

# Power, Place, and Mapping

Berkeley  
UNIVERSITY OF CALIFORNIA

Introduction to Urban Data Analytics  
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# Critical Cartography

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# Cartographic Counter-Culture

# Critical Cartography

“set of mapping practices and methods of analysis grounded in critical theory, specifically the thesis that maps reflect and perpetuate relations of power, typically in favor of a society's dominant group”

Critical Cartography. (n.d.). In *Wikipedia*

# Counter-mapping

“Counter-mapping' is the map-making process whereby **communities appropriate** the state's techniques of formal mapping and make their own maps as alternatives to those used by government”

Peluso, 1995

# Counter-mapping

“Counter-mapping' is the map-making process whereby **communities appropriate** the state's techniques of formal mapping and make their own maps as alternatives to those used by government”

Peluso (1995)

“Counter-mapping refers to efforts to map against dominant power structures, to further seemingly progressive goals”

Hodgson, D.L; Schroeder, R.A. (2002)

## Karli Cantrell

Harley, 1988. "Maps, Knowledge, and Power"

On page 54, the author says, "Cartography, too, can be a form of knowledge and a form of power". The surveyors can make a map that spreads propaganda and manipulate or hide information in order to accomplish his/her goals. The reading also says that maps have been used from the beginning of time to complement the rhetoric of speeches, newspapers and written texts. How can the map reader know whether or not the map is biased?

# Mapping and Power

## World, on Mercator's Projection



# Mapping and Power

## Communist Conspiracy

In 42 short years 1917–1959 the Socialist / Communist Conspiracy  
has conquered  $\frac{1}{3}$  of the World



I

Communism burst upon the world in 1917 when Nikolai Lenin, at the head of a murdering mob, seized control of the second provisional democratic government of Russia which followed the overthrow of the Czar. At first the communists held only Moscow. Their total following was 40,000, less than half the peak membership of the communist party in the U.S.



III

They learned that ideas take ground more cheaply than guns, that lecterns gain more converts than tanks. In the 1940's they took eastern Europe, part of the Near East, China. In the 1950's they created, then seized on, chaos in Africa, more of Asia and increased their efforts in Europe, Oceania, and the western world.



II

By skillful use of infiltration, propaganda and ruthless destruction of opposition, communism was spread across Russia in the early 1920's. Zealous revolutionaries practiced and refined methods of creating doubt, subverting public opinion, dividing people by classes, undermining authority, sowing distrust and revolt, denying the existence of God.



IV

Now holding Cuba, communism works in Mexico and Latin America to fulfill the schedule set by Lenin in these words:

"First we will take eastern Europe. Next the masses of Asia. Then we shall encircle that last bastion of capitalism, the United States. We shall not have to attack. It will fall like an overripe fruit into our hands."

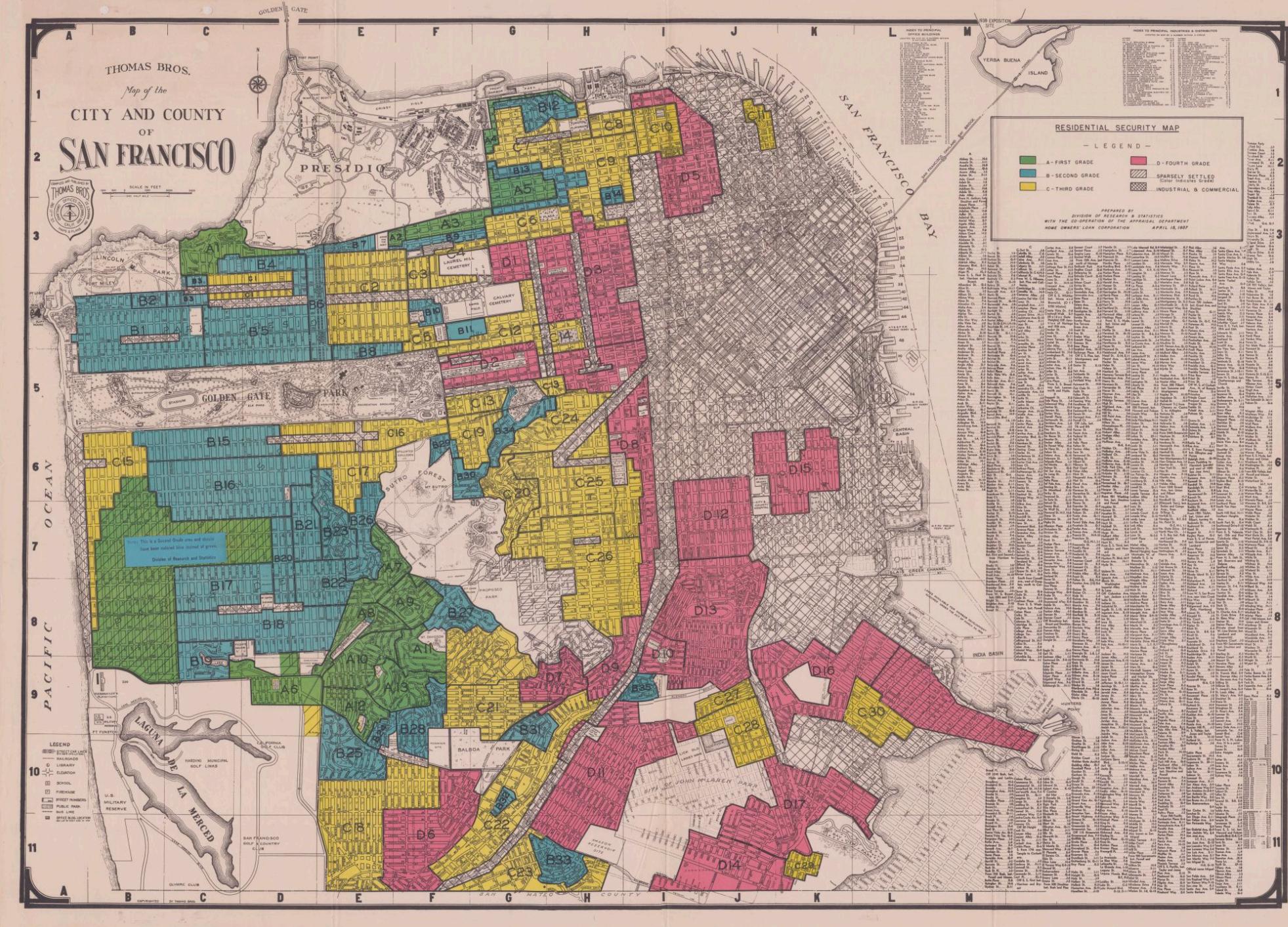
Manara, Luis V., The Truth About Cuba Committee, Inc.. (1966). Communist Conspiracy. [Map published in book or serial - source in collection]. Retrieved from https://library.artstor.org/asset/SS36044\_36044\_23459410

