The background image shows a satellite or aerial view of a river system, likely a delta, with a network of yellow and red lines representing water flow paths. The surrounding land is green, and the water bodies are blue.

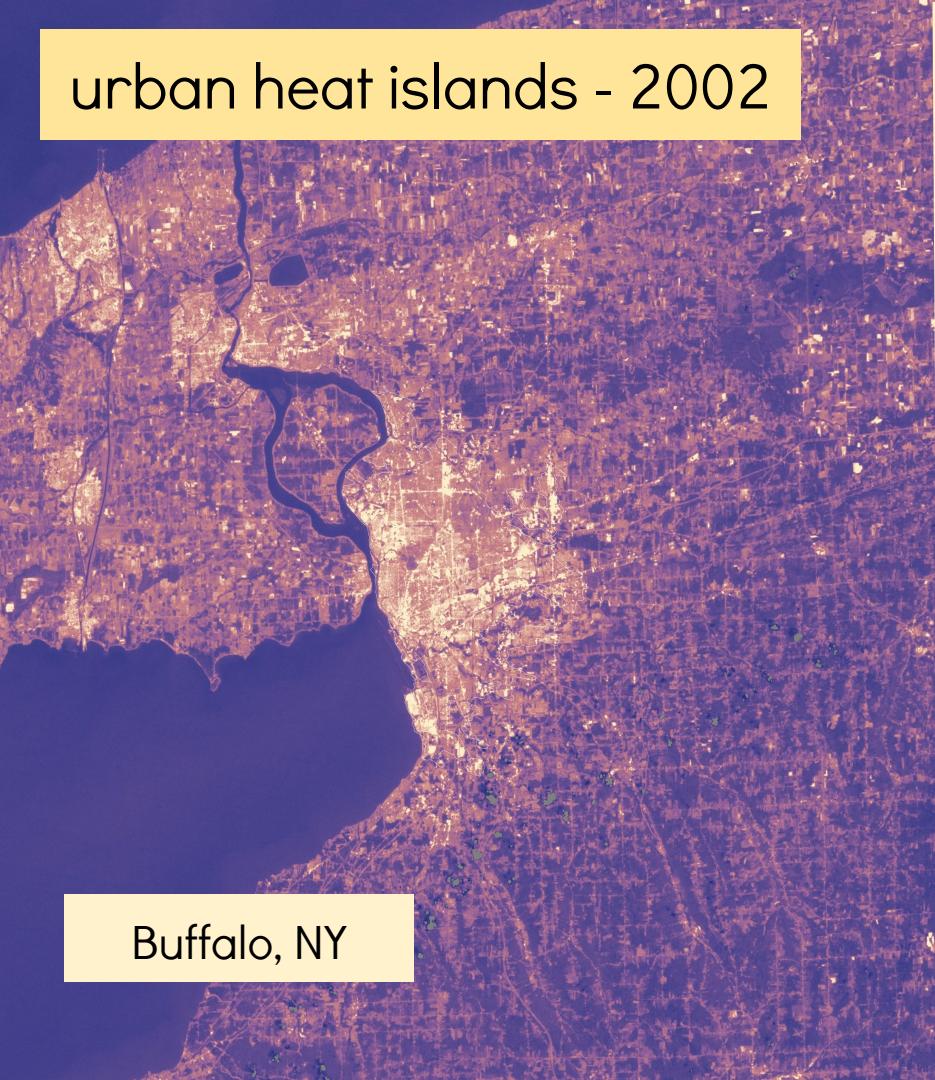
MAPPING SPACETIME

time travel via timeless and temporal maps

Aurelia Moser, Mozilla Foundation | @auremoser | aurelia@mozillafoundation.org

SXSW 2016

urban heat islands - 2002

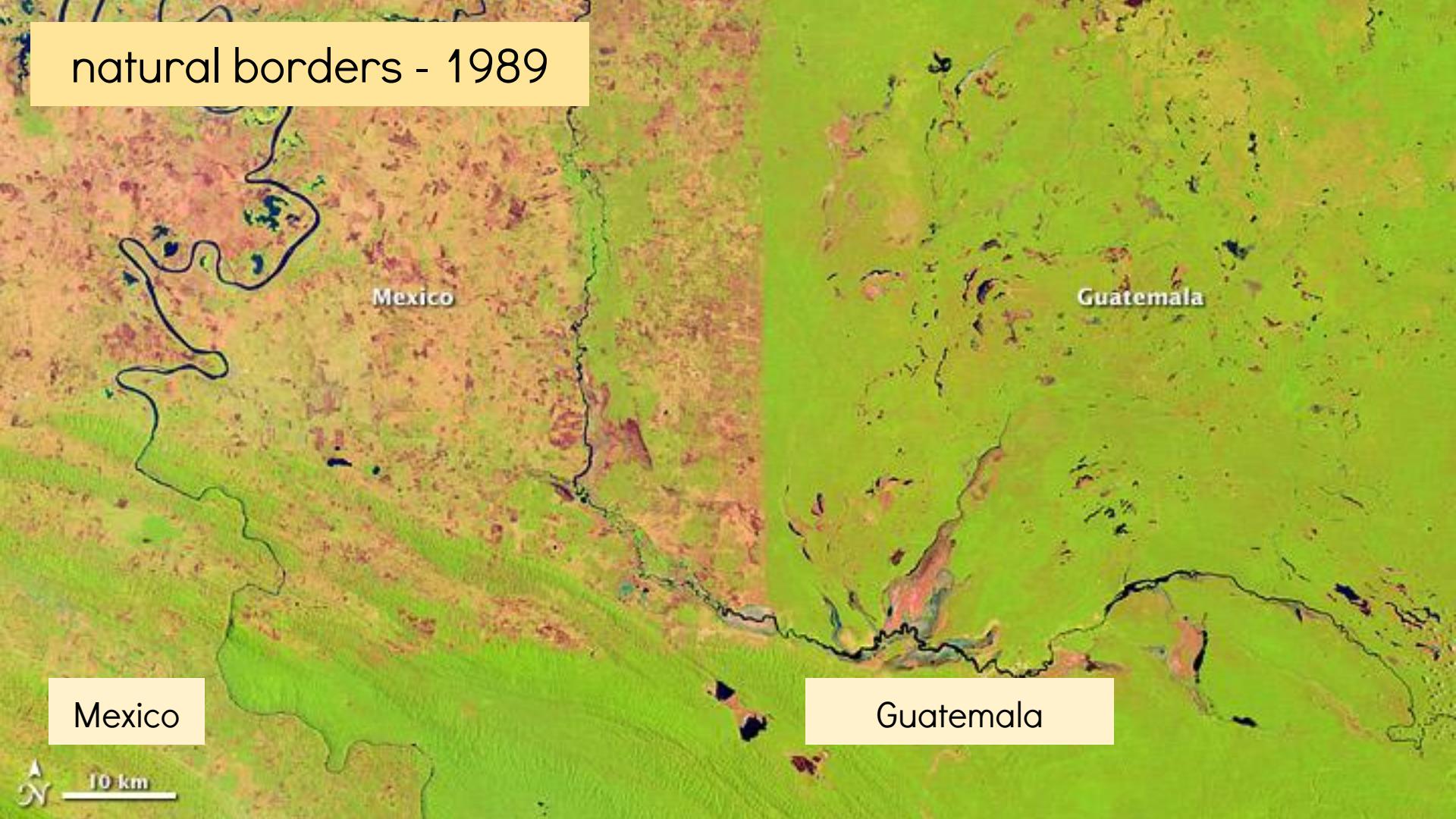


Buffalo, NY



Providence, RI

natural borders - 1989



Mexico

Guatemala

10 km

natural borders - 1989



Search

Where am I?

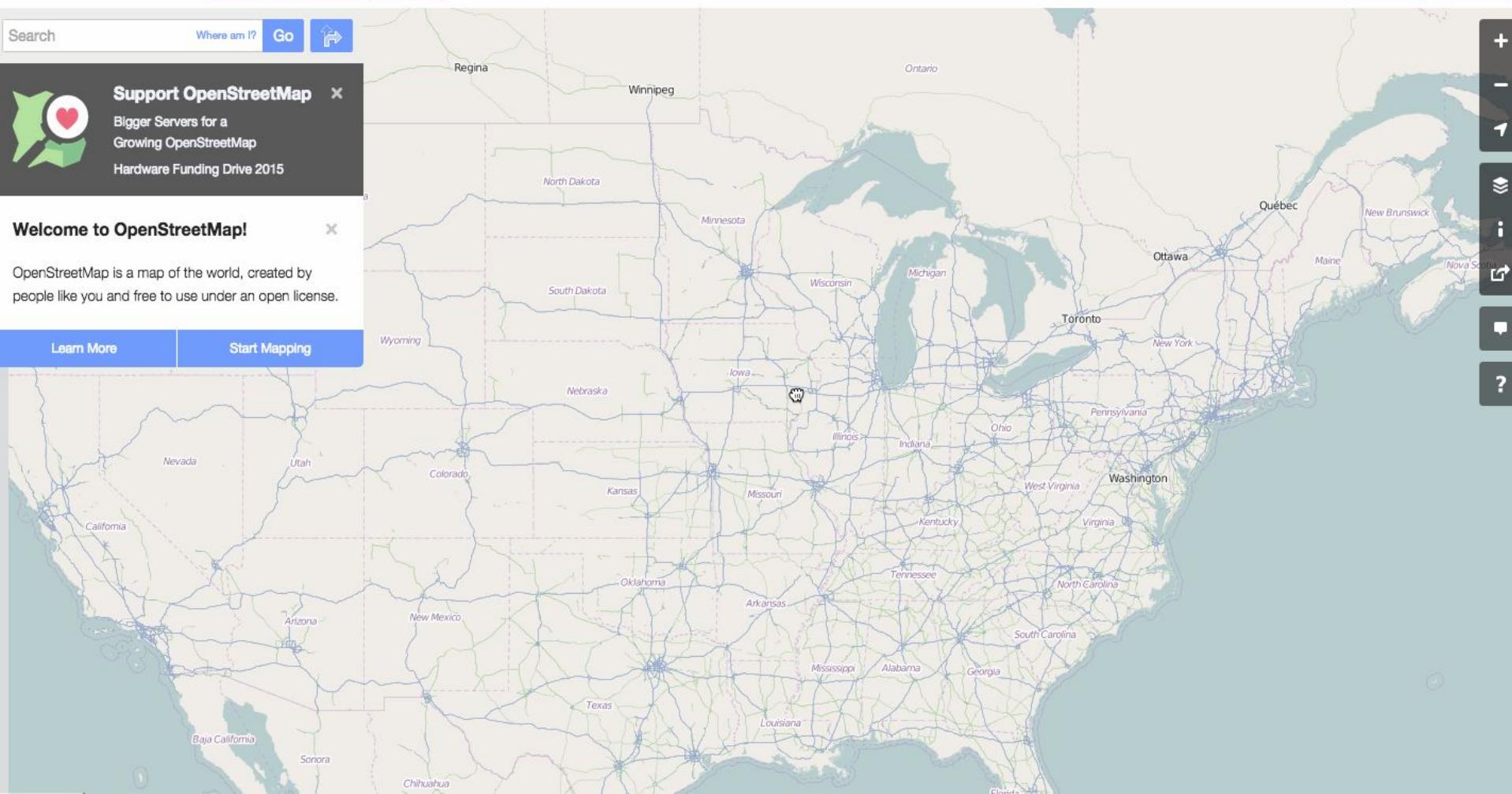
Go

**Support OpenStreetMap** ×

Bigger Servers for a
Growing OpenStreetMap
Hardware Funding Drive 2015

Welcome to OpenStreetMap! ×

OpenStreetMap is a map of the world, created by
people like you and free to use under an open license.

