level of detail, order and symmetry. What is unusual about Salway’s drawings is their view of the road from above (in plan format) together with a view from the same part of the road looking at the north side of the road profile. This creates for the viewer a hyperspace that combines both planimetric and frontal views. [p. 48]

2.4 This pairing of an aerial landscape view and a historic timeline share a visual rhyme of branching streams, and in doing so, suggests how deep the archetype of flow runs in human perception. [p. 44]

6.2 Map titles are in English and Spanish. Part of a group of 19 maps showing the proposed 1899 boundary between the United States and Mexico, from the Pacific Ocean to the Rio Grande. The survey was made as a result of the 1862 agreement between the U.S. and Mexico to more accurately map the border west of the Rio Grande. U.S. and Mexican Commissioners are listed with signatures on the maps. The maps are black and white, showing 20-foot contours, roads, railroad, survey markers, landmarks, vegetation, watercourses, roads, hachures for edges of meos, and boundary lines. The boundary itself is an abstraction in stark contrast with the minimal topography shown. Seen more than 100 years later, the division of land has been the division of culture. [p. 87]

6.3 It is an early example of Leonard’s interest in exploring our relationship to the natural world. The photograph puts the viewer in the sky, gazing down on a winding river through foggy clouds. From this elevated perspective, the ordinary scale of the human relationship to nature is momentarily lost. “Slick, silky trails of water necklace an unidentifiable, dark and smeary landscape.” Leonard’s hand remains implicit in the image as the black frame of the negative and the abrupt fade from light to dark point to the conscious but flexible character of the photographic process. [p. 44]

6.4 The Kensington Turnpike Trust was formed by Act of Parliament in 1725 to care for several important roads to the west of London. Its Trustees employed Joseph Salway to create a plan of the Turnpike road from Hyde Park Corner to Counter’s Bridge, next to what are now the Olympia Exhibition Halls in West Kensington. Beginning his work in 1813, Salway created 17 large water color drawings (on 10 sheets) with a meticulous level of detail, order and symmetry. What is unusual about Salway’s drawings is their view of the road from above (in plan format) together with a view from the same part of the road looking at the north side of the road profile. This creates for the viewer a hyperspace that combines both planimetric and frontal views. [p. 48]


Bill Jenkins, Long Endings, 2011.

Sir David Brewster, Polarization atmosphere: From Four Years Exploration, 1845.

Jenkins often works from a basis of found objects and then recontextualizes them through handmade additions or carefully considered, unmalleable placements. Long Ending was originally an air filter that had been gathering smog and dust under a building near the East River in Manhattan. In writing about the work, he describes the smog as a kind of pigment that changed the filter into a “camera obscura” that operates with airflow rather than light. I like to think of the area of sampling that the dust-pigment represents... back to the oil fields and oil tanker ships then to the immediate areas of reach of the air intake system the filter was installed in. The filter registers being exposed to these materials in its location and is now a mobile device for displaying this interaction.* Removed from its original context, the piece operates like a time capsule that holds and displays a collection of atmospheric elements from its earlier life. [p. 13]

9.2 Sir David Brewster was a Scottish scientist and inventor who researched the effect of air as a filter on light passing through it and the changes it caused in the light. If the earth had no atmosphere the sky would appear black. The existence of blue sky proved to Brewster that the air can act upon light and produce physical changes in the light—such changes are called polarization. The angle that light passes through the air affects the amount and quality of polarization. Brewster’s map shows areas of equal polarization according to formulas that he developed. Two large circles on the map represent two separate projections. The left circle shows the lines projected on a plane passing through the zenith of the observer, the right circle shows the lines projected on the plane of the horizon. Brewster found the effect of air on sun light fascinating and published many papers on the subject. [p. 13]

9.1 Jenkins offers us his own experience as a measure of time, temperatures, and impermanence. The differences in scale they saw—city vs. polar region—and technology—video camera vs. drone—underline the relativity nature of entropy and inevitable vanishing of all things.

9.1 Born in Belgium and based in Mexico, Francis Alÿs makes site-specific work that explores spatial justice within urban environments, all grit included. His videos often incorporate walking, particularly strolling, which invites an examination of our relationship to space, as experienced through the passage of time, at a slowed pace. For Sometime Making Something Leads to Nothing, Alÿs pushed a rectangle of ice along Mexico City streets for nine hours, until it melted away completely. The framing captures quotidian happenstance in the background as Alÿs goes from one place to another, at a slowed pace. For his video, Alÿs organized their outlines onto a single canvas and painted in the shapes. Dingle notes that together on the canvas the “maps” begin to look much like cows. Viewed in relation to each other, the rich variety of geographical outlines embody the subjectivity—and therefore inevitable fluidity—of memory and our understanding of space. [p. 56]

