mapping

Denis Wood

aps! They're becoming inescapable in this 21st century Lof ours, from the very largescale maps on a cell phone showing you where a restaurant is to the very small-scale maps of the world charting the latest news. Maps of weather, political units, airline routes, the flow of oil, the latest battles in the latest war, languages, soils, topography, bus routes - the subjects are endless. Never before in human history have so many maps been consulted by so many people for so many purposes.

What's going on?

The nation-state, that's what's going on. Above all else this map ferment reflects the high-tide of the state - of the nation-state as a political formation. As we know them today, maps and nation-states emerged together from their complicated antecedents during the early modern period, and did so more or less simultaneously around the globe, no earlier, for example, in England than in Japan. These new states differed from earlier political formations by being territorial above all else. This differentiated them from kingdoms, for instance, which revolved around the person of a monarch and grew or shrunk with his or her personal fortunes.

As territories first and last, the state's boundaries were no longer incidental matters at a distance from a ruler's seat, but formative of the state, and the setting of boundaries made mapping an activity essential to the state. Once mapped, the bounded territory could be seen to have a distinctive, indeed a charismatic shape, a shape that gave the state a body. This geo-body, endlessly reproduced by the state and its patriots, soon enough became iconic, totemic. Soon enough this geo-body became a logo, an emblem: painted on the sides of official vehicles, turned into a badge worn by state workers. Soon enough it turned into... the state itself. The frequent depictions of Bharat Mata merged with or emerging from the map of India suggests one way that this can work.

But the state has things to do with maps other than establishing borders and giving itself a geo-body. Once convinced of the map's utility the state exploits it in an ever-growing range of tasks. Boundaries are nothing if not defended and mapping is immediately incorporated into national defence at every level. Among other things, defence requires soldiers. The necessity of knowing where these might come from, together with the need to tax its inhabitants, leads the state to map its interior; and as the state, so its



The national personification of India as Bharat Mata-the mother goddess is an iconic and totemic image. Original image source: www.introspectionjunction.files.wordpress

constituent entities: provinces, counties, municipalities, and districts of every kind. Along with its human resources states need to know what other kinds of resources they have and where to find them. This leads to the establishment of the great national surveys – of which the Survey of India was so important an example – and in turn to the mapping of an ever-increasing range of attributes at ever larger scales. The map, as a tool of statehood, has penetrated deeply into the lives of its citizens everywhere.

Every turn of history's wheel opened new subjects for mapping. Growth in world commerce led to a growth in the mapping of routes, sea lanes over the water, roads over the land. Travel and trade spread diseases and people began to map them in order to understand them. With industrialization came trains, and these required schedules and maps. The growth of geographic knowledge called for teaching it and this meant school maps and atlases. With the growth of cities came the birth of city planning which called for still more maps. The control and provision of water called for maps, and so did sewerage.

In fact maps rapidly become essential in every branch of civil engineering, development, planning, landscape architecture, and allied fields. Maps in these

fields are used in a variety of ways. First they're consulted to get a feeling for the context, to understand the problem, and to gather necessary data. Here practitioners use maps of climate, prevailing winds, insolation, topography, slopes, soils, subsurface geology, and every variety of human system from infrastructure through transportation to amenities. At the same time, much of the work in these fields is done on or in the form of maps, as solutions are sketched, debated, and moved toward resolution through a range of maps drawn to present to clients and relevant approval agencies. Finally the end product often enough takes map form, ultimately to be realized at very large scales as construction documents.

