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CartoGraphica

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CartoGraphica

Abstract
The best way to begin a discussion about maps is to define what a map is and what it does. A map is a way of cataloging information with a relational property; it is an interpretive explanation of spatial relationships. It need not represent Earth, and it need not even be real. Some of the most interesting maps chart places that don't even exist. There are as many kinds of maps as there are things to show on a map. They can show politics, geography, topography, statistics, regions, cultures, places, transportation, demographics, history, and more. The one common feature of them all is that they show, in some way, space; whatever else they do or do not display, they show something that is physically related to other things.

Comments
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CartoGraphica

Tara Krueger
March 31, 2006

The best way to begin a discussion about maps is to define what a map is and what it does. A map is a way of cataloging information with a relational property; it is an interpretive explanation of spatial relationships. It need not represent Earth, and it need not even be real. Some of the most interesting maps chart places that don't even exist. There are as many kinds of maps as there are things to show on a map. They can show politics, geography, topography, statistics, regions, cultures, places, transportation, demographics, history, and more. The one common feature of them all is that they show, in some way, space; whatever else they do or do not display, they show something that is physically related to other things.

Researcher Lynn Liben describes the three fundamental properties of maps:

> **Spatialization**: Cartographic maps have a spatial essence: it not only represents something, it represents something *in relation to* space
>
> **Purpose**: A cartographic map is not only *of* something but *for* something
>
> **Duality**: A cartographic map has a dual existence: it *is* something and it *stands for* something

But I offer a fourth, a corollary, that maps have the property of **omission**. We are only capable of discerning a limited amount of information from any one map, so we have to reduce the size of the story we tell with any one. Maps pretend to tell a brand of truth: we tend to take them as-is when in reality they offer a mere representation of space. Consider a typical geologic map. It omits all information except what it needs to fulfill its purpose. It is as if somewhere, there is a grand database of all spatial information, and each and every map we view is some reduction of that completeness tailored to the human capacity to discern only a limited amount of it from any one image. Moreover, maps are a moment in time; few singular maps do a good job of showing evolutions or changes, and certainly with the shifting of borders and notions of political geography, when we view the world through maps, we view them through a highly mutable lens.

So, with that in mind, let me begin a presentation about how maps flirt with truth.

In the beginning, maps were representational. Lacking both modern means of printing and reproduction OR a consistent system of notation, maps, often chiseled into stone or painted on papyrus, themselves practiced a form of interpretation. Moreover, these maps lacked a form of circumscription; since the world was simultaneously limited and unlimited, what happened at the edges was often open to speculation. This was especially true in the case of the T-in-O maps. And also in the case of Mappaemundi. These were popular during the period between 500 and 1500 in Europe. This, the Hereford mappamundi, is an excellent example of a map heavily influenced by bestiary and herbal lore, and informed by both real and literary travels. Pictures of travelers both real (such as

Alexander) and mythic are included. This is another representation of the complete world. Rather than leave the edges to fade out, these maps would often ascribe to the world a border, and what happened when you went over the edge… was anybody's guess. Or, simply, the end of the world: here be dragons. Many early maps told a narrative in pictures. Moreover, the text included was highly stylized as a part of the ornament. These early maps served as much as a tool to get around and navigate as they were for display and discussion.

Not only was our understanding of the world limited by where we had been, but also by what tools we had to represent it. While notions of the spherical earth began as early as Pythagoras (b. 570BC), Plato, Aristotle and Eratosthenes, all before 200BC, they were not formally accepted and codified in knowledge until much later. Even beyond that point, we had flat paper on which to display a round earth, a fact that has resulted in scores of different ways of "translating" geometry from three dimensions to two – none of them exactly truth, none exactly real.

Let's try to appreciate for a moment the difficulty faced by early cartographers as being instructive to our understanding of maps today. With limited information, most of it inaccurate, provided by simple instruments and the oft-wild imaginations of travelers, cartographers created documents upon which hundreds and even thousands of sailors, traders and explorers would depend to save their lives. With that in mind, it made sense not to speculate on what might lie beyond the end of the known world, lest it encourage some intrepid explorer to go farther than was safe.

These notions about edges and what lies beyond them fascinate us today. Ancient maps have a unique power to capture the imagination of viewers young and old. I believe that this fascination is due to the change in how we view, and use, maps today.

Cartographers today sit with a kind of dull complacency about their data. Scientific advancements have obviously brought us a long way from those speculative edges and dragon-laden waters. We now have a clear concept of a semi-spherical globular world that can be portrayed in a way "true to life." We take it for granted that it's all accurate; in any event, at least it is bounded by a known geometry. Satellites shine down on us and leave nothing to the imagination. It's almost stifling.

