

Guerrilla Cartography: Promoting Diverse Perspectives and the Expansion of the Cartographic Arts

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INTRODUCTION

GUERRILLA CARTOGRAPHY IS AN organization that seeks to popularize thematic maps with a variety of styles and perspectives in an accessible and engaging format. Through our projects, we provide examples of diverse narrative viewpoints in map form, allowing readers to expand their ideas of what kinds of stories maps can tell and imagine the stylistic possibilities for visual expression in this medium. Among other activities, we publish crowd-sourced atlases with the aim to widely promote the cartographic arts, and have thus far published *Food: An Atlas*

(2013) and *Water: An Atlas* (2017). Because the maps are collected in published volumes, the atlases build legitimacy for marginal or atypical cartographic voices. We promote accessibility by publishing the atlases both as physical books and as free, downloadable PDF documents on our website: guerrillacartography.org. Each map, created by a different group on a different topic, is placed in relationship to other maps and information, inviting the reader to think critically about each map's authorship, style, and content.

GUERRILLA CARTOGRAPHY'S ORIGINS

THE IDEA FOR GUERRILLA CARTOGRAPHY has its roots in the *Mission Possible* atlas project (missionpossiblesf.org). In 2011, Darin Jensen (then the Cartography Lecturer at UC Berkeley), Molly Roy (former student and freelance cartographer), and Jensen's students partnered with an organization in San Francisco called Mission Loc@l, which wanted to make an atlas about the Mission neighborhood. Jensen's students made maps on whatever topic interested them regarding the predominantly Latino neighborhood, and the atlas thus comprises a variety of themes. The maps are oriented with west toward the top because "... a west orientation brings south and north into equilibrium as left and right, rather than above and below. This may be important to a map of a neighborhood that is living the histories of a region in which the dynamic relationship between South and North would shape the future" (Jensen, Chávez, and Roy 2012, 3; Figure 1). The title page introduces this dis-orienting orientation while also using a series of cascading insets to gradually zoom the viewer into the Mission neighborhood. The topics mapped, and the perspective from which they are viewed,



Figure 1. *Mission Possible: A Neighborhood Atlas* (2012), title page (missionpossiblesf.org).

are multiple and varying. For instance, "Mission: Saturday Sounds" locates and measures noise in the neighborhood on a Saturday night, while "Mission: Airways" upends the usual map perspective by plotting what is over our heads. "Mission: Gangs and Cupcakes" juxtaposes two local gang



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territories with bakery locations: “You can be paying \$4.50 for a cupcake and be standing in the middle of Norteño territory . . . It’s up to you to decide what to make of that,” Jensen has said (Miller 2013).

The production of *Mission Possible* inspired Jensen and Roy to crowdsource an atlas with international scope and contributors. *Food: An Atlas* was the first Guerrilla Cartography atlas, and went from the call for maps to shipping in the remarkably short time of seven months.

THE PROCESS OF CREATING A GUERRILLA CARTOGRAPHY ATLAS –

GUERRILLA CARTOGRAPHY SELF-PUBLISHES with the aim to be free of traditional publishing constraints. As co-founder Darin Jensen has written, “Guerrilla Cartography does not take direction, or seek approval, or dictate what narrative to create” (Jensen 2017). Self-publishing is expensive but ensures that we are not beholden to the separate editorial control of a publishing house. We work with a local printing press in order to support local businesses and minimize our ecological footprint, and pack and ship all the atlases ourselves in order to minimize costs. We also provide a free PDF document on our website with the entire content of each atlas because we believe in the free and open dissemination of our projects.

Guerrilla Cartography is not in the business of making money, and the majority of our funding still comes from crowdsourcing. We have conducted successful Kickstarter campaigns for both atlases, which covered part of the costs of printing the atlases locally. For *Water*, we applied for and received a publishing grant from Furthermore, a program of the J. M. Kaplan Fund. Sales of our atlases cover the rest of our costs. Everyone involved with Guerrilla Cartography—the board members, researchers, cartographers, and designers—are all volunteers dedicated to this project of bringing the art of cartography to the people. Much like the Counter Cartographies Collective in Chapel Hill, we emphasize “the creativity of labor over that of capital” (Dalton and Mason-Deese 2012, 440).