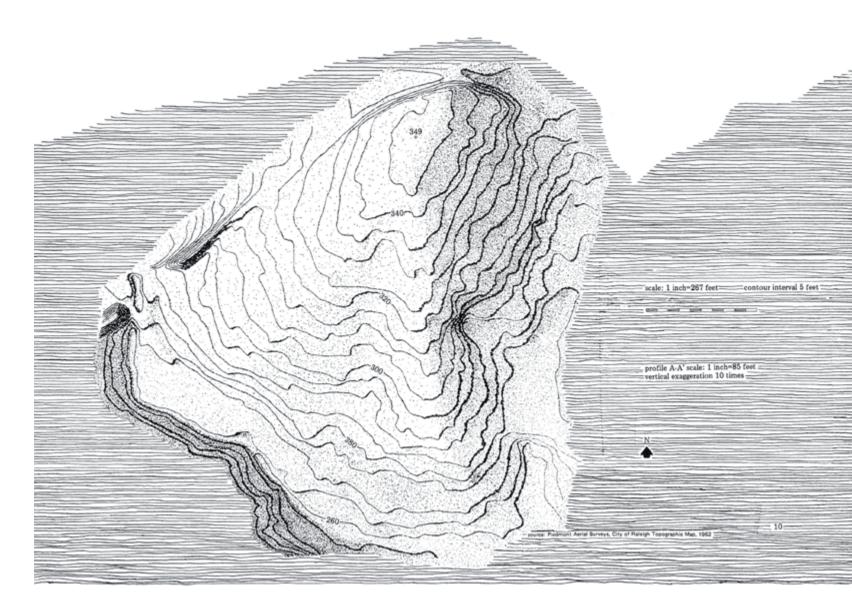
The maps involved at each stage in these processes differ in many ways. Maps used in the early stages will probably be made by scientists of one stripe or another: climatologists, topographers, pedologists, geologists, and the like. As scientific inscriptions these maps will bear all the signs of a concern with objectivity, accuracy, precision, certainty. These maps will be dressed in lab coats or professional suits: style will tend to recede (producing an inescapable style all its own). At the next stage the maps will range from crude sketches to preliminary proposals but all will carry the stigmata of ... creativity. Style, even an

individual's style, will push itself forward. In varying degree these maps will be incomplete, colourful, hesitant, suggestive, even provocative. In the concluding stage the maps will move toward, neither objectivity nor certainty, but ... finality. As legal documents the construction drawings will be concerned above all else with precision.

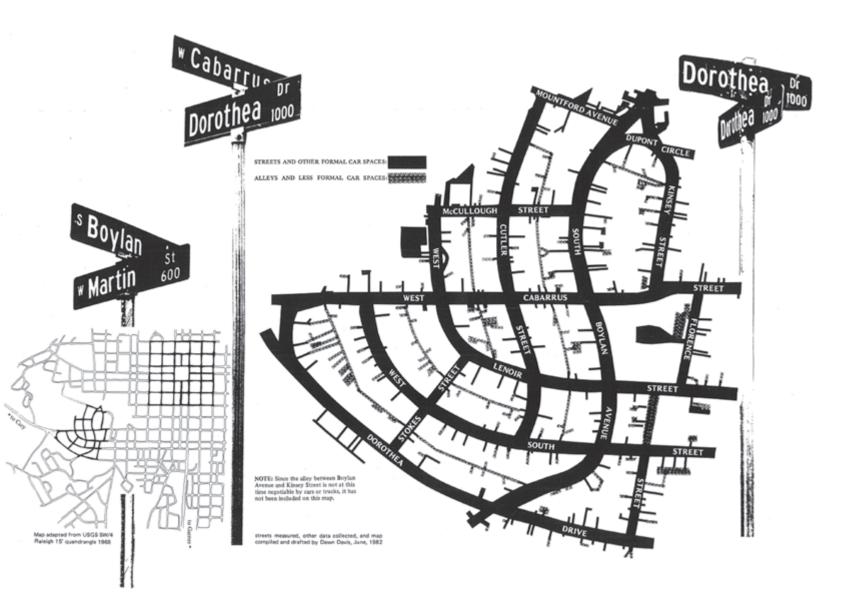
This variation in form reflects, even as it contributes to, an even greater range in the world of maps at large. Popularized in the sixteenth and seventeenth centuries by print houses and free-lance artists, maps have always had the freedom of expressive form associated with the arts. Early printed maps are highly decorative and brilliantly coloured. As sciences evolved to take a growing interest in the spatial distribution of things; and increasingly differentiated themselves from other human arts by their objectifying character, scientific maps grew less and less decorative to become the justthe-facts-m'am graphics we know them as today. The two tendencies, toward expression on the one hand and toward an objectifying restraint on the other, tugged and pulled at the map's form, even as technical innovations in production and manufacture stirred in their own sources of change. Furthermore, new phenomena demanded new forms for their effective display (subway maps

