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The Power, Influence, and Politics of Maps

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Exercise Solo Flight

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CARTOGRAPHY'S SNEAKY AGENDA: THE POWER, INFLUENCE, AND POLITICS OF MAPS

I am told that there are people who do not care for maps, and I find it hard to believe.

– Robert Louis
Stevenson

There are those who follow maps and those who make them.

– Alberto Villoldo

Introduction

Maps are alluring and powerful. We are drawn to them; compelled to gaze at their image, and induced to search out their features, colors, and text. Whether out of curiosity, a thirst for knowledge, a desire for identity and belonging, captivated by cultural or historical differences, or to fantasize and chart new adventures, they possess an unconscious power over us. Yet we do not question their provenance nor doubt their objectivity. We view maps as accurate, portraying certainty, and representing reality. Instead, maps are “slippery customers”;¹ they are fleeting works in progress, and they successfully disguise their imperfect hold on reality and ad hoc nature.²

Maps are the foundation of exploration and empires, but equally, they shape imagined worlds in the minds of their viewers, daring us to picture lands not yet visited, creating the perception of understanding through the images and symbols in front of us.

¹ John Brian Harley, “Deconstructing the map,” *Cartographica* 26, no. 2 (Spring 1989): 10, <https://quod.lib.umich.edu/p/passages/4761530.0003.008/--deconstructing-the-map?rgn=main;view=fulltext>

² Ruben Anderson, *No Go World: How fear is redrawing our maps and infecting our politics* (Berkeley: University of California Press, 2019): 17, <https://ebookcentral.proquest.com/lib/cfvlibrary-ebooks/reader.action?docID=5710003>

This conceptual transportation gives them a “soft power”³ that makes them seductive. Maps are pervasive; from classroom walls, textbooks, media, governmental organizations, as multinational symbols, on flags, on money, even to the growth of decorative ‘map-art’, maps are everywhere and familiar to everyone. But, how much do we either realize or consider their influence? Maps give us a way to look at the world, but we need to have a way to look at maps, to understand the world.

As the ubiquity of maps within society grows, so too does the requirement for us to use them to know the world around us. However, with increasing use, maps have greater power over our mental images, unconsciously shaping our understanding of the world. We rarely seek to understand the cartographers’ purpose or their judgment. In his seminal essay, Harley⁴ suggests that to understand maps we should begin with the premise that “cartography is seldom what cartographers say it is.”

This essay will argue that there is no such thing as an objective map despite cartography’s scientific premise. Moreover, a map is a political and social construction that wields considerable power over how we view the world. Maps create identities and have a significant influence on international relations. To this end, this essay will review the purpose of maps, analyze the subjective nature of mapping, and consider the impact of cartographic decisions on politics and identity. It will use examples to conclude that all maps promote or suppress a point of view and we must therefore address maps critically, recognize their nature, and develop cognizance of their power, hold, and influence.

³ *Ibid.*, 66.

⁴ Harley, “Deconstructing the map,” 2.

What are maps?

A map is a representation of a place. Moreover, it is “a *selective* representation of reality;”⁵ a distortion. A map cannot depict everything in the world around us, therefore the cartographic process is as much about deciding what should be removed as it is about selecting what should be symbolically represented. In this sense a map is both a formal mathematical projection of the world and a work of controlled fiction.⁶ Indeed maps are “products of geographical thought that present themselves visually.”⁷ Importantly, maps are also never fully formed nor complete; they are “contingent, relational, and context-dependent,”⁸ they are therefore dated before they have been created, and firmly situated within their cultural environment.

Each map tells a different story with a different purpose. Maps have been used to inform, educate, navigate, and imagine, but also oppress, control, legitimize conquest, reinforce status, extend territory, impose values, as weapons of imperialism, and many other uses in between.⁹ Maps for navigation and reference are customary, but maps for political and ideological purposes are just as common¹⁰ albeit not always overtly realized

⁵ Jeremy Black, *Maps and Politics* (London: Reaktion Books Ltd, 1997), 11, <https://ebookcentral.proquest.com/lib/cfvlibrary-ebooks/detail.action?docID=618745>

⁶ Walker D. Mills, “The map is never neutral,” *The Strategy Bridge*, last modified August 31, 2020, <https://thestrategybridge.org/the-bridge/2020/8/31/the-map-is-never-neutral> Mills, “The map is never ...”

⁷ Alan K. Henrikson, “The power and politics of maps,” in *Reordering the world: Geopolitical perspectives on the 21st Century*, ed. George J. Demko and William B. Wood (Colorado: Westview Press, 1999), 95.

⁸ Rob Kitchin and Martin Dodge, “Rethinking maps.” *Progress in Human Geography* 33, no. 3 (June 2007): 343, <https://doi/10.1177/0309132507077082>

⁹ Mills, “The map is never neutral”; Harley, “Deconstructing the map,” 13.

¹⁰ John Erskine, “Politics and Cartography: The Power of Deception through Distortion,” *Carnegie Council for Ethics in International Affairs*, last modified July 11, 2018, https://www.carnegiecouncil.org/publications/ethics_online/politics-and-cartography-the-power-of-deception-through-distortion

by the viewer. All maps however are used to shape our understanding by giving meaning to the world around us. Harley refers to them as a “silent arbiter of power.”¹¹

Still, a map’s value and purpose lie in its utility to the viewer. In this regard, a map is not a projection of knowledge, but something to be deciphered and understood. The viewer’s interpretation of a map will be shaped by their knowledge and experiences, resulting in individuals inferring different cartographic understandings from the same map. Whilst individual experiences and interpretations are varied and unique, each is greatly guided by cultural background and the historic importance and symbolism of cartography within it.¹² Significantly, therefore, if those in power are influenced by maps, and the decisions they make are borne out of an unconscious understanding of cartographic identity, we must seek to understand the origins of those influences.

Why we trust maps, but shouldn’t.

We view maps as coherent, stable products,¹³ and we accept them as truth. Their objectivity is a presumption.¹⁴ A map is amongst the “most trusted graphical devices,” not least due to its *unauthoredness*.¹⁵ We recognize political bias in a newspaper article, but a map accompanying an article rarely has an attributed author and therefore most readers will not recognize that this too was someone’s creation. Instead, the map graphic is often

¹¹ Harley, “Deconstructing the map,” 16.

¹² Kevin Raaphorst, “The compass to cartopolitics manifesto,” last modified November 20, 2014, <https://compasscartopolitics.wordpress.com/2014/11/20/4/>

¹³ Kitchin and Dodge, “Rethinking maps,” 334.

¹⁴ Henrikson, “The power and politics of maps,” 110.