# Mapping and Power



Galvão, Henrique, 1895-1970. (1934). Portugal is Not A Small Country [postcard]. [Map published separately]. Retrieved from [https://library.artstor.org/asset/SS36044\\_36044\\_23459624](https://library.artstor.org/asset/SS36044_36044_23459624)

# Mapping and Power



# Mapping and EmPowerment

## The True Size of Africa

A small contribution in the fight against rampant *Immappancy*, by Kai Krause

In addition to the well known social issues of *illiteracy* and *innumeracy*, there also should be such a concept as "*immappancy*", meaning insufficient geographical knowledge.

A survey with random American schoolkids let them guess the population and land area of their country. Not entirely unexpected, but still rather unsettling, the majority chose "2-2 billion" and "largest in the world", respectively. Even with Asian and European college students, geographical estimates were often off by factors of 2-3. This is partly due to the highly distorted nature of the predominantly used mapping projections (such as *Mercator*).

A particularly extreme example is the worldwide misjudgement of the true size of Africa. This single image tries to embody the massive scale, which is larger than the USA, China, India, Japan and all of Europe - combined!

COUNTRY	AREA x 1000 km <sup>2</sup>
USA	9.629
China	9.573
India	3.287
Mexico	1.964
Peru	1.285
France	633
Spain	506
Papua New Guinea	462
Sweden	441
Japan	378
Germany	357
Norway	324
Italy	301
New Zealand	270
United Kingdom	243
Nepal	147
Bangladesh	144
Greece	132
<b>TOTAL</b>	<b>30.102</b>
<b>AFRICA</b>	<b>30.221</b>
Just for Reference: The Surface of the MOON	37.930



## Top 100 Countries

Area in square Kilometers, Percentage of World Total  
Sources: Britannica, Wikipedia, Almanac 2010