Denis Wood has been working on an atlas of the Boylan Heights neighbourhood in Raleigh, North Carolina since the mid 1970s. The atlas, published as 'Everything Sings: Maps for a Narrative Atlas' in 2010, has a second edition with additional maps coming out in early 2013. Inspired by Bill Bunge's radical cartography of the 1960s and 1970s, the atlas contains diverse examples of creative, place-inspired maps, including maps of night, crime, fences, graffiti, textures, autumn leaves, routes, the underground, lines overhead, stars, and jack-o-lanterns. The pages illustrated here are versions from the 1980s. Text source: makingmaps.net

BELOW | Boylan's Hills Photo courtesy: Denis Wood



BELOW | Boylan's Streets: Car Space Map Photo courtesy: Denis Wood



are a great example; so are tourist maps), and new users brought their own commitments to the making of maps (such as the design professions and artists).

Debate may - and does! -swirl about what maps should really look like, what they should do, and how they ought to behave. But there is no escaping maps and those that work for the state - and that in the end provide the foundation for almost all the others - have taken a fairly coherent form for many generations. The quantities of these maps that states require, call for - scream for! - mapmakers, and mapmakers have to be trained. During the 19th century mapmaking gradually became a university subject - they named it cartography – and by the time the 20th century opened this new field had begun to generate cartography textbooks. The more the use of maps spread, the more obvious their utility became ... to everybody. And everybody had more and more ideas about what, and how, to map. Even artists began to get into the game: today thousands of artists around the world are making art that refers to, uses, or consists of maps.

Maps achieve their astounding utility by framing arguments about the world in a way that encourages viewers to imagine that the arguments are the world. So many people have seen so many maps of India for so long that, overlooking a few "minor" border squabbles (Kashmir) and aspirant states (Mithila), people pretty much take the idea of the nationstate of India for granted, as though it had the same claim to existential substance as air. It doesn't, of course, and as currently construed India is just over half a century old, barely a long-breath in the subcontinent's long history. The contemporary nation-state of India is an argument about how the people living there should organize themselves, and the map of India casts that argument into a graphic form so persuasive that people take it as an unalterable fact, with or without Bharat Mata.

The power of all maps is of a similar kind: the arguments they make are construed as facts, even when the map is of the future. This is characteristic of all the maps that predict electoral outcomes, next year's crop yields, or the path of the typhoon heading toward land, but it's also characteristic of plans and other proposals. Viewers of these maps treat them as though the mapmakers had traveled into the future, and come back with a map of it.

The power of maps, especially in the hands of powerful agencies and governments, makes victims of us all. Maps help to produce and to reproduce the status quo, and most maps work against changes that would challenge the way things are. But do they have to?

No, of course not. Maps are a kind of graphic talk about the shape of the world and as such maps can reveal the world we live in – in ways it has never been revealed before. The map's ability to frame persuasive arguments arises from its profound selectivity - no map shows anything but this or that aspect, none tackles the whole fullness of it – and from the way it reduces what it selects to a handful of lines and colours. The quest is to select different things to map, and to render them graphic in ways no one's tried before. With new maps we could begin to revision our world, and imagine an alternative way into the future. Anyone can make a map – we should all be making them - and we should be setting up our maps in opposition to the maps we've received, to the maps we're receiving daily. Only then will we be able to unleash the power of the map to truly human ends.

The power of maps: as great as we make it!

Denis Wood is an artist, author, cartographer and a former professor of Design at North Carolina State University, USA. Best known for his radical book 'The Power of Maps' (1992), Wood has created in recent years a bibliography and history of cartographic art; work that from the Dadaist to the present have used maps as a medium for the exposition of cultural & political ideas and ideals. He has published articles and books that include 'Seeing through Maps', 'Five Billion Years of Global Change: A History of the Land', 'Making Maps', and 'The Natures of Maps'. He can be reached at denis.wood@mac.com or through his website www.deniswood.net