To launch an atlas, we start by proposing a broad theme (such as Food or Water) and invite submissions from anyone who has created or wants to create a related map. The call for maps has few guidelines, other than that the map submissions be somehow related to the broad theme and

Following the success of *Food* and due to financial and logistical concerns, Jensen and others involved with *Food* decided to establish Guerrilla Cartography as a 501(c)(3) nonprofit in late 2014, providing tax-exempt status and the ability to apply for grants. This move, and the accompanying recruitment of a volunteer board, enabled the group to continue making atlases while expanding the mission to include a broader focus on promoting the cartographic arts through education and outreach.

convey a narrative. Our primary constraints are those that enable us to put everything together in a physical atlas (such as the sizing of the document or minimum font size for readability) and graphic elements required for basic comprehension (e.g., title and legend).

We circulate the call for maps as widely as possible, to cartography groups as well as subject-specific ones. One of our critiques of *Food: An Atlas* was the disproportionate number of maps of California and North America, despite our hope for greater representation of other geographies. The Bay Area base of our organization unsurprisingly becomes reflected in our networks, and thus the reach of our call for maps. For *Water: An Atlas*, we made it a priority to try to increase international participation by breaking out of our typical networks. Throughout the spring of 2015 leading up to the first call for maps for *Water*, Guerrilla Cartography board members spent hours on the internet compiling the contact information for organizations and individuals across the world who might have an interest in contributing to an atlas themed on water. In addition to our increased outreach efforts, we also recognized that language presents a barrier. To help overcome this dilemma, we translated the call for maps into Spanish, and asked our networks to translate and re-share in additional languages if they were able. However, due to the English-speaking composition of our board, which is responsible for providing editorial comments to cartographers, we made the decision to accept only submissions that were presented primarily in English.

One of Guerrilla Cartography’s goals is to enable people to tell their map-based story, even if they do not have the cartographic training, skills, or tools to create that map

Holy and Unholy Spirits Along the Ganga: A Map of Polluters and Prayers

About 450 million people depend on India's Ganga (Ganges) River for spiritual and physical sustenance. From source to sea, shrines and polluting industries dot the river banks. The state of Bihar features shrines like Vateshwarasthan (a tantric shrine to the gods Siva and Kali), along with a dolphin sanctuary, distilleries, pulp and paper industries, an oil refinery, and coal-fired power plants. Meanwhile, outside of Kanpur in the state of Uttar Pradesh, young boys graze goats amongst unprotected toxic waste sites. In 1972, research revealed for the

first time that the river was polluted. This claim was extremely controversial at that time because most people believed that the river was a goddess, and therefore could not be polluted. Even now, some spiritual leaders claim that the river has the capacity to clean itself due to what they consider its divine powers. Over the past 30 years, more than \$3 million USD has been spent on cleaning the river; meanwhile, it has gotten more polluted. After Prime Minister Narendra Modi came to power in 2014, he promised to clean up the river by 2018.