[Learn More](#)[Start Mapping](#)

LAND
CHANGE
SINCE

1977



INTRO

PREVIOUS

ALL LOCATIONS

NEXT

Delacroix

Once self-sufficient, now endangered



A fishing boat in the St. Bernard Parish town of Delacroix, Louisiana on August 8, 2014. Its wetlands battered by energy development and robbed of river sediment due to levees, most full-time residents did not return after Hurricane Katrina in 2005. (Edmund D. Fountain/ProPublica/The Lens)

Lloyd "Wimpy" Serigne grew up just 30 miles from New Orleans, but his first language was Spanish.

Losing Ground, <http://projects.propublica.org/louisiana/>

But, slippy maps are optimized for location and way finding, not awe

slide from j. larson, ProPublica, GeoJourNews 2015

Chart: NVD3 + CartoDB



Popcorn Placemap



LandSat Cloudy Map



Payscale US Stress Map



Odyssey Editor Workshop

Historical Lakes Odyssey

Map of the Week Guide

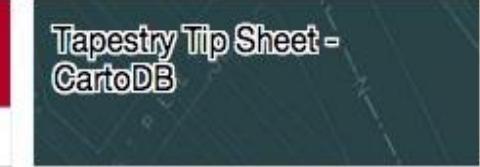
Chart: C3.JS + CartoDB



Chart: Chart.js + CartoDB



Tapestry Tip Sheet - CartoDB



```
<!DOCTYPE html>
<[cartodb] html template
```

```
<head>
```

```
  <title>HTML Template | CartoDB</title>
  <meta name="viewport" content='
```

Beirut Workshop - Notes



Beirut Workshop II: Map + Chart

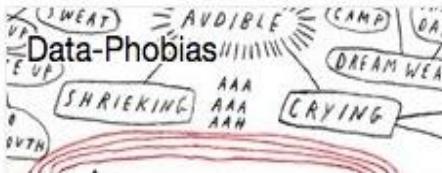


Beirut Workshop: Blackout Map



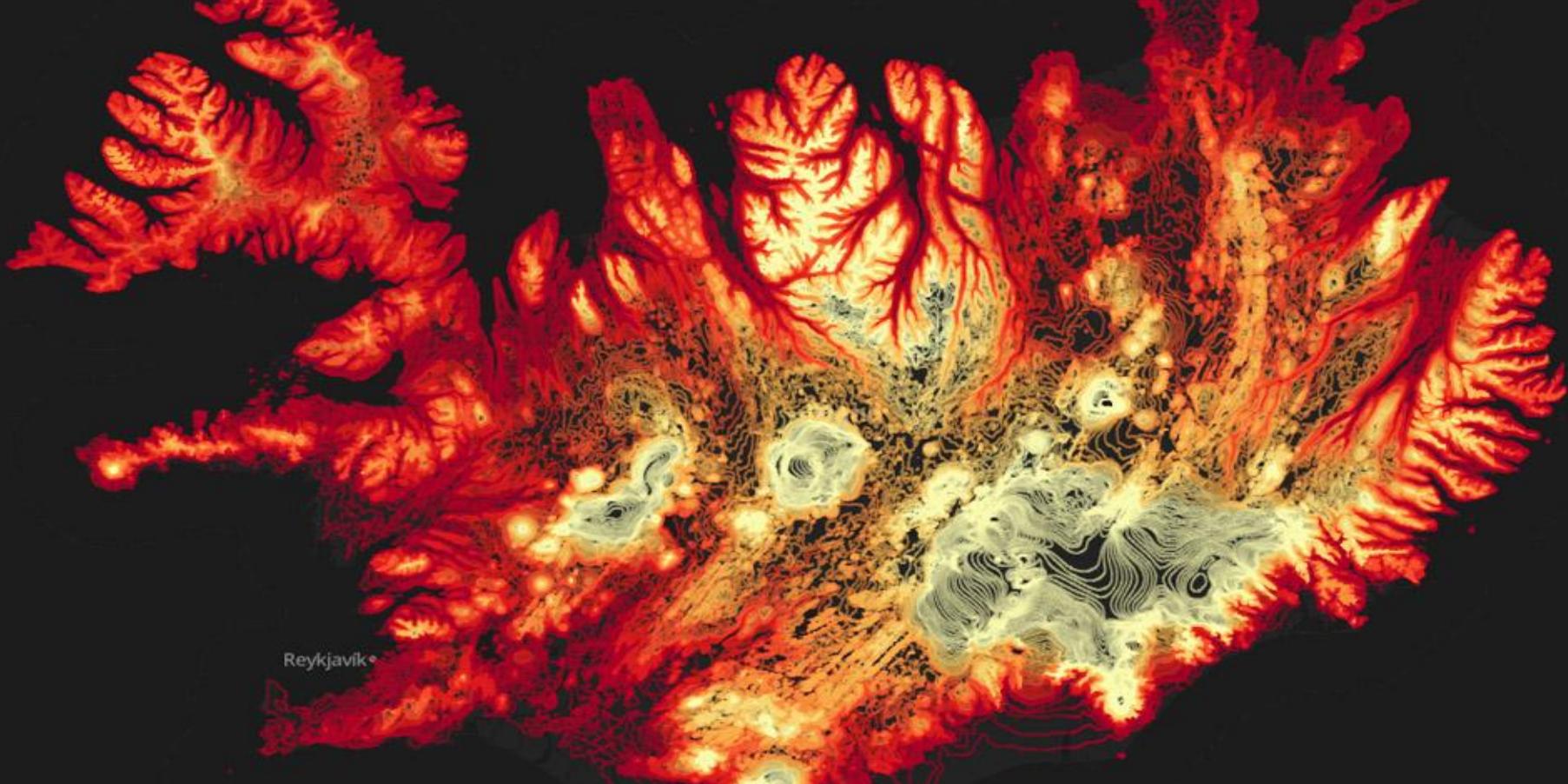
Yale Workshop: Humanitarian Data

Keybase Auth

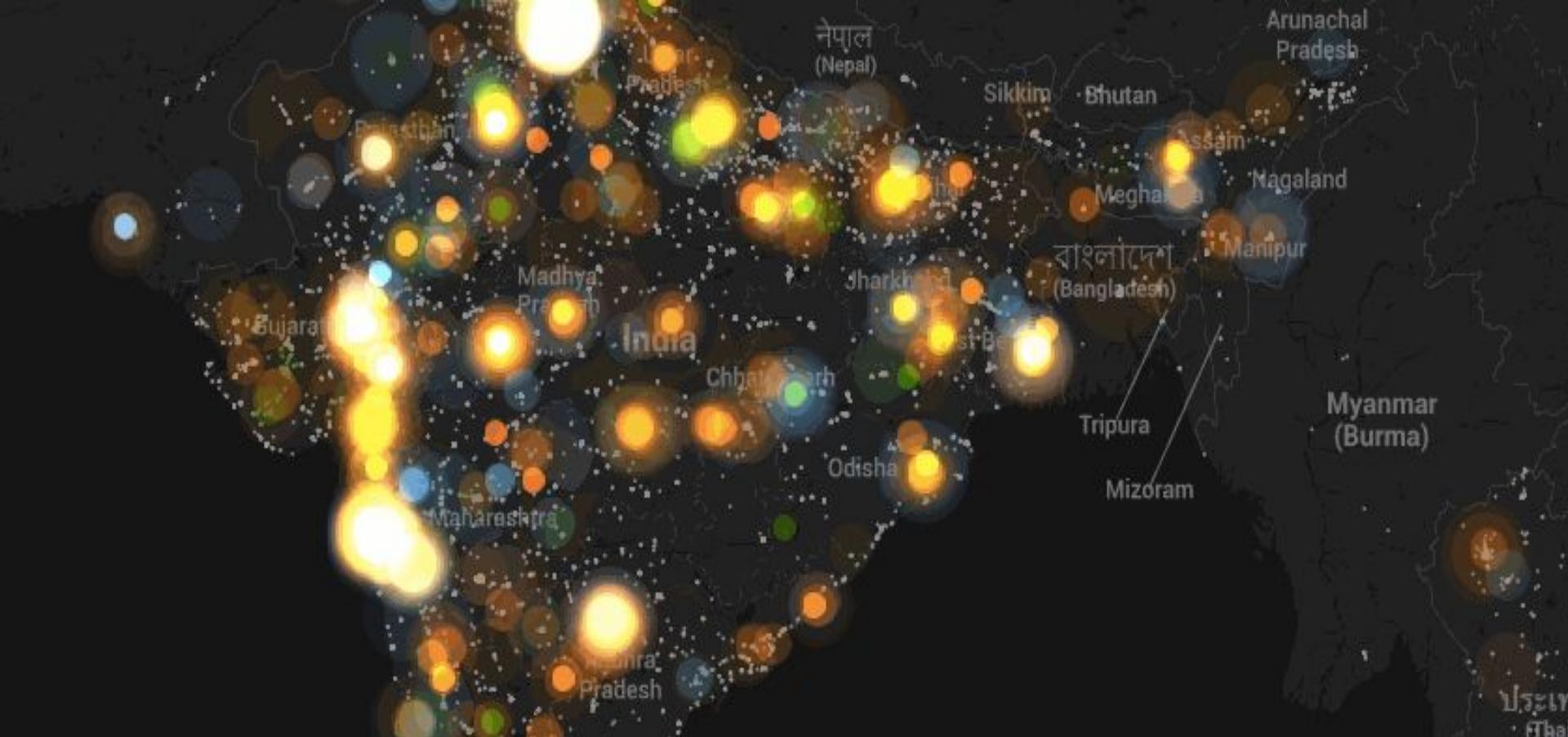


```
UPDATE name_of_db SET the_geom = $1
SQL: set geom for NYC
```

