

THE FUTURE OF MAPS & **STORYTELLING**

@ANDREWXHILL



WHO AM I?

BIOLOGIST



~~DEVELOPER~~



PYTHON!

YOU'RE FLYING!
HOW?





Andrew W. Hill

andrewxhill

Vizzuality

New York

Joined on Aug 19, 2010

100

Followers

39

Starred

11

Following

Organizations



Contributions

Repositories

Public activity

Edit profile

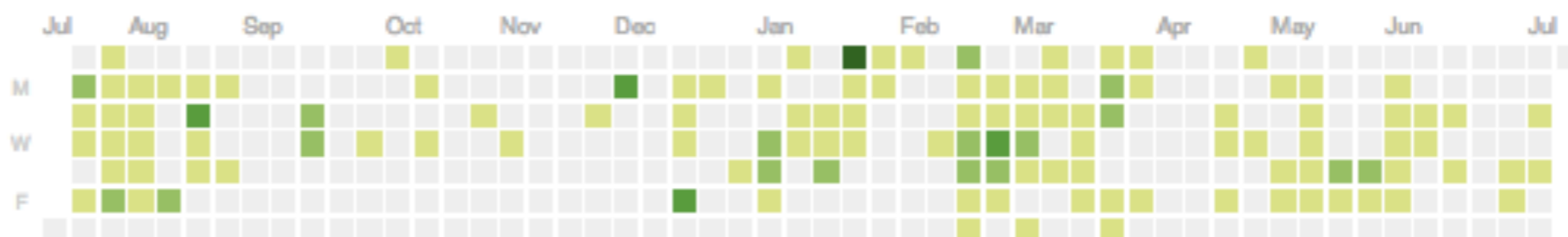
Popular repositories

MOL The Map of Life	17 ★
cartodb-examples personal cartodb demos	10 ★
DMID Data Management and Information Design	8 ★
PhyloBox PhyloBox is an online environment for ...	7 ★
tilecubes TileCube Specification	4 ★

Repositories contributed to

CartoDB/odyssey.js Making it easy to merge map and narra...	1,045 ★
EcoHack/ecoHack.github.io ecoHack.org	0 ★
csvsoundsyst.../nicar-cartod... Data and walkthroughs for NICAR '14 w...	15 ★
Vizzuality/MapAcademy Map Academy	1 ★
Vizzuality/nyc-cityhall	0 ★

Contributions



Summary of Pull Requests, issues opened, and commits. [Learn more.](#)

Less More

Year of contributions

815 total

Jul 20 2013 - Jul 20 2014

Longest streak

7 days

February 23 - March 01

Current streak

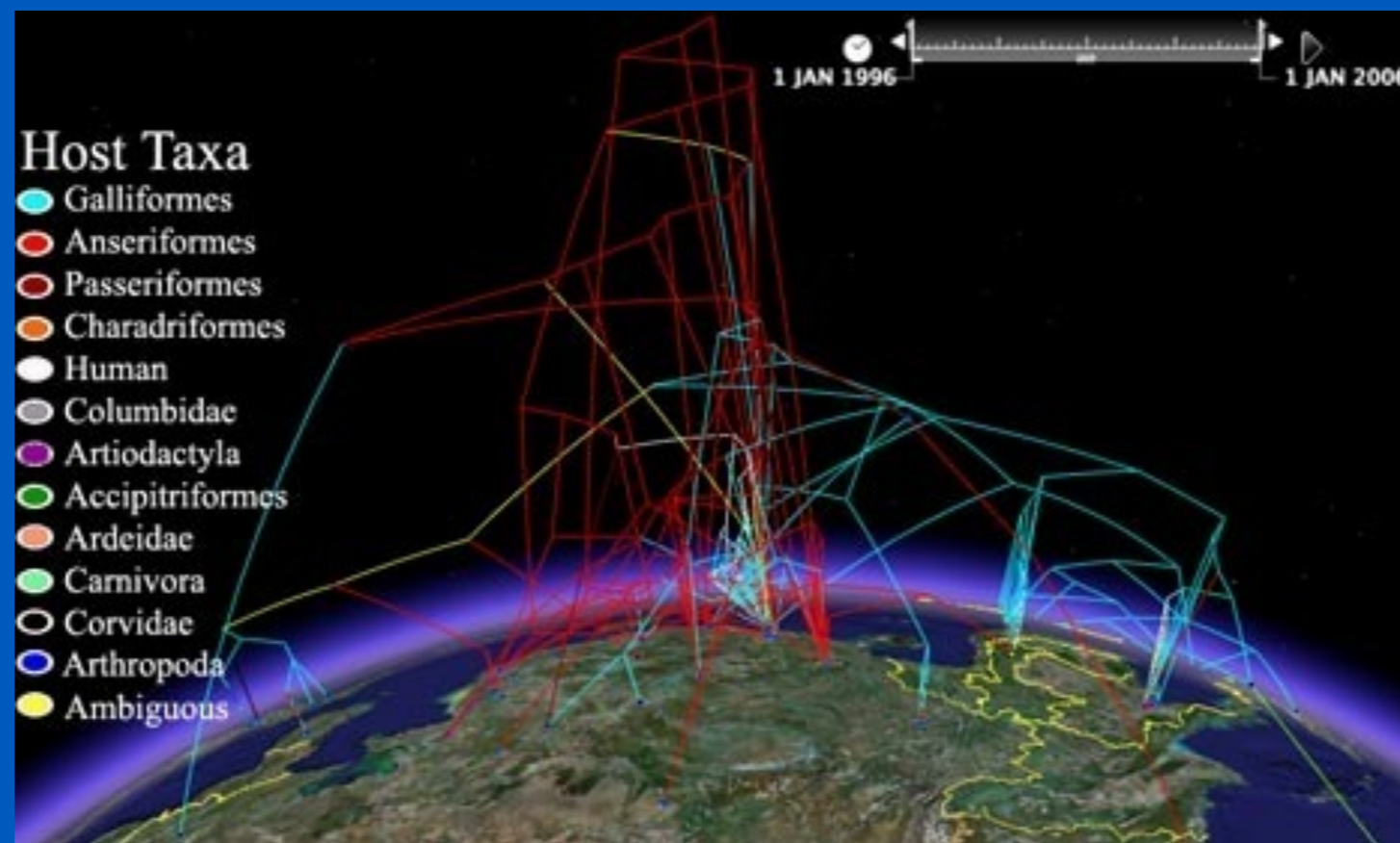
0 days

Rock - Hard Place

Contribution activity

Period: 1 week

~~MAPPER~~



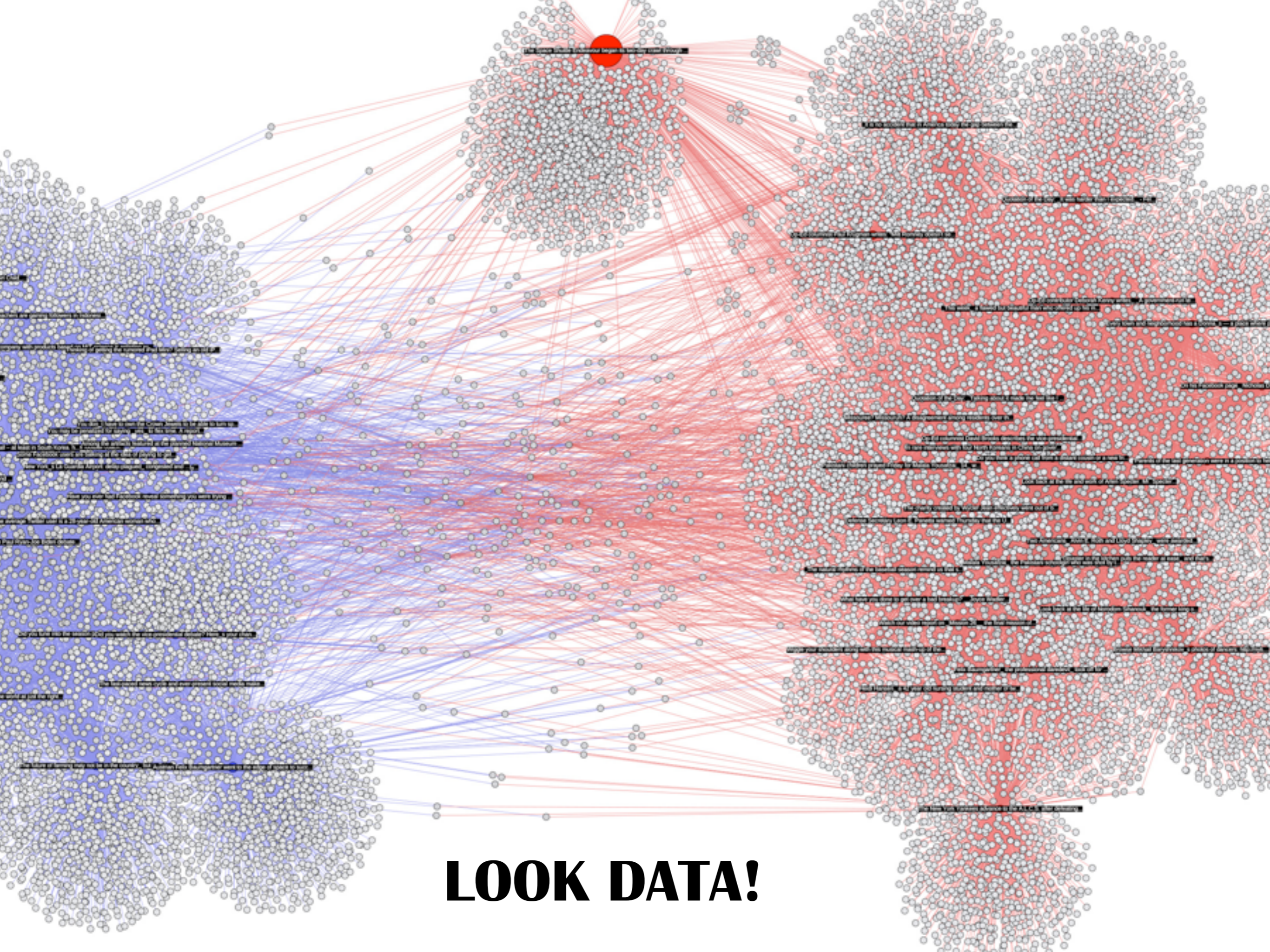


CARTO^{DB}

Geospatial on the cloud

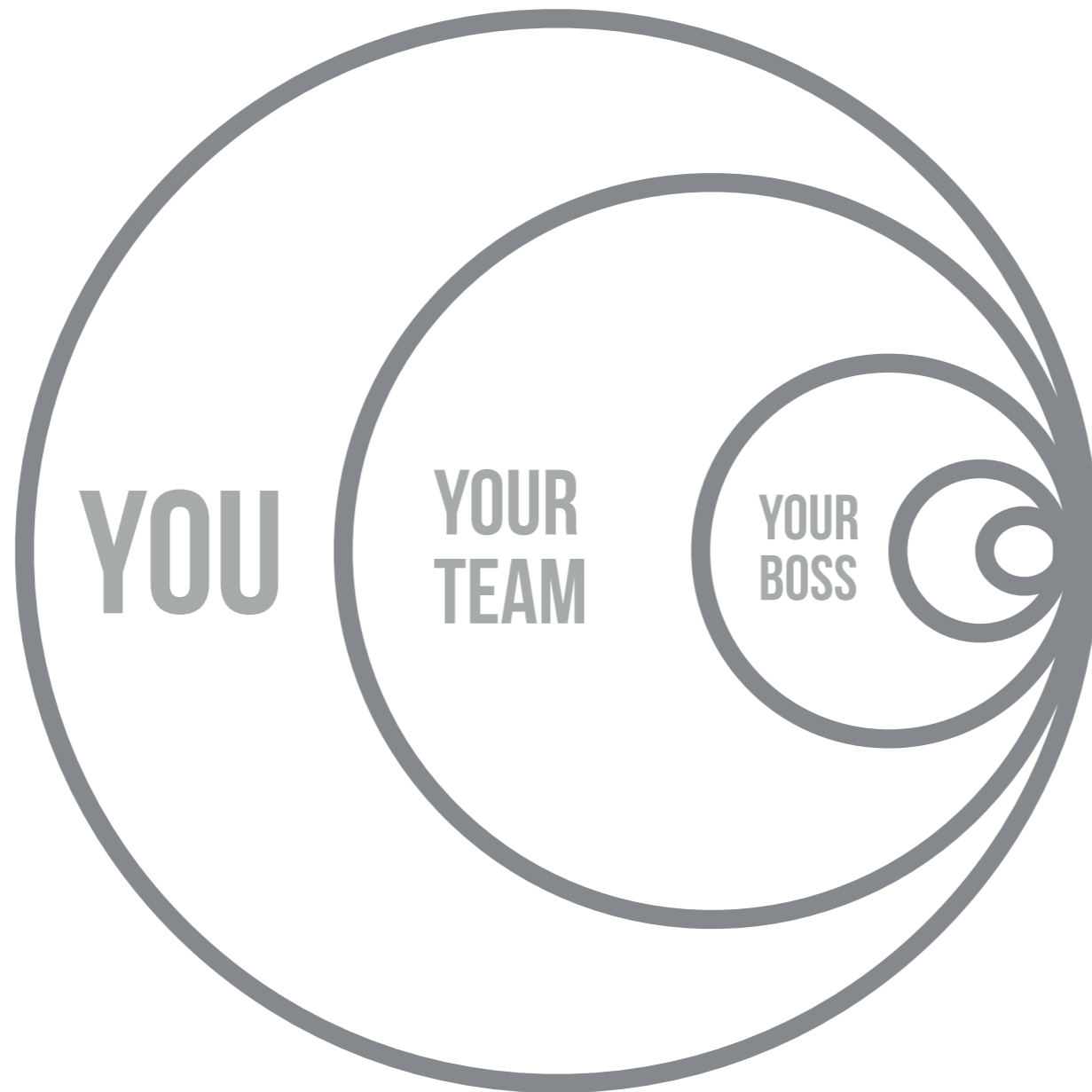
**BUILDING TOOLS TO HELP
PEOPLE UNDERSTAND AND
COMMUNICATE INSIGHTS
FROM DATA**

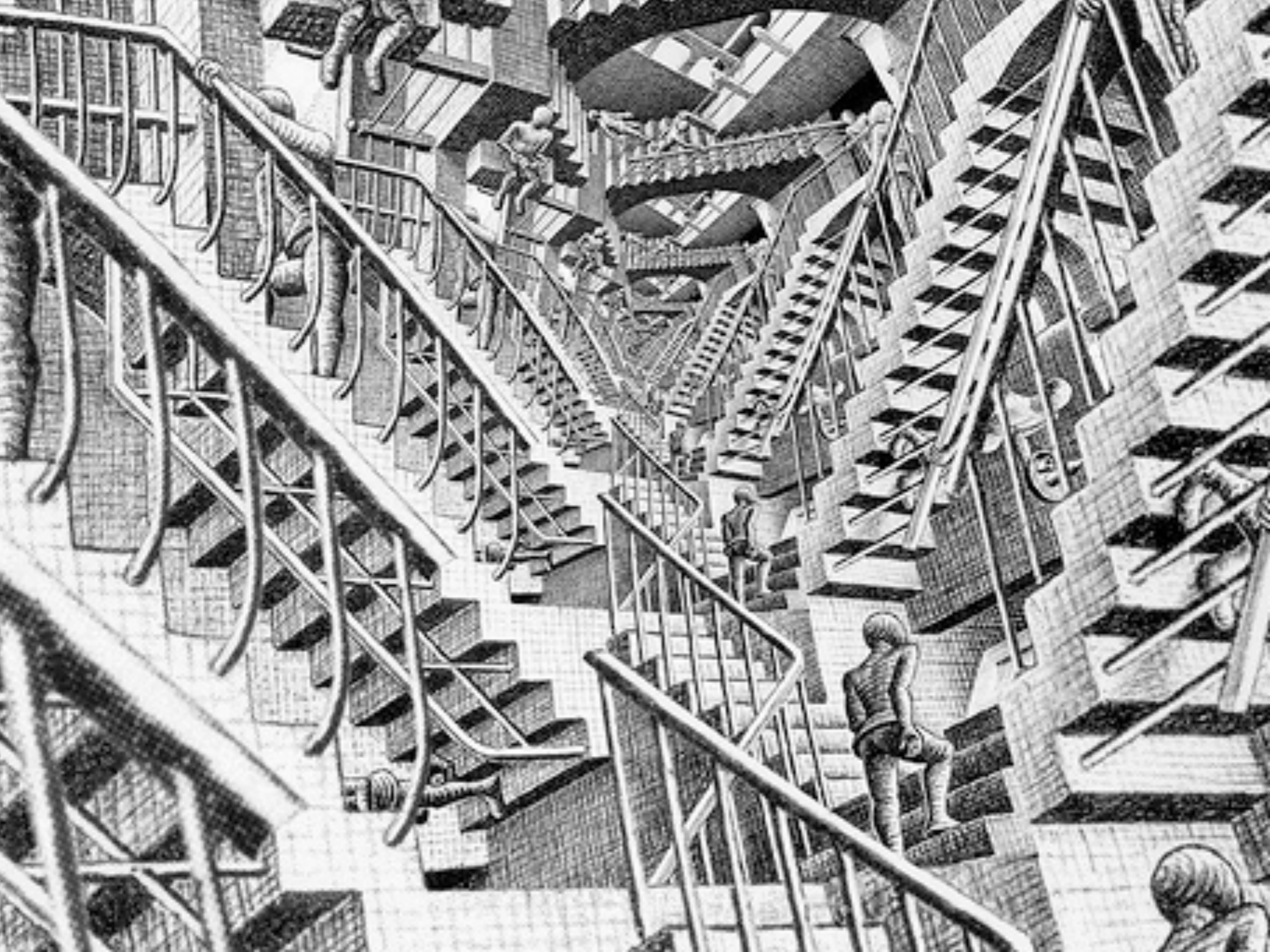
USING DATA VISUALIZATION TO
COMMUNICATE



LOOK DATA!