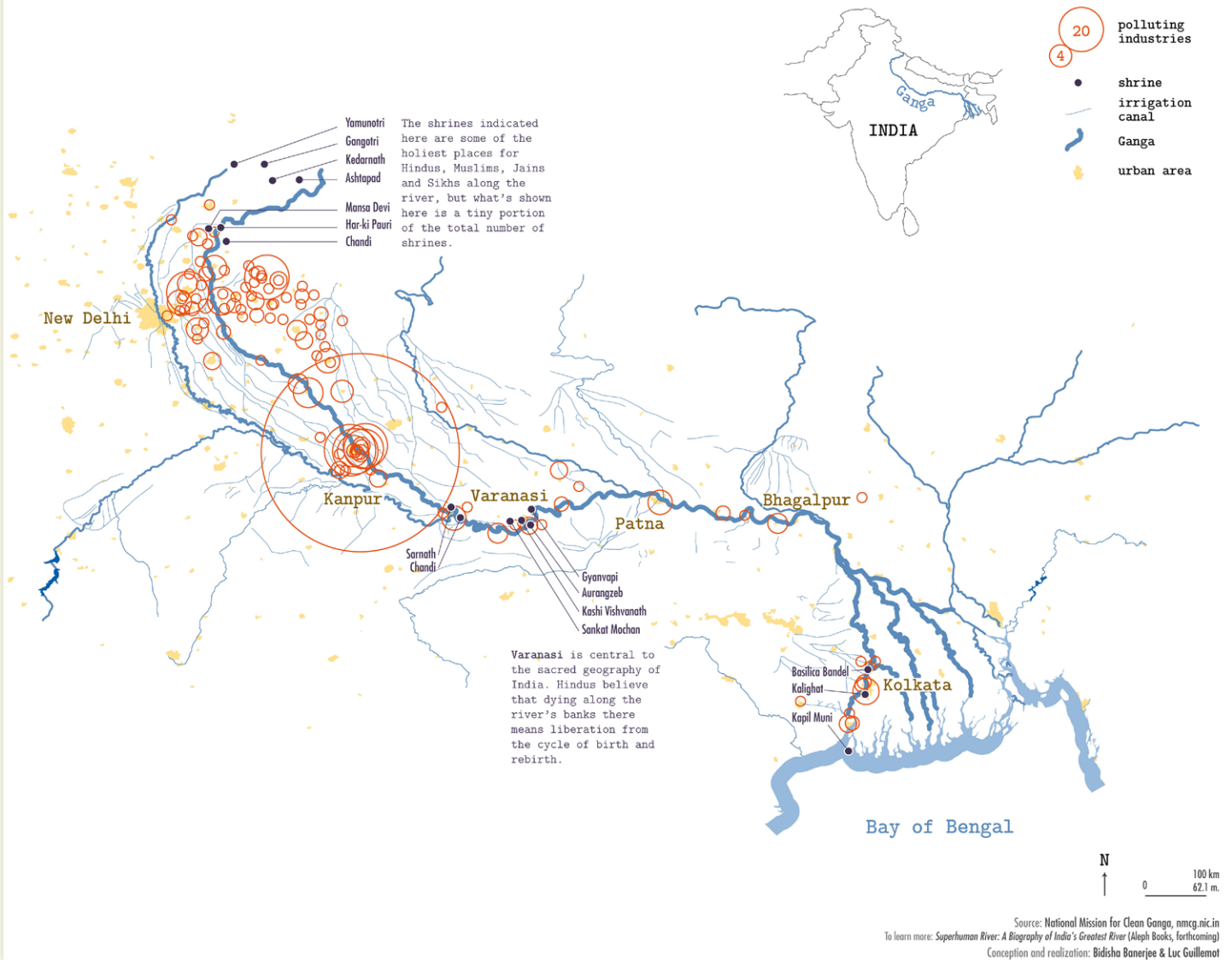


Figure 2. Holy and Unholy Spirits Along the Ganga: A Map of Polluters and Prayers by Bidisha Banerjee and Luc Guillemot in *Water: An Atlas* (2017).

themselves. In each of our calls for maps, people are also encouraged to instead submit *ideas* for maps (along with data sources they have identified). After assessing the idea and data for feasibility, we pair the idea creator with one of our many volunteer cartographers. The idea creator and volunteer cartographer work together to create a map that reflects the envisioned narrative.

After maps are submitted, the Guerrilla Cartography board reviews them and recommends edits. Our edits focus on ensuring that maps meet the basic guidelines and that they are communicating their narrative clearly. We help identify confusing or misleading representations, typos, and unclear text. In our edits, we consider maps as full pieces, including all the components and the overall

design. Rarely is a map rejected. On those few occasions, the reason has usually been that the submission was a reference map, rather than a thematic one. Although reference maps can be beautiful examples of cartography, our aim with our atlases is to tell stories with maps.

For *Water*, we also conducted a “global” peer review for the second round of edits. We placed drafts of the maps on our website and invited the entire community of mapmakers and researchers to comment. In the spirit of a crowdsourced project, this allowed the editing of the atlas to also be a collaborative process. Once submissions had been revised based on the peer review comments, the Guerrilla

Cartography board conducted one final review to identify any lingering typos or glitches.

After each map submission goes through several rounds of review and revision, we work as a board to develop the narrative flow of the atlas from its organic, crowdsourced origins. At the end of the process, the finished atlas contains maps of great variety: at different scales, in different projections, using different color palettes and graphic styles, and drawing on different sets of data. Each map ultimately communicates a different story or message, but also contributes to the whole of the atlas.