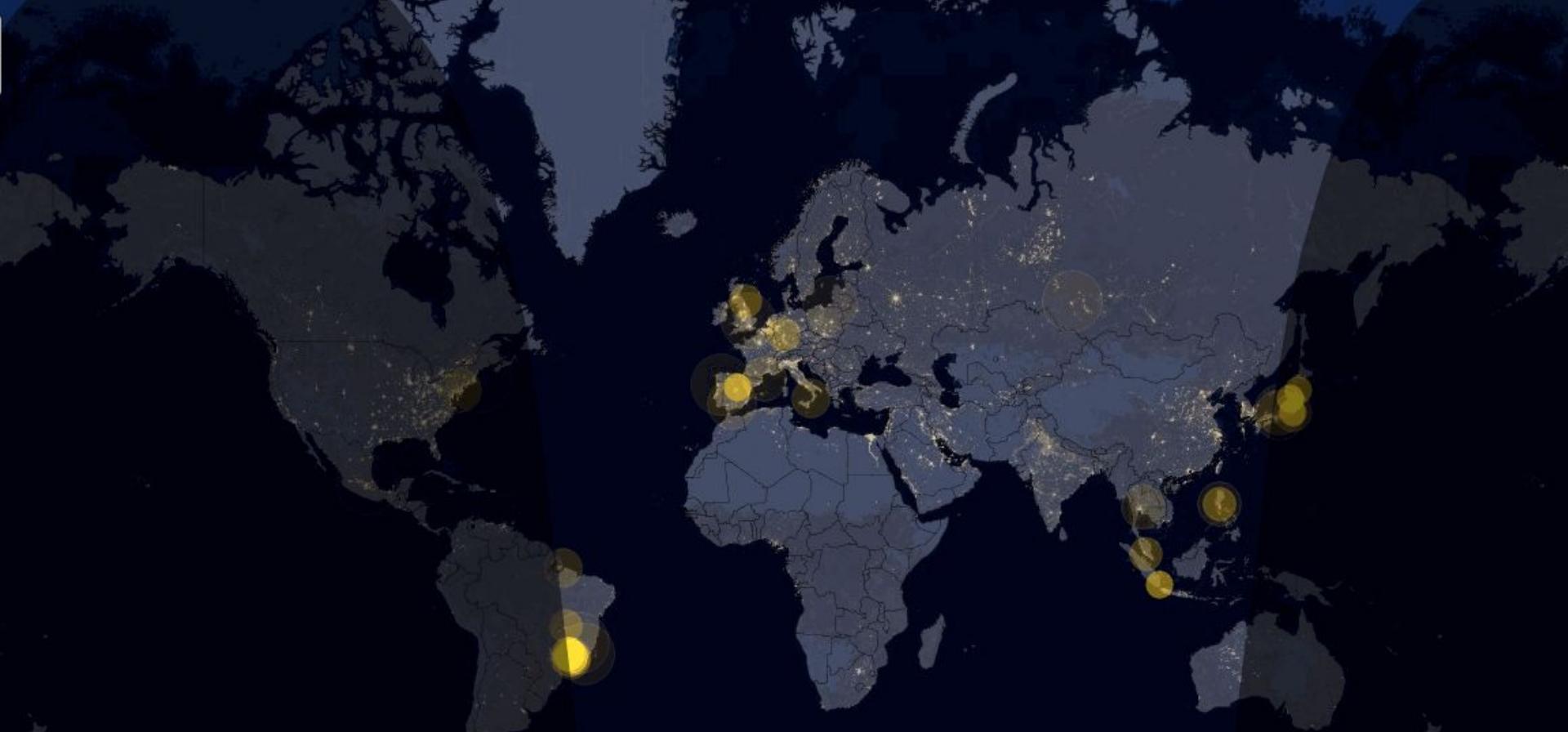
```
//Order of Operations nested command
//ST_MakePoint(x,y) turns any x, y
(If this was latitude and longitude)
```



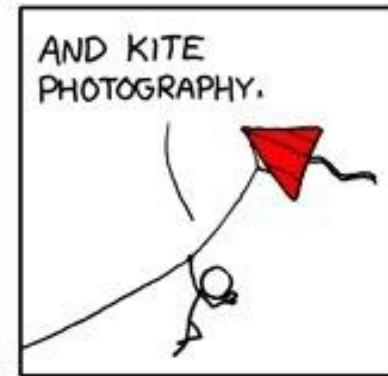
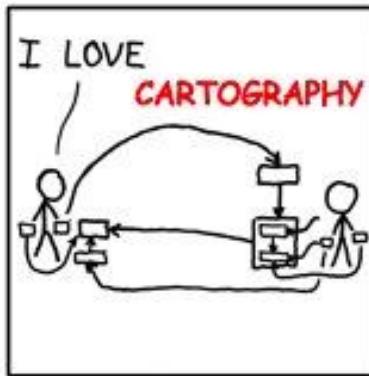
iceland isomap, cartodb, tinyurl.com/cdb-iceland



indian election map, cartodb, <http://tinyurl.com/cdb-indiatweet>



#sunrise map, http://cartodb.s3.amazonaws.com/static_vizz/sunrise.html



make awesome not **awef**ul maps

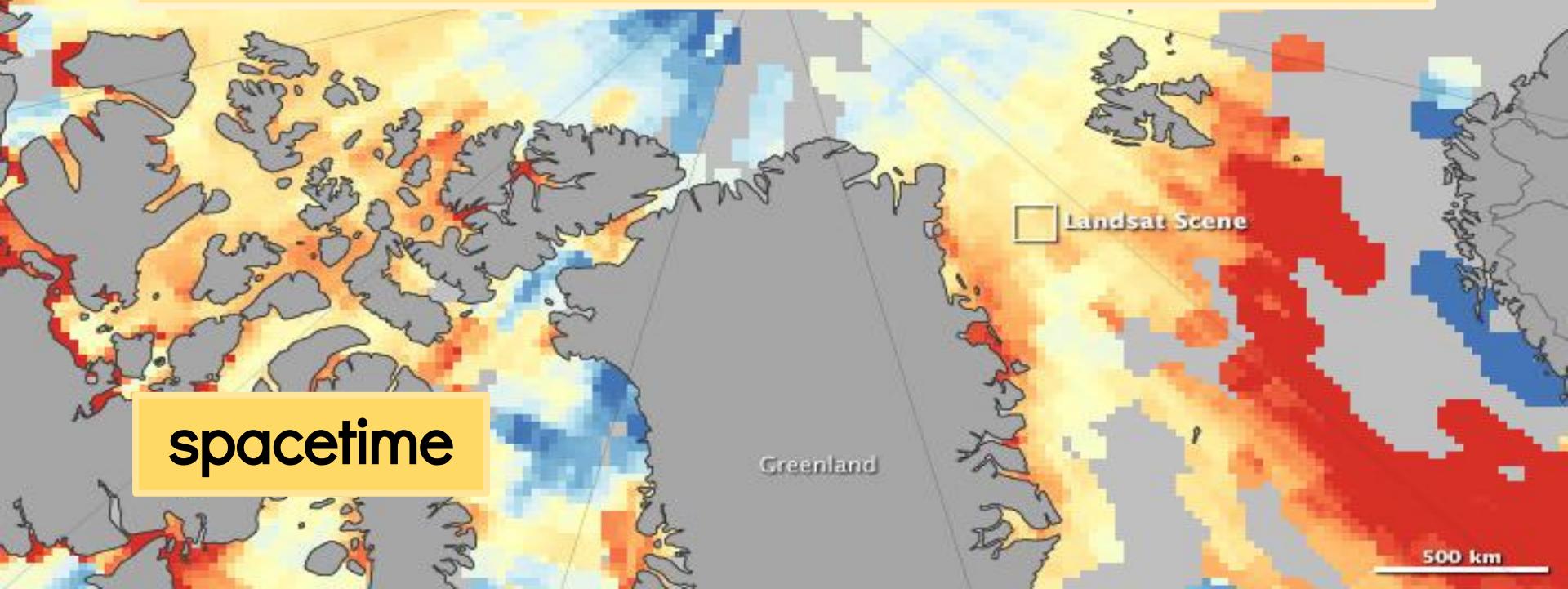
inspiration: nasa



science, stellar photos, landsat imagery

math model that combines **space** and **time** into a single interwoven continuum;
a manifold consisting of “**events**” which are described by some type of **coordinate system**.