¹⁵ Doug Specht and Alexander J. Kent, “How maps tell the story of war in Ukraine.” *Geographical Magazine*, last modified April 1, 2022, <http://geographical.co.uk/places/mapping/item/4316-mapping-ukraine>

viewed as somehow external to the newspaper's political agenda, added only as factual context to enhance the commentary.¹⁶ Even within International Relations scholarship a map often accompanies a published article with little attention to its origins and cartographic meaning. A map is an image and, like photographs, we tend to associate images with truth; we believe what we see. Additionally, for most of our map uses we have little requirement to question their objectivity,¹⁷ common sense would determine that a road atlas for example is a depiction of reality; it fulfills its purpose to us without the need for a critical review of authorship or text.¹⁸

There is scientism that surrounds maps, thus we do not think to challenge the technical, methodological cartographic process. Technological advances would also suggest that accuracy and precision have significantly improved in modern times. Kitchin and Dodge¹⁹ explain that the foundational belief of cartography is that spatial information can be recorded and mapped empirically and impartially. As a result, the map is often regarded as a “mimetic, a factual scale model of the world”²⁰ produced by cartographers with an unquestionably objective form of knowledge creation.²¹ The impression of science in cartography matters as it generates considerable public trust which can easily

¹⁶ Piers Fotiadis, “The Strange Power of Maps: How maps work politically and influence our understanding of the world,” (master's thesis, University of Bristol, 2009), 16.
<https://www.bristol.ac.uk/media-library/sites/spais/migrated/documents/fotiadis0609.pdf>

¹⁷ Sebastien Caquard, “The politics of making maps,” interview by Eva Salinas. *Open Canada*, last modified November 12, 2014, <https://opencanada.org/the-politics-of-maps/>

¹⁸ Christine Leuenberger, “Maps as Politics: Mapping the West Bank Barrier,” *Journal of Borderlands Studies* 31, no. 3 (2016): 339, <https://doi.org/10.1080/08865655.2016.1174601>

¹⁹ Kitchin and Dodge, “Rethinking maps ...,” 333.

²⁰ Peter Vujakovic, “Mapping the War Zone: cartography, geopolitics and security discourse in the UK press,” *Journalism Studies* 3, no. 2 (2002): 192, <https://doi.org/10.1080/14616700220129964>

²¹ Harley, “Deconstructing the map,” 2.

be exploited through careful distortion,²² and it can make a mapped object appear as a “natural thing”²³ and not something that should be considered a creation.

It is incongruous that we will presume objectivity in modern cartography, yet see explicit subjectivity in historic maps. World maps depicting anthropomorphic images, monsters, racist pictures of colonial lands, and unrepentant imperialism, such as figure 1, are treated with accurate dismissal. Yet, for a map-viewer to conclude that a modern cartographer has deliberately produced a map that enlarges their territory, pronounces power, or marginalizes other cultures or countries,²⁴ would arguably be rare.



Figure 1 – Illustrated map of the world in 1768

Source – Fine Art America, “Illustrated map of the world 1768,” last modified [or accessed] April 25, 2022, <https://fineartamerica.com/featured/illustrated-map-of-the-world-1768-pictorial-map-historic-map-old-atlas-studio-grafiikka.html>

²² Erskine, “Politics and Cartography ...”

²³ Camilo Arturo Leslie, “Territoriality, map-mindedness, and the politics of place,” *Theory and Society* 45, no. 2 (April 2016): 172, <http://doi.org/10.1007/s11186-016-9268-9>

²⁴ Erskine, “Politics and Cartography ...”

Historic cartographers used artwork to fill the gaps on maps; sea monsters where oceans had not yet been crossed, dragons in mountains not yet explored, yet this balance between “subjective artistic expression and objective spatial communication”²⁵ still exists today. Maps do not just occur; a cartographer has to make choices,²⁶ either intentionally or not, about what to show. Black, in his book *Politics and Maps*, uses the word *show* deliberately:

It conveys a sense of art and artifice, of the map-maker as creator rather than reflector. A map is a show, a representation. What is shown is real, but that does not imply any completeness or entail any absence of choice in selection and representation.²⁷

The features omitted from maps as a result of the cartographic decisions are called “silences.”²⁸ These *silences* lead the cartographer to not reveal reality but instead produce reality.²⁹ Harley drew on the works of Michel Foucault to illustrate that cartography, as a subjective process, is, therefore, laden with power; the map maker is creating knowledge, not disclosing it.³⁰ The map creation will also be a reflection of the cartographer’s values, judgment, and culture; a subliminal imposition of ideals likely different from the viewers’. Therein lies a question of ethics and morality in cartography that is not easily understood or resolved. The morality of a map will depend on the intentions of the

²⁵ Alexander Kent, “Trust me, I’m a cartographer: Post-trust and the problem of acritical cartography.” *The Cartographic Journal* 54, no. 3 (August 2017): 193, <https://doi.org/10.1080/00087041.2017.1376489>

²⁶ Aspen Pflughoeft, “The world probably doesn’t look like you think it does – and that matters, a lot,” *Deseret News*, last modified July 2, 2021, <https://www.deseret.com/u-s-world/2021/7/2/22537588/map-bias-the-world-probably-doesnt-look-like-you-think>

²⁷ Black, *Maps and Politics*, 11.

²⁸ Harley, “Deconstructing the map,” 3.

²⁹ Leuenberger, “Maps as Politics . . .,” 340.

³⁰ Kitchin and Dodge, “Rethinking maps,” 332.

mapmaker and the interpretation of the viewer,³¹ yet the balance between cartography as a science or as a creative art makes questions of ethics more difficult to answer.³²

Similarly, there is also power exerted *on* cartography.³³ The purpose, patron, and political power behind a map will try to convey an agenda or narrative that may either “legitimize political action or trigger a political reaction.”³⁴ Consequently, maps are both products, and producers, of power.³⁵ The trust purveyed in maps further amplifies this power as it is through a map’s concealment of politics that allows them to “condition people’s thoughts and actions without being spotted”³⁶ further enhancing their value to their patrons. Once the viewer becomes cognizant of the map as a social construction, their “arbitrary character”³⁷ is revealed and then all of the text, symbols, colors, etc. are open for critical discussion and debate.

The impossibility of accurate mapping

Maps are political and subjective statements, but they also endeavor to represent reality. If they did not, they would not be effective in their primary purpose to be seen and used. A map has to be compelling and accurate to a certain degree to be viewed; few people will linger on a map that is instantly recognizable as wrong. A map needs to lure,

³¹ Raaphorst, “The compass to ...”

³² Kent, “Trust me, I’m a cartographer ...,” 194.

³³ Harley, “Deconstructing the map,” 13. The examples of patrons used by Harley include monarchs, ministers, state institutions, and the Church. This can also be updated to include organizations such as non-governmental organizations, international corporations, lobby groups, non-state actors, etc.

³⁴ Raaphorst, “The compass to ...”

³⁵ Kitchin and Dodge, “Rethinking maps,” 332.

³⁶ Edoardo Boria, “Representing the politics of borders: Unorthodox maps in Reclus, Mackinder and Others.” *Geopolitics* 20, no. 1 (2015): 144, <https://doi/full/10.1080/14650045.2014.964861>

³⁷ Kitchin and Dodge, “Rethinking maps,” 332.

engage, and seek to influence a viewer, otherwise, it is not a map but just a graphic image of lines, color, and spaces.³⁸ An analysis of maps, therefore, has to also look at *mapping* practices, the knowledge it deploys, the difficulty in defining what is important, the problems with achieving accuracy, and the politics behind the creation of a map.³⁹

There is a saying; “all maps lie flat, therefore all flat maps lie.”⁴⁰ Cartographers have long battled with how to flatten the world onto paper; Gauss’ “Theorema Egregium” in 1827 proved decisively that the Earth cannot be displayed flatly without distortion.⁴¹ Therefore, to produce a world map concessions generally have to be made against either conformality or equivalence.⁴² The outcome of these decisions can influence and contribute to our understanding of identity, place, significance, and authority.⁴³ Moreover, if, as previously argued, the creation of maps is a subjective endeavor and a projection of power, it leads that the omnipresence of maps means that our identity is constantly forged, reinforced, or challenged by the mapping process.