9.1 Robert Smithson (1938–1973) spent his formative years in New Jersey. Childhood浸nment in travel, cartography, geology, architectural ruins, prehistory, philosophy, science fiction, popular culture and language inspired his art, which frequently made use of maps. Smithson changed notions of contemporary art by taking it out of the gallery and into the landscape, as can be seen in his landmark earthworks Spiral Jetty (1970), Broken Circle/Spiral Hill (1971), and Spiral Jetty (1973). Attracted to industrial landslides, rock quarries and fringe landscapes, Smithson’s works of the late 1960s broke with conventional notions of sculpture. His ‘nonsites’ were made from treks into non-urban environments. Incorporating maps, lines and mirrors with organic materials, such as rocks and earth, the nonsites create a dialectic between outdoors and indoors, ruminating on time, site, sight, nature and culture. The first nonsite was A Nonsite, Pine Barrens, New Jersey (1966). Included in this exhibition is a study related to this research, exhibited for the first time. A map of Pine Barrens Plains in New Jersey is cut into a segmental circle, with pencil lines in color. [Cont’d third col]

10.1 Dingle, who grew up in Las Vegas, began this series when he requested that a childhood friend, and current teacher, ask her students to draw an outline of the United States, as accurately as they could from memory. After receiving the drawings from her friend, Dingle organized their outlines onto a single canvas and painted in the shapes. Dingle notes that together on the canvas the “maps” begin to look much like cows. Viewed in relation to each other, the rich variety of geographical outlines embody the subjectivity—and therefore inevitable fluidity—of memory and our understanding of space. [p. 56]

10.2 In the early 19th century, educators such as Emma Willard taught young women geography by having their students make maps to better understand geography and spatial relationships. By drawing and making and coloring the maps the students committed facts to memory and also learned good penmanship. In addition to maps, the descriptive texts that accompanied the maps were often made in a map-like fashion on the page, as is the case with this text page describing the United States. The words ‘United States of America’ are placed in the center of the page indicating the country, and those words are surrounded on four sides by words representing Canada to the north, the Atlantic Ocean on the east, Florida to the south, and the Gulf of Mexico to the west. The whole creates a kind of text map. In the hand drawn atlas by Harriet E. Baker, of which this page is a part, there are maps of most of the states along with text maps describing them. [p. 77]
12.1 In Atlas Dream Sequence, Heidi Neilson created a series of cartographic collages, where each page spread is an imagined magnification from the previous spread, as if the viewer zooms in to discover new details. By detaching maps from the exact places they describe, Neilson removed the site-specificity so that they speak to more universal aspects of space and its representation. She rummaged through map ephemera, looking for distinct borders and coastlines that fit together, mixing together sources so that a town in Italy might share a coast with Antarctica. The results are landscapes unhinged from scale, such as a circular pond-ocean. The front and back of the book are equal; there are landscapes unhinged from scale, such as a circular pond-ocean.

12.2 Persac was an accomplished landscape painter and land surveyor. His map shows the extensive plantation system along the Mississippi River, with land ownership plots following the French model of long narrow holdings so each plantation would have some river frontage to allow shipment of commodities by water. The stark contrast between the straight survey lines and the curving course of the Mississippi River makes for an unusual visual picture, almost abstract. Most of this ownership pattern was swept away after the U.S. Civil War, so the map is a window into a lost world. Very few copies of this map have survived with only a few listed in library collections. Engraved by New York map publisher, J.H. Colton and published by B.M. Norman of New Orleans. [p. 61]

13.1 Charles Joseph Minard was a pioneer in visualizing data through maps. The purpose of his maps was to take complex sets of data and make the information more understandable using graphics. He was among the first to use flow lines where the width of the line is proportional to the number of units moving along it. This map shows the migration of people around the globe in the year 1859. One million miles of line width equals fifteen hundred emigrants, with the numbers on the lines in units of a thousand. A millimeter of line width equals fifteen hundred emigrants, this map shows the number of units moving along it. This map shows the sequence of images can be read from either direction. [p. 60]

13.2 Minard, the founding genius of data visualisation, subordinates everything— even the shape of the continents, to the flow lines that indicate movement of people. Gonzales-Torres, here also in the realm of dispersed, defies the notion of art—unicomposity and narrow—by letting people take his images away with them, re-creating the act of letting go.

ENDNOTES


19. Robert B. Dunbar, in email to Emily Prince (March 24, 2019).


Featuring a variety of ways in which maps and art overlap in inquiries about space, both geographical and metaphorical, this exhibition took place at the David Rumsey Map Center at Stanford University from April 25th to September 30th, 2019, and was co-curated by Emily Prince and David Rumsey.

Coordinates: Maps and Art Exploring Shared Terrain
April 25 – September 30, 2019
David Rumsey Map Center

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David Rumsey Map Center
557 Escondido Mall
Stanford, CA 94305
rumseymapcenter.stanford.edu
davidrumsey.com

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Coordinates: Maps and Art
Exploring shared terrain