spacetime



seaweed aquaculture



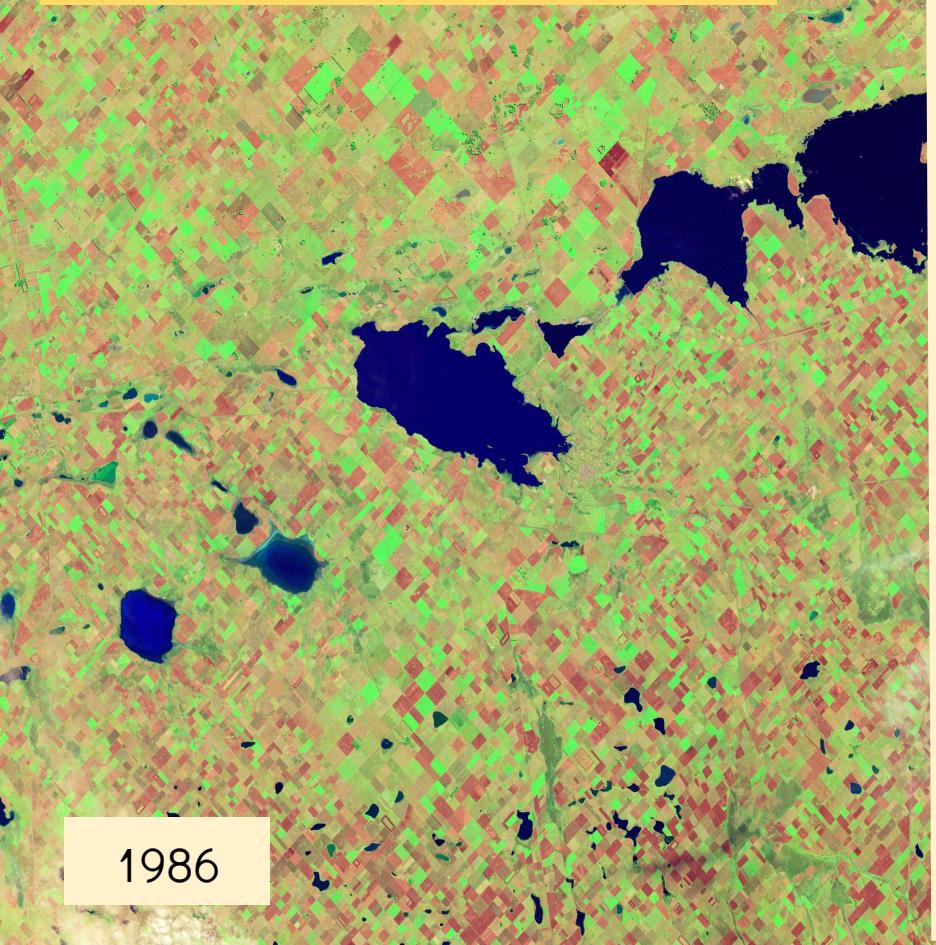
S. Korea, 2014

Aquaculture

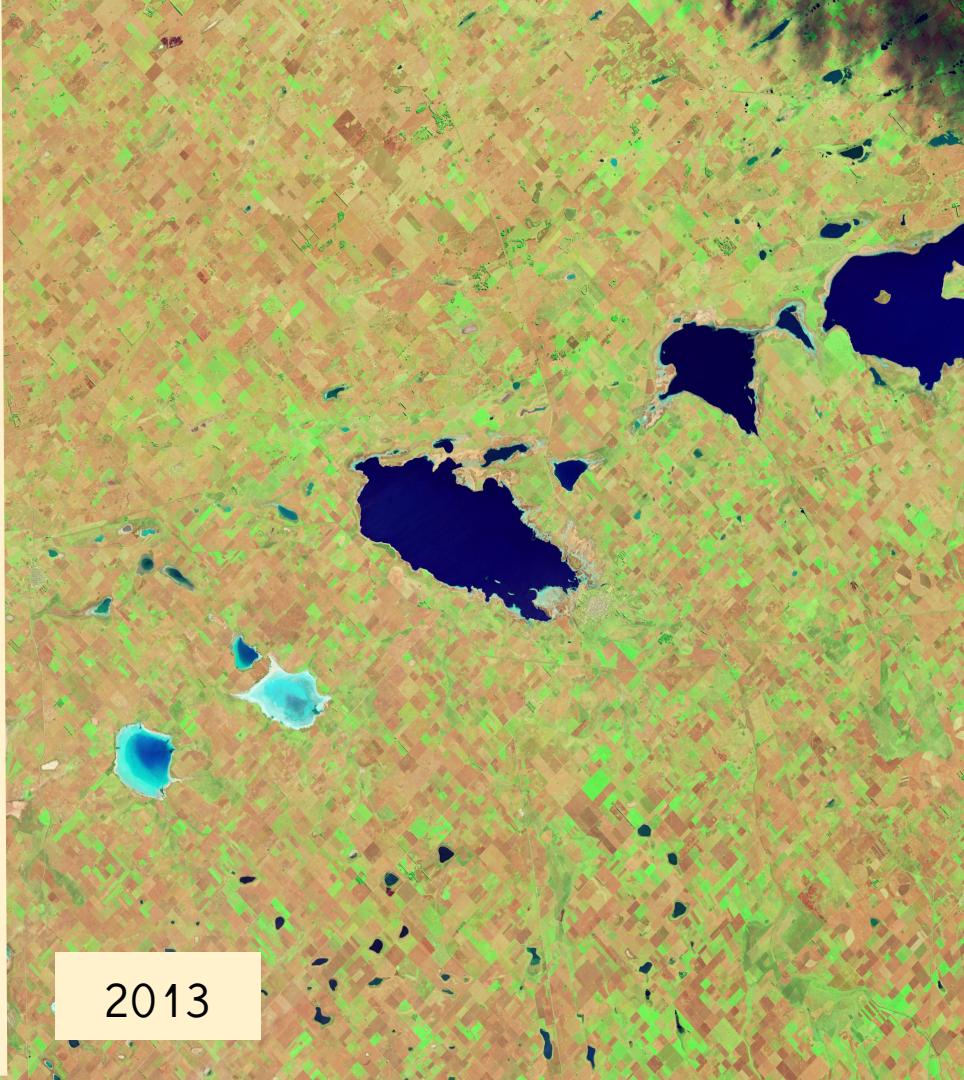
Sisan Island, 2014

Sisan Island

epecuén: shrinking lakes

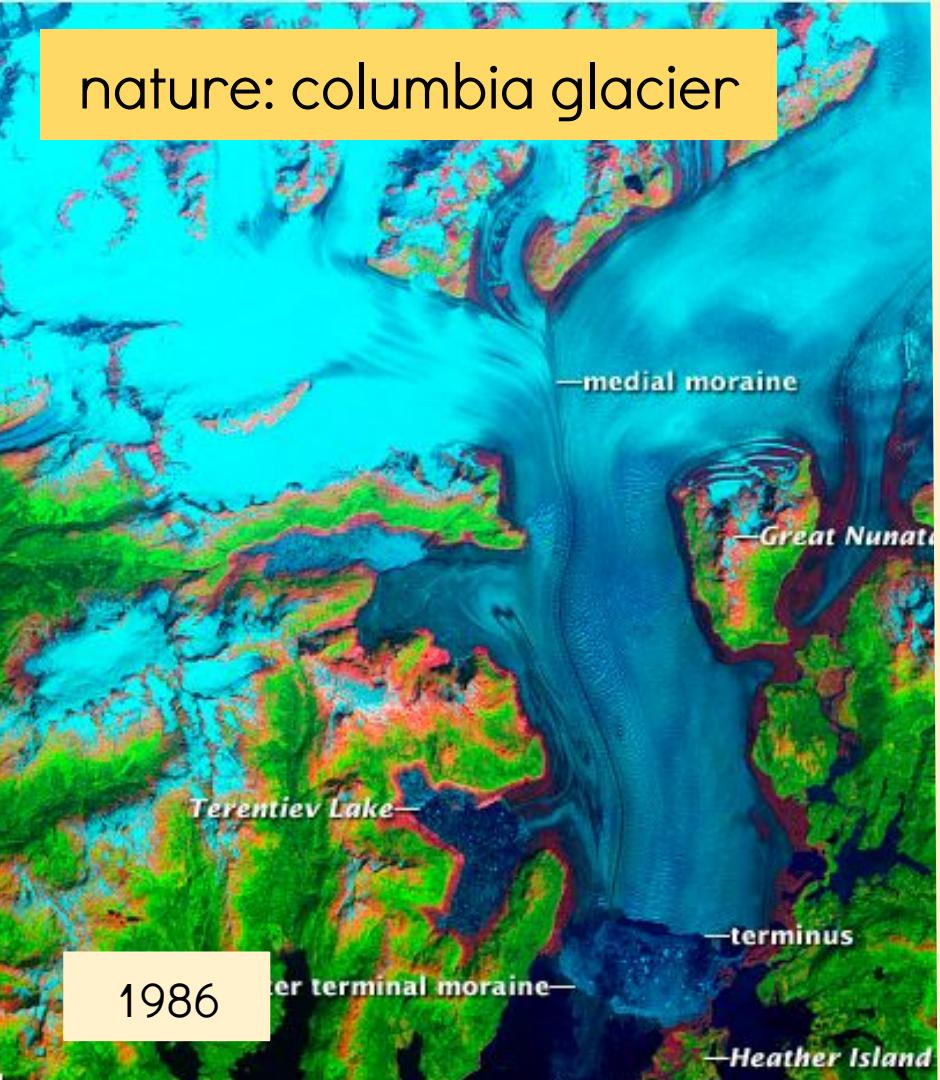


1986



2013

nature: columbia glacier



NATURE | NEWS



Landsat 8 to the rescue

NASA prepares to launch satellite that will continue historic record of global change.

Jeff Tollefson

06 February 2013



Terentiev La

underwater terminal incarame

—Heather Island



Nature, 2013

E-alert RSS Facebook Twitter

Spot check



How quality control could save your science

It may not be sexy, but quality assurance is becoming a crucial part of lab life.

Like Share 230,316 people like this.

