

Ce n'est pas le Monde

[This is not the world]

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Introduction

Since the introduction of digital mapping and access to online maps, cartography seems to have a renaissance in terms of popularity not only within the scientific community but also amongst users. Having continuously changed over time, cartographic theory and praxis now gain new actuality – by overcoming the scientific endeavour to measure our environment as pure surface, relationships and processes can be revealed. However, mapping technologies are as diverse as the complex agendas that come with it. Together they form new perspectives on how we see and interpret the world, yet remaining a visual image with “rhetorical power” (Dodge / Kitchin / Perkins, 2009a, p. 2). Maps can never illustrate full truth, after all the process of representing is itself part of the world they attempt to represent. (Perkins, 2006, p. X) Still new means of production and distribution enhance the democratization of this power, resulting in a wide range of contributions. Based on critical cartography, the following essay is seeking to explore maps as social documents, rethink modes of representation, and fathom the limits of traditional map making.

History of Cartography

According to Hodgkiss' definition, maps are graphical tools that “classify, represent and communicate spatial relations; a concentrated database of information on the location, shape and size of key features of the landscape and the connections between them” (quoted in Dodge / Kitchin, 2001, p. 65). Developed over centuries, maps accompanied humankind, storing geographic knowledge, providing navigation but also drawing and establish history. Cartography is a method to visualise a world that as MacEachren argues is “too large and too complex to be seen directly” (quoted in Dodge / Kitchin, 2001, p. 65), hence needs to be compressed and generalized to fit the dimensions of the medium.

However, cartography is not a fixed system, in fact its visual nature has been changing dramatically over time. It was only during the Renaissance period that the face of European cartography shifted from symbolic illustration towards scientific representation, aiming for an accurate geographical representation of spatial relations (Livingstone quo-

ted in Dodge / Kitchin, 2001, p. 66). Sailors used maps for navigation, exploring new land, but also draw new territories and borders. Thus map-making illustrates political claims and changes of perspectives.

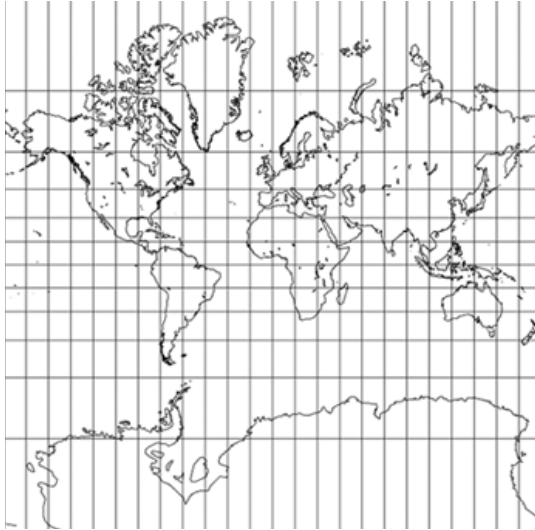


Fig. 1: Mercator, Map (1569)

In 1569 leading cartographer Gerardus Mercator developed a way of translating the sphere with relative accuracy into a cylindrical projection and subsequently translated into the flatness of a map. (XXX, XXXX) Nevertheless its built-in distortion which increases towards the poles causes that Greenland appears to be the same size as Africa (Fig. 2). Throughout the 17th, 18th and 19th century maps increased absolute and relative spatial accuracy, but nevertheless remained incomplete views of the world until the widespread use of aerial photography in the 20th century.