HOW GUERRILLA CARTOGRAPHY'S ATLASES PROMOTE DIVERSE PERSPECTIVES

GUERRILLA CARTOGRAPHY AIMS TO promote the understanding that there are many views of the world, that how we understand space and place can vary, and that we should think critically about the maps and the graphics we make and consume. Our organization has designed processes for creating our atlases that support these goals.

1) BY FEATURING DIVERSE NARRATIVE VIEWPOINTS

A different person or group of people produced nearly every map in our atlases, each contributing their individual aesthetic and experiences to the broad theme. We can never tell all stories about food or water, but crowdsourcing content allows us to glimpse a few things that we might not otherwise encounter, giving the atlases a variety of perspectives. An example of an unusual narrative viewpoint is the map “Holy and Unholy Spirits Along the Ganga: A Map of Polluters and Prayers,” which juxtaposes spiritual sites with polluting industries along the Ganga (Ganges) River in India. This map was a collaboration between social ecologist Bidisha Banerjee and cartographer Luc Guillemot for *Water: An Atlas* (Figure 2).

The atlases also exhibit a variety of literal viewpoints, including different projections and scales. One example is Garrett Bradford’s map of “Global Almond Trade and California,” featured in *Food: An Atlas* (Figure 3). The central map employs the unusual Peirce quincuncial projection in order to place California at the bottom, so as

to better showcase the almond trade that emanates from it. The cartographic choices highlight the narrative of California as the center of global almond production.

2) BY PLACING MAPS IN RELATIONSHIP TO OTHER MAPS AND INFORMATION

The atlases are meant to be both informational and entertaining, readily accessible to anyone with an interest in maps, in the theme, or both. After the call for maps is sent out, the maps that the crowd chooses to make end up creating a narrative for the atlas. We do not prescribe the narrative in advance; it grows organically throughout the process of building the atlas. We are then able to group the maps into narrower themes within the broad theme, giving a structure that makes the atlas more than simply a collection. This is the part of the atlas that is editorial, and that makes the board a part of each map and its story. While each map by itself has a story, that story also becomes contextualized in the order of the maps. We experiment with multiple linear “stories” as we work to pull the narrative thread through the atlas. There are other stories that can be told with these maps and other ways they could be grouped, but due to the constraints of producing a physical atlas, the editorial board decides the final grouping and order for the maps. We hope our arrangement of the maps provokes a response in readers, prompting them to agree with or question the narrative that is being told, and to translate that to their viewing of other maps and atlases.

Global Almond Trade and California

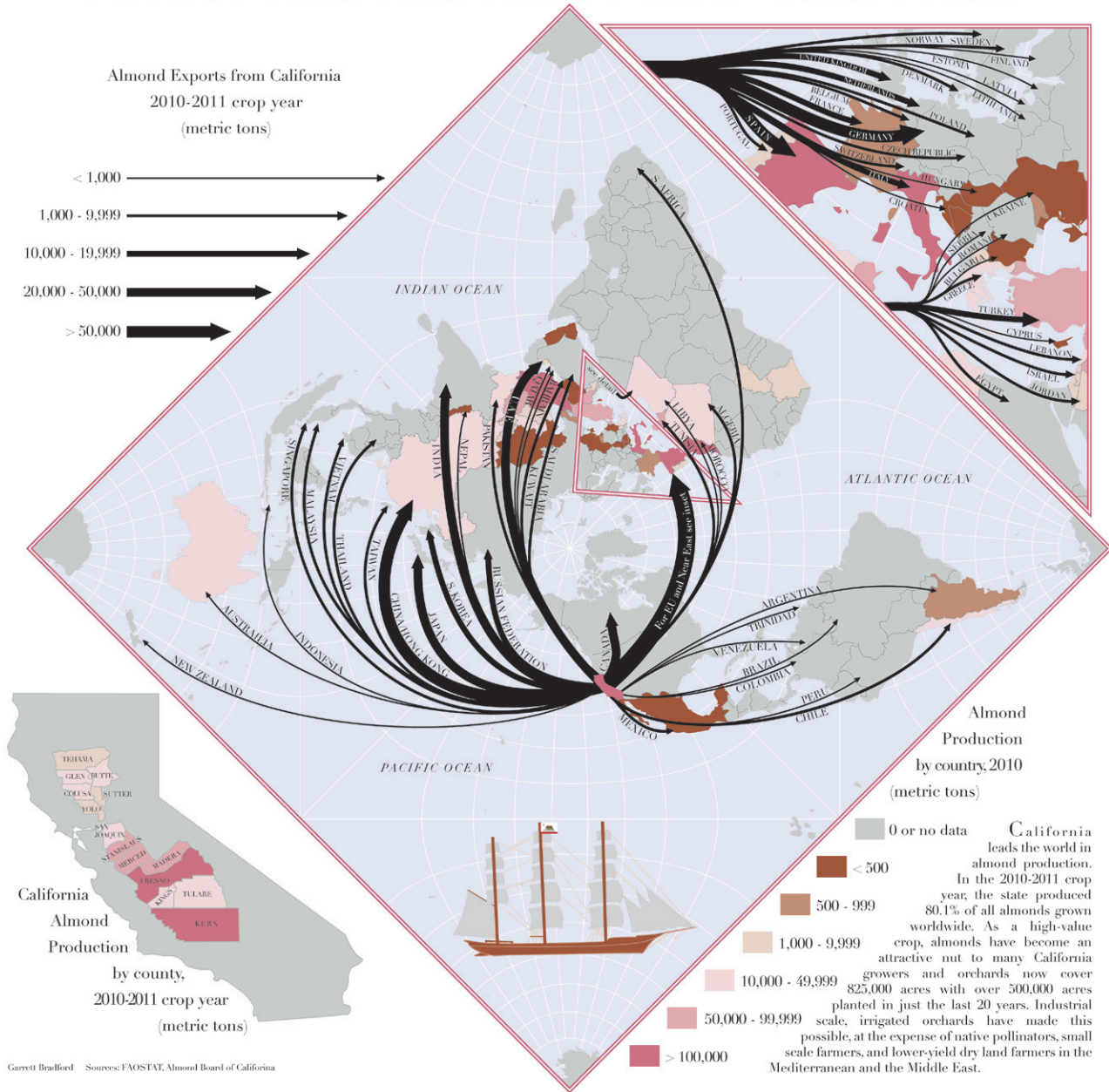


Figure 3. Global Almond Trade and California by Garrett Bradford in *Food: An Atlas* (2013).

3) BY BUILDING LEGITIMACY FOR MARGINAL OR ATYPICAL CARTOGRAPHIC VOICES

Among other things, Guerrilla Cartography is concerned with authority—the authority of who gets to produce and distribute maps and why. The narrative construction of the atlas and the editing process itself both help give legitimacy to voices that may not have access to traditional atlas or

map publishing venues. Our process of pairing people who have map ideas with our volunteer cartographers is another way that we make space for many different viewpoints, such as the collaboration mentioned above for “Holy and Unholy Spirits Along the Ganga” (Figure 2). Banerjee had been immersed in a project about the Ganga since 2009; after submitting her idea to the *Water: An Atlas* call for maps, we connected her with Luc Guillemot, a Guerrilla

Cartography volunteer. They worked together over email to bring Banerjee’s vision to life.

Seeing the ways that a variety of people represent geographic data is informative and instructional. While anyone can publish maps that they have created on the Internet, distribution may be limited. Without a digital home, these maps may also disappear. Guerrilla Cartography’s atlas publishing model enables a broader audience and a more concrete presence—both digital and physical. The crowd-sourced nature of Guerrilla Cartography’s atlases also helps viewers critically examine their assumptions of who has the authority to produce maps.

4) BY PROMOTING CRITICAL EVALUATION OF CONTENT, AUTHORSHIP, AND AUTHORITY

The myriad styles, narratives, and scales of the maps contained within Guerrilla Cartography’s atlases invite readers to question their assumptions about how a map is constructed, by whom, and for what purposes. The atlases also encourage readers to think critically about the very data that the map representations are constructed upon. For instance, in *Water: An Atlas*, we open with a chapter titled “Imagination.” Here we are mapping imaginary data, or in some cases actual data on imaginary or legendary phenomena. The map “North American Water Tensions in the Year 2028