Recent

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Commented

1. UK scientists gain licence to edit genes in human embryos

Nature | 01 February 2016

2. ArXiv rejections lead to spat over screening process

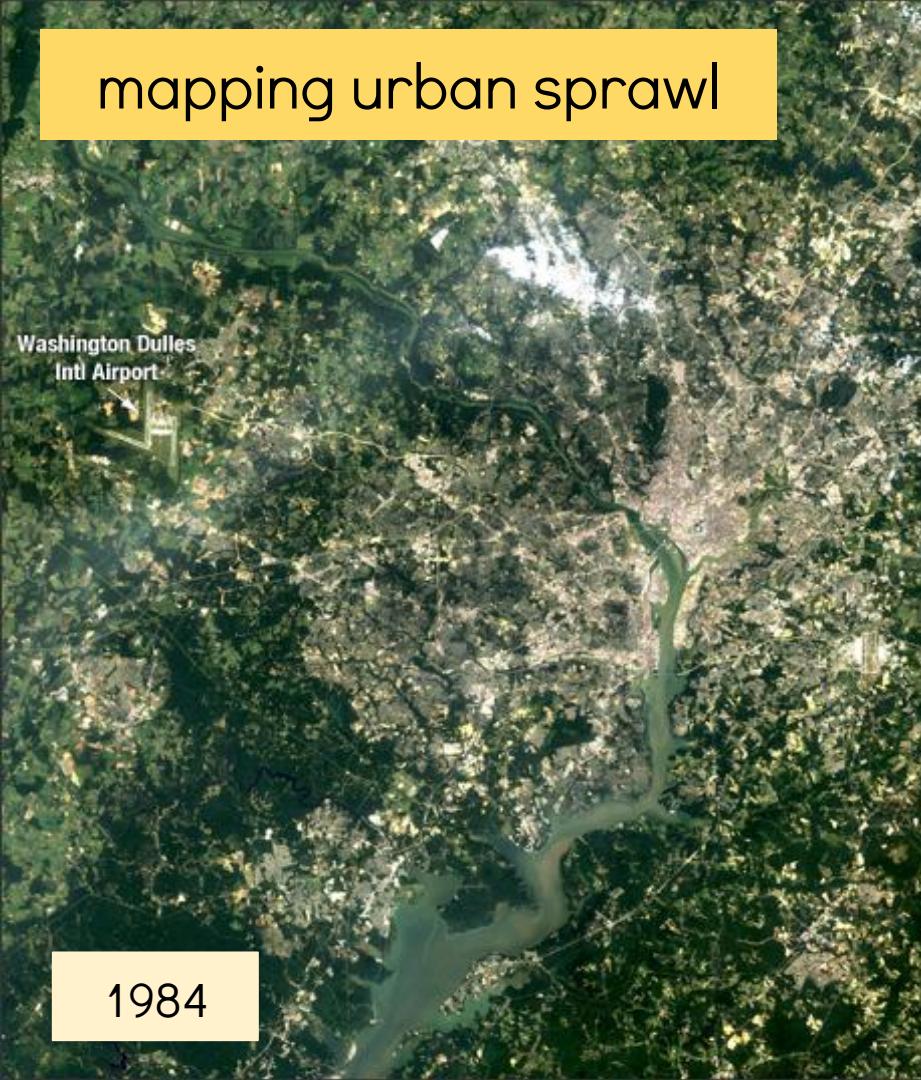
Nature | 29 January 2016

3. Error found in study of first ancient African genome

Nature | 29 January 2016

Main Branch

mapping urban sprawl



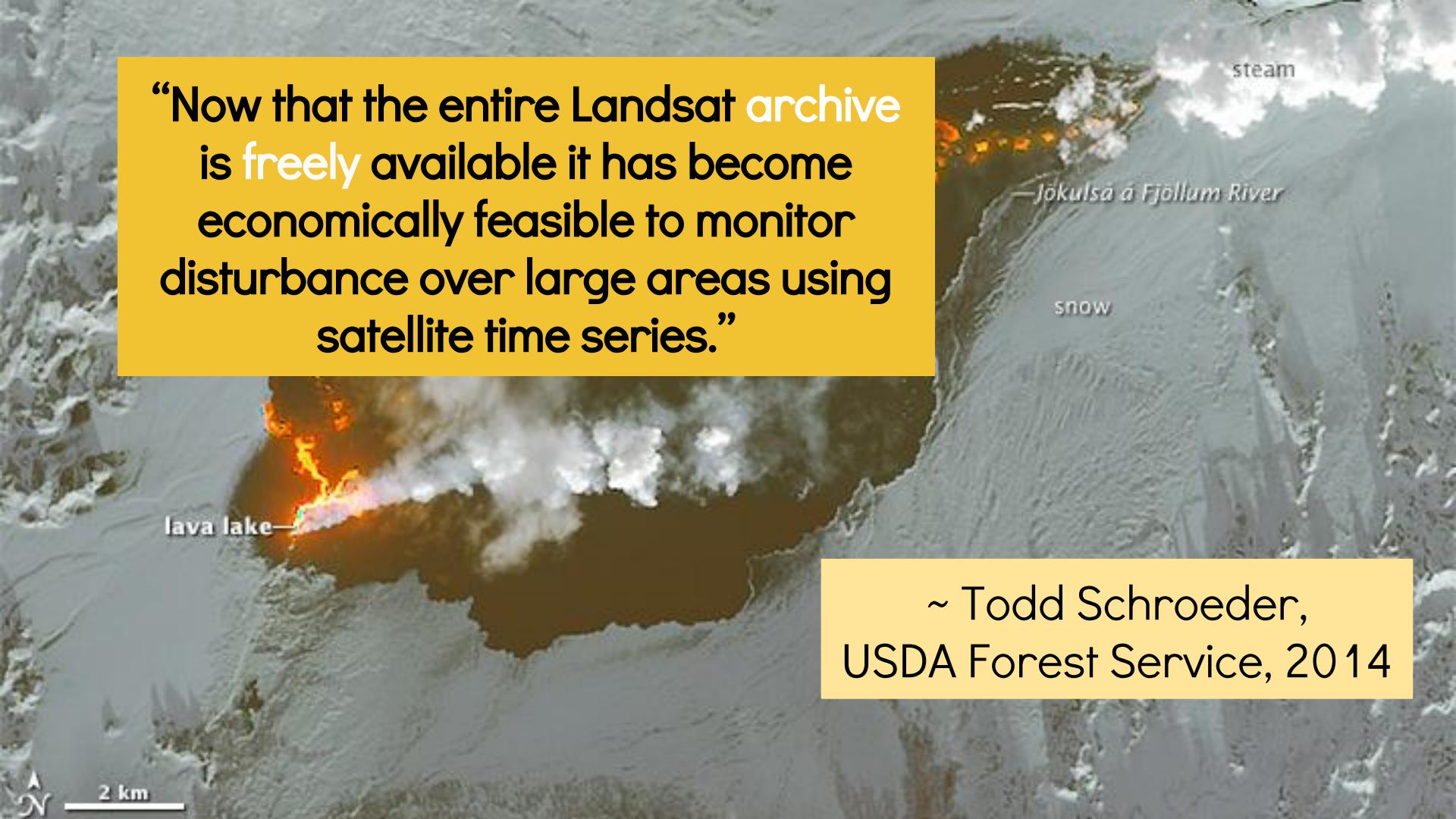
1984



2011



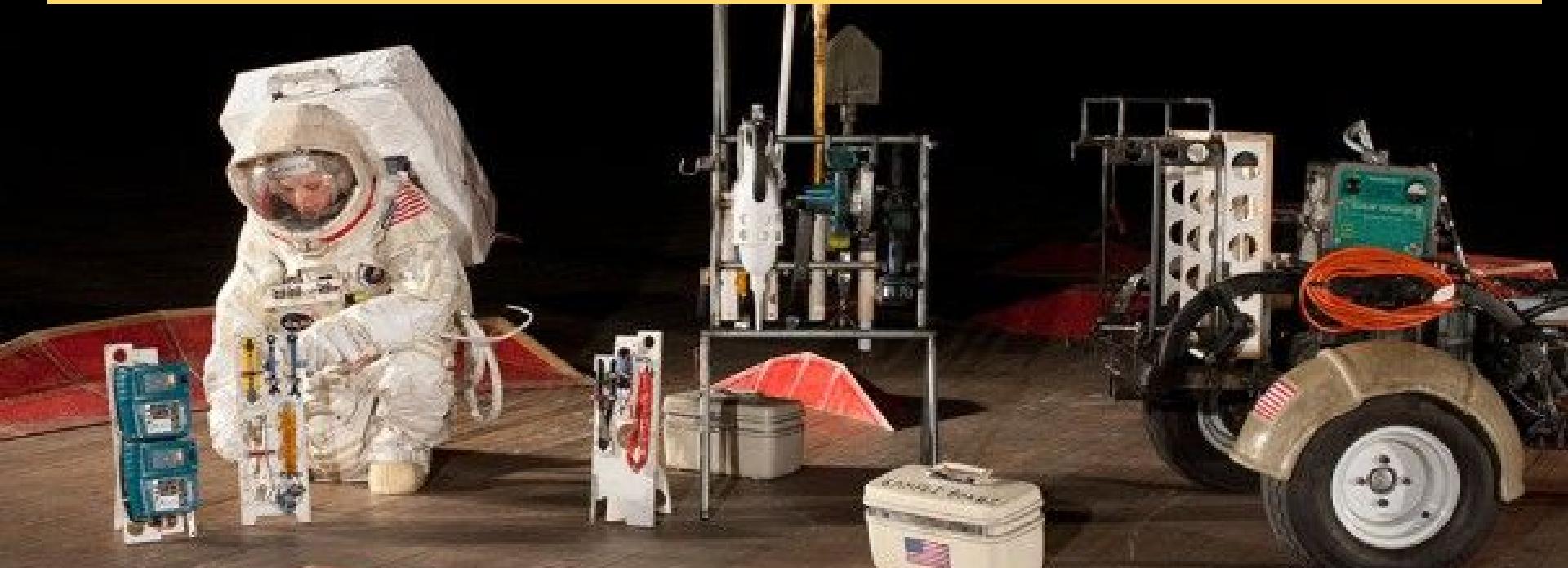
respect
spacetime



“Now that the entire Landsat archive is freely available it has become economically feasible to monitor disturbance over large areas using satellite time series.”

~ Todd Schroeder,
USDA Forest Service, 2014

inspiration: tom sach



artist, architect, urban hacker



space program: mars, tom sachs, armory 2012

**“our space program is
expensive, slow, and crappy
and that’s why it’s magic”**



~ Tom Sachs







engines for epic maps



software to support citizen cartographers

📍 Disputed Territories

Abroad, Google Maps has waded into raw, tender issues of national identity. For example, take its depiction of Crimea on maps.google.com, where a dashed line reflects the U.S. view that the area is an occupied territory. But in Russia, on maps.google.ru, the boundary line is solid — Russia has officially annexed Crimea. “We work to provide as much discoverable information as possible so that users can make their own judgments about geopolitical disputes,” wrote Robert Boorstin, the director of Google’s public policy team, in an interview with *Washington Monthly*. Maps served from Russian servers must adhere to Russian laws and the Russian worldview, according to Google.

Disputed Territories, <http://opennews.kzhu.io/map-disputes/>



territories differ depending on who's looking at them. (Last updated June 22, 2014)

Bhutan (Chumbi salient and northwest valleys)

Administered by Bhutan. Claimed by China.

"Bhutan's border with China is largely not demarcated and thus disputed in some places. Approximately 269 square kilometers remain under discussion between China and Bhutan." (Source: Wikipedia)

U.S. GOOGLE MAPS USERS SEE:



USERS IN BHUTAN SEE:



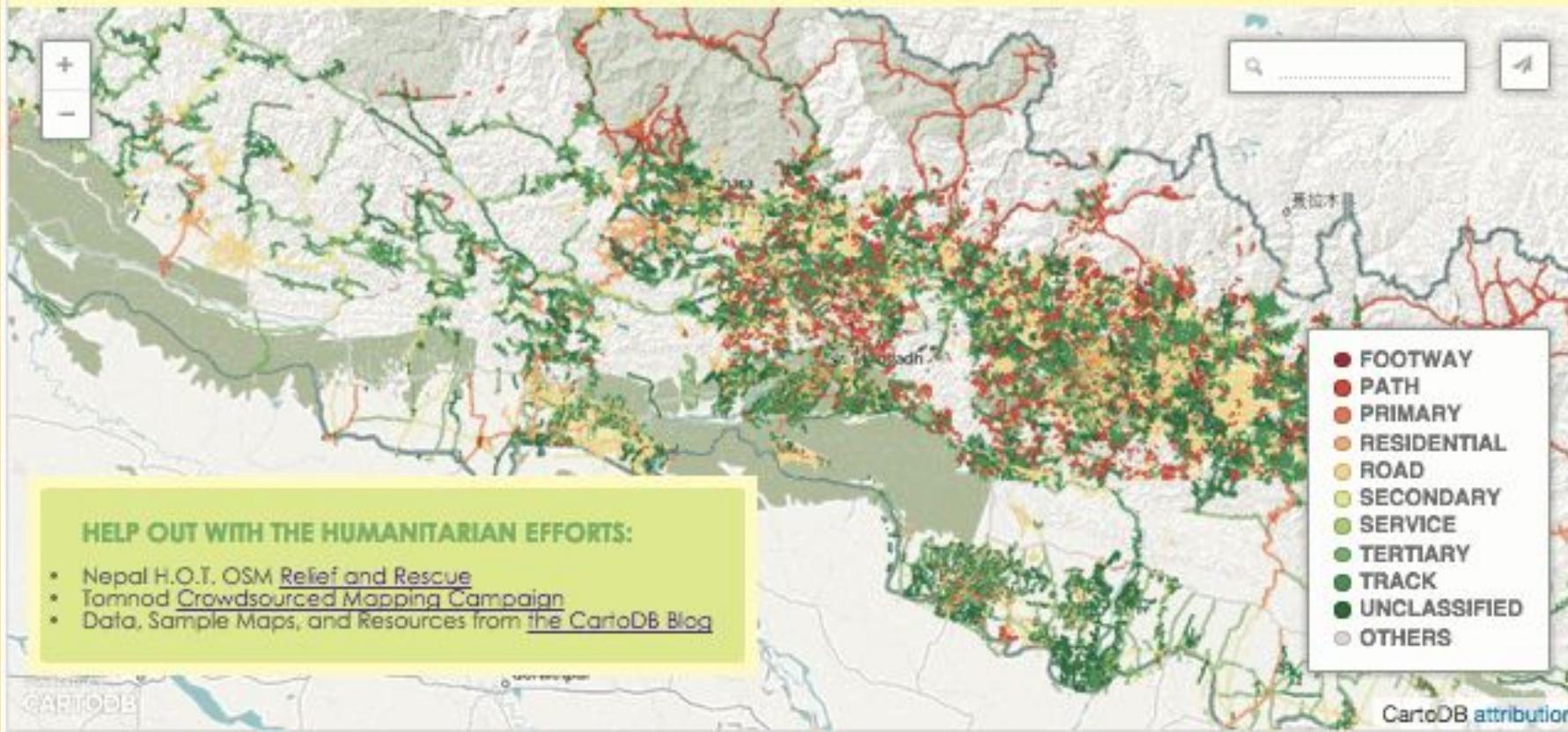
USERS IN CHINA SEE:



Bhutan, 2014, via Google Maps

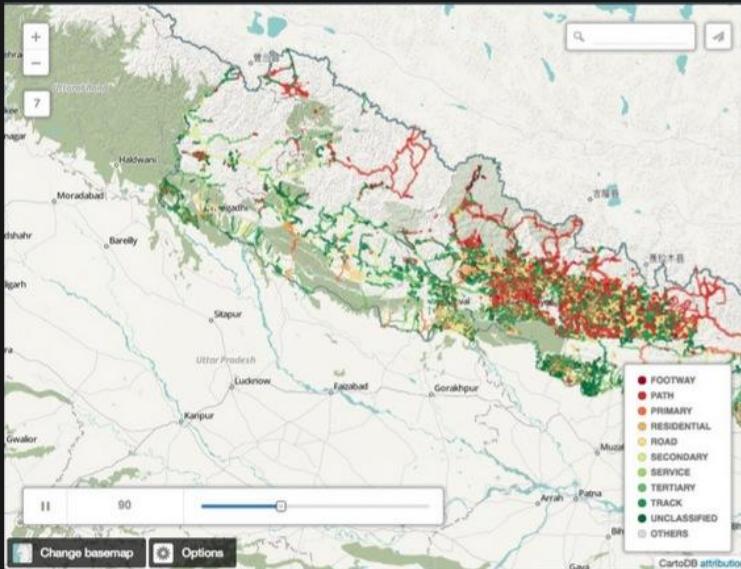
HOT: OSM Transport in Nepal

HOT PLANET: 48 HOURS OF OSM MAPPING NEPAL



SQL

```
1 SELECT *, osm_id::numeric osm_id_num  
2 FROM osm_nepal_places  
3 ORDER BY osm_id DESC  
4
```



CartoCSS

```
1 /** torque visualization */  
2  
3 Map {  
4   -torque-frame-count:256;  
5   -torque-animation-duration:30;  
6   -torque-time-attribute:"osm_id_num";  
7   -torque-aggregation-function:"count(cartodb_id)";  
8   -torque-resolution:2;  
9   -torque-data-aggregation:linear;  
10 }  
11  
12 #osm_nepal_places{  
13   -comp-op: source-over;  
14   -marker-fill-opacity: 0.9;  
15   -marker-line-color: #FFF;  
16   -marker-line-width: 0.5;  
17   -marker-line-opacity: 1;  
18   -marker-type: ellipse;  
19   -marker-width: 2.5;  
20   -marker-fill: #FFCC00;  
21 }  
22 #osm_nepal_places[frame-offset=1] {  
23   -marker-width:4.5;  
24   -marker-fill-opacity:0.45;  
25 }  
26 #osm_nepal_places[frame-offset=2] {  
27   -marker-width:6.5;  
28   -marker-fill-opacity:0.225;  
29 }
```

VITAL SIGNS

[LEARN MORE](#)[PROTOCOLS](#)[OPPORTUNITIES](#)[LEADERSHIP](#)[WHERE WE WORK](#)

VITAL SIGNS: BETTER DATA AND DECISION-SUPPORT TOOLS TO GUIDE AGRICULTURAL





branch: gh-pages -

[VitalSigns-water](#) / [data](#) / [stations-raw](#) / +



update gh-pages to match master

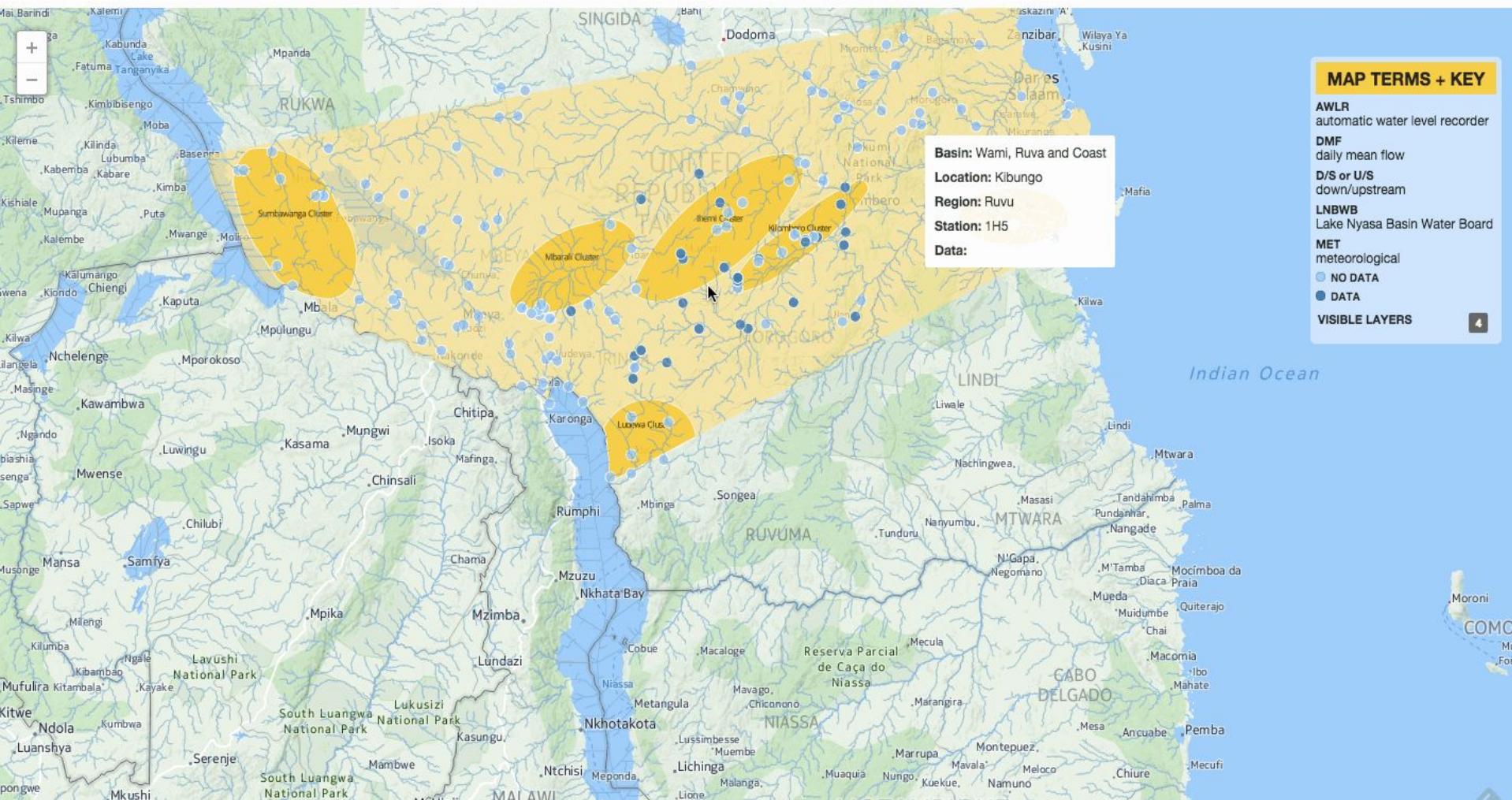
auremoser authored on Aug 11, 2014

latest commit [96af3d36d76](#)

..		
Great Ruaha at Msembe dmf.txt	update gh-pages to match master	6 months ago
Great Ruaha at Msembe water level.txt	update gh-pages to match master	6 months ago
Great Ruaha at Msosa water level.txt	update gh-pages to match master	6 months ago
Great Ruaha at Salimwani water level.txt	update gh-pages to match master	6 months ago
Great Ruaha at Salimwani_dmf.txt	update gh-pages to match master	6 months ago
Hagafiro at Hagafiro dmf.txt	update gh-pages to match master	6 months ago
Ifakara standard rainfall.txt	update gh-pages to match master	6 months ago
Kiberege at Kiberege water level ds.txt	update gh-pages to match master	6 months ago
Kiberege at Kiberege water level ups.txt	update gh-pages to match master	6 months ago
Kigogo Ruaha at Lugema water level.txt	update gh-pages to match master	6 months ago
Kihansi Dam water level.txt	update gh-pages to match master	6 months ago
Kihansi River at Dam bridge weir dmf.txt	update gh-pages to match master	6 months ago
Kihansi River at Lutaki dmf.txt	update gh-pages to match master	6 months ago
Kihansi at Lugoda water level.txt	update gh-pages to match master	6 months ago
Kihansi at Lutaki water level.txt	update gh-pages to match master	6 months ago
Kilombero at Ifakara Ferry water level.txt	update gh-pages to match master	6 months ago
Kilombero at Ifwema water level.txt	update gh-pages to match master	6 months ago
Kilombero at Swero dmf.txt	update gh-pages to match master	6 months ago



VITAL SIGNS WATER AVAILABILITY





Aurelia Moser

auremoser

Mozilla Science Lab
 Brooklyn, NY
 auremoser@gmail.com
 <http://bl.ocks.org/auremoser>
 Joined on Mar 21, 2012

174

Followers

9

Starred

3

Following

Organizations



Contributions

Repositories

Public activity

Edit profile

Popular repositories

chart-tools

Links to Reusable chart tools

14 ★

graphitiMap

[project] map that visualizes NYC graffiti data ...