Maps have an influential role during education; maps that we were exposed to as children, and have grown up with, will have forged our geopolitical identity. Indeed

³⁸ Henrikson, “The power and politics of maps,” 104.

³⁹ Jeremy Crampton, “Cartography: performative, participatory, political,” *Progress in Human Geography* 33, no. 6 (December 2009): 840, <http://dx.doi.org/10.1177/0309132508105000>

⁴⁰ Henrikson, “The power and politics of maps,” 98.

⁴¹ Aiden Sun, “The effect of map bias on developing countries,” *The Borden Project*, last modified September 12, 2020, <https://borgenproject.org/map-bias/>

⁴² Henrikson, “The power and politics of maps,” 98. Conformality preserves the shape of the earth’s configurations, i.e. everywhere geographically accurate against each another, and equivalence preserves the sizes of areas in relation to each other. Of note, not even a globe is seen as a perfect map as, whilst the world is viewed as round, it cannot be seen in its entirety.

⁴³ Aspen Pflughoeft, “The world probably doesn’t look like you think it does – and that matters, a lot,” *Deseret News*, last modified July 2, 2021, <https://www.deseret.com/u-s-world/2021/7/2/22537588/map-bias-the-world-probably-doesnt-look-like-you-think>

familiarity with maps happens at a very young age and leads to a phenomenon termed “map-mindedness”; a tendency to view the world, territory, and space, in map-like ways even if one is not looking at a map.⁴⁴ This is important as world leaders, organizational leaders, and individuals in positions of power will have had their identity and perspective partly constructed by the maps around them. To this end, it is critical to understand what some of these perspectives will have been.

Initially, mapmakers have to decide on projection, orientation, centering, and symbolization.⁴⁵ Figure 2 illustrates some of the most significant and influential map projections. There are some shared features and some significant differences. All have ‘North’ at the top of the map, arguably subtly putting Northern cultures as higher, superior in both cartography and status,⁴⁶ and all have Europe ‘center-stage’, reinforcing hierarchy and imperial power. Additionally, all of them exploit our intuitive relationships between size and significance, and centrality and importance;⁴⁷ namely, that which is bigger and in the middle must be more significant.

⁴⁴ Leslie, “Territoriality, map-mindedness, and ...,” 178.

⁴⁵ Henrikson, “The power and politics of maps,” 95-104.

⁴⁶ *Ibid.*, 101.

⁴⁷ Pflughoeft, “The world probably doesn’t ...”

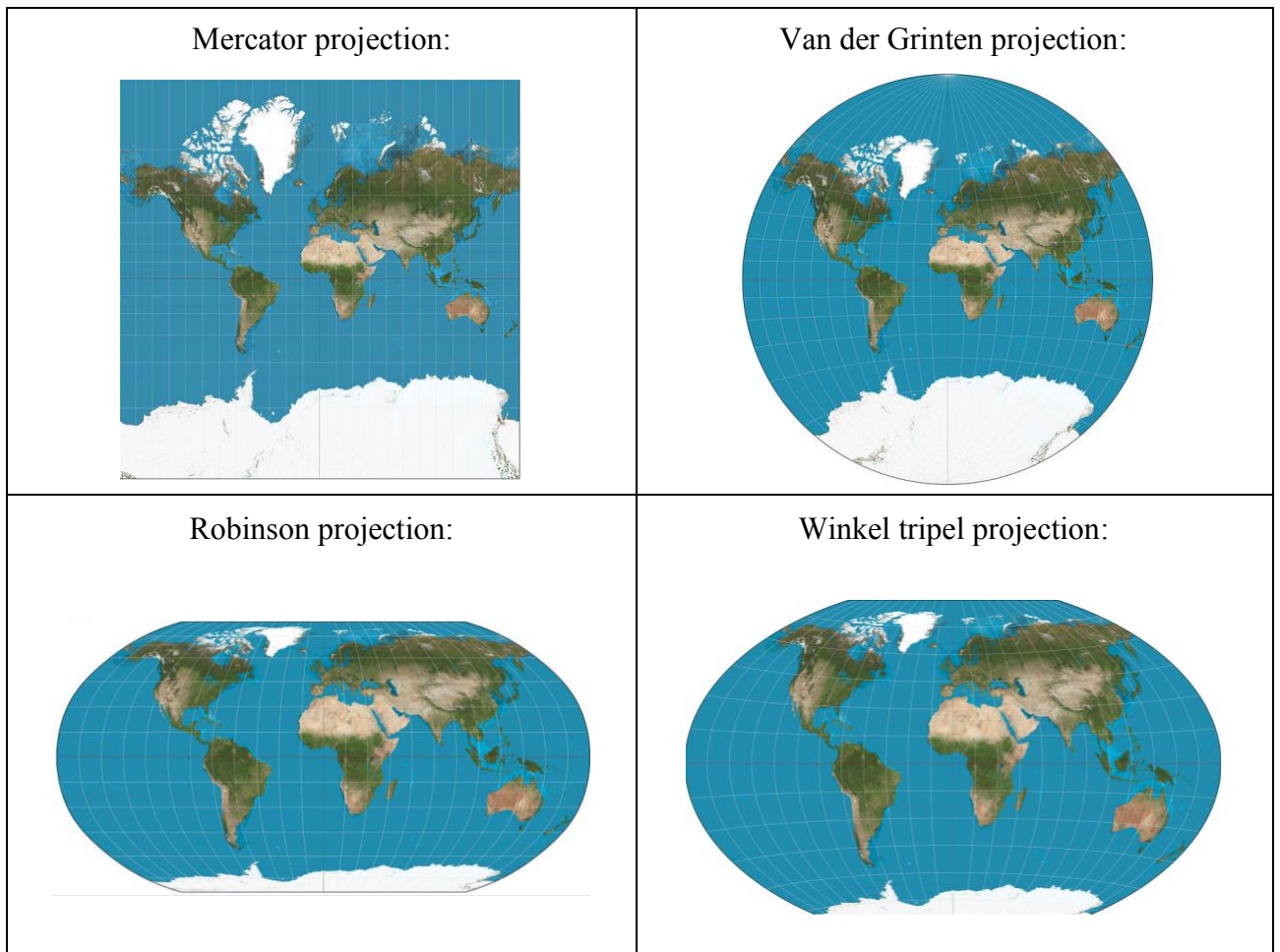


Figure 2 – Map projections adopted by the American National Geographic Society
 Source: Wikimedia Commons, “Maps of the world by projection,” last modified [or accessed] April 25, 2022,
https://commons.wikimedia.org/wiki/Category:Maps_of_the_world_by_projection

One of the most common maps is the Mercator projection. Produced in 1569 for ocean navigation, it is a conformal projection and thus shows longitude and latitude at 90 degrees to each other, but in doing so it trades landmass size for accurate direction.⁴⁸ The

⁴⁸ Sun, “The effect of map ...”; Vujakovic, “Mapping the War Zone ...” 196. There are numerous examples of where the Mercator projection distorts one’s sense of geography. The most common are: exaggerating landmass at higher latitudes (e.g. Greenland appears larger than South America (SA) and the same size as Africa but is actually only 1/8th size of SA, and 1/14th size of Africa; and Alaska appears half the size of the USA but is actually smaller than Mexico); moving the equator away from the mid-point of the map; enlarging Europe and North America and shifting them more centrally; grossly distorting Antarctica; and decreasing the relative size of South East Asia, SA, and Africa.