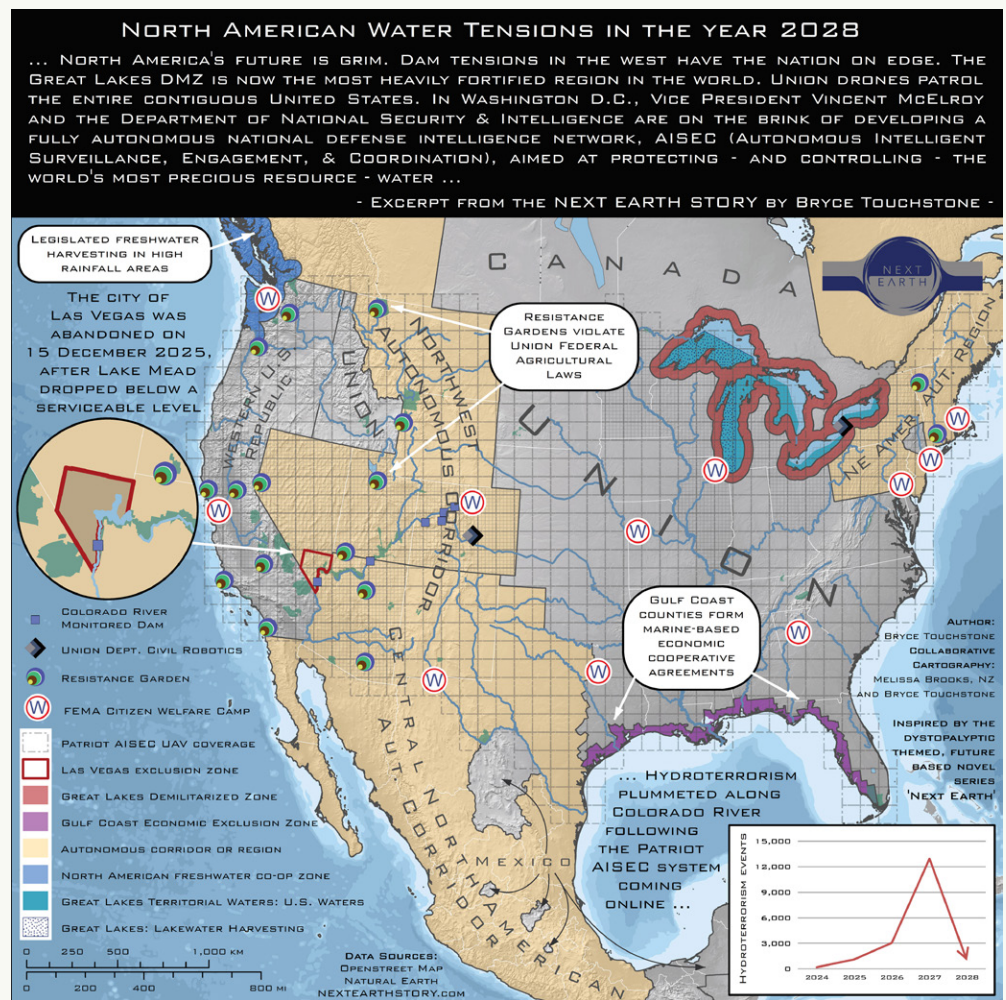


Figure 4. North American Water Tensions in the Year 2028 by Bryce Touchstone and Melissa Brooks in *Water: An Atlas* (2017).

in the Year 2028,” for example, depicts a dystopian vision of water scarcity-caused conflicts in the not-too-distant future (Figure 4). For someone to read these maps, they must begin to understand that, while the map portrays a certain authority, the mapped data may not exist in the real, tangible world. Unreal data are being mapped. What does that mean for all the maps we see? Does it make us wonder about the “real” data that are being mapped elsewhere in the atlas?

CONCLUSION

GUERRILLA CARTOGRAPHY’S FUTURE endeavors not only include self-publishing more atlases, but also creating and participating in mapping workshops, developing new methods for encouraging critical thinking, and expanding our organization. We have been invited to participate in a number of mapping workshops, including a session on

Power Mapping of Silicon Valley with De Anza College, a community college located near San Jose, California, and *Mapping Back: Indigenous Cartographies of Extractive Conflicts* with Concordia University in Montréal, Canada (mappingback.org). We are also looking into methods for creating a voluntary repository for the data used by

cartographers in our atlases, to allow more people to access the data and to bring more transparency to the map-making process. Finally, we are considering expanding our organization to include “chapters” in other locations,

furthering our mission to promote the cartographic arts in additional places. We hope these endeavors spark further interest in cartography and the promotion of diverse perspectives on the world.

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