Modern cartography consists of standardised components as are typography and symbolization metaphor. Dodge and Kitchin suggest that at the end of the twentieth century, cartography has undergone three states: First, the digitalisation of cartography and use of systems such as Geographic Information Systems (GISs) and Computer-aided Design (CAD), which represents a major shift in the cartography paradigm. Secondly, new methods of geographic visualisation, and, the latest evolution describes a move away from static maps to interactive, dynamic and animated geographic visualisations. (Dodge / Kitchin, 2001, p. 68)

Distorting Reality

Reality is extremely big and, not to forget, three-dimensional. Therefore all maps are smaller than the reality they represent and geometrical distortion along with graphic ge-

neralization of data are unavoidable elements for cartographic representation. But as a result, Monmonier alleges that maps can lie in diverse ways. “[R]oles of map scale, projection, symbolization, and classification in cartographic generalizations of geographic data” may lead to false interpretations (2005, p. 215–16).

In 1954, Buckminster Fuller created a projection of a world map onto the surface of a polyhedron, later visually quoted by the American artist Jasper Johns in 1967. Aiming to retain most of the relative shapes and sizes of the land areas, the map moreover presents our planet as one associated landscape. Whereas tradition world maps would reinforce the seperation of the continents and the notion of Cardinal directions.



Fig. 2: Buckminster Fuller, Dymaxion Map (1954)

Monmonier claims, that “map users understand this [distortion of reality] and trust the map-maker to select relevant facts and highlight what’s important, even if the map must grossly distort the earth’s geometry as well as lump together dissimilar features” (2005, p. 215) But the society’s naive acceptance of maps as objective representations reinforces a certain view on the world, one usually being introduced by history victors. Cartographic generalization becomes a neglected reason for prevarication and partitioning the world into certain political groups, that as they can’t escape their position on the world, seem not to be able to elude their location on the world map. We are literally looking down on a world as though we were not part of it.

Maps as Truth

Maps seek to represent a scaled abstraction, where much of the reality has to be neglected to produce a readable image. But rather than having one perfect representation, we can find an endless range of maps claiming the same terrain. But as history has shown, maps

are not static, rather a changing system. What is true today, might not be true tomorrow. Recent examples with Google Maps have revealed problems of maps being inaccurate or imprecise, which caused political crises in North Africa and Central America. Moreover borders are shifting, names of cities and states may change (e.g. Burma to Myanmar) and even the landscape itself can transform their physical appearance (e.g. icebergs, deserts). As Harley denotes, “maps are not merely scientific artefacts which faithfully represent that mapped, they are also social constructions”, which are produced for a economic, political or social purpose (Dodge / Kitchin, 2001, p. 69). Those may seem evident in deliberate omitting of data, as in the example of Baghdad, a city with an estimated population of over 7 million (Wikipedia, 2010), but only represented by four streets. It seems that people are here getting pushed “off the map” (Dodge / Kitchin / Perkins, 2009a, p. 9).

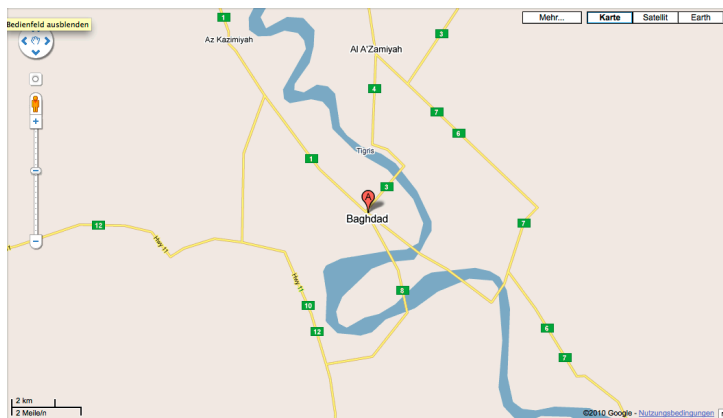


Fig. 3: Google Maps, Baghdad (2010)

Harles follows the ideas of Michel Foucault to reflect the process of mapping as being not a neutral, objective pursuit but rather one laden with power. He argues that the process of mapping consists of creating, rather than simply revealing knowledge. (quoted in Dodge / Kitchin / Perkins, 2009a, p. 9) As a result maps are always individual and subjective representations, whose creators may or may not be aware of their power. Pickles elaborates this thought when saying, we could “focus on the ways in which mapping and the cartographic gaze have coded subjects and produced identities” (quoted in Crampton / Krygier, 2006, p. 15).