THE AMOUNT THAT PEOPLE CAN UNDERSTAND YOUR WORK WITH DATA





**MAPS ARE INCREDIBLE TOOLS
FOR COMMUNICATING
COMPLEX DATA**

Chicago

Capital of the Midwest



14:10

Wrigley Field
Lincoln Park Zoo

United Center

Millenium Park

Museum Campus

Museum Of Science & Industry

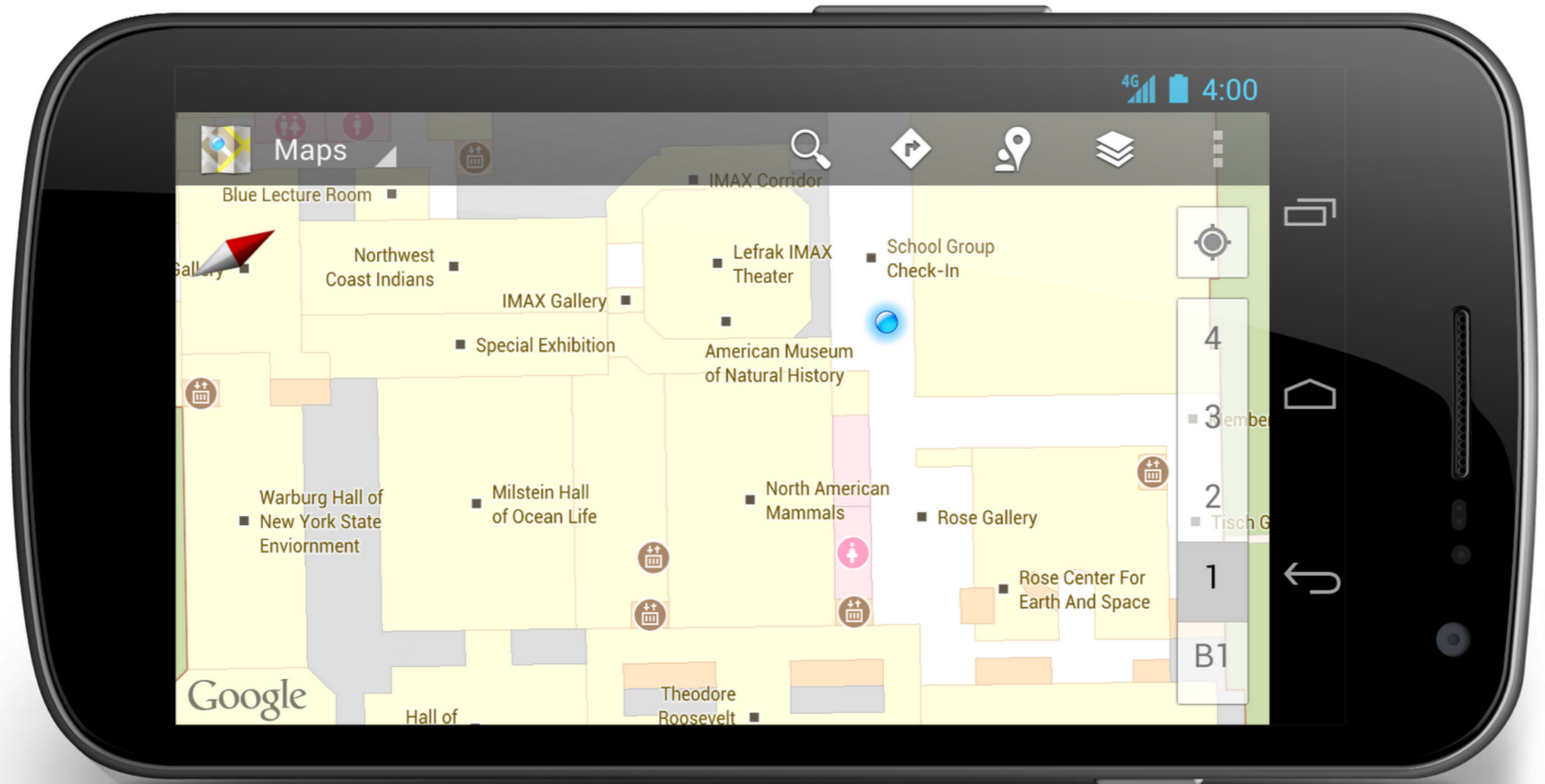
<http://bit.ly/livingcities>

BUT WHY MAPS?

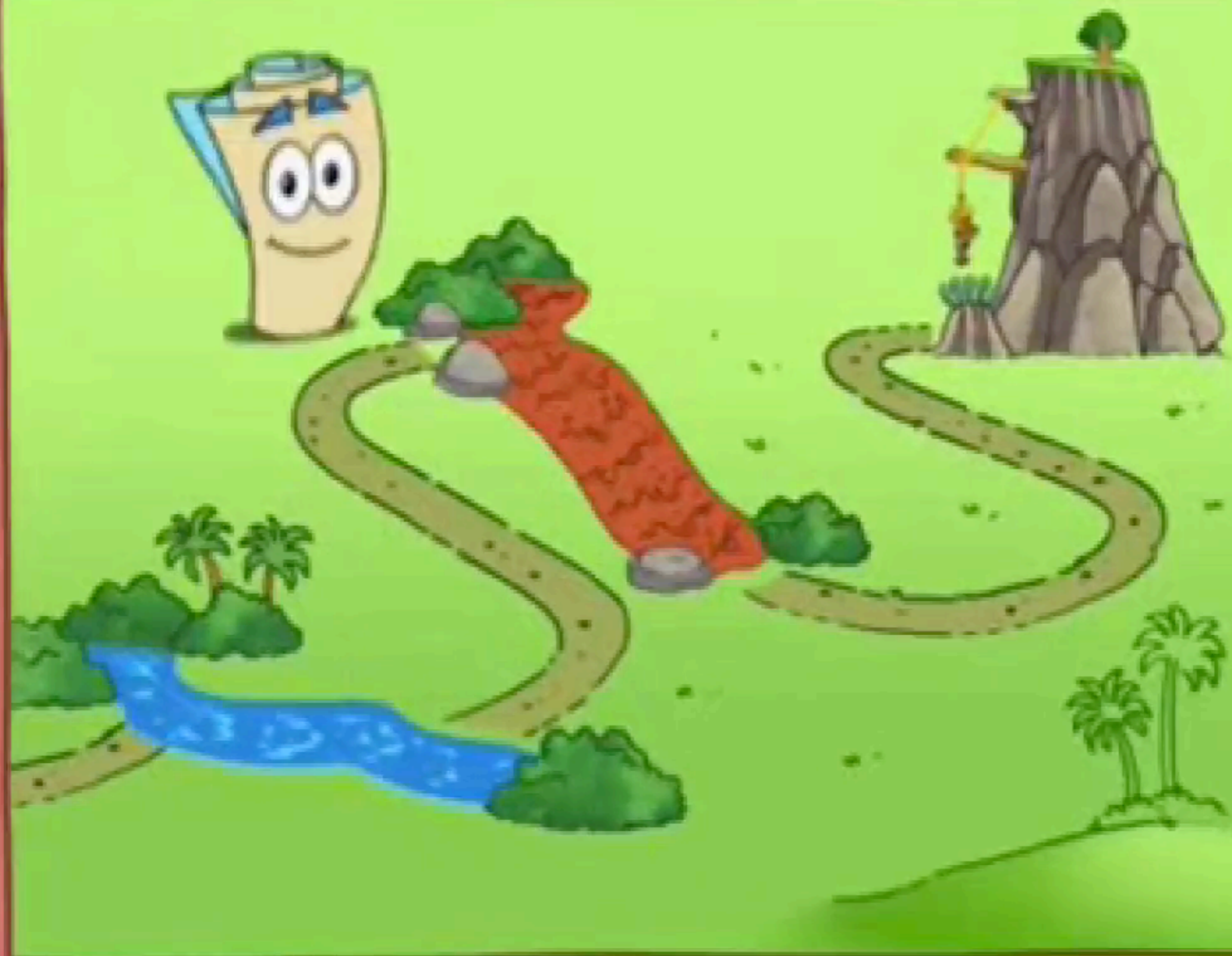
THE CURIOUS

POWER OF THE MAP

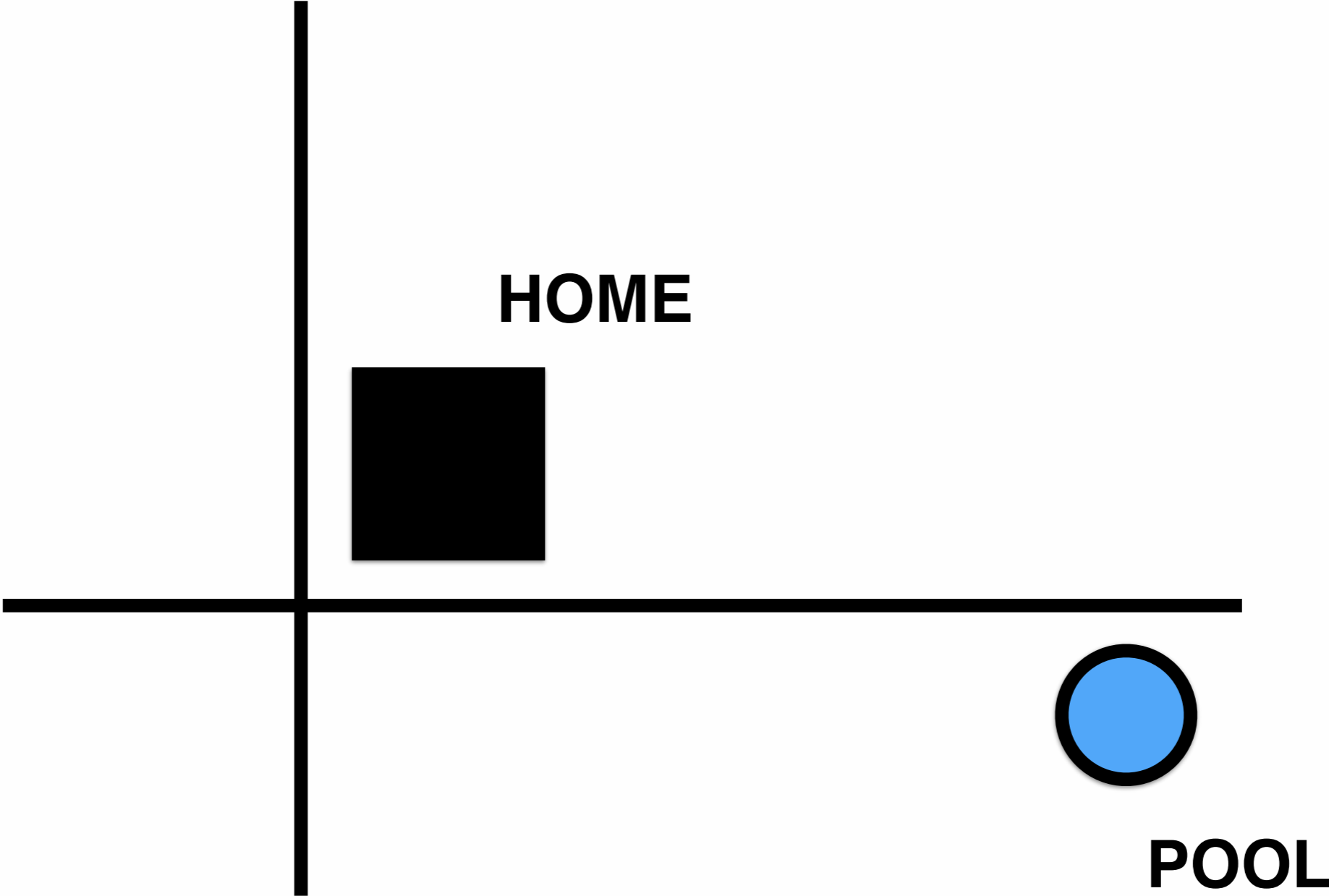






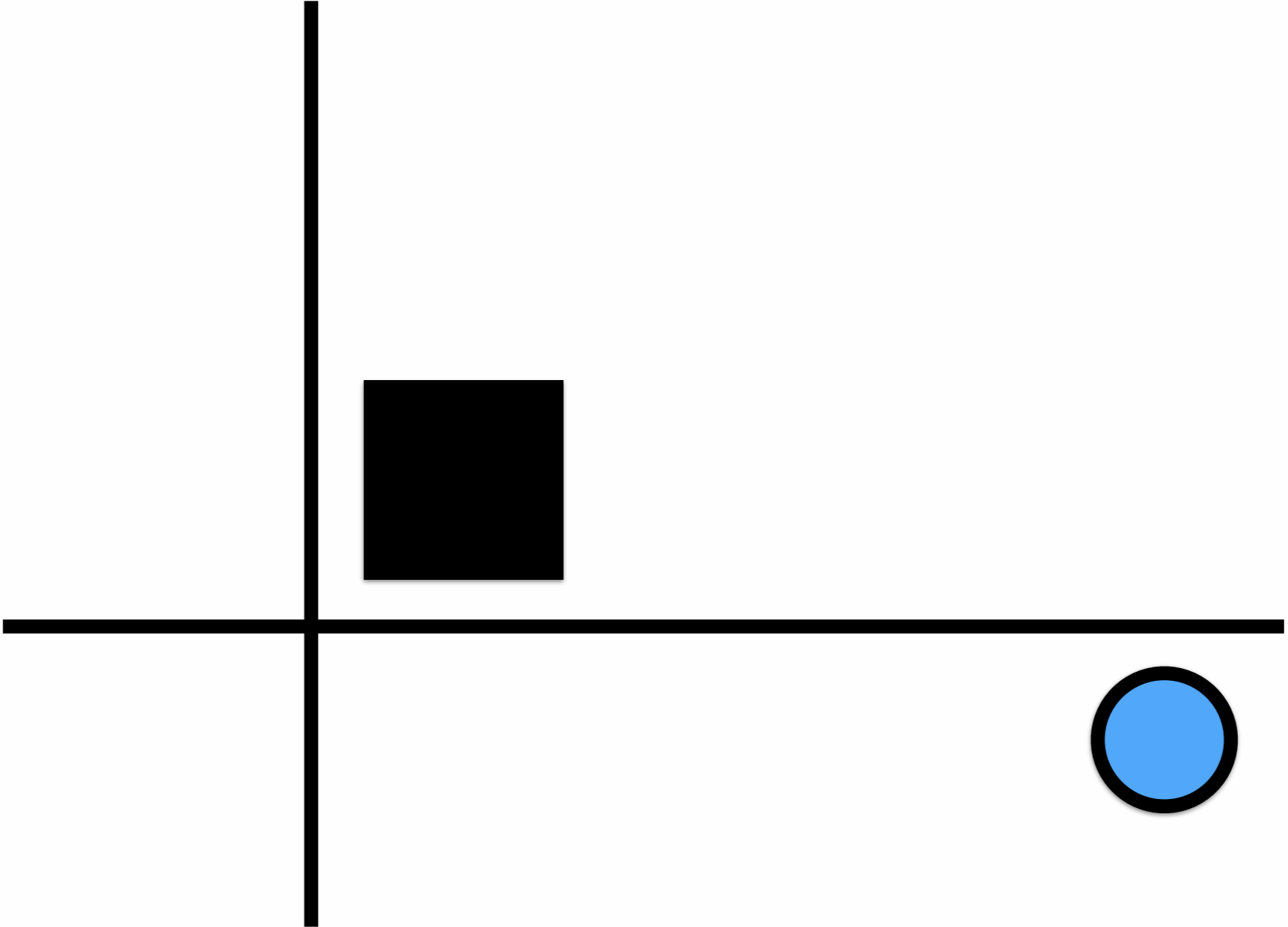




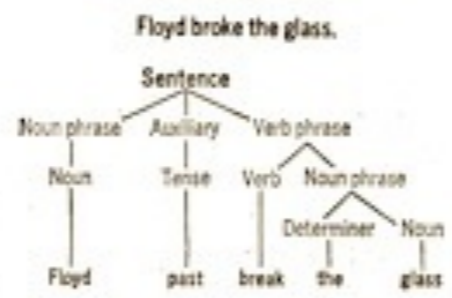




Guided by **salient** features

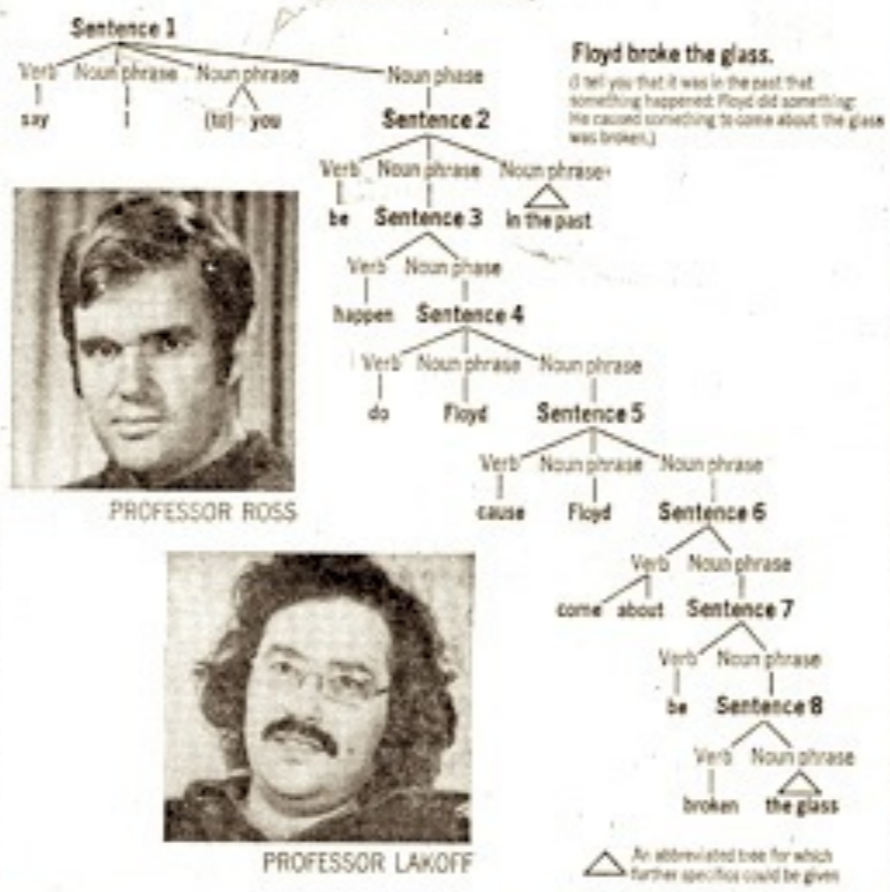


Noam Chomsky
(Transformational grammar)