United States



Europe



India



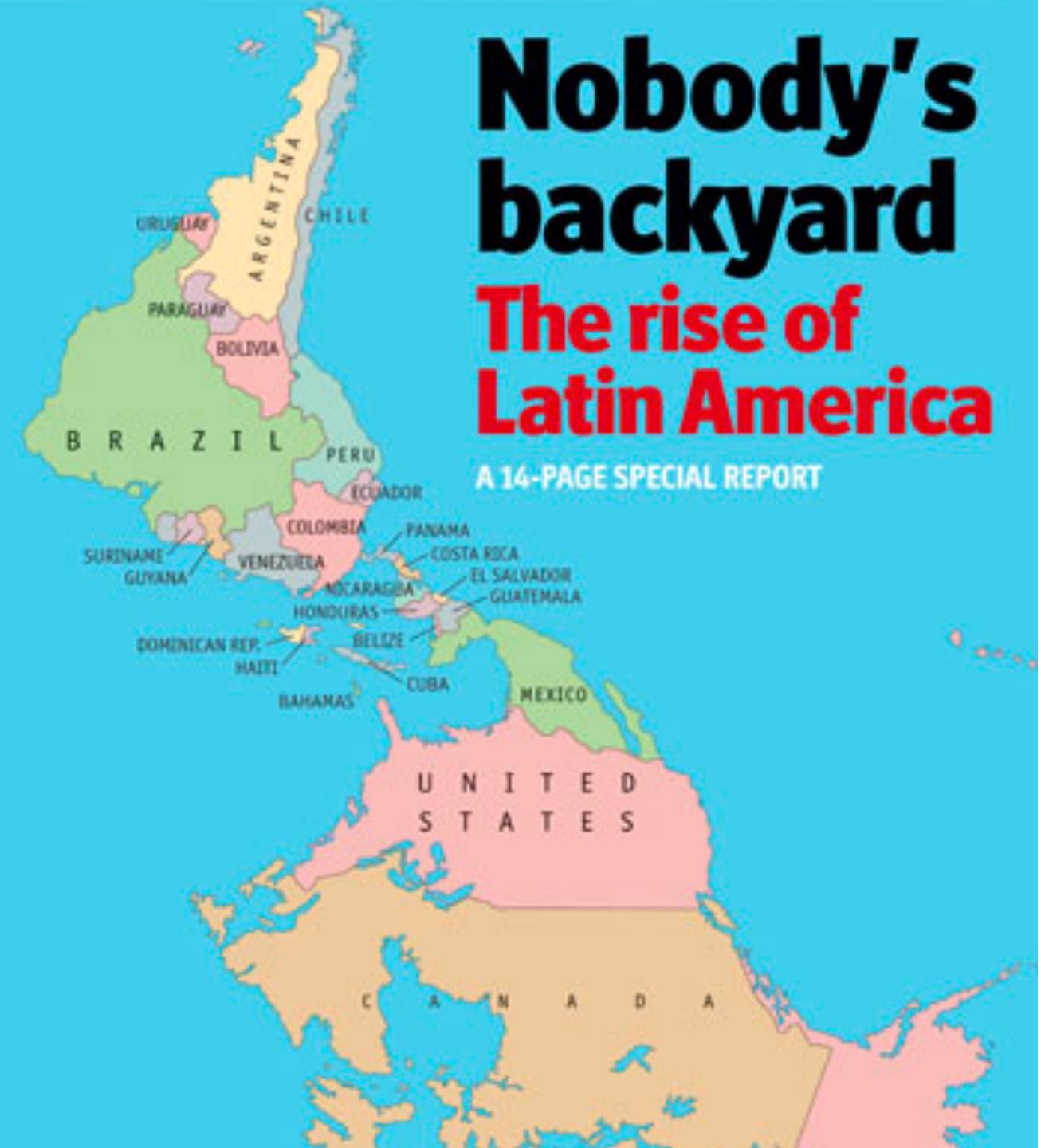
Japan



China

# The Economist

200th anniversary  
of the start of Latin  
America's struggle  
for political  
independence  
against the  
Spanish crown



# Mapping and EmPowerment?

14

## THE AWAKENING

15



Look forward, women, always; utterly cast away  
The memory of hate and struggle and bitterness;  
Bonds may endure for a night, but freedom comes with the day,  
And the free must remember nothing less.

Forget the strife; remember those who strove—  
The first defeated women, gallant and few,  
Who gave us hope, as a mother gives us love,  
Forget them not, and this remember, too:

How at the later call to come forth and unite,  
Women unsought, unconsecrated, alone and apart,  
Rank upon rank came forth in unguessing might,  
Each one answering the call of her own wise heart

They came from toil and want, from leisure and ease,  
Those who knew only life, and learned women of fame,  
Girls and the mothers of girls, and the mothers of these,  
No one knew whence or how, but they came, they came.

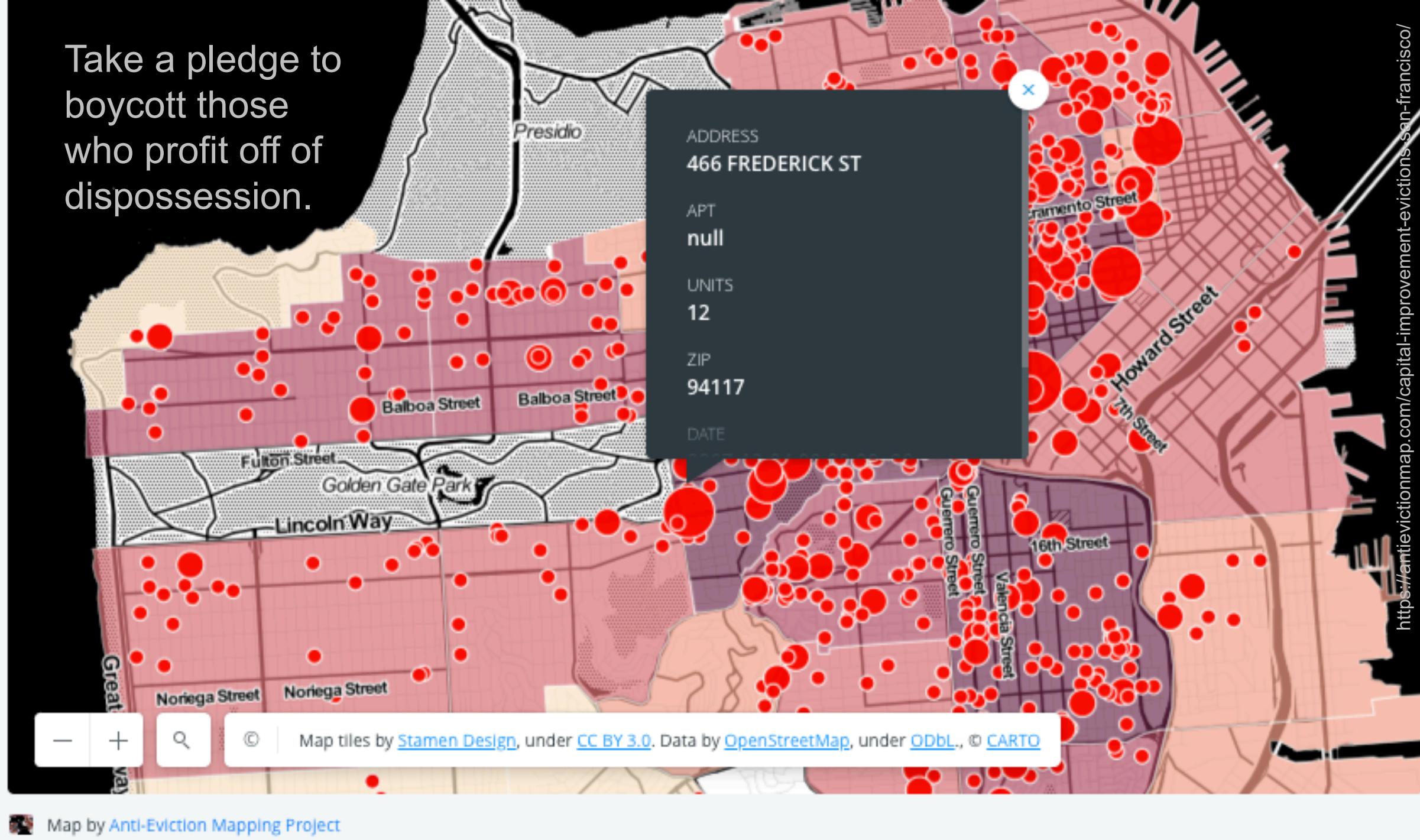
The faces of some were stern, and some were gay,  
And some were pale with the terror of unreal dangers;  
But their hearts knew this: that hereafter come what may,  
Women to women would never again be strangers.

Alice Duer Miller.

Mayer, Henry ("Hy"), Mayer, Henry, 1868-1954. (1915). The Awakening. [Map published in book or serial - source not in collection]. Retrieved from [https://library.artstor.org/asset/SS36044\\_36044\\_23459844](https://library.artstor.org/asset/SS36044_36044_23459844)

# Mapping and EmPowerment?

Take a pledge to  
boycott those  
who profit off of  
dispossession.