However, the world is constantly changing and so is our perception of it. Mapping is part of this process of defining our environment and constructing knowledge. Whereas initially focusing on representation of areas, distances and political arrangements, contemporary mapping imagines the world as comprehensive dynamics, which can lead to new perspectives, provoke social change or even reinvent the world itself.

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## Representing moment in time
## google maps: earth of multiple temporarity

## Example Google Maps
## google makes mountains flat
## google earth > no graphical abstraction > don't see that this isn't true
(multiple temporarity)
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From Elites to Users

With the digital revolutions of the late 1980s and early 1990s the geographic space has been transferred online. Nowadays a wide range of mapping technologie and methods have spread through the internet, opening up new perspectives and spaces. From aerial photography and satellite imagery to interactive, hyper-media maps and real-time data visualizations, new maps are taking over the online territory. Dodge and Kitchin argue that “[c]yberspace is changing how we map/represent geographic space and how it can augment interction with geographic space” (2001, p. 76)

Moreover the transfer from the analog cartography to digital and later online maps, changed the structure of map production and labor. Whereas for centuries scientific elites and trained cartographers occupied the field, users now participate and contribute to the process. This way mapping moved into the hands of non-technically trained people – which can be both a blessing and a curse. Cramton emphasizes that “allowing non-cartographers access to data and to produce their own maps, [breaks] one of the major principles of traditional map-making theory, that there is a clear separation between the cartographer and the user” (quoted in Dodge / Kitchin, p. 68). The latest technical transition therefore is not linked to the mapping software, but involves open source collaborative toole, mobile mapping applications, and geotegging” (Crampton / Krygier, 2006, p. 12) and might be new realm for critical mapping practices.

Here the first part of my essay ends. The following points show
the upcoming structure and will hopefully follow soon.

Web mapping 2.0

Map Hacking

Alternative Mapping

alternative models of map creation and use such as open-source mappings and map mash-up are being creatively explored by programmers, artists and activists
artistic experimentation with spatial representation
exploring the landscape / city
experience of a place determined by the map we use
enhance a persons experience of place
maps as discourse function

Artists and Maps

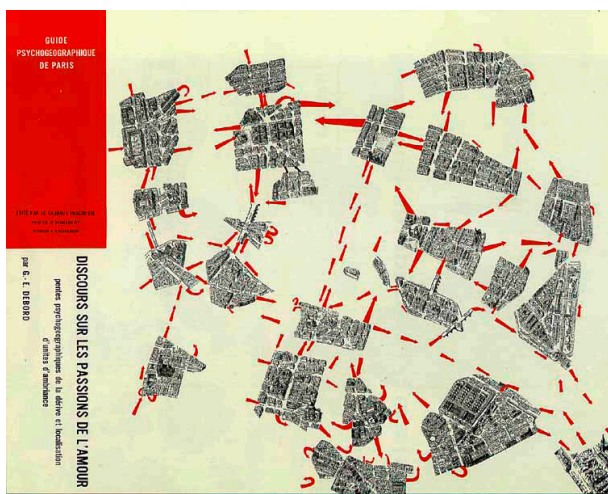


Fig. 4: Situationist International, Dérive (XXXX)

Map artists ... claim 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" (Wood 2006b: p.10.).
Everyday mappings, whether performative (Krygier 2006), ludic (Perkins 2006), indigenous (Lewis 2006), affective and experiential (Cieri 2003, 2006) or narrative (Pearce 2006), creatively illuminate the role of space in people's lives by countering generalized and global perspectives.

Examples

iSee project > surveillance cameras

Beatriz da Costa

Esther Polak

Temporary Autonomous Zones (TAZ)

Psychogeography

Critical Cartography

Conclusion

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