PROFESSOR CHOMSKY

John Ross and George Lakoff
(Generative semantics)



PROFESSOR ROSS



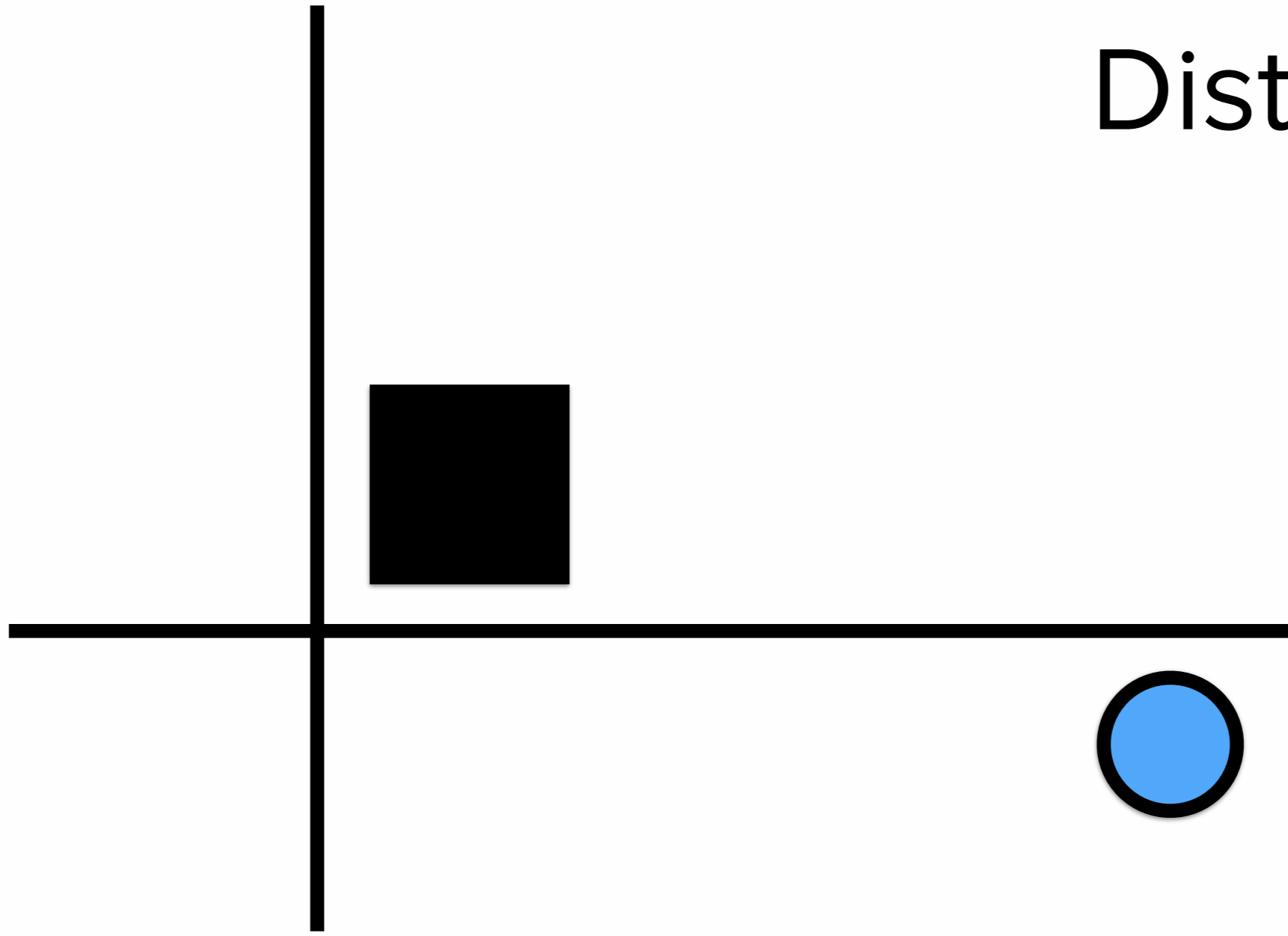
PROFESSOR LAKOFF

△ An abbreviated tree for which further specifics could be given

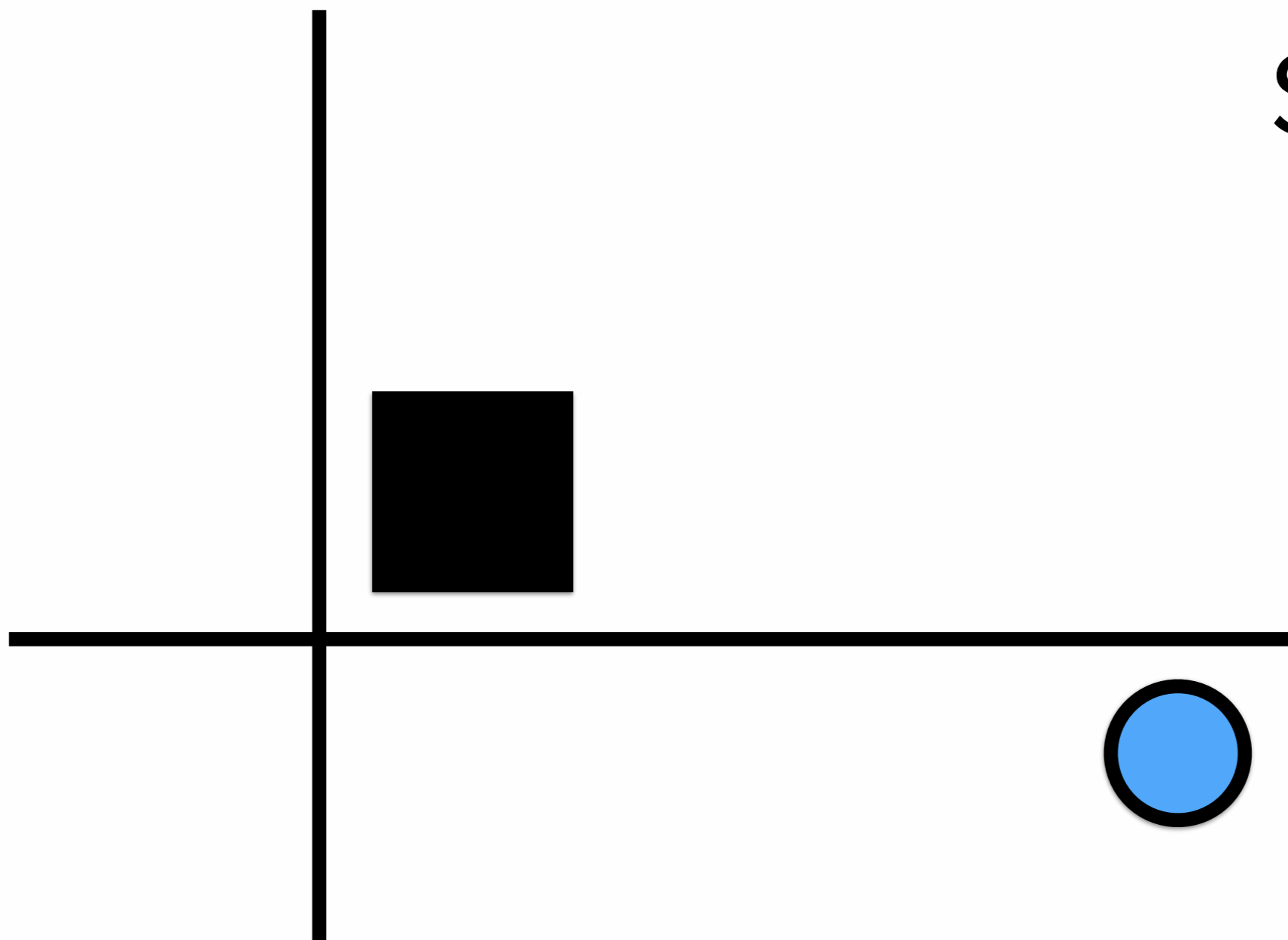
The New York Times/Sat. 16, 1970

Two diagrams ("trees") of the source for the sentence "Floyd broke the glass." While sources within the Extended Standard Theory of Professor Chomsky typically do not differ radically from the sentence as uttered, sources in generative semantics typically bear only very indirect relationship to the utterance. There are thus few branches in the tree at top, and many in the tree at bottom.