Mercator map is a prime example of how map bias, i.e. how places presented on a map affect our perception of these places, can shape our worldview.⁴⁹ By placing Europe in the center of the map, enlarging it, and moving it to the south, the Mercator map is criticized for “projecting a colonialist superiority and reinforcing the perceived inferiority of developing nations.”⁵⁰ However, the Mercator projection remains highly influential and is often the default projection whenever a map is displayed.⁵¹

Recognizing the problems with the Mercator projection, other cartographers sought to rectify some of the criticisms. The Van der Grinten projection, produced in 1898, was adopted by the American National Geographic Society (NGS)⁵² until the late 1980s. It was the primary map in the USA during the Cold War, arguably as it projected the USSR as a menacing presence, 223% larger than reality, which needed suppressing.⁵³ Notably, however, it was the American Press, not the NGS that “weaned the public from the rigidities of the Mercator world view map”⁵⁴ with graphic designers, not cartographers using varied projections to illustrate the potentially global nature of war. An azimuthal equidistant map centered on the Arctic for example was influential in showing the direct flight path of Russian missiles fired onto American territory. Of note, this map projection, as seen in figure 3, was adopted by the United Nations as all the land,

⁴⁹ Pflughoeft, “The world probably doesn’t ...”

⁵⁰ Sun, “The effect of map ...”

⁵¹ Media maps, businesses, governments, academia etc. will all still have the Mercator projection within their organization. Its primary utility for navigation also makes it pervasive; Google maps for example, whilst also available in ‘globe view’, will initially open in the Mercator projection.

⁵² The National Geographic Survey is not the global arbitrator on map suitability, but its map choice is highly influential and provides an indicator of the dominant map type used by Western governments, schools, and global organizations.

⁵³ Black, *Maps and Politics*, 31. This map

⁵⁴ Vujakovic, “Mapping the War Zone ...,” 190.

sea, and air space is gathered around a central point projecting outwards and was therefore seen to represent peace, friendship, and commonality.⁵⁵



Figure 3 – Azimuthal equidistant map
Source: United Nations, <https://www.un.org/en>

The NGS replaced the Van der Grinten map with the Robinson projection at the end of the Cold War. Consequently, the public saw the USSR reduced in size to just 18% larger than reality,⁵⁶ a reflection perhaps of the diminished communist threat. The Robinson projection compromised both equivalence and conformality but aimed to develop “map-effectiveness,”⁵⁷ that is, to capture and portray information in a way that any map bias can be easily identified by the viewer. In 1998 the NGS adopted the Winkel tripel (German for ‘triple’) projection, so-called as it minimizes area, direction, and distance distortions; this remains today. The stark difference between the Mercator projection and the Winkel tripel is playfully illustrated by the online comic XKCD in figure 4 below.

⁵⁵ Henrikson, “The power and politics of maps,” 108.

⁵⁶ Black, *Maps and Politics*, 31. Of note, the USA also decreased in size, but only down from 68% larger in the Van der Grinten projection, to 3% less in the Robinson projection.

⁵⁷ Kitchin and Dodge, “Rethinking maps,” 331.



Figure 4 – Failings of the Mercator projection

Source – XKCD, “Bad map projection: The Greenland special,” last modified [or accessed] 25 April, 2022, <https://xkcd.com/2489/>

The Gall-Peters projection produced in 1973 and shown in figure 5, is also significant despite not being approved by the NGS. It abandoned conformality in favor of equal-area projection. It is still highly influential as it discarded scientific cartographical approaches and European-centric perceptions and instead emphasized the relative size of the equatorial and southern landmasses. In doing so it embraced post-colonialism and “demonstrated the need for a new world order freed from Western conceptions.”⁵⁸ It has been adopted by many international aid agencies and has recently seen a renewed

⁵⁸ Black, *Maps and Politics*, 36.

resurgence in Western schools, particularly those in areas with higher representation from non-white and immigrant communities.⁵⁹

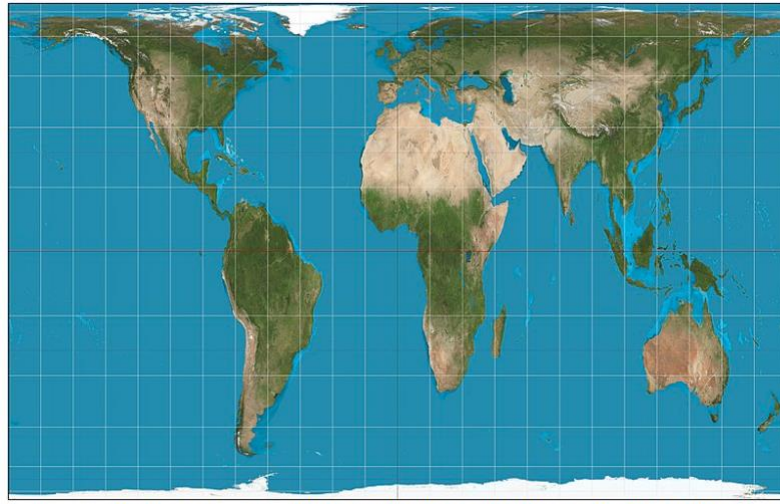


Figure 5 – Gall-Peters projection

Source: Wikimedia Commons, “Gall-Peters projection,” last modified [or accessed] April 25, 2022, https://commons.wikimedia.org/wiki/File:Gall%E2%80%93Peters_projection_SW.jpg

Most world leaders are between 50 and 70 years old, with the average being 62 years old.⁶⁰ This means that the formative education of our powerful global elite will have centered around the enduring legacy of the Mercator projection, the Van der Grinten projection, and possibly for some the Robinson projection. These maps all distort size in favor of direction and distance. To make policy, have a political plan, project influence, and operate within International Relations, one must have a geographical conception,⁶¹ a

⁵⁹ Joanna Walters, “Boston public schools map switch aims to amend 500 years of distortion.” *The Guardian*. March 23, 2017, <https://www.theguardian.com/education/2017/mar/19/boston-public-schools-world-map-mercator-peters-projection>.

⁶⁰ Shuja Asrar, “Can you guess the age of a leader based on average age of country’s population,” *The Times of India*, March 5, 2022, <https://timesofindia.indiatimes.com/world/rest-of-world/can-you-guess-the-age-of-a-leader-based-on-the-average-age-of-countrys-people/articleshow/81275841.cms>.

⁶¹ Henrikson, “The power and politics of maps,” 95.

way of viewing the world. Policy creation is based on the policymaker's conceptions of the actual world and "their own countries situation within it."⁶² This is formalized through maps. Therefore a map is both a geopolitical artifact and a prism through which to view geopolitical realities.⁶³ Arguably the geopolitical prism through which many in power are seeing the world is dangerously distorted, thus state policy today has the potential to be as misleading as the maps upon which it was founded.