**Sean Adibi**

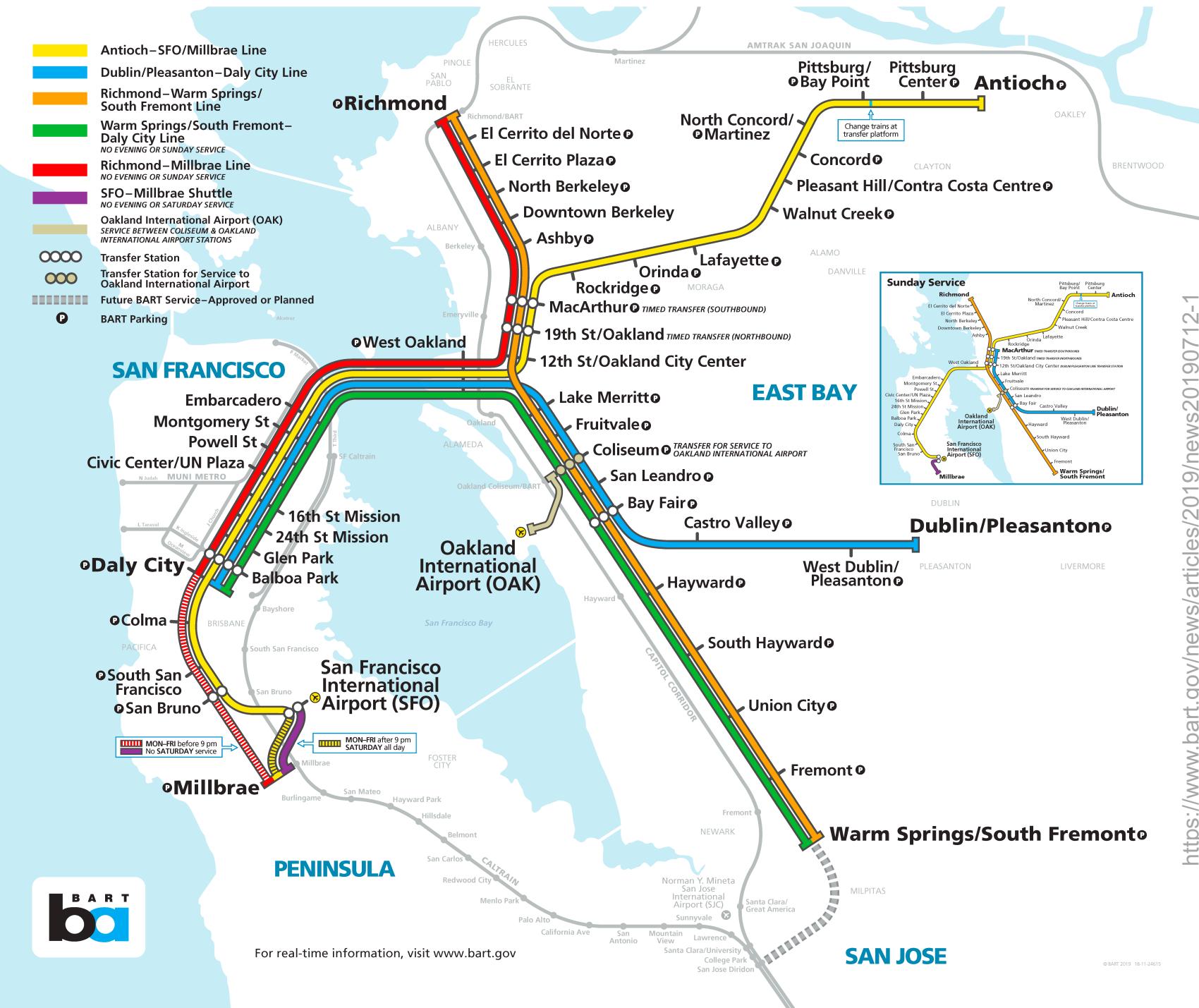
Harley, 1988. "Maps, Knowledge, and Power"

... Presently, transit agencies like BART deliberately misrepresent distance, size, and shape on official transit maps for a variety of reasons. How might cartographic misrepresentation carried out by transportation planners negatively impact certain communities while bolstering others?

# Mapping and Power

How might cartographic misrepresentation carried out by transportation planners negatively impact certain communities while bolstering others?

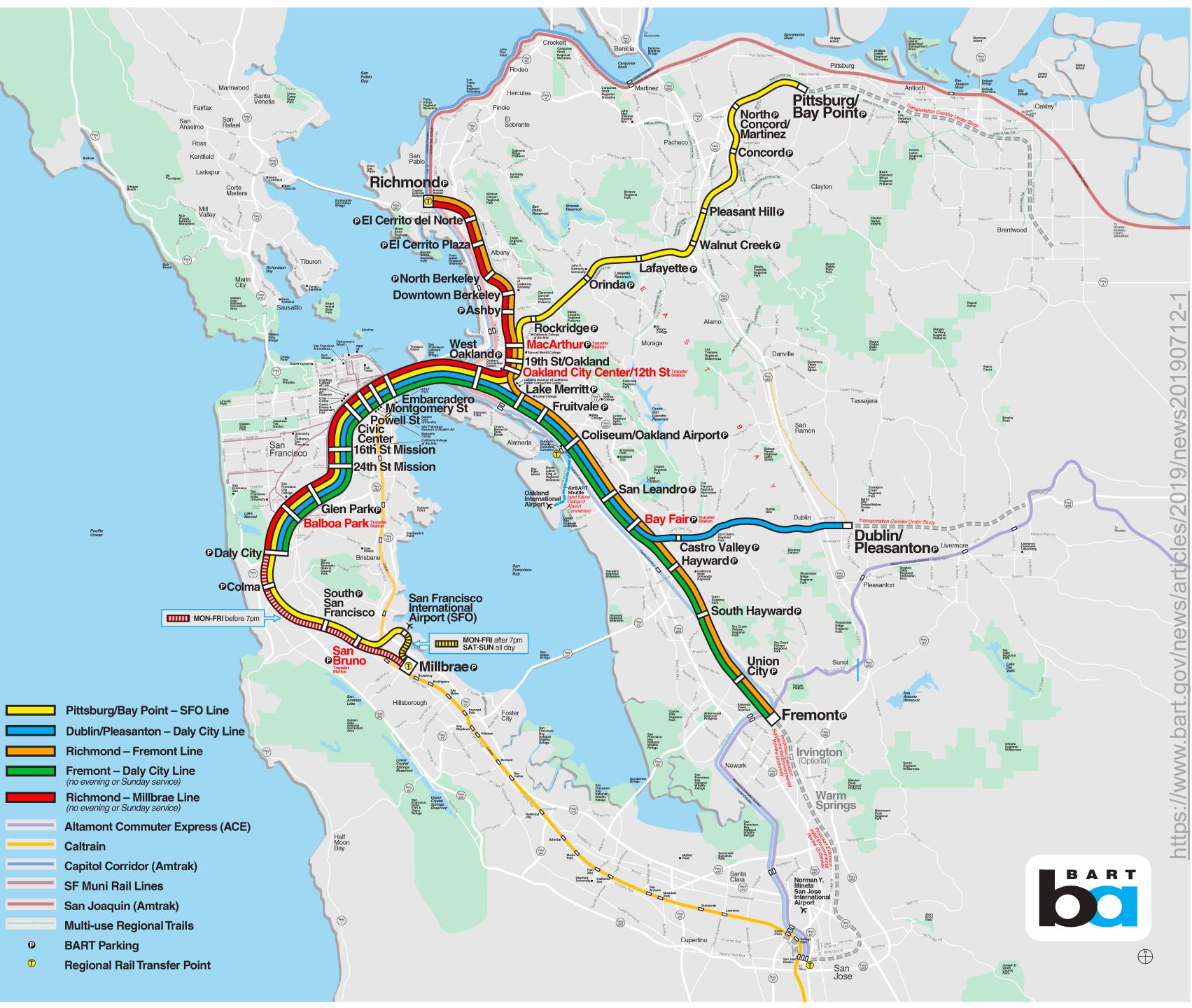
Sean Adibi



# Mapping and Power

How might cartographic misrepresentation carried out by transportation planners negatively impact certain communities while bolstering others?

Sean Adibi



# Participatory Research + GIS VS. Community Mapping

# Participatory Research + GIS

“Instead of involving people hands-on in the manipulation and visualization of existing data or building new databases directly from local input, our approach used interviews of stakeholders as a source of data on local values and concerns that set the agenda for quantitative GIS analyses”

Norwood and Cumming (2012, pg. 2)

# Participatory Research + GIS

“Instead of involving people hands-on in the manipulation and visualization of existing data or building new databases directly from local input, our approach used interviews of stakeholders as a source of data on local values and concerns that set the agenda for quantitative GIS analyses ... Stakeholders were also empowered to critique the visual presentations of those analyses, participate in conversations about the changes being illustrated, and use the results in a variety of venues”

Norwood and Cumming (2012, pg. 2)

# Community Mapping

“implies a collective endeavor that attempts to represent a range of community members within a localized geographic scale . . . is attentive to the process, not just the product; how participants work together to negotiate issues of place and representation is as important as the map itself...”

Parker (2016, pg. 472)

# Community Mapping

“implies a collective endeavor that attempts to represent a range of community members within a localized geographic scale ... is attentive to the process, not just the product; how participants work together to negotiate issues of place and representation is as important as the map itself  
**... Strive to be inclusive, empowering, and transparent”**

Parker (2016, pg. 472)

# Participatory Research + GIS

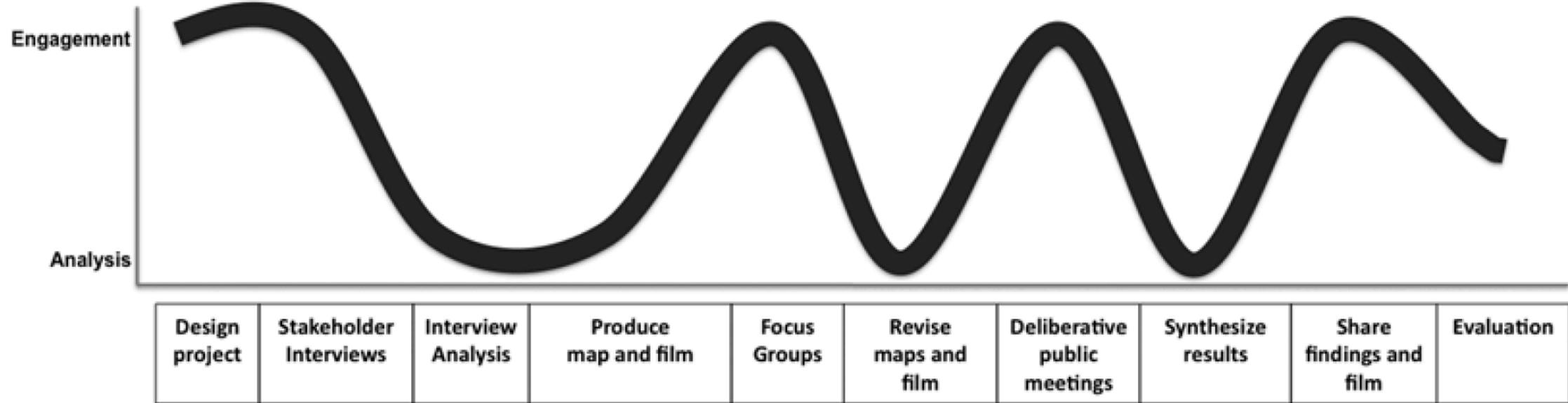


Figure 1. Iterative method employed by LTP.