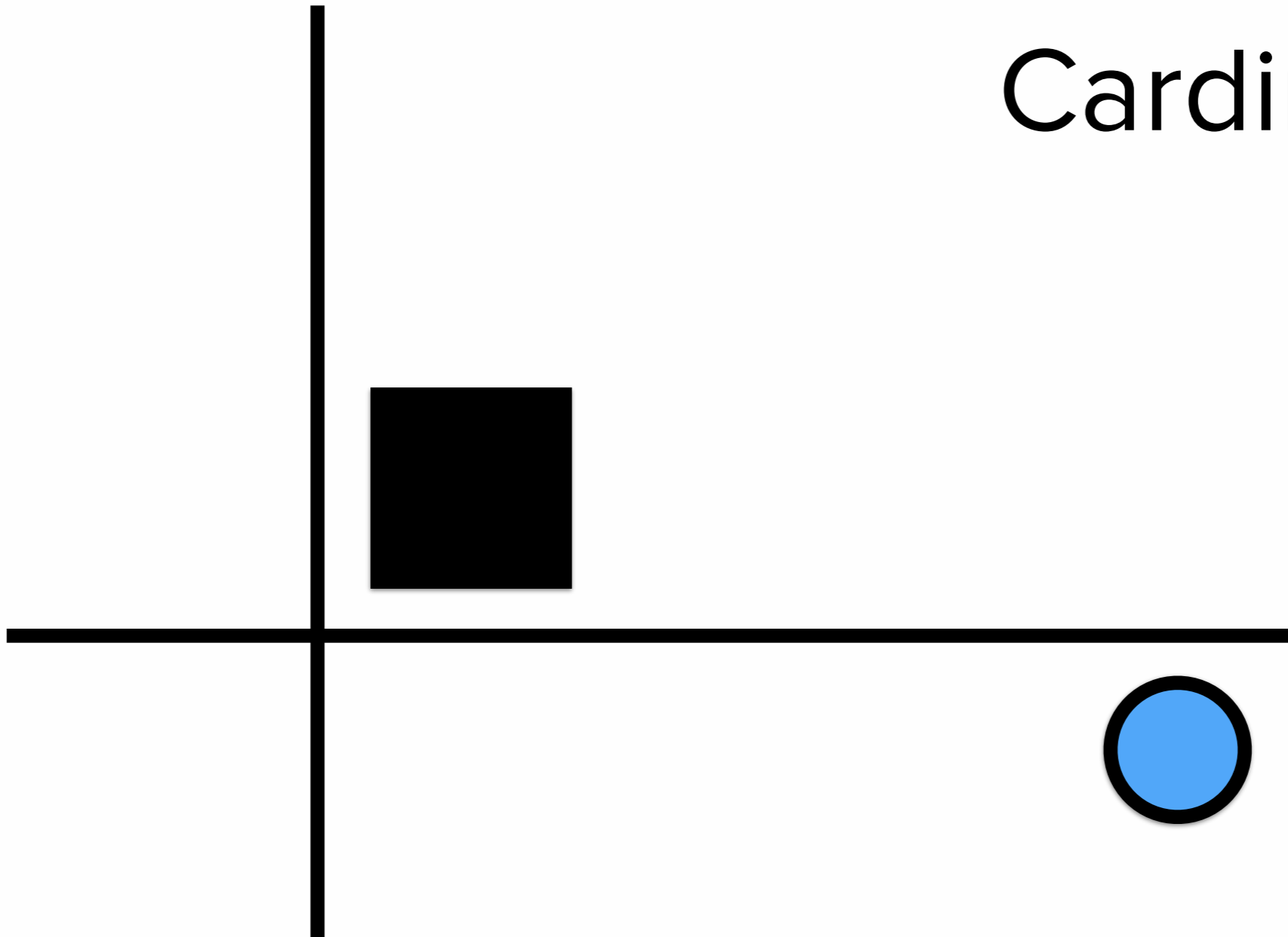
Distance



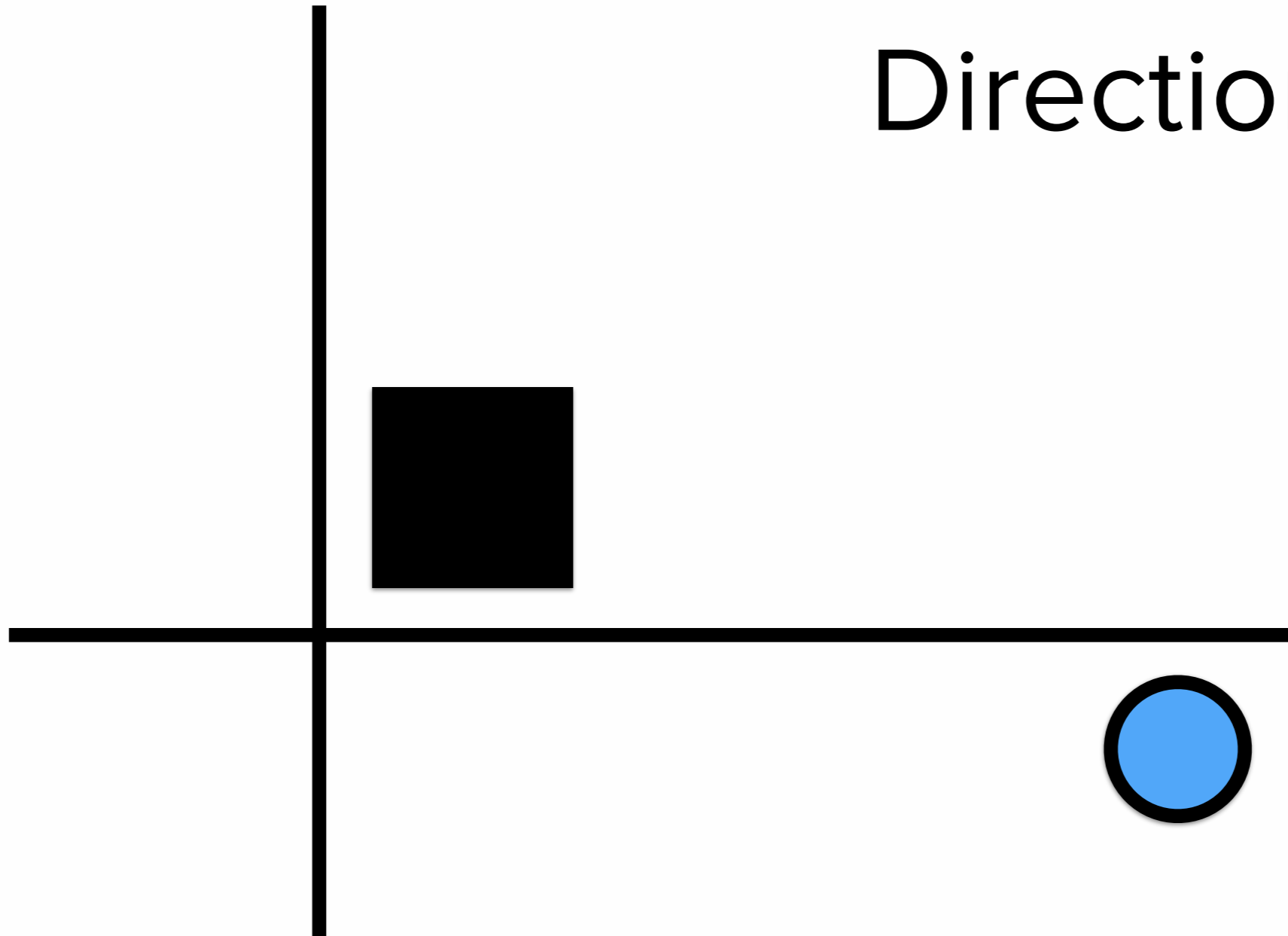
Scale



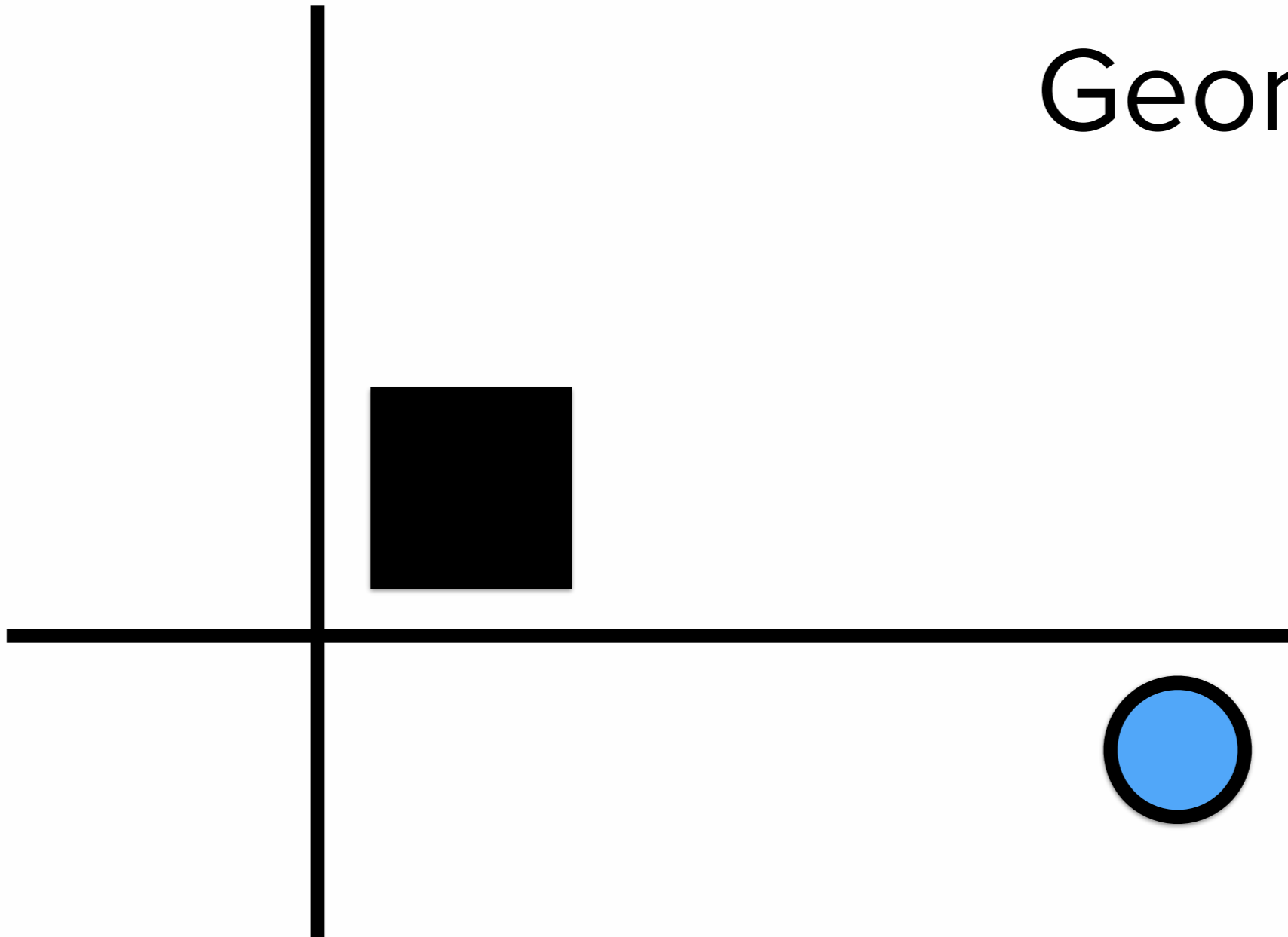
Cardinality



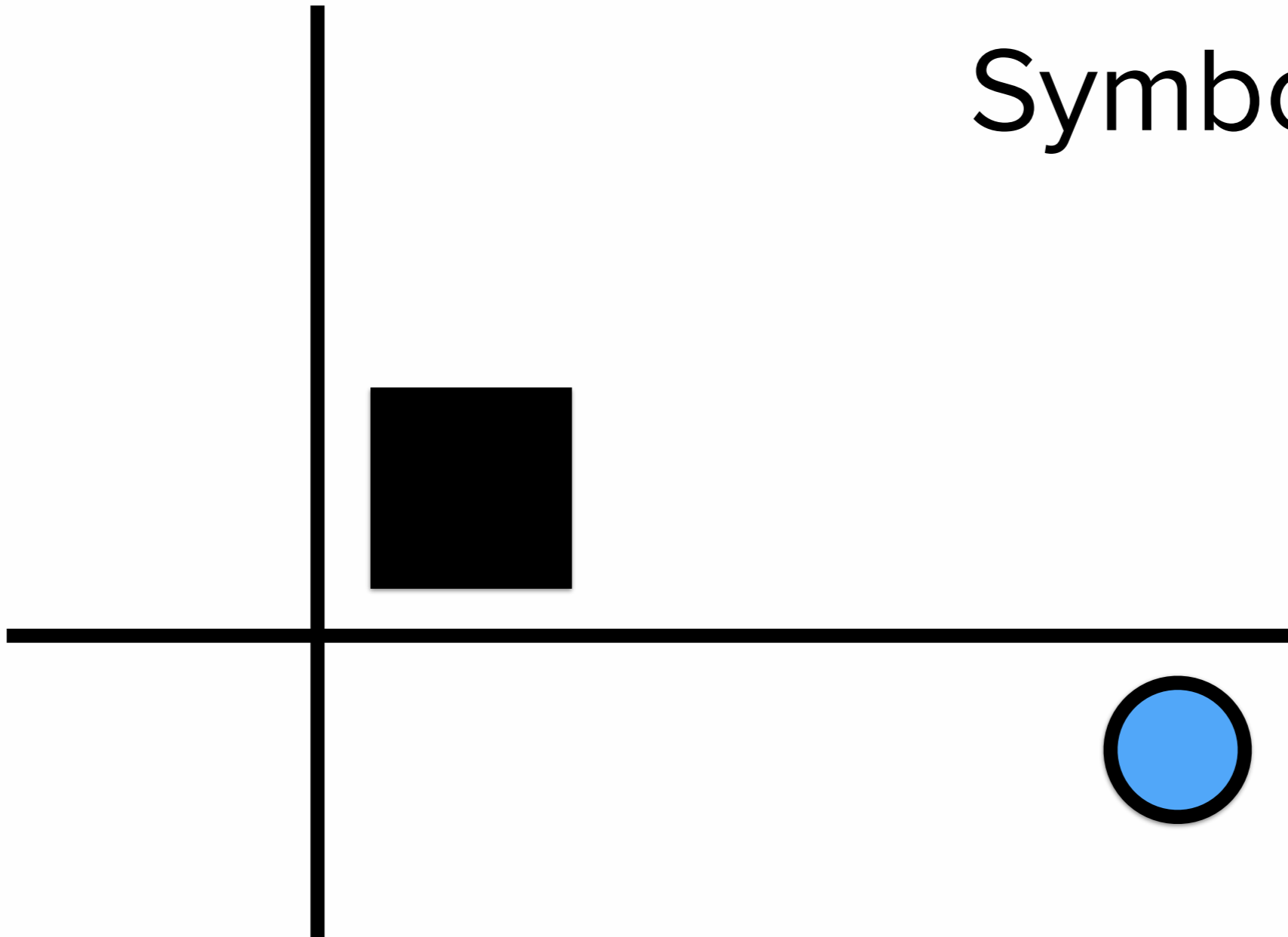
Directionality



Geometry



Symbology





Check out /r/ImaginaryMaps and the rest of The Imaginary Network: Expanded for scifi & fantasy artwork!

- 1 **Where the population aren't in Canada, 2011**
[4320x3240] (i.imgur.com)
1376 points submitted 17 hours ago by thesocialist1
162 comments share save hide report
- 2 **Alaska at night. There may be surprises. [gif]**
[1312x1046] (i.imgur.com)
95 points submitted 5 hours ago by ednorog
15 comments share save hide report
- 3 **Physical Homologues of the United States [467x383]**
(tcrecord.org)
182 points submitted 9 hours ago by nethercall
32 comments share save hide report
- 4 **Percentage of Pregnancies Aborted by Region in Europe (2010) [1900x1500]** (i.imgur.com)
894 points submitted 20 hours ago by Reilly616
471 comments share save hide report
- 5 **Dutch colonies and claims in North America, 1656**
[6840x5370] (a.org)

Submit a new link

search reddit

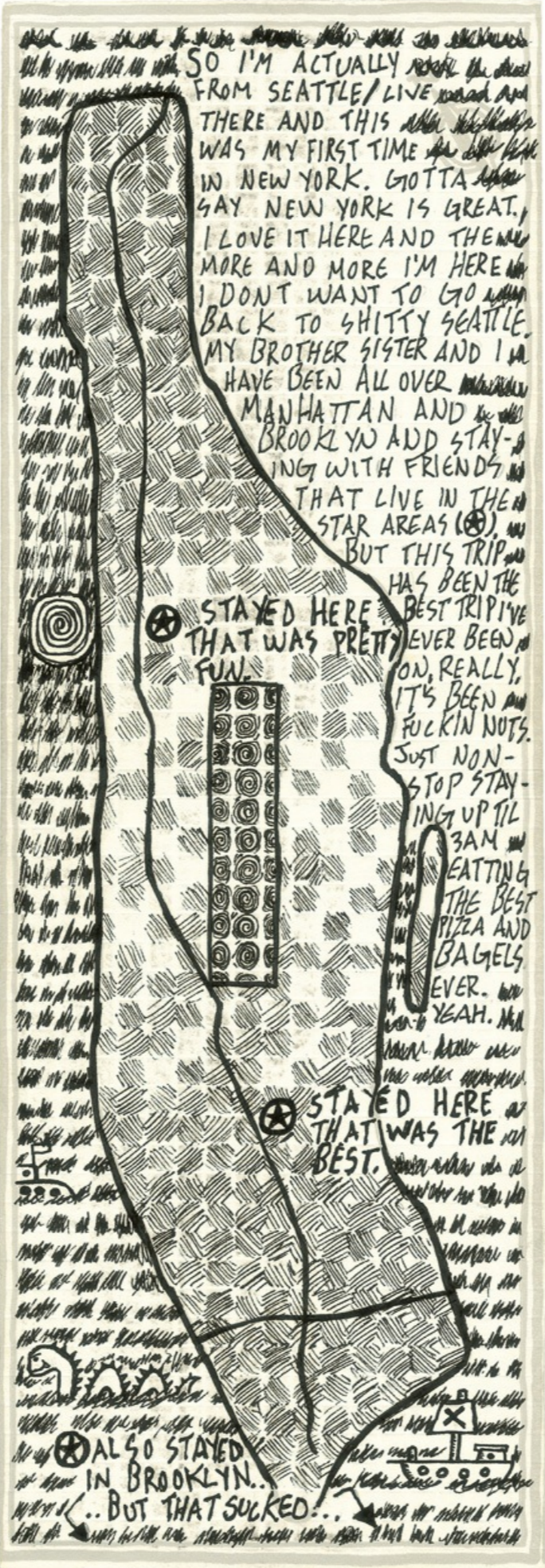
MapPorn

[subscribe](#) 156,353 Armchair Explorers

544 Armchair Explorers

Show my flair on this subreddit. It looks like: andrewxhill

- Submission Rules**
- Include some context (such as the location) in the title.
 - Include the resolution in **[brackets]** in the title.
 - Only submit individual images.
 - GIFs are allowed, **use the [GIF] tag.**
 - Videos, collections, interactive images/websites, and articles are **not** allowed.
 - Do not submit a shortened link using a URL shortener like tinyurl.



<http://bit.ly/ZaqMZY>

LOW

6 PM
TODAY



Trinity Alps Wilderness Area (Usfs)

Trinity Alps, [United States](#)

[Information](#)
[Discussion](#)
[Species](#)

[hide markers](#)
[TERRAIN](#)
[SATELLITE](#)
[expand](#)

Official version

Community version

[edit this geometry](#)


All Photos are provided by [Panoramio](#). Photos are under the copyright of their owners.

1 2 3

Description

The Trinity Alps Wilderness is a 525,627-acre (2,130 km²) designated wilderness located in northern California, roughly between Eureka and Redding. It is jointly administered by Shasta-Trinity, Klamath, and Six Rivers National Forests. About 4,623 acres (18.71 km²) are administered by the Bureau of Land Management. The wilderness is located in the Salmon and Scott Mountains, subranges of the Klamath Mountains region. The high, granitic and ultramafic peaks of the eastern

Community Record

71% COMPLETE

WDPA ID
376099

NAME
Trinity Alps

ORIGINAL NAME
Trinity Alps

COUNTRY / TERRITORY
USA

SUB LOCATION
US-CA

IUCN CATEGORY
Ib [What is this?](#)

ENGLISH DESIGNATION
Wilderness Area (USFS)

LETS GIVE THE POWER OF MAPS TO
EVERYBODY



CARTO^{DB}

Geospatial on the cloud



343 of ∞ tables created



2.2 of 2.4 used gigabytes



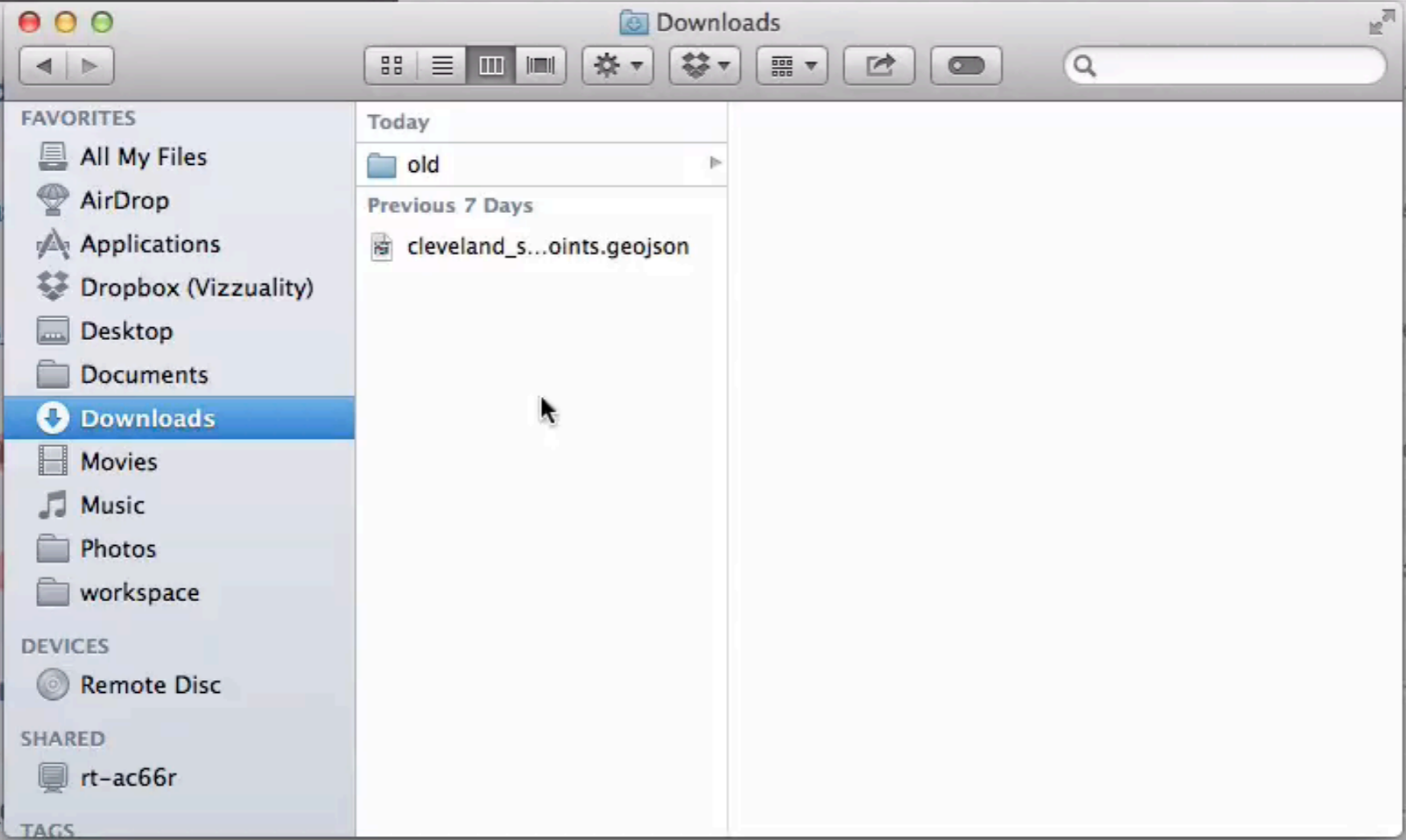
167 map views this month



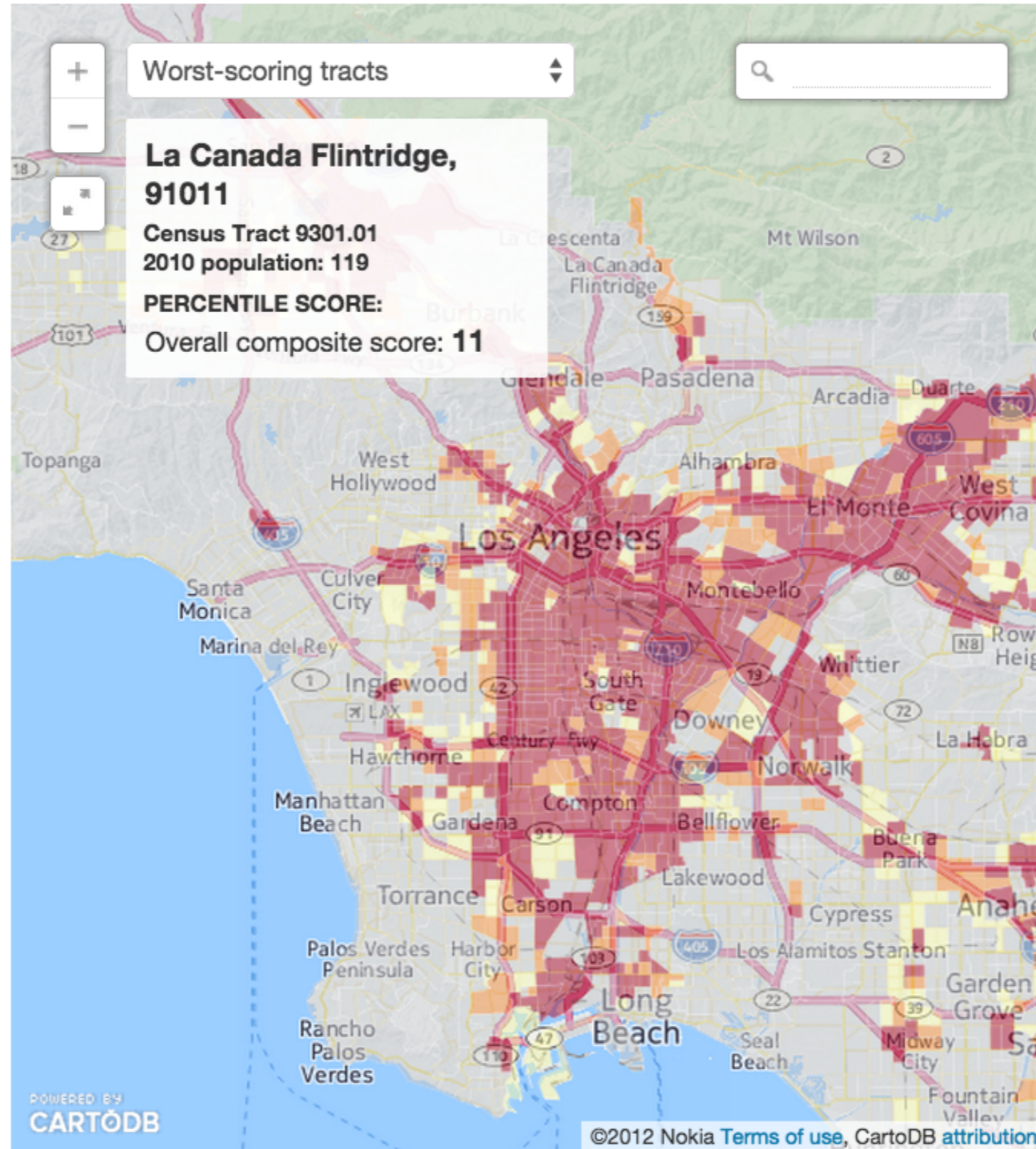
Hey **andrew**, looks like you're about to reach your account limit. Start thinking about [contacting your admin](#).