In the cartographic process, the "burden of choice"⁶⁴ extends much further than just projection. Choices are needed for all features and these can generally be analyzed in three groupings: visual signifiers, text, and demarcation of space.⁶⁵ Visual signifiers include projection, scale, color, perspective, shading, and orientation; text considers place naming, language, and symbols; and space is the selection of which features to include. The decisions made affect the viewer by influencing attitudes or compelling them to see an issue from a particular point of view.⁶⁶ Cartographic products from the Russian invasion of Ukraine, shown in figure 6, are a good example of some of these visual elements, particularly the use of color.

⁶² *Ibid.*, 94.

⁶³ Michael Heffernan, "The Politics of the Map in the Early Twentieth Century," *Cartography and Geographic Information Science* 29, no. 3 (2002): 95, <https://doi.org/10.1559/152304002782008512>; Mills, "The map is never neutral."

⁶⁴ Alexander Kent, "Political cartography: From Bertin to Brexit," *The Cartographic Journal* 53, no. 3 (August 2016): 199. <https://doi.org/10.1080/00087041.2016.1219059>

⁶⁵ Leuenberger, "Maps as Politics ...," 341.

⁶⁶ Kent, "Trust me, I'm a cartographer ...," 199. For example, most maps during the Cold War, and even to this day, will color the USSR or Russia in red. This is a color associated with both danger, the enemy, and communism.



Figure 6 – Mapping the Russian Invasion in Ukraine

Source: The Economist, “How cartographers track and map Russia’s war in Ukraine.” *The Economist*. April 8, 2022. <https://www.economist.com/the-economist-explains/2022/04/08/how-cartographers-track-and-map-russias-war-in-ukraine>

The red color for Russian forces represents danger, blood, enemy, violence, and threat, as well as historical associations with the Red Army and the USSR, therefore, reminding the viewer of the threat, and connotations, from the Cold War superpower.⁶⁷ The red also emphasizes Russia engulfing Ukraine, metaphorically being swallowed up by Russian aggression. Conversely, the blue for Ukraine symbolizes friends, calm, and peace; it is the color of the UN and peacekeeping, yet Ukraine itself isn’t colored blue (unlike Russia’s red) making it look more vulnerable and smaller in comparison. The

⁶⁷ Specht and Kent, “How maps tell ...”

areas identified as under either Russian control are misleadingly colored in a single block. There is a difference between contested and controlled territory, and homogenizing this space as ‘Russian’ does not tell the story of the conflict on the ground or the civilian resistance. Additionally, between the road networks, the main axis of travel, there are unlikely many contiguous areas of Russian administrative control.⁶⁸ The arrows show the direction of travel but they do not depict the size or intention of force. Arrows also make movements look deliberate and aggressive but show nothing of any resistance or fighting on the ground. In this map the arrows are dehumanizing, removing people from the conflict and reducing the reporting to that of a military strategy.

The social and political dynamics of cartography

If mapping the physical terrain is complex it does at least have a mathematical foundation; it is a scientific problem to be solved albeit generating some significant cultural and identity consequences. However, mapping the social and political terrain is “influenced by quite a different set of rules.”⁶⁹ Here, cartography is shaped by values associated with ethnicity, politics, religion, and social class. Simple lines on a map can carry political views and social implications not only for the viewer but also for those living within the place mapped.⁷⁰

Maps tend to be state-centric. Maps that are not are at risk of being dismissed as interesting or decorative but not politically important.⁷¹ Cartography turns land into a

⁶⁸ *Ibid.*

⁶⁹ Harley, “Deconstructing the map,” 6.

⁷⁰ Pflughoeft, “The world probably doesn’t ...”

⁷¹ Raaphorst, “The compass to ...”

series of geographical symbols with lines representing borders and the use of a single color per territory. These reinforce a Westphalian concept of sovereignty. Yet this dehumanizes the landscape, simplifying reality, and implies the state is a homogenous space and an objective fact. Instead, 75% of the world's territories have an ongoing international border dispute,⁷² and most maps will ignore the people, fluidity of borders, and territories seeking independence. Boria, in the journal *Geopolitics*, explains the relationship between maps and statehood.

By presenting the territory of the state as a compact and discrete body, separated from the rest of the world by clearly demarcated linear borders, the map is perfectly suited to the task of enhancing the sense of national unity and establishing its inviolability. Moreover, it renders the very concept of nation natural, intrinsic to the state's territorial reality, to be taken for granted, despite the fact that the nation is, obviously, a purely social construct.⁷³

There is also a formality or sense of finalization by seeing territory on a map; areas of contention or conflict seem resolved once mapped. To map something is to make a political statement about the existence of that area. Moreover, political authority is often created on maps before it is created on land.⁷⁴ What a viewer may have thought contested can seem settled through the cartographic process as once drawn it gains authority by reinforcing and legitimizing the status quo or acting as an agent of change.⁷⁵ In this regard, a map not only conveys ideas but also shapes opinions⁷⁶ and “crystallizes

⁷² Pflughoeft, “The world probably doesn't ...”

⁷³ Boria, “Representing the politics of ...,” 149.

⁷⁴ Rodrigo Bueno Lacy and Henk Van Houtum, “Lies, Damned Lies & Maps: The EU's Cartopolitical Invention of Europe,” *Journal of Contemporary European Studies* 23, no. 4 (August 2015): 497, <https://doi-org.cfc.idm.oclc.org/10.1080/14782804.2015.1056727>

⁷⁵ Harley, “Deconstructing the map,” 17.

⁷⁶ Erskine, “Politics and Cartography ...”

discourse”.⁷⁷ It is not through a purely artistic endeavor that a newly formed nation-state will commission a national atlas, print stamps with a map of its outline on it, and use the map as an emblem to assert identity.⁷⁸

The centrality of the politics and the state within cartography can be illustrated through weather forecasts. A weather map is familiar and should have a non-political purpose, yet its frame of reference is political.⁷⁹ An internet search result for ‘Ontario weather forecast’ is shown in figure 7. In it, a resident of Toronto is shown more information about the Yukon than nearby New York State. This map is therefore a statement of the centrality of the nation and an individual’s identity within it.



Figure 7 – Ontario Weather forecast

Source – Government of Canada. *Canadian weather*. Last modified [or accessed] April 26, 2022, https://weather.gc.ca/canada_e.html

⁷⁷ Bueno Lacy and Van Houtum, “Lies, Damned Lies ...,” 494.

⁷⁸ Henrikson, “The power and politics of maps,” 102.

⁷⁹ Black, *Maps and Politics*, 12.

Thus, maps are again exerting power by translating a political project into an image.⁸⁰ Western powers, in particular, have long used maps to control and influence their populations. Mapping was historically the business of the state and cartography was nationalized. Harley asks us to imagine a mapless society and supposes that it would be politically unimaginable.⁸¹ A conspiratorial, or realist, view would conclude that cartographic knowledge is controlled and privileged by the powerful even though maps are ubiquitous.⁸² However, a more hopeful view would posit that maps are “no longer special nor the property of privileged elites,”⁸³ and that we are all now part of the mapping process. Alternatively, liberalists would suggest that the role of the state is now subordinated to international business organizations, where companies such as Google Maps, despite no legal, political, or democratic mandate,⁸⁴ are now defining our borders and thus constructing our geopolitical identity.

Maps are political, they flare tensions.⁸⁵ Indeed maps have been some of the most contested battlefields within geopolitics. India for example is suing Twitter for showing Kashmir as a separate country.⁸⁶ Similarly, Vietnam and India refused to stamp Chinese passports as they contained a map showing Chinese authority over contested territory in

⁸⁰ Boria, “Representing the politics of ...,” 166.