# Participatory Research + GIS

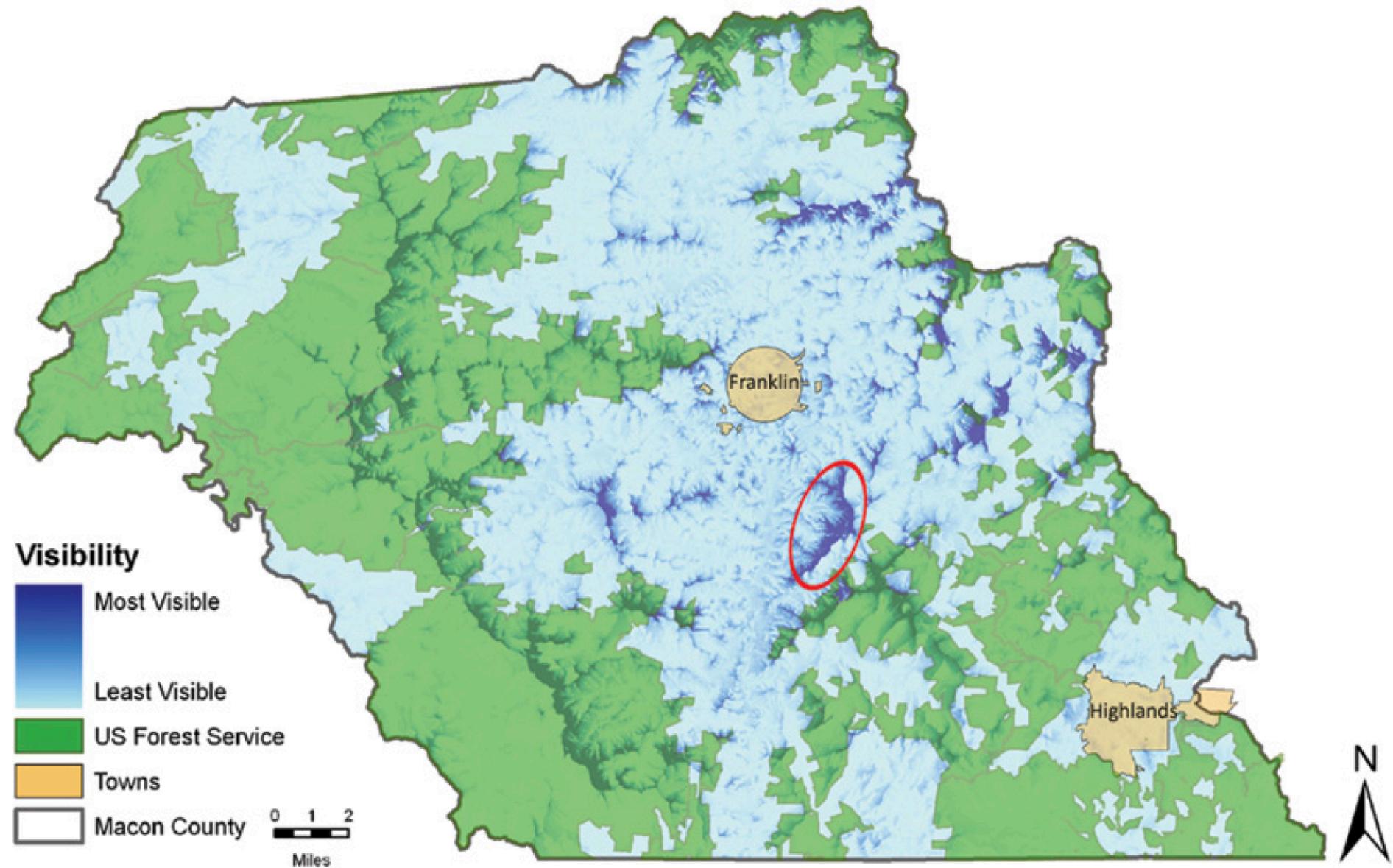


Figure 2. Cumulative viewshed map, highlighting location of the most visible privately owned hillside in Macon County, NC.

# Participatory Research + GIS



Figure 4. Photo-based build-out scenario of currently undeveloped parcels on a portion of the same hillside shown in Figure 3.

## Carol Lee

Norwood, Carla, and Gabriel Cumming. "Making Maps that Matter: Situating GIS within Community Conversations about Changing Landscapes."

Figure 3 and Figure 4 in the reading were presented to local focus groups for review. The first showed a natural perspective image developed by a 3D mapping program and the second showed a photo-based image, both used to convey a potential development scenario. Although the focus groups knew the photo-based image was imaginary, do such realistic depictions evoke an added emotional response? Are those images considered maps by modern mapmakers and when are they ethical to use?

## Amita Mahajan

Norwood, Carla, and Gabriel Cumming. "Making Maps that Matter: Situating GIS within Community Conversations about Changing Landscapes."

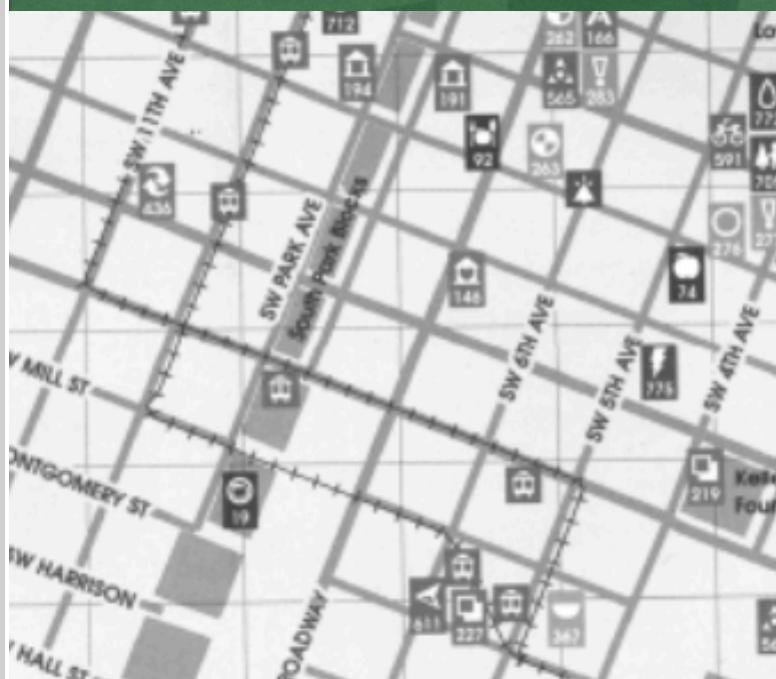
The article dives into depth about how and why land developers in Macon County spoke to local citizens about their plans. The process included focus groups, interviews, and an overall layer of transparency that many citizens expressed appreciation for. Furthermore, this allowed developers to tailor their work to the community even more. However, it's likely that this process involved a lot of additional time and resources. As such, what sort of barriers are there to establishing the level of transparency described in the article in other land development progress across the United States? How would developers ensure that they are pulling from a wide and diverse enough pool of voices and not just those who have the time and fiscal resources to be involved in such meetings?

# Community Mapping

# portland greenmap

<https://www.greenmap.org/stories/p>  
[portland-oregon-green-map/179](http://portland-oregon-green-map/179)

A guide to places and resources that make Portland sustainable



## Portland Greenmap Icon Key

### CONSERVATION ECONOMY

● Community Business

■ Fair Trade

○ Farmers Market

◎ Green Business/Service  
Products/Services  
Eco-Logical Auto Shop  
Eco Finance

● Organic/Local Food  
Retail  
Delivery  
Producer/Processor

● Sustainable Agriculture  
Farm/CSA in Portland  
CSA Serving Portland

● Sustainable Dining  
Chef's Collaborative  
Additional Dining  
Catering

### CULTURE & DESIGN

● Community Center  
Art  
Community  
Senior

▲ Eco-Art

● Green Building  
Building  
Design/Planning Feature  
Products  
Co-Housing

● Museum

● Pedestrian Area  
Public Square/Gathering Place  
Community Space  
Urban Plaza/Square

□ Public Square/Gathering Place

## Jocelyn Leyva

Parker 2016. Constructing Community Through Maps? Power and Praxis in Community Mapping\*

While there is the intent of affording communities to voice the positive characteristics of their environment as well as their aspirations, mapping project initiators struggle with community outreach. How can initiators ascertain that targeted communities that may not be interested in projects of this nature? How can they increase interest? And how can they alleviate tensions of communities that may be distrusting given the power implications that mapping embodied throughout centuries?

## Alisha Lewis

Parker 2016, Constructing Community Through Maps? Power and Praxis in Community Mapping

In this article, Parker discusses the significance of community mapping, focusing on topics such as inclusion, transparency, and empowerment. As mapping indicates the important features of an area, Parker highlights that communities should be able to construct their own maps to be properly represented. To further explore this topic, Parker explains the role of both indigenous maps and counter-maps. Throughout this writing, Parker emphasizes that maps are dependent on who they are created by. Why is it important to consider who created the map? Are all current maps accurate? What do we consider the standard map? How can we ensure that communities are properly mapped?

## Haotian Wu

Parker 2016. Constructing Community Through Maps? Power and Praxis in Community Mapping

In this reading, Park articulates the definition of a useful tool: community mapping, including the themes : inclusion, transparency, and empowerment. As for inclusion, Park emphasizes that community mapping is also constrained by limited financial and human resources, lack of organizing skills, and conflicting priorities. In this case, How can we help project participants with their technical skills and remove barriers to improve constructing their community maps? Furthermore, is there any method to improve community member's perceptions to let them participate more into mapping projects?

# Lab 7

# Intro to Python: Pandas