Cartography has, in the last 200 years, undergone a process of "scientificization" that has paradoxically brought home how much of mapping is art. Not the least of this is the result of the use of computer technology in producing (and reproducing) these documents. Today, the Rand McNally corporation etches a new brand of mappamundi on laminated papyrus, and we experience that universe in cars and in airplanes. But these, too, eliminate vast quantities of information. Spaces and places are charged with meaning. Older maps, oddly enough, did a better job of encompassing such feelings.

Lynn Liben takes a very cognitive-literal approach to describing maps in describing those three fundamental components. But I suggest that omission (and, relatedly, perspective) is an element so deeply embedded in the making and the meaning of a map that a proper

treatment of maps acknowledges not only what is there but also what isn't. So, I think maybe it should be a noted element all on its own. Our notion of "reality" as shown through maps is tinged with simultaneous desire for the often non-complementary elements of accuracy and understanding.
In this climate of precision, accuracy and completeness, in which we literally experience different angles on the world, it is unsurprising that artists have taken up maps as a medium of expressive and contemplative value.

Word and Image

Maps may be the quintessential pairing of word-and-image because of their propensity for labeling. Our understanding of space and place is circumscribed by a set of names we have given to places in order to distinguish them. Not only do names demarcate these different places, they reflect a broader understanding of our civilization based in highly arbitrary political boundaries. Just like our ancestors, we use maps to make, in our minds, an understanding of place; names are simultaneously act as critical descriptors for these understandings and obscure This, in turn, parallels the quality of duality in maps: they both *are* something and *stand for* something.

The United States, by virtue of having a very different kind of history than the rest of the world, has been subject to a correspondingly unusual way of calling itself. America is inscribed with a rainbow of different place-names, drawn from all kinds of different sources. Some are transferred from the Old World, as in the Plymouth to Plymouth connection, New Amsterdam/New York, and even Paris, Texas. Some are named for royalty, such as Virginia, others for explorers, as in Columbus, OH and even all of America itself. Still more are called by names they were given almost before they were more real in the imagination than in cartographically acknowledged fact, such as Florida and California, named tellingly drawn from the Latinate. And a huge proportion are drawn from native American peoples who had lived here long before colonization. Their place names, often transliterated and altered, are a historical reminder of a culture that was displaced. All these names are drawn from what went before and evoke a consciousness that may or may not endure today – especially in a country that has, by many measures, reinvented itself and its consciousness completely more than once.

In some senses, these names express what little we have left of our short history. But what if we named everything to more accurately reflect what it stands for now?

Literature has taken fancy in reinventing places in this way, particularly in the realm of science fiction and alternative histories. Margaret Atwood's Republic of Gilead in the Handmaid's Tale and the three nations of Oceania, Eurasia and Eastasia in George Orwell's 1984 reflect on the reinventions of place that may occur as the result of war and military disaster. In The Man in the High Castle, Philip K. Dick divides America in three under the Nazi victory that never was: west of the Rockies under Japan, east of the Mississippi under the Germans, and the middle a no-man's land.

Other maps project not to the future but rather challenge and re-interpret our present understandings of space. The works of Kevin Lynch beginning in the 1960s have evolved a process of psycho-geography used often in practical planning methods. These maps show edges, nodes, landmarks, districts and paths – all through the lens of how people recall them. His method was to derive a "common image" of the landscape as it was actually used and understood. Much different than any imposed boundary.

Joel Garreau's invention in the 1980s of the Nine Nations of North America is a re-representation of a present reality (as opposed to the popular alternative histories of literature) based on cultural, political and social divides rather than arbitrary geographies of states, counties, and so on. Literature is no exception. A now-famous map on the cover of the New Yorker magazine drawn by illustrator and designer Maira Kalman renames familiar regions of the city with more "culturally-appropriate" names, such as Hiphopabad, Fuhgeddabouditstan, and Upper Kvetchnya. This mirrors other interpretational views from the same magazine presented by Saul Steinberg.

Conclusion

These reinterpretations of maps expose how very shakey is our understanding of the exact and complete world. Old maps show little because they knew little. New maps show little because we now realize how much there is to know; how many layers there are to every geographic understanding. As time goes on, there is simply more to know about locations; they become instilled with meaning beyond fact. Omission is a necessary artifact of the cartographic process. While the spatialization, purpose and duality properties of maps enumerated by Lynn Liben are certainly present, the very fact that maps propose to tell a lot more than does text (by way of literally *showing* the very important spatial components of a story) means we need to scrutinize them more for what they *miss*. Moreover, art may, in many cases, offer a better approach to mapping than does science, because of this fact. Maps are not only a product but also a process, a process most actively engaged when the interpretive, creative nature of cartography is appreciated.