⁸¹ Harley, “Deconstructing the map,” 14.

⁸² Martin Dodge and Chris Perkins, “Reflecting on J.B. Harley’s influence and what he missed in ‘Deconstructing the map’.” *Cartographica* 50, no. 1 (2015): 38, <https://doi:10.3138/carto.50.1.07>

⁸³ Vujakovic, “Mapping the War Zone ...,” 188.

⁸⁴ Caquard, “The politics of ...”

⁸⁵ Ishaan Tharoor, “Could this map of China start a war?” *The Washington Post*, last modified June 27, 2014, <https://www.washingtonpost.com/news/worldviews/wp/2014/06/27/could-this-map-of-china-start-a-war/>

⁸⁶ Hannah Ellis-Petersen, “Twitter in India faces criminal charges for Kashmir map ‘treason’,” *The Guardian*, June 29, 2021, <https://www.theguardian.com/technology/2021/jun/29/twitter-in-india-faces-criminal-charges-for-kashmir-map-treason>

the South China Sea.⁸⁷ The latter example is arguably part of a Chinese political strategy, a propaganda effort aimed at influencing the population that uses maps as “narratives to support national interests and influence beliefs.”⁸⁸

This confluence of geography and sovereignty is termed *cartopolitics*.⁸⁹

Cartopolitics is where mapmaking strategies are employed to assert control over a territory,⁹⁰ and conversely where sovereignty is reinforced by a territory’s cartographic existence. Cartopolitics, therefore, supports the social power of cartography by emphasizing its ability to create political space,⁹¹ namely that mapmaking has a performative role in political identity. Cartopolitics can be acutely observed within Europe. Bueno Lacy and Van Houtum⁹² in the *Journal of Contemporary European Studies* call the European Union a “Cartopolitical Invention” and use maps in their analysis to illustrate how the concept of Europe is a social and political construction forged by a cartographic political agenda. Building on their study, the maps shown in figure 8 present four different perspectives of European identity. The distinction between the map on the Euro (EUR) note and coin, and the other three maps is key when it comes to analyzing identity and cartographic purpose. Thus these maps provide a good illustration of cartopolitics, subjectivity, and “cartographic manipulation.”⁹³

⁸⁷ Tharoor, “Could this map ...” An official passport stamp could be interpreted as an endorsement of these claims. To overcome the issue Vietnam was issuing separate pieces of paper to Chinese travelers that could be stamped.

⁸⁸ Erskine, “Politics and Cartography ...”

⁸⁹ Jeppe Strandsbjerg, “Cartopolitics, Geopolitics, and boundaries in the Arctic,” *Geopolitics* 17, no. 4 (2021): 820, <https://doi/full/10.1080/14650045.2012.660581>

⁹⁰ Bueno Lacy and Van Houtum, “Lies, Damned Lies ...,” 484.

⁹¹ Strandsbjerg, “Cartopolitics, Geopolitics, and ...,” 827.

⁹² Bueno Lacy and Van Houtum, “Lies, Damned Lies ...,” 477.

⁹³ *Ibid.*, 482.

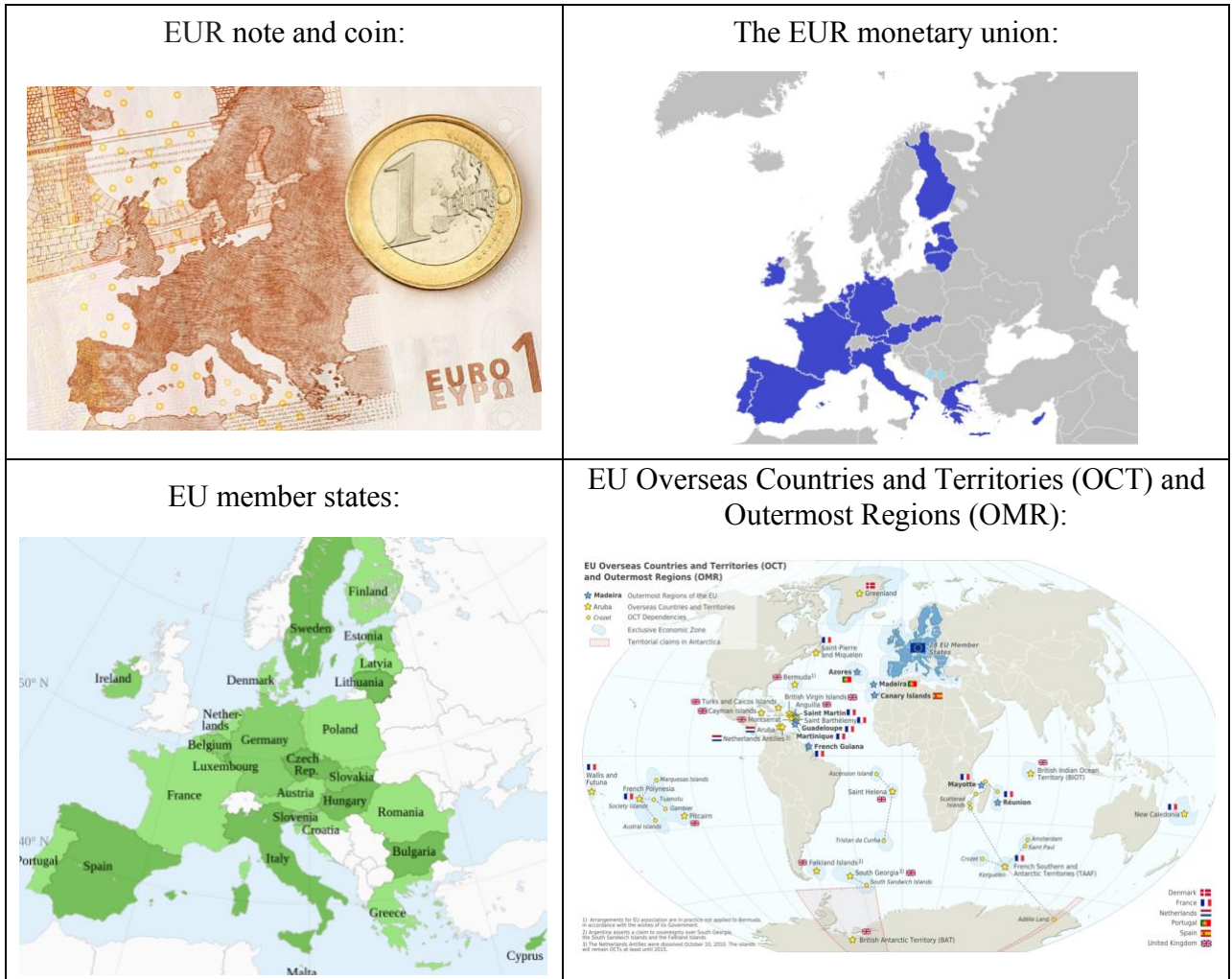


Figure 8 – Cartopolitics and identity within the EU

Source – (top right) Wikipedia, “The Eurozone,” last modified [or accessed] April 25, 2022, <https://en.wikipedia.org/wiki/Eurozone>;
 (bottom left) Wikipedia, “Member states of the EU,” last modified [or accessed] April 25, 2022, https://en.wikipedia.org/wiki/Member_state_of_the_European_Union;
 (bottom right) Wikimedia Commons, “EU Overseas Countries and Territories (OCT) and Outermost Regions (OMR),” last modified [or accessed] April 25, 2022, https://upload.wikimedia.org/wikipedia/commons/thumb/7/72/EU_OCT_and_OMR_map_en.png/1600px-EU_OCT_and_OMR_map_en.png