All tables **My tables** Filter by tag ▾

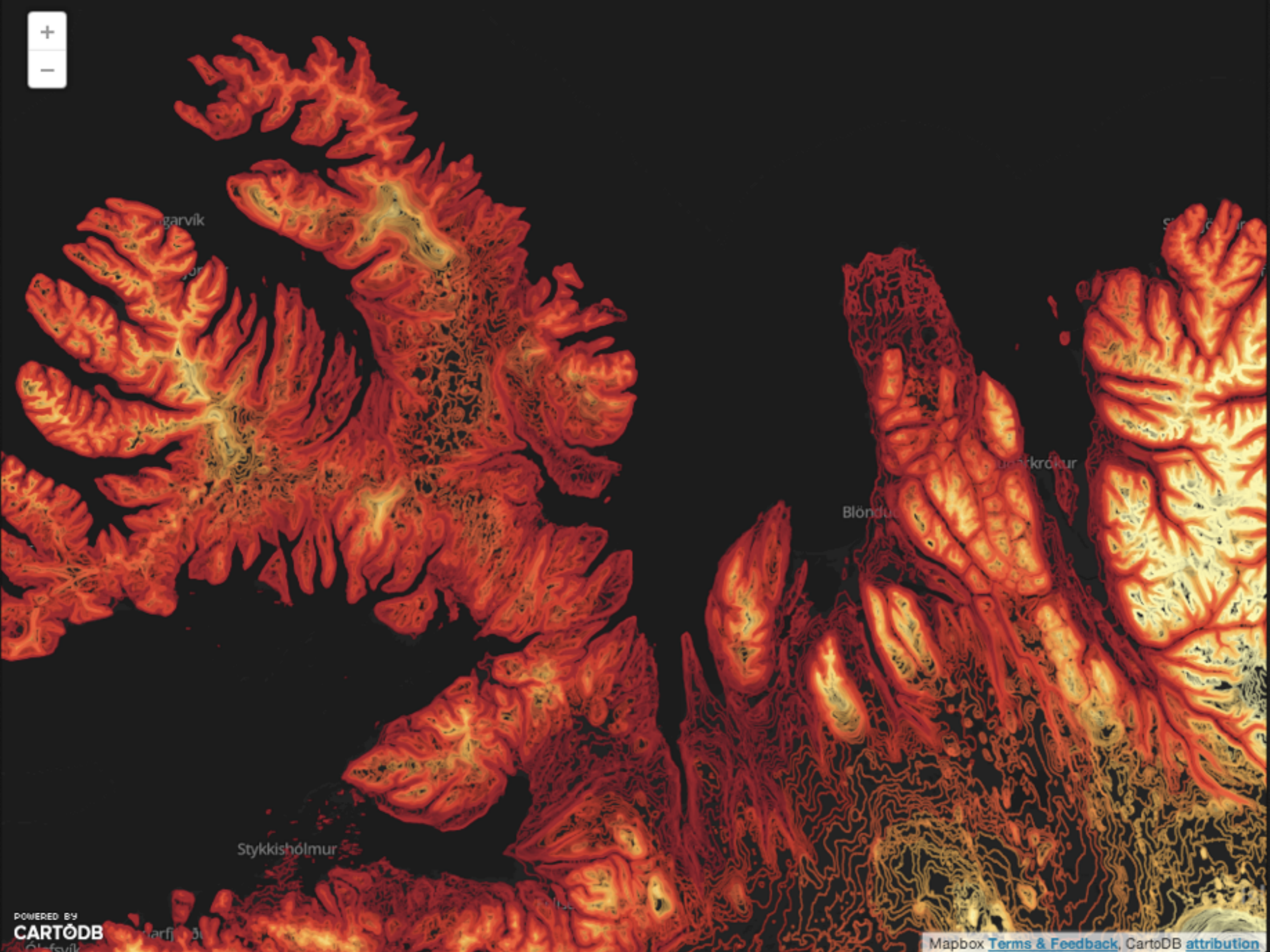
cleveland	13 rows	
spain_pa	53 rows	
spain_as	08 rows	
es_1k	08 rows	
es_50k	37 rows	
carto_co	16 rows	
cartodb	7 rows	
untitled_table_9	You · 24 KB · 0 rows	

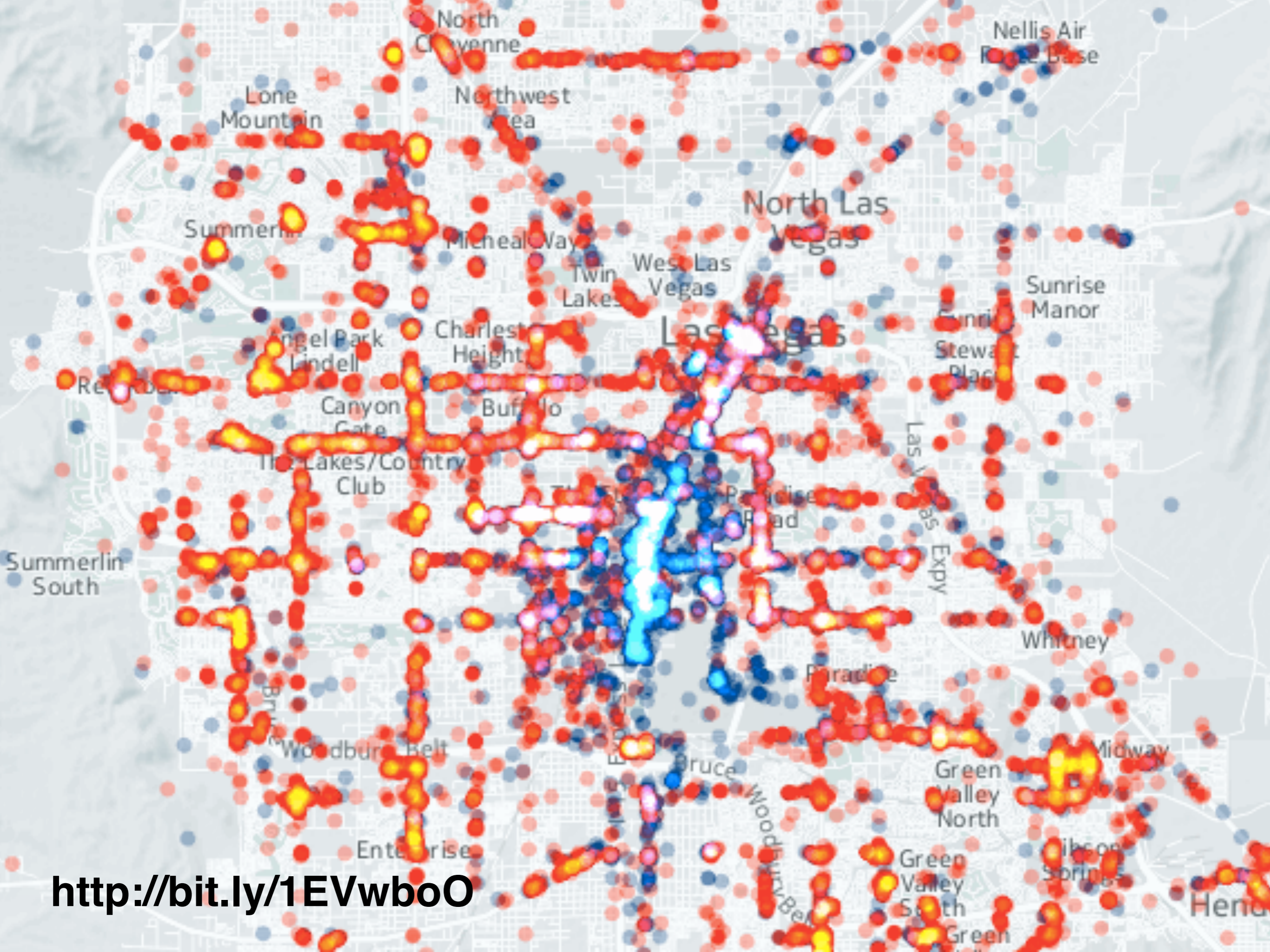


■ Top 20-25% ■ Top 15-20% ■ Top 15%

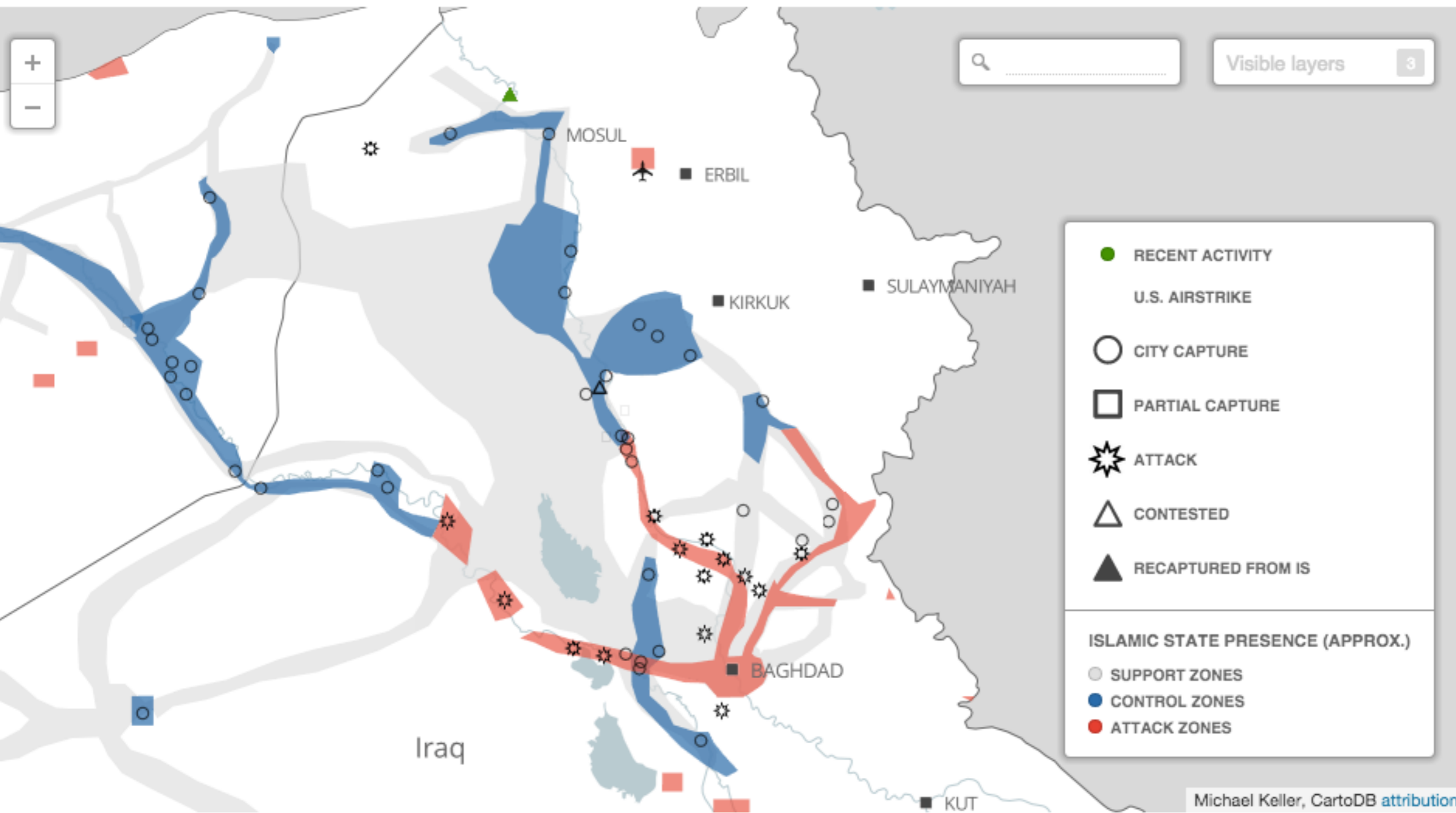


<http://lat.ms/1u1tzNr>

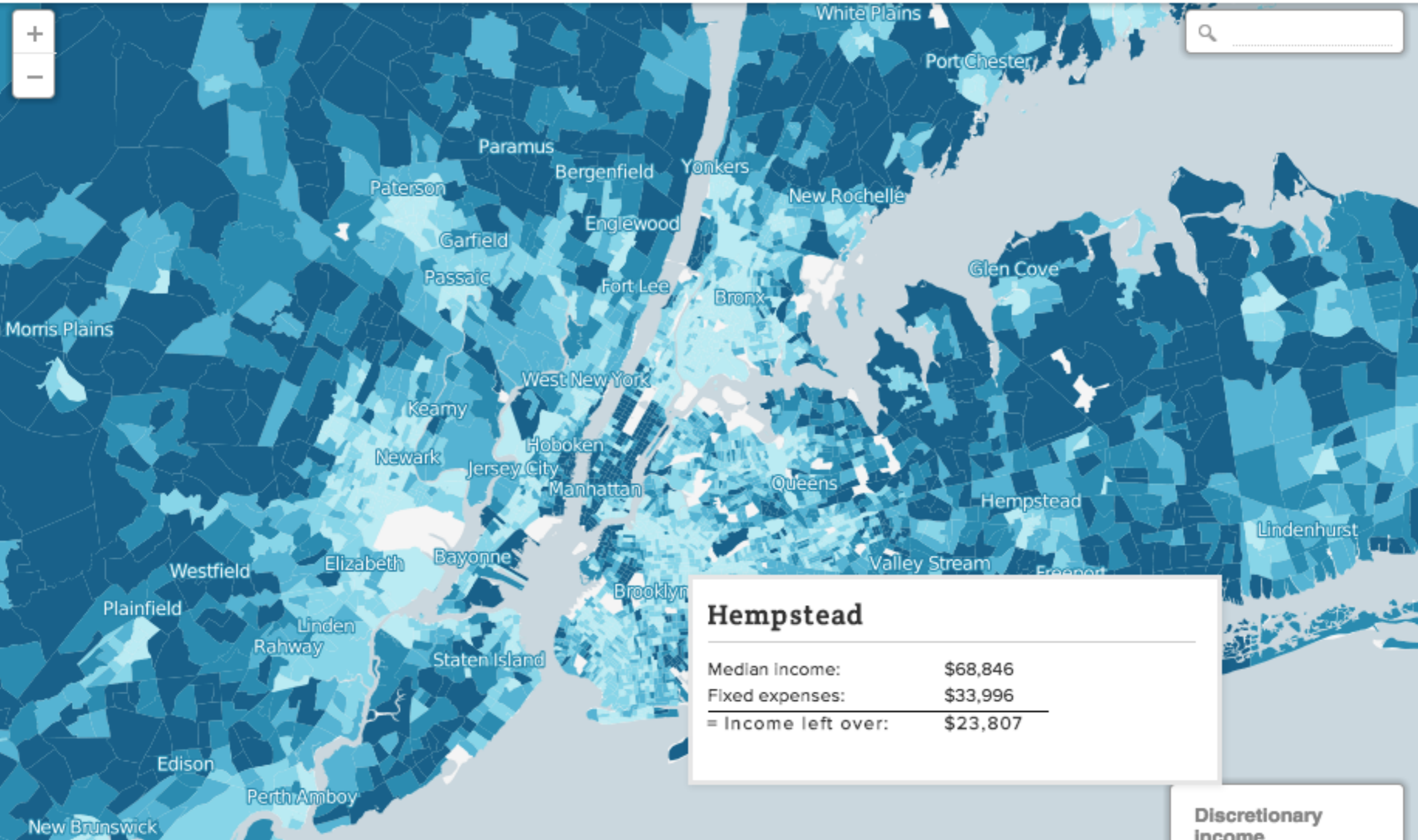




<http://bit.ly/1EVwboO>

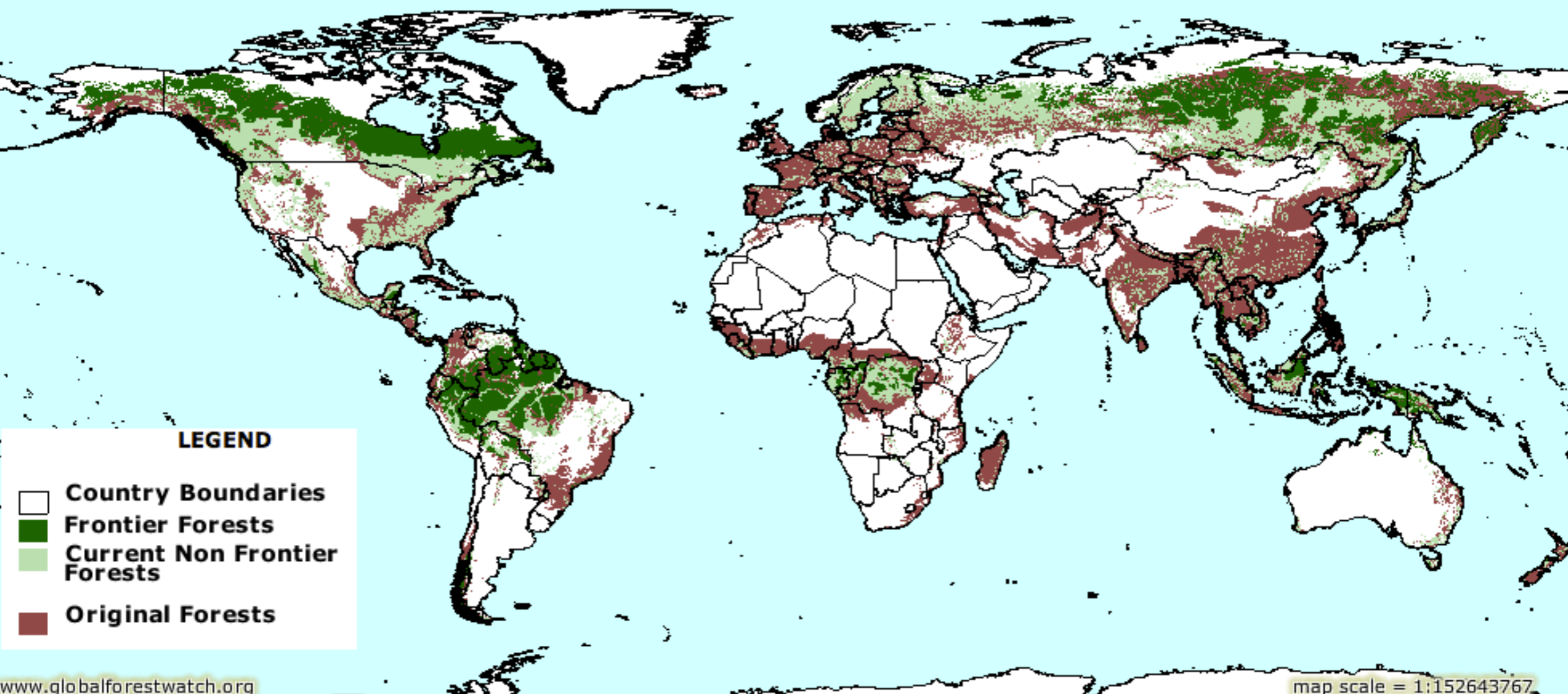


<http://bit.ly/islamstate>



**DOING CRAZY THINGS
THAT WEREN'T DONE
BEFORE**

AN EXAMPLE



LEGEND

-  Country Boundaries
-  Frontier Forests
-  Current Non Frontier Forests
-  Original Forests



asia_500m_8x_grid_live

PUBLIC

[delete table](#) | [georeference](#) | [advanced](#)

[andrew](#) [gridded](#) [live](#) [edit tags](#)

Table

Map

SHARE THIS MAP

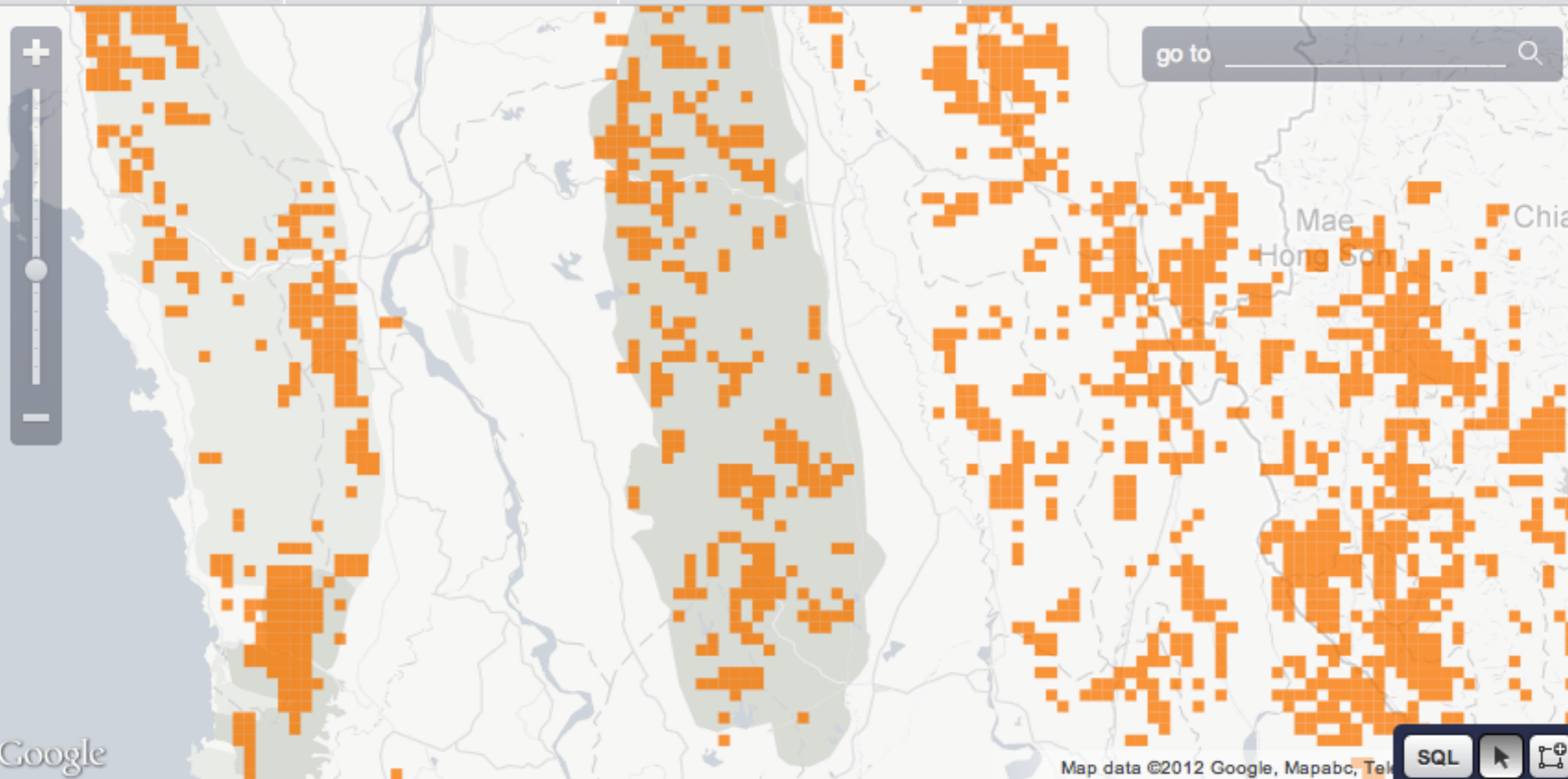
Map type
Roadmap

Visualization type
Polygon Visualization

Geometry customization
Custom Style

Infowindow customization
Custom

go to





SOURCE: BING

```

WITH hgrid
  AS (SELECT Cdb_rectanglegrid(Cdb_xyz_extent(8, 12, 5),
    Cdb_xyz_resolution(5) * 4,
    Cdb_xyz_resolution(5) * 4) AS cell)
SELECT x,
  y,
  Array_agg(c) vals,
  Array_agg(d) dates
FROM (SELECT St_xmax(hgrid.cell) x,
  St_ymax(hgrid.cell) y,
  Count(i.cartodb_id) c,
  Floor(( Date_part('epoch', built) - -10418716800 ) / 32837875) d
  FROM hgrid,
  us_po_offices i
  WHERE St_intersects(i.the_geom_webmercator, hgrid.cell)
  GROUP BY hgrid.cell,
  Floor(( Date_part('epoch', built) - -10418716800 ) / 32837875)
) f
GROUP BY x,
  y

```

Find out what is happening in forests right now


CHECK OUT
FOR BUSI

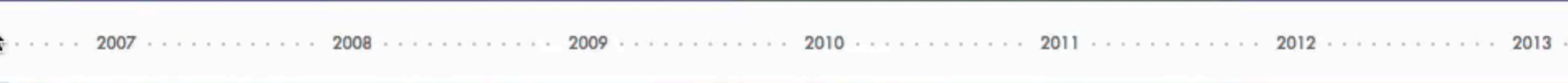
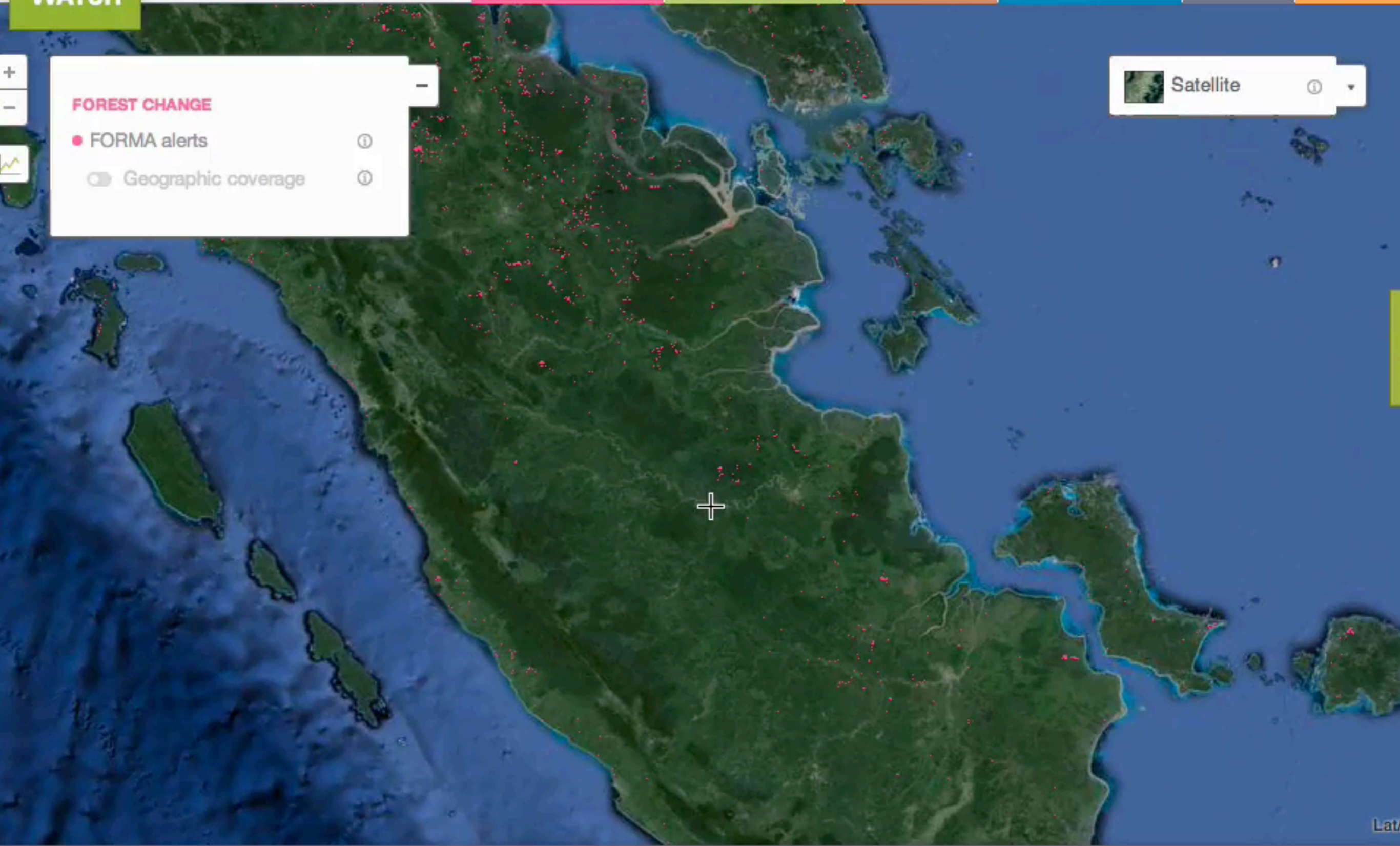




FOREST CHANGE

- FORMA alerts ⓘ
- Geographic coverage ⓘ

 Satellite ⓘ

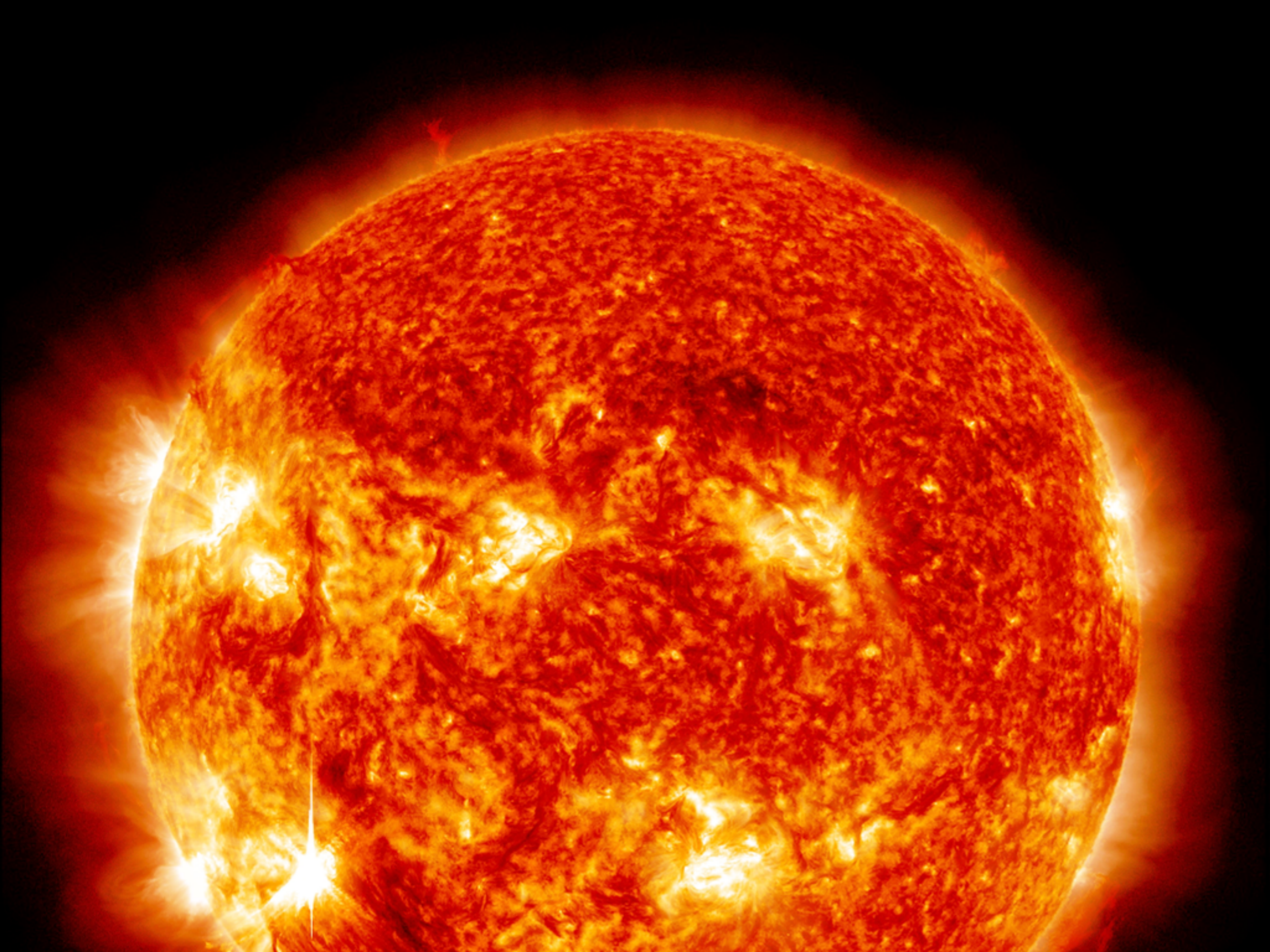


LOW

6 PM
TODAY









DROID DOES APPS

DROID

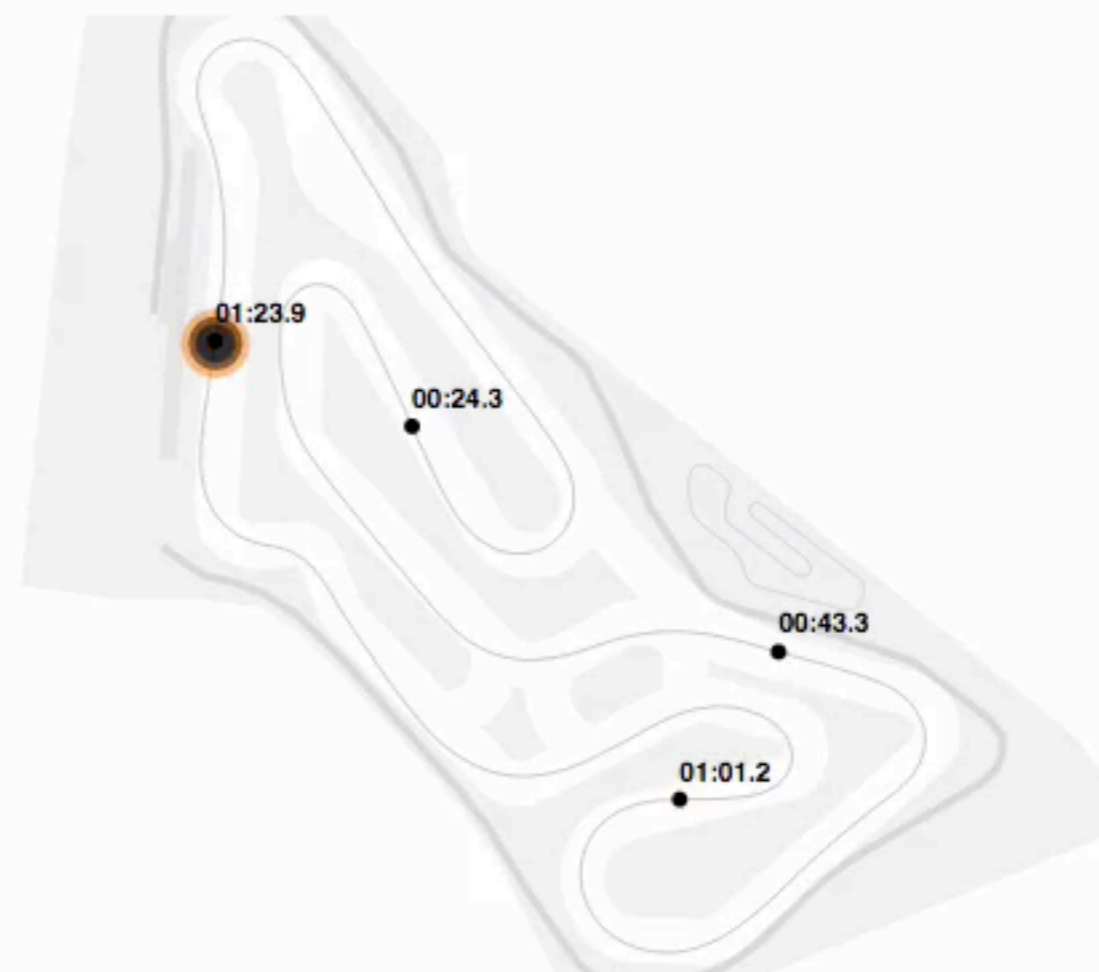
verizon wireless

The logo for NYCHenge features the text "NYCHenge" in a bold, white, sans-serif font. The letters "NYCH" are in all caps, while "enge" is in lowercase. A white circle is partially visible behind the text, with a mouse cursor arrow pointing to its top edge.

NYCHenge

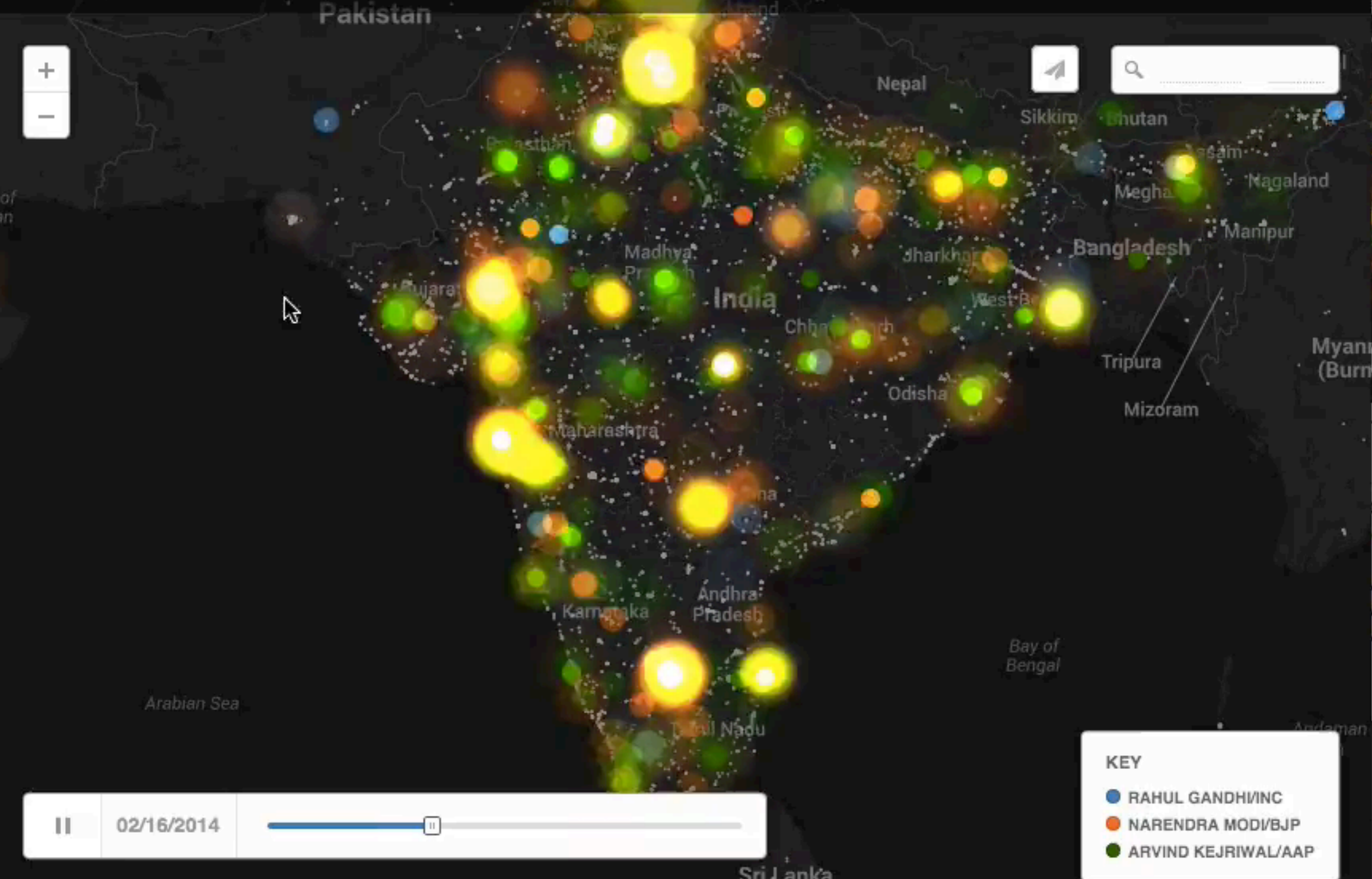
Twice a year the sun aligns with the midtown grid in NYC, days we call, Manhattanhenge. Now you can discover henge events happening all over the city on every sunset of the year!

[Explore the map](#)



India's election: 2014 so far on Twitter

Mentions of major candidates and political parties from January 1, 2014



02/16/2014

KEY

- RAHUL GANDHI/INC
- NARENDRA MODI/BJP
- ARVIND KEJRIWAL/AAP



|| 17:43 [Progress bar icon]

<http://bit.ly/downeymap>



Robert Downey Jr ✓

@RobertDowneyJr



 Follow

Just spreading light. RT @TwitterData This map shows what happened to @RobertDowneyJr followers after his first Tweet bit.ly/1sr834f

 Reply  Retweeted  Favorite  More

RETWEETS

3,231

FAVORITES

6,678



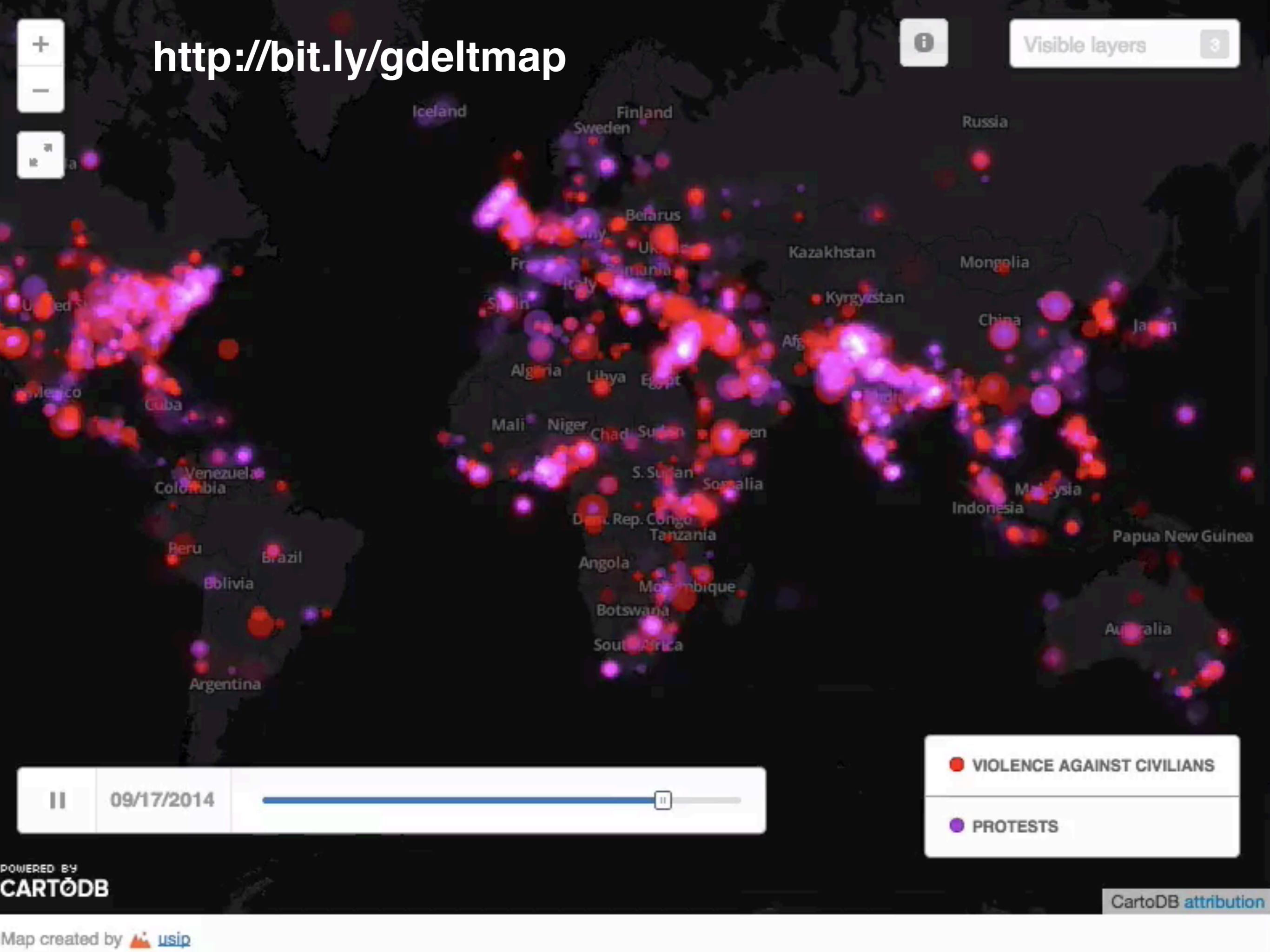
3:54 PM - 13 May 2014

<http://bit.ly/downeymap>

<http://bit.ly/gdeltmap>



Visible layers 3

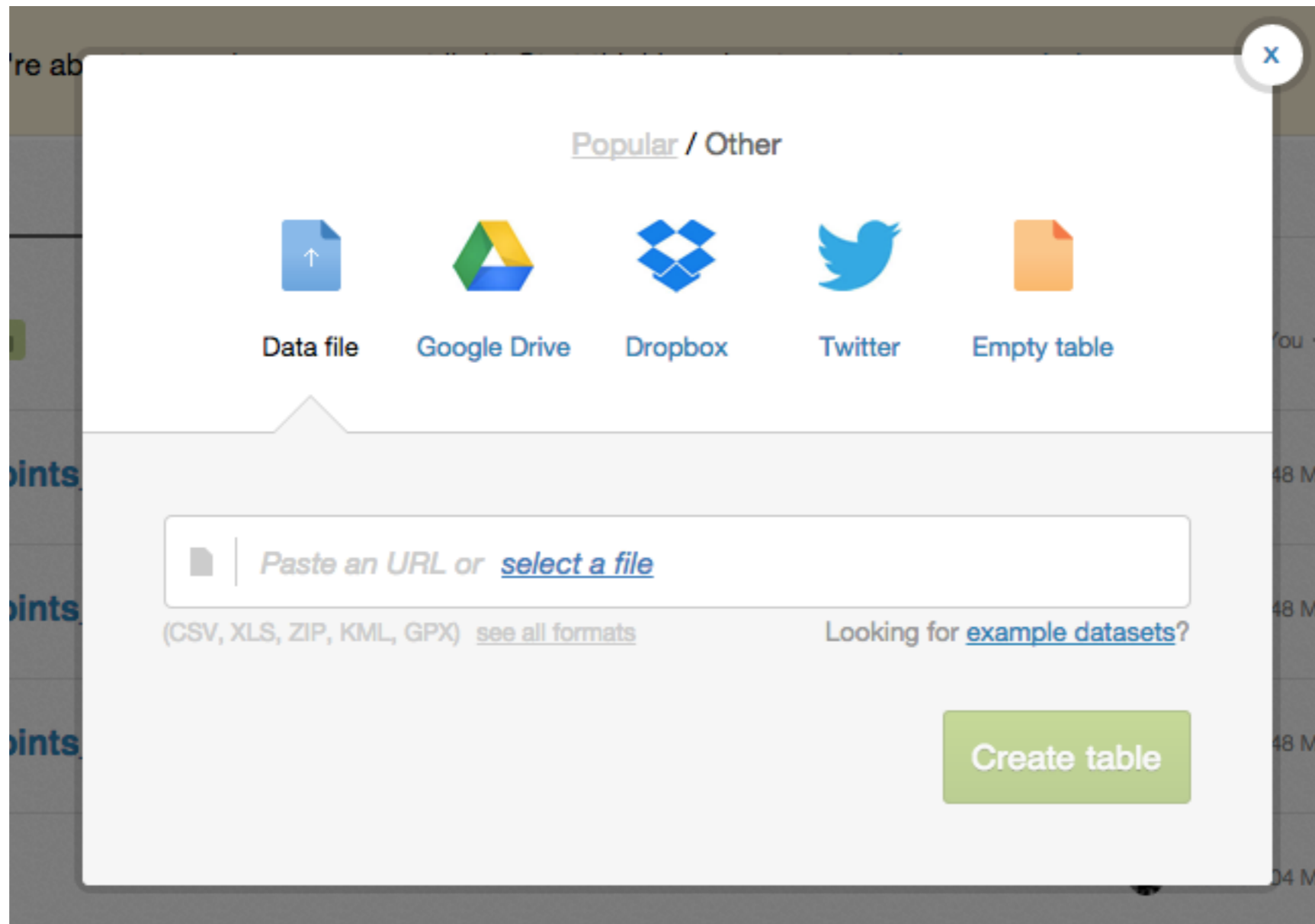


|| 09/17/2014

- VIOLENCE AGAINST CIVILIANS
- PROTESTS

**WE THINK WE'RE ONTO
SOMETHING**

SOME NEAT FEATURES OF
CARTODB



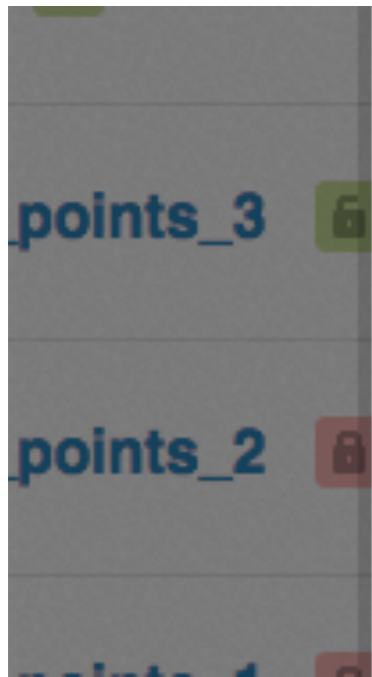
Data support






polygon	2538.239	Urban area	2
polygon	513.915	Urban area	5
	130.849		
	257.994		
	321.66		
CARTO  DB	0.914	Dropbox	
Geospatial database on the cloud			
polygon	98.624	Urban area	6
polygon	205.378	Urban area	5

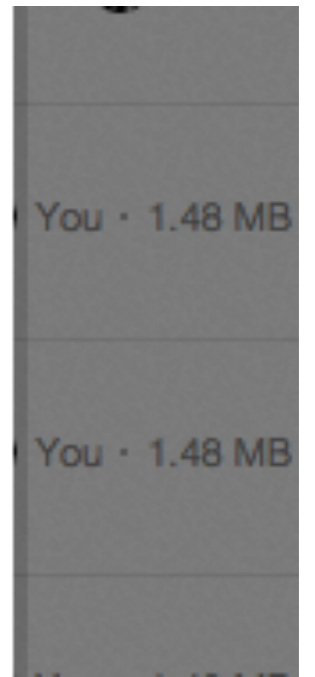
Live data, import API, and remote sync

The image shows a 'Table privacy settings' dialog box. At the top, it says 'Table privacy settings'. Below that, there's a section for the current privacy setting: 'Private' with a red lock icon and the text 'This is only accessible by yourself.' To the right of this is a dropdown arrow. Below this is a section for 'Default for organization users' with a list of users and their 'Can write' permissions, each with a toggle switch. The users listed are 'cartofante', 'cholmes', 'furilo', and 'henrick'. At the bottom right of the dialog is a 'Save settings' button. The background shows a table management interface with a list of tables like 'untitled_table_10', 'cleveland_spring_points_3', etc., and a 'Filter by tag' dropdown.

Privacy, sharing, collaboration



 jatorre-cloud	<input type="checkbox"/> Can write	<input type="checkbox"/>
 javi	<input type="checkbox"/> Can write	<input type="checkbox"/>
 javierarce	<input checked="" type="checkbox"/> Can write	<input checked="" type="checkbox"/>
 jorgearevalo	<input type="checkbox"/> Can write	<input type="checkbox"/>
 juanpascual	<input type="checkbox"/> Can write	<input type="checkbox"/>



Privacy, sharing, collaboration

CartoDB.js

This Javascript library is the main tool to extend your existing visualizations or create new ones from within your website. All from the client, not backend needed.

[Learn more](#)

Import API

The CartoDB Importer API allows you to upload files to your CartoDB account and manipulate them by using a set of HTTP commands from a terminal window.

[Learn more](#)

Maps API

The CartoDB Maps API allows you to generate maps based on data hosted in your CartoDB account and style them using CartoCSS.

[Learn more](#)

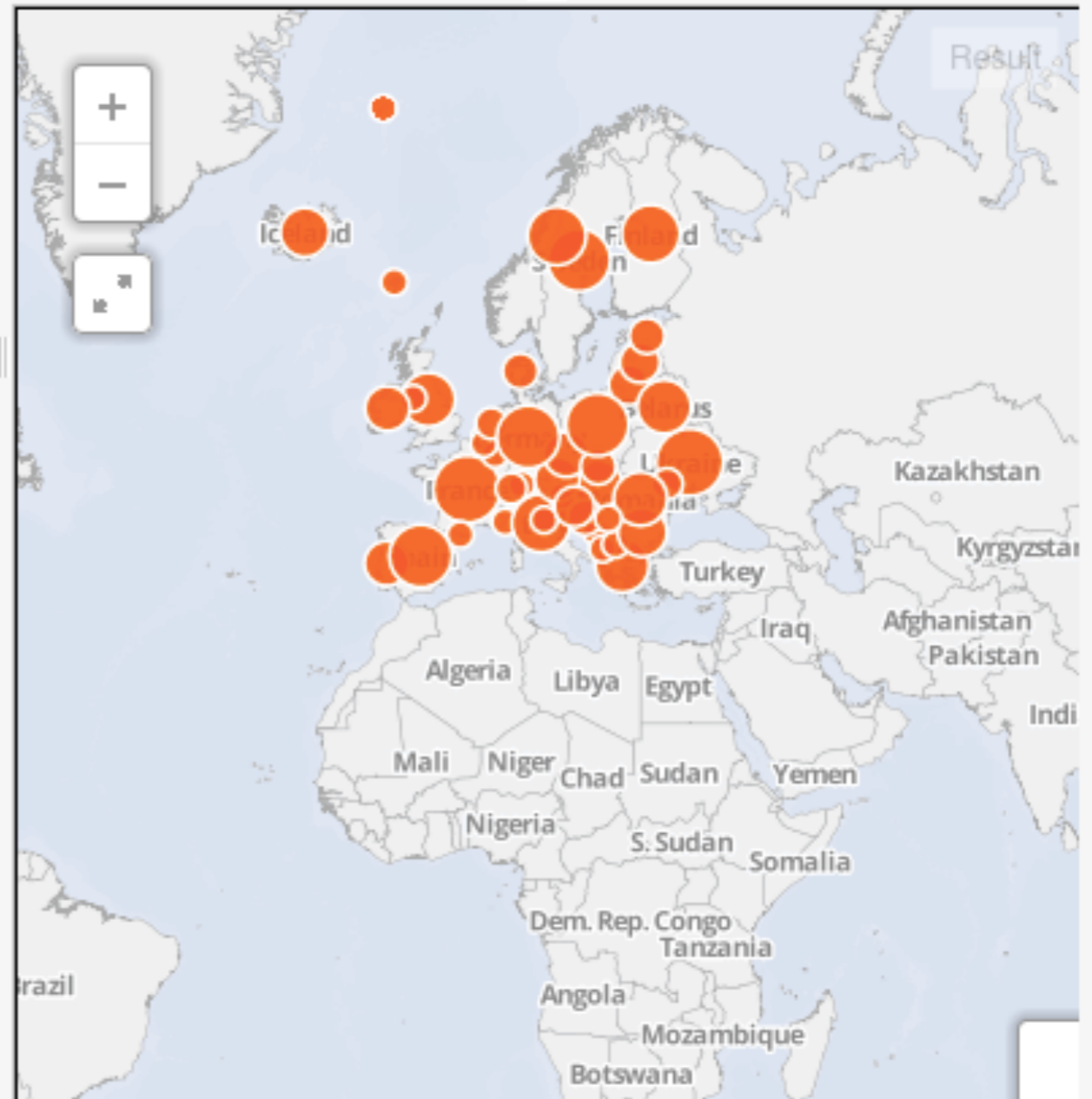
SQL API

Lets you perform queries and retrieve your data. It also lets you authenticate with your account so you can write, update, and delete data programmatically, or import it.

[Learn more](#)

Easy integration

```
1 var vizjson =  
  'http://documentation.cartodb.com/api/v2/viz/2b13  
  c956-e7c1-11e2-806b-5404a6a683d5/viz.json';  
2  
3 cartodb.createVis('map', vizjson)  
4   .done(function(vis, layers, vizjson) {  
5 //     alert("Layers has " + layers.length + "  
6 layers.");  
7   })  
8   .error(function (err) {  
9     alert("Error" + err);  
10  });
```



Easy integration

```
{
  time: 0.082,
  total_rows: 18,
  - rows: [
    - {
      count: 3607,
      sum: 35355,
      mean: 9.80177432769615,
      stddev: 3.6511016162256,
      min: 1,
      max: 116
    },
    - {
      count: 11776,
      sum: 113319,
      mean: 9.62287703804348,
      stddev: 6.87819958233194,
      min: 1,
      max: 255
    },
    - {
      count: 1801,
      sum: 8506,
      mean: 4.72293170460855,
```

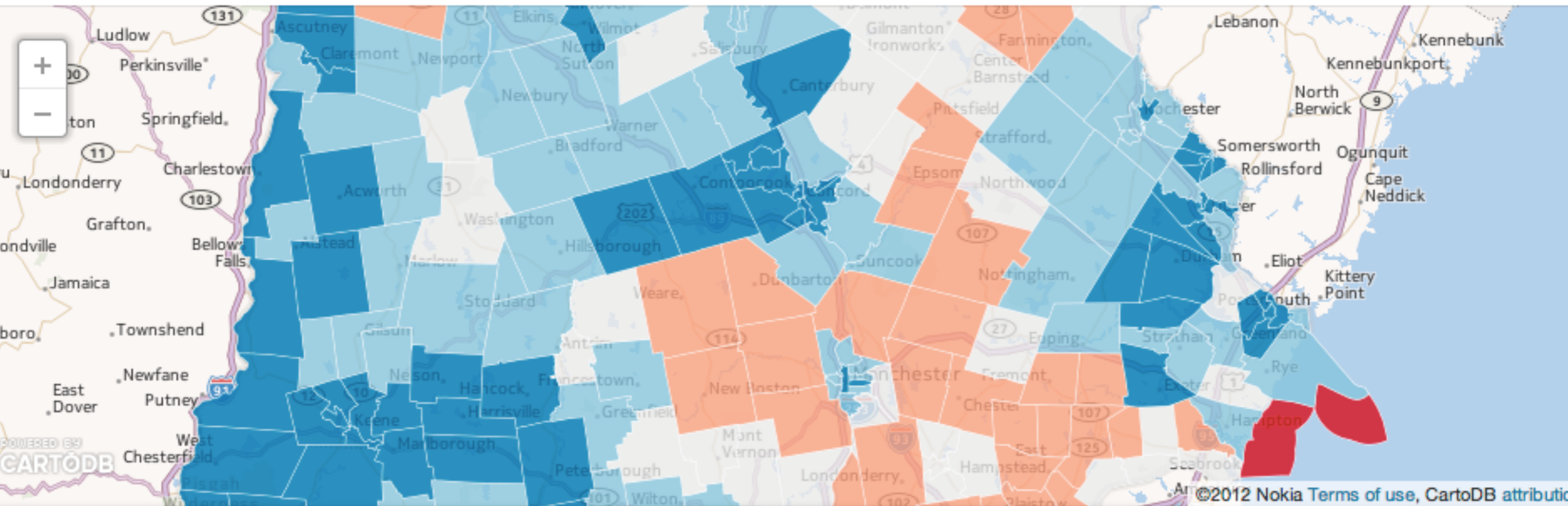
SQL API

Dynamic



Map election results

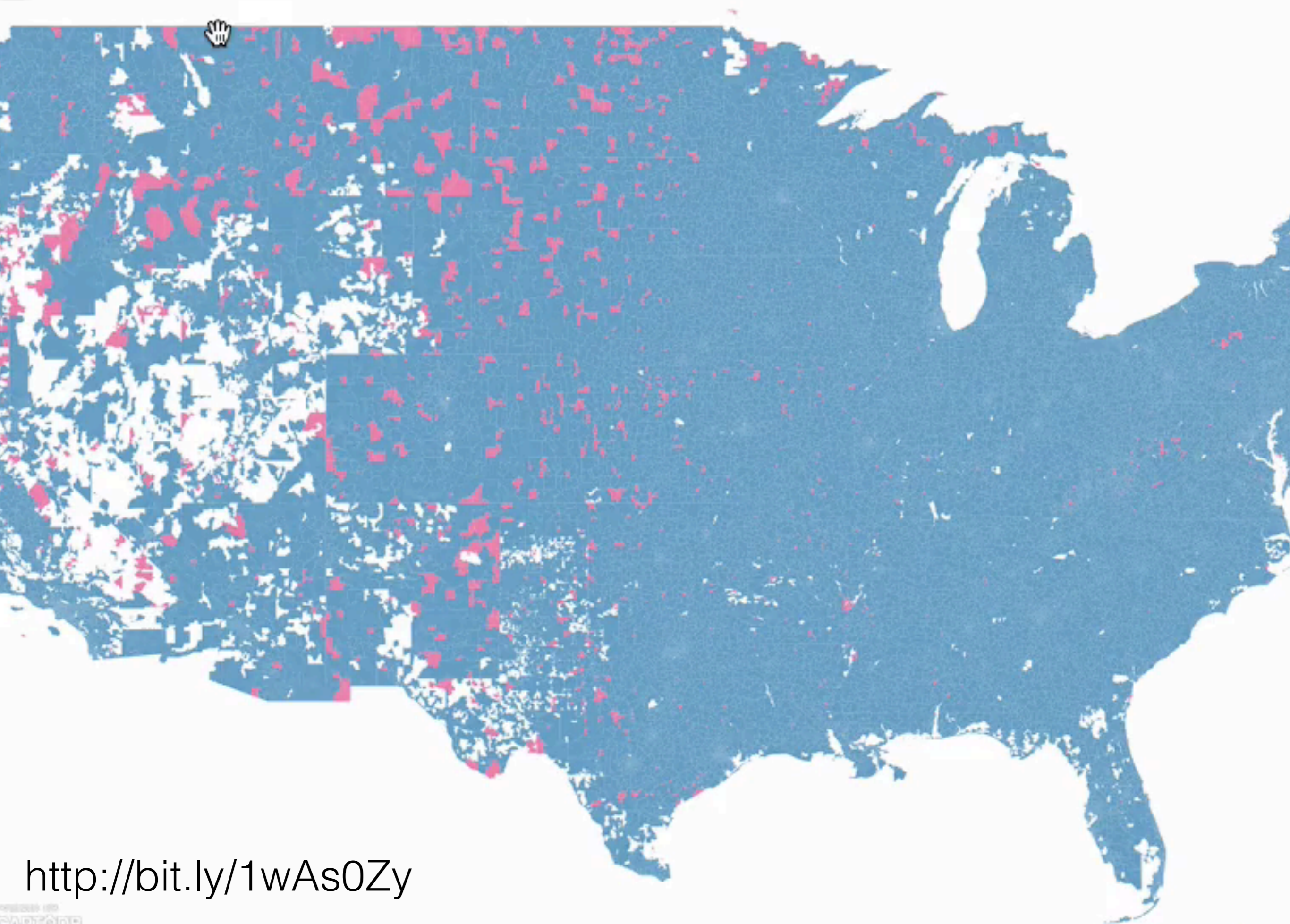
BASIC



OUR TAKE ON THE

FUTURE OF MAPS

THE FUTURE IS NOT
STATIC



<http://bit.ly/1wAs0Zy>

**YOU CAN NOW TELL A
DIFFERENT STORY TO
EVERY VIEWER...**

**IT'S A DANGEROUS
POWER FOR ONLY ONE
PERSON TO HOLD**

LOW

6 PM
TODAY





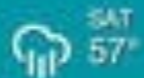
SAT

Colorado Springs

25°F

Sunny

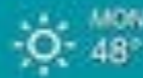
Stay In Bed
Because It's
Effing Cold
Outside



SAT
57°



SUN
34°



MON
48°



TUE
52°



WE CAN'T BUILD IT
ALONE

“The future of geo isn’t a single app with hundreds buttons.
The future of geo is hundreds apps with a single button.”

@jatorre

Join the CartoDB Developer Program

The CartoDB Developer Program is a partnership with companies and developers to create geospatial products for the cloud-based marketplace.

Access unlimited CartoDB resources, such as design tools, UX interface, and sales support for geospatial apps you develop.

We're here to help you think creatively and work smart. Get further, faster by joining efforts with us on the CartoDB Marketplace.



Standard of living

Based on official deprivation statistics such as: income, employment, health, crime, housing, and environment.

Explore England



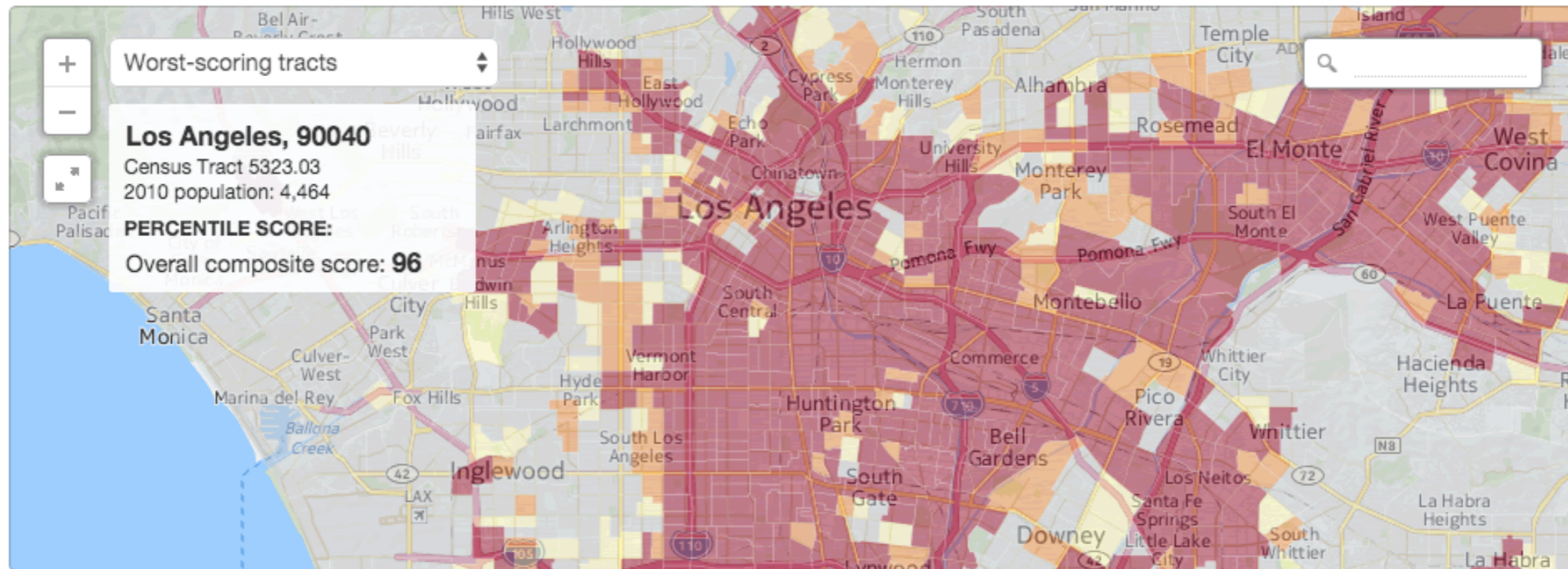
WANT TO GET

INVOLVED?

— Sep 26, 2014 —

A selection of CartoDB maps and visualizations

Customer stories



Our periodic selection of recent CartoDB maps spotted in the wild.

Los Angeles Times: California pollution risks

Los Angeles Times has created another and more complete version of their [pollution map](#), with data from the California Environmental Protection Agency. The scores are derived from 19 types of environmental, health and socioeconomic data.

<http://blog.cartodb.com/>

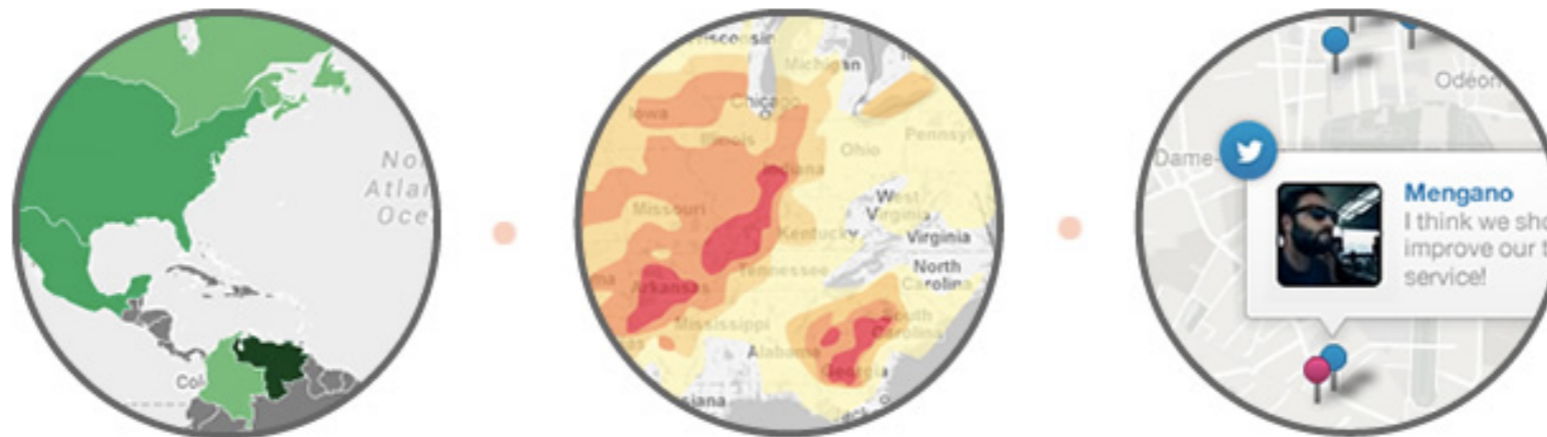
Tweet 229

Like 151

Online mapping for beginners

— A FREE ONLINE SESSION ORGANIZED BY [CARTODB](#) —

Tuesday, December 3, 2013 from 4:00 PM to 5:30 PM (EST)



Take the first steps toward becoming an expert online mapper. In this session, we will show you the skills you need to start making beautiful and informative maps online. The session will be based on [CartoDB](#). **The course will be 100% free.**

Register for free

<http://academy.cartodb.com/>

[SIGNUP](#)[LOGIN](#)

Create maps to save our world

Receive up to \$3,500 to improve your project through the use of CartoDB

[READ MORE](#)

Flooding Danger
3 hotspots

Deforestation trend
detected. 3 days ago

What is this about

In June 2013, the President of the United States announced the Climate Data Initiative, an effort to leverage data to help the American people understand and prepare for climate change. At CartoDB, we are dedicated to supporting this cause and to making change possible through the work of our users. We have always believed that the best way to communicate problems in order to find solutions is to empower the people who know the problems the best. That's where you come in. We want to support the most creative and exciting solutions

...we are dedicated to supporting this cause and to making change possible through the work of our users.

Join the CartoDB Developer Program

The CartoDB Developer Program is a partnership with companies and developers to create geospatial products for the cloud-based marketplace.

Access unlimited CartoDB resources, such as design tools, UX interface, and sales support for geospatial apps you develop.

We're here to help you think creatively and work smart. Get further, faster by joining efforts with us on the CartoDB Marketplace.

We are hiring!!!

<http://www.cartodb.com/jobs>





Thank you!

[@andrewxhill](#)

andrew@cartodb.com