9 ★

githesis

[project] a draft of my thesis on New Media art...

8 ★

web-coding

[curriculum] files and resources for Web Codi...

8 ★

fellowship

[log] small repo to track tasks for my Mozilla O...

7 ★

Repositories contributed to

mozilla/science/working-open-w...

A repo to collect all materials and resources r...

8 ★

mozilla/science/fellows-class-2015

The go-to place for materials, contributions an...

3 ★

NYUAD-Hacka... /qarsan

a bit of truth

0 ★

MozillaHive/hcb16-maps

[project] Hive Chicago Buzz asset mapping w...

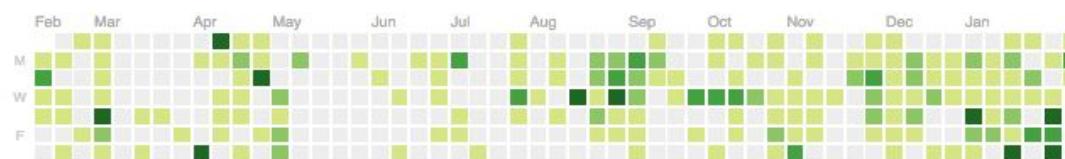
1 ★

ohasselblad/workshops

CartoDB Workshops (no longer maintained)

0 ★

Contributions



Contributions in the last year

981 total

Feb 9, 2015 – Feb 9, 2016

Longest streak

9 days

September 7 – September 15

Current streak

7 days

February 3 – February 9

Contribution activity

Period: **1 week** ▾



Ushahidi



challenge



USNS
Comfort
(hospital
ship)

Portau
St
Joseph

Rue de la Marne

Rue Bonne Foi

Avenue de l'Immaculée Conception

Avenue Marie Jeanne

Rue Eden

Rue du Quai

Rue du Magasin de l'Or

Rue Paul Lévy

Rue du Commerce des Mârs

Rue des Quais

Rue Courte

Rue du Vieux

Rue du Vieux

Rue des Miracles

Rue Pavée

Rue du Commerce

Rue Géoffroy Guichard

Rue Macajoux

Rue des Césars

Rue des Frères Forts

Rue Bonne Foi

Rue St Vincent

Rue des Miracles

Rue Pavée

Rue du Commerce

Rue Géoffroy Guichard

Rue du Commerce

Rue Firminasse

Rue Port au Jardin

Rue Houtte

Rue Bel Air

Rue du Commerce

Rue Montalais

Rue du Commerce

Rue Géoffroy Guichard

Rue Firminasse

Rue Port au Jardin

Rue Houtte

Rue Bel Air

Rue du Commerce

Rue Montalais

Rue du Commerce

Rue Géoffroy Guichard

Rue Firminasse

Rue Port au Jardin

Rue Houtte

Rue Bel Air

Rue du Commerce

Rue Montalais

Rue du Commerce

Rue Géoffroy Guichard

Rue Firminasse

Rue Port au Jardin

Rue Houtte

Rue Bel Air

Rue du Commerce

Rue Montalais

Rue du Commerce

Rue Géoffroy Guichard

Institution mixte primaire Rue Bon samaritain

Fabyby Kendergaten

RUE TRES

RUE NATIONAL

Ushahidi Platform v3 – currently in BETA! <https://wiki.ushahidi.com/display/WIKI/Ushahidi%2C+v3.X>

2,107 commits

29 branches

17 releases

12 contributors



branch: master +

platform / +

< Code

Pull Requests 0

Pulse

Graphs

SSH clone URL

git@github.com:ushal

You can clone with HTTPS, SSH, or Subversion.

Clone in Desktop

Download ZIP

Allow anonymous access to Users API but exclude details ...

rjmackay authored 2 days ago

latest commit 14682cc7da

.librarian/puppet

Rebuild puppet manifests properly with modules and use bin/update

5 months ago

.phpspec

Change phpspec template to fit with current code

6 months ago

application

Allow anonymous access to Users API but exclude details

2 days ago

bin

Fix composer detection in bin/update

12 days ago

httpdocs

Tweak installer before release, refs T138

7 months ago

migrations

Re-apply Attribute endpoint

a month ago

modules/data-provider

Refactor validation

13 days ago

plugins

Purge web directory and everything HTML, refs T985

4 months ago

puppet

Setup heroku deploy

25 days ago

spec

Refactor validation

13 days ago

src

Allow anonymous access to Users API but exclude details

2 days ago

.arcconfig

fix phpcs lint configuration, refs D285

6 months ago

.arclint

Add migrations phpcs ruleset and fix lint errors

6 months ago

.editorconfig

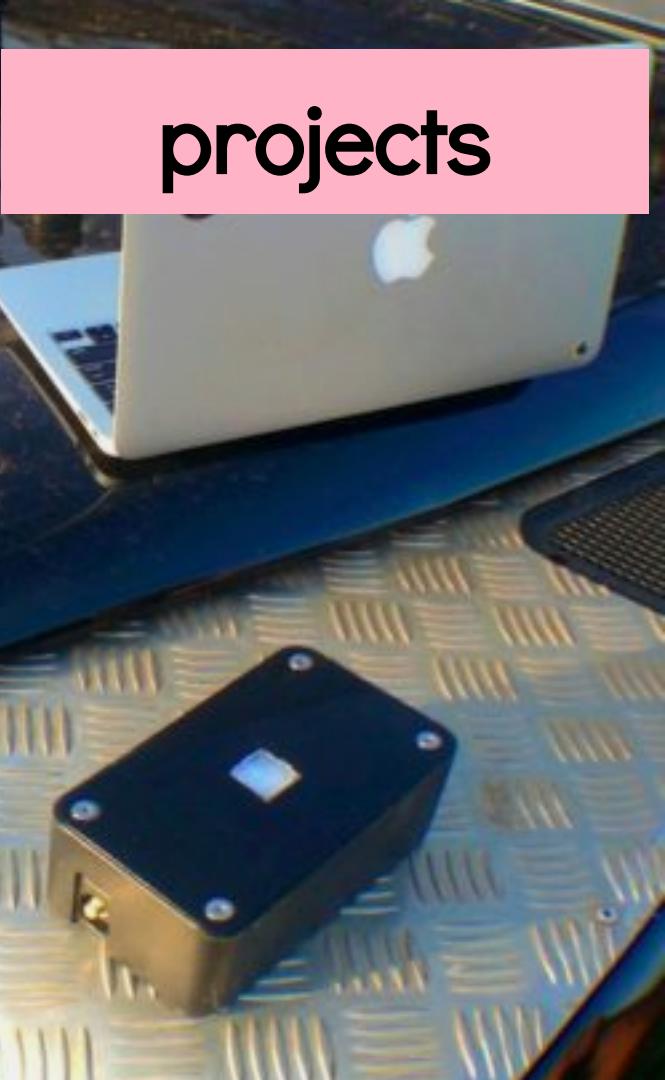
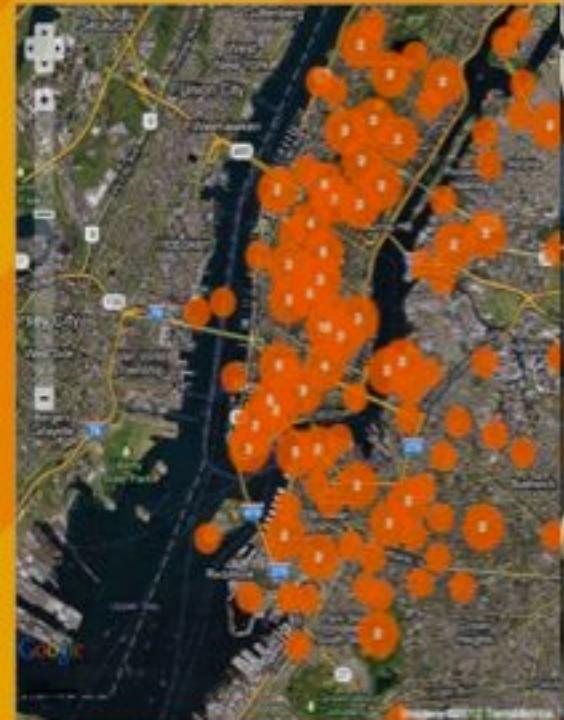
Add .editorconfig

3 months ago

BY THE
CITY
FOR
THE CITY

SUBMISSIONS
DUE JULY 25TH!
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projects



product

collapse map

Map data © OpenStreetMap contributors, Imagery © MapQuest

Location

Tags

From Time

Until Time

Keyword



Showing 1 to 20 from 156 posts

20

Date/Time updated



CARTÓDB

about

data and resources

contact



challenge



Investigations:





This repository Search

Explore Gist Blog Help

auremoser



CartoDB / cartodb

Unwatch

code

Geospatial database for the cloud <http://www.cartodb.com> — Edit

20,566 commits

501 branches

49 releases

47 contributors



branch: master +

cartodb / +



Merge pull request #2054 from CartoDB/fix-stalled-upgrade-script ...

rafatower authored 14 hours ago

latest commit 5bb8e205a3

app Merge pull request #2054 from CartoDB/fix-stalled-upgrade-script 14 hours ago

config Merge pull request #2005 from CartoDB/1651-Google_signin 15 hours ago

db Merge pull request #2005 from CartoDB/1651-Google_signin 15 hours ago

doc Add start skeleton for frontend docs 19 days ago

engines Add engines dir 2 years ago

lib Merge pull request #2054 from CartoDB/fix-stalled-upgrade-script 14 hours ago

public changes location of alpha marker to assets 2 days ago

script Activating more features for local/dev users 2 months ago

services Merge branch 'master' of github.com:CartoDB/cartodb into 1978-import... 19 hours ago

spec Automated password-protected file test 18 hours ago

tmp Add tmp folder to the repo and fix wrong javascript filenames in asse... 4 years ago

vendor Merge pull request #2005 from CartoDB/1651-Google_signin 15 hours ago

.gitignore State variable dependencies explicitly 2 months ago

.gitmodules Replace lib/sql by the cartodb-postgresql submodule 9 months ago

Code

Issues 332

Pull Requests 8

Wiki

Pulse

Graphs

Settings

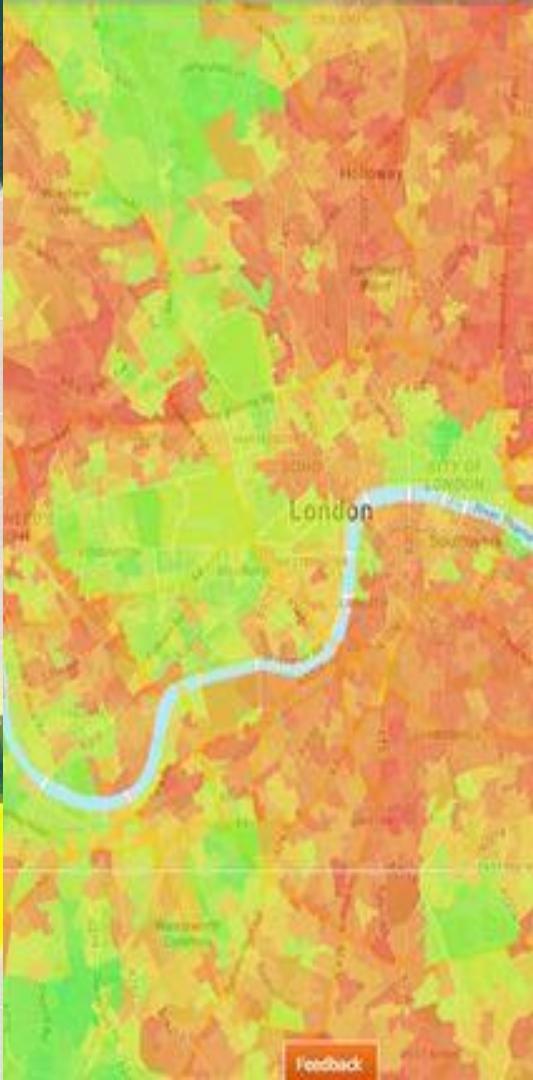
SSH clone URL

git@github.com:Carto...