The information presented on a map, namely what is included and what is left out, is driven by the map’s function, target audience, and political assumptions.⁹⁴ Therefore,

⁹⁴ Leuenberger, “Maps as Politics ...,” 358.

as previously highlighted, maps do not reflect reality, but instead represent the agenda and political pursuit, either intended or unintended, of the cartographic power. In the case of the EUR, that power is the EU monetary union in Brussels. The dichotomy between the map on the EUR and the other maps is stark. If one were to view the EUR note and coin in isolation one would be forgiven for assuming that this is legal tender across the whole landmass represented. Using a Mercator projection, and with a lack of political borders, the map on the EUR is size distorted and suggests unity; a symbolism of importance alongside shared culture, identity, and influences. It represents Europe as an idea bigger than its constituent parts; an aspirational political agenda of Europeanization. Even countries not in the EU are given a status of unquestionable belonging to Europe.⁹⁵ The symbolism is blunt and unlike most maps does not appear to hide behind a mask of neutrality.

Contrastingly, the map on the EUR is also as exclusionary as it is inclusionary. The EUR constrains our understanding and acceptance of what Europe is and means, cutting the European landmass off just to the East of Poland. Ukraine and Belarus, therefore, are not afforded the same presence on the EUR map as other non-EU countries such as Norway, Switzerland, and the Balkans. Likewise, countries far beyond the map such as those in the EU OCT and OMR are deemed insignificant despite being in the EU and subject to the same laws and legislation as if they were on the ‘mainland’. This removal of territory from the map is termed “Cartographic cleansing”⁹⁶ and it is a powerful tool that can erect real and imagined boundaries around social and political

⁹⁵ Bueno Lacy and Van Houtum, “Lies, Damned Lies ...,” 482.

⁹⁶ *Ibid.*, 484.

communities. It follows that maps, by representing reality, can influence political reality and can therefore mend or exacerbate divisions in ideology or identity.⁹⁷

Cartographic cleansing becomes more acute when considering the mapping of indigenous⁹⁸ nations and territories. Contemporary cartography is a Western invention, developed through centuries of cartographic labor related to empire building, nationalism, colonialism, and conquest, creating fixed territories and political identities.⁹⁹ Generally, maps are produced for ‘outsiders’ not ‘locals’ and are used as instruments of power for rulers, colonists, and administrators.¹⁰⁰ No one who lives in an area requires a map to navigate it. The subjectivity of the mapping process also changes depending on your position of power and social background. If maps are a “cultural text”¹⁰¹ then different communities will produce very different products. However, technological advancements, the pursuit of objectivity (no matter how misleading), and the scientific approach to cartography have led to a dismissive skepticism of non-Western or early culture mapping practices, viewing them as inferior.¹⁰² Non-Western cultures thus become ‘the mapped’, not ‘the mappers’, losing both power and territorial claims in the process.¹⁰³

⁹⁷ Raaphorst, “The compass to ...”

⁹⁸ This term is used loosely to encompass Indigenous Peoples of America, Australian Aborigines, New Zealand Maoris, and Canadian First Nations and Indigenous Peoples.

⁹⁹ Anderson, *No Go World...*, 66.

¹⁰⁰ Leuenberger, “Maps as Politics ...,” 349.

¹⁰¹ Harley, “Deconstructing the map,” 9.

¹⁰² *Ibid.*, 5.

¹⁰³ Caquard, “The politics of ...” Of note, Indigenous notions of spatiality are as distinct from each other as they are from Western perspectives.

As the dominant cartographic power, ‘the West’ becomes the arbitrator in defining the acceptability and standardization of cartographic products. However, in doing so the world loses the richness of other perspectives. Many cultures do not use visual documents but instead perceive mapping as a social process incorporating memory, oral history, and spirituality.¹⁰⁴ For these cartographic perspectives to be represented they must lose their aural and visual elements to be coded to fit within a mathematical grid system. Indigenous representation and perspectives of spatiality thus become further subordinated to the Western cartographic model.¹⁰⁵ This power imbalance further embeds social and political subjugation within the cartographic design.¹⁰⁶ Omitting certain visual and linguistic information, reducing or exaggerating scale, selecting particular symbols, and altering place names, can reform territory, erase culture, impact identity, and re-write history. Again, maps produce, and are products of, power:

The distinctions of class and power are engineered, reified, and legitimated in the map by means of cartographic signs. The rule seems to be the more powerful, the more prominent. To those who have strength in the world shall be added strength in the map.¹⁰⁷

The counter-mapping movement, creating maps that challenge the cartographic products of state-driven and commercial cartography, grew out of the repression of indigenous cartographers and their processes. These counter-maps are powerful in supporting claims over territory and culture and have become an influential part of critical cartography that disseminates alternative geopolitical images¹⁰⁸ and contests the Western

¹⁰⁴ *Ibid.*

¹⁰⁵ *Ibid.*

¹⁰⁶ Leuenberger, “Maps as Politics . . .,” 340.

¹⁰⁷ Harley, “Deconstructing the map,” 8.

¹⁰⁸ Leuenberger, “Maps as Politics . . .,” 340.

dominance of maps. Counter-mapping, like all forms of cartography, hopes that the maps will not only *reflect* geopolitical conditions but if “carefully and intelligently created”, may also *shape* these conditions.¹⁰⁹

Contemporary mapping

Contemporary cartography is both revolutionary yet fundamentally the same as centuries past. Technological advances have not solved the mathematical problems of projection nor removed subjectivity in the mapping process. Blank spaces from the Mappa Mundi have been filled in, yet *silences* on maps still exist. The question of what can be mapped has been largely replaced by what should be mapped. Nevertheless, cartography has advanced and our relationship with maps has developed. Western societies live in a “map-immersed world”, where maps are used so frequently that they are barely noticed as distinct products.¹¹⁰ In addition, maps are fully zoomable, updated in real-time, and ego-centered.¹¹¹

Through mobile mapping apps, the relationship between cartography, place, and identity is evolving. The accessibility of mobile mapping means that we are rarely completely lost or disorientated, instead, by using apps we generate a distinct sense of spatiality to the world around us. Referring to an ego-centered mapping app for directions alters the imagined geography of our surroundings; we can see ourselves both on the map and in the map.¹¹² This is a very distinct perspective from even 20 years ago and the

¹⁰⁹ Heffernan, “The Politics of the Map ...,” 207.

¹¹⁰ Vujakovic, “Mapping the War Zone ...,” 188.

¹¹¹ Caquard, “The politics of ...”

¹¹² Kitchin and Dodge, “Rethinking maps,” 339.

impact of this change on map-mindedness, the importance of map literacy, and understanding of spatial identity is not yet known.

As discussed previously, the nation-state is no longer one of the main sources of cartographic power. Instead, mapping is also provided by multinational corporations, businesses, bloggers, political activists, non-governmental organizations, and individuals. Map data is also provided by the map users through GPS trackers, wiki-mapping, and crowdsourcing. In this sense, cartography has also become a ‘bottom-up’ endeavor. The growth of the internet, mapping software, and graphic design tools means that cartography has been “democratized.”¹¹³ As a result, contemporary maps can be everything from non-serious, frivolous, beautiful, and rather random, as illustrated in figure 9, to thought-provoking, challenging, and even subversive, for example in figure 10.¹¹⁴

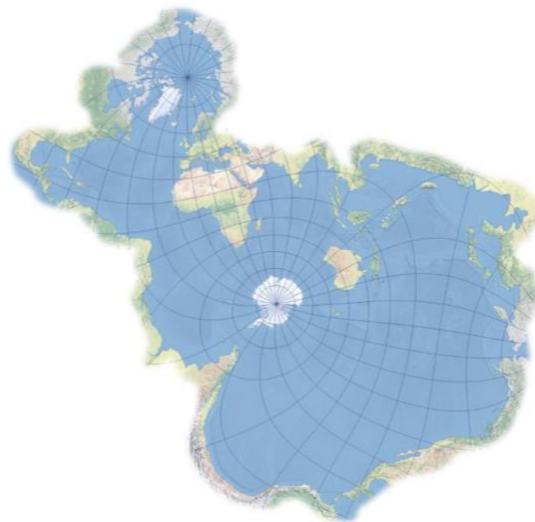


Figure 9 – A map of the world if it was drawn by a fish

Source – Reddit, “A world map if it was drawn by a fish” last modified [or accessed] April 27, 2022,

¹¹³ Leuenberger, “Maps as Politics ...,” 340.

¹¹⁴ Dodge and Perkins, “Reflecting on ...,” 38.

https://www.reddit.com/r/MapPorn/comments/eudxdb/a_world_map_if_it_was_drawn_by_a_fish/

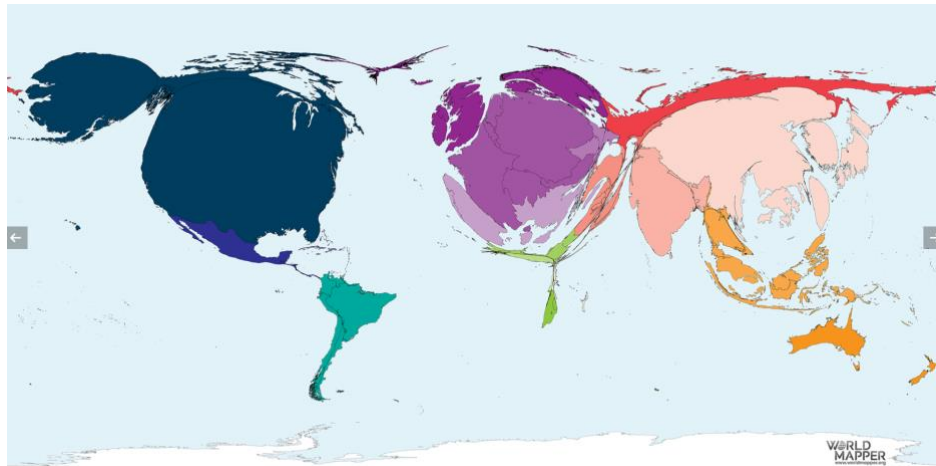


Figure 10 – A map showing territory size in proportion to the combined wealth of all citizens of that territory that are billionaires in 2018.

Source – World Mapper, “Billionaires Wealth 2018” last modified [or accessed] April 27, 2022, https://worldmapper.org/maps/inequality-billionaireswealth-2018/?sf_action=get_data&sf_data=results&_sft_product_cat=inequality&sf_paged=2

‘Map art’ is a form of critical cartography in that it challenges individual perceptions and can counter any subtle agendas of the dominant cartographic powers. Like all cartographic products, however, map art can also be deceptive and intentionally misleading. Its particular threat lies in its graphical appeal which makes it highly suited to dissemination and consumption via social media.¹¹⁵ Maps for social media prioritize visual attraction; their gauge of success is not in the information they provide, but instead in how many times they were shared and liked. These maps, growing in frequency and presence, emphasize the need to understand how maps are subjective products created within a specific social, cultural, and political context.¹¹⁶ Social media also presents an

¹¹⁵ Kent, “Trust me, I’m a cartographer ...,” 193.

¹¹⁶ Leuenberger, “Maps as Politics ...,” 340.

opportunity however for ‘peoples’ cartographers to produce blogs or videos of the map-making process to inform viewers of their methods and decisions. Whilst traditional cartography is a tool of power, held centrally by the elites, the proliferation of cartographic technologies and processes can make mapmaking accessible in a way that it never has before. Cartography can only be improved by adding transparency.

Conclusion

Cartography is a science and an art. Mathematically impossible to create accurately, a map will always be a balance between objective and subjective thought and activity. Henrikson in the book *Reordering the world* describes a map as like the world itself, “both an object and an idea, a material entity and a mental construct.”¹¹⁷ A map product is not fundamentally bad but it must be scrutinized; the viewer should review it critically and consider that it is a product produced for, and with, a purpose. We can identify bias, subjectivity, and geopolitical manipulation easily within historical maps and cartographies of the past, but do not see that modern maps are also influenced and informed by biases. Yet, ancient maps also did not try and hide their prejudices and assumptions; modern maps are rather more subtle and “take advantage of people’s loss of geographical skepticism.”¹¹⁸ Advances in technology fool us into thinking that objectivity in the cartographic process is a given.

Mapmaking is an exercise in presenting spatial, social, cultural, and political data in a way that a map viewer can understand, interpret, and engage with through their

¹¹⁷ Henrikson, “The power and politics of maps,” 110.

¹¹⁸ Bueno Lacy and Van Houtum, “Lies, Damned Lies . . .,” 494.

knowledge and experience. The problem with making maps is that the decisions a cartographer makes are not known to the viewer. Indeed to know what is not represented on the map often requires knowledge of the space being mapped. Whenever one views a map we should question the cartographic choices of projection, scale, orientation, symbols, and text. A map viewer needs to develop the conceptual tools to consider the agenda behind the map and how it can be employed as an argument, or weapon, of information and disinformation.¹¹⁹

To use maps effectively a viewer should also seek cartographic variety. As observers of politics and international current affairs would read numerous articles surrounding the field to get different perspectives, so too should they seek out maps that give different orientations, information, and perspectives. Furthermore, to understand a geographical space we should consciously use a variety of maps in conjunction to see the space from its 'different angles'. Thus maps should represent the physical spatiality but also the human dimension. Many international issues are shaped by cartopolitics and are intrinsically geographical, for example, land claims, territorial boundaries, and dynamic demographic processes;¹²⁰ all require a sense of 'map-mindedness' to comprehend them. World leaders, in positions of power to influence and act on these issues, are unconsciously shaped by their biases borne from the maps they have previously been exposed to and are familiar with. The most ubiquitous map today remains the Mercator projection which gives a distorted view of the world, a legacy of Western imperialism.

¹¹⁹ Mills, "The map is never neutral."

¹²⁰ Vujakovic, "Mapping the War Zone . . .," 187.

Developing new cartographies that reshape the map will create a new level of awareness, understanding, and perspective of the world and our place within it.

The global impact of cartography on international relations and identity is largely unconsidered and certainly unmeasurable. Maps have authority, we trust them, and their unassuming nature makes them persuasive and purposeful. We must learn to recognize and understand that power so that we can better understand the world.

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