You can clone with HTTPS, SSH, or Subversion.

Clone in Desktop

Download ZIP



projects

product



BROWSER

CartoDB.JS

Odyssey.JS

Torque.JS

Vecnik.JS

Leaflet/GMaps/OLayers

EDITOR

Varnish Stuff

Maps API

SQL API

Mapnik

Torque

Redis

PostGIS

PostgreSQL

AWS Elastics

CartoDB Server API

RESTAPI

ImportsAPI

AWS Elastics

PostgreSQL/GIS



Connect dataset

Connect datasets from external services or upload your data files.



Search

Connect dataset

Data library

CREATE EMPTY DATASET



Data file

Google Drive

Dropbox

Twitter

MailChimp



Upload a file or a URL

Paste a URL or upload a file from your computer

Enter a URL

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

SUBMIT

or

Upload a file

SELECT A FILE

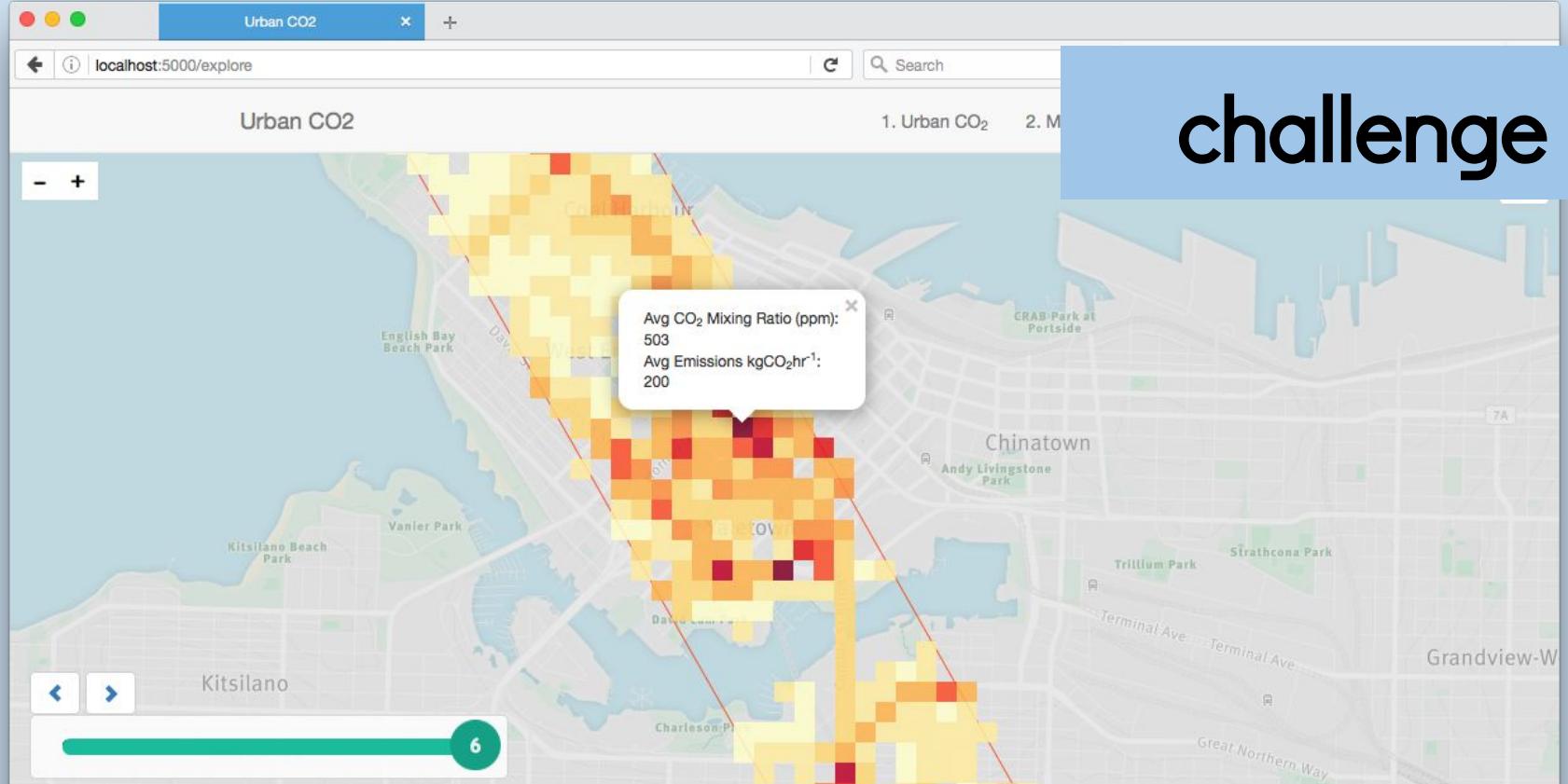
Like CSV, XLS, ZIP, KML, GPX, [see all formats](#)

Let CartoDB automatically guess data types and content on import.

CONNECT DATASET



mozilla
Science Lab



Mobile CO₂ Sensing

by UBC Micromet

Learn about the process of monitoring of CO₂ with mobile sensors deployed on cars and bikes in the city of BC. by dragging the slider above to gather data by UBC Micromet

<https://github.com/joeyklee/urbanco2>

Grid Averaged Emissions: In a 3.5 hour measurement period, over 40,000 data points are collected. grid cells to account for the horizontal transport of photosynthetic uptake of CO₂.

18 118 143 143 168 168 193 193 218



Search GitHub

Pull requests Issues Gist



Mozilla Science Lab

<http://mozillascience.org>scienclab@mozilla.org[Repositories](#)[People 43](#)[Teams 12](#)[Settings](#)[Filters ▾](#) Find a repository...[+ New repository](#)

site

JavaScript ★ 1 ⚡ 5

Making research collaborative, accessible, and usable

Updated 13 hours ago

working-open-workshop

★ 1 ⚡ 0

A repo to collect all materials and resources related to Mozilla Science Lab's Working Open Workshop

Updated 4 days ago

studyGroup

JavaScript ★ 30 ⚡ 140

Updated 5 days ago

learning

★ 2 ⚡ 0

Repository for planning and working on Science Lab learning materials

Updated 5 days ago

fellows-class-2015

code

People

43 >

[Invite someone](#)

mozilla/science / studyGroup

Code

Issues 8

Pull requests 2

Wiki

No description or website provided. — Edit

275 commits

5 branches

Branch: gh-pages

New pull request

New f

 BillMills Update codeOfConduct.md

 _data Update pt.yml

 _includes refactor for localization support

 _layouts Add a "Who We Are" page.

 _plugins first post

 _posts fix merge

 css/fontawesome first post

 img experimenting with template

 js first post

 lessons/template added lessons directory

 mail first post

 scripts fixed dummy email

 .gitignore remembered gitignore

 LICENSE License split for theme vs content

 README-pt.md Create README-pt.md

 README Create README-pt.md

 codeOfConduct-pt.md Create codeOfConduct-pt.md

study groups



Richard Smith-Unna (@blahah404) is a computational biologist at the University of Cambridge. He is currently focused on understanding the genetic architecture of complex diseases in C. elegans. He develops and contributes to a wide array of bioinformatics tools, including the Content Mine, Solvers

Learn about these projects and more on [his blog](#).



Christie Bahala (@cbahala) is an insect ecologist at the University of California, Berkeley. She works with the NSF-funded Long-Term Ecological Research program to study how we can use big(ish) ecological data and open source software to better understand agricultural systems. She's an instructor with Software Carpentry about open science and data management called [Data Carpentry](#).

Learn about these projects and more on [her blog](#).



Joey Lee (@leejoeyk) is a geographer and computer scientist at the University of British Columbia, passionate about technological literacy and the environmental impacts of technology. He is co-author of ["The Big Atlas of Data Visualization"](#) (video here). He is currently based in Vancouver, BC, Canada, where he researches and teaches at the University of British Columbia, and explores projects in the Vancouver area (e.g. [Maptime Vancouver](#)), and exploring projects in the Vancouver area (e.g. [Maptime Vancouver](#)), and exploring projects in the Vancouver area (e.g. [Maptime Vancouver](#)).

Learn about these projects and more on [his blog](#).



Jason Bobe (@jasonbobe) is Associate Professor of Computational Genomics and Multiscale Biology at Mount Sinai School of Medicine and Stephen Friend, a research study that aims to identify genetic risk factors. He has founded [DIYbio](#). With co-founder [Madeleine Ball](#), he has created [Personal Genomics](#) ([PG](#)) that practices personal genomics ([PG](#)). Learn about these projects and more on [his blog](#).

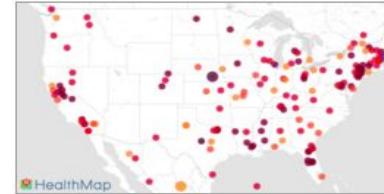
fellowships

PROJECTS

projects

Visualization of Geo-Temporal Data

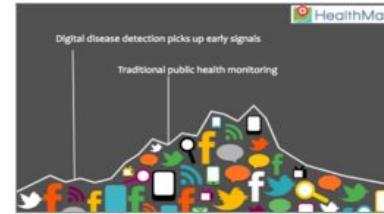
Public Health, Epidemiology



A project to visualize spatial data.

Biosurveillance using Social Media: Development of Curation Tools

Public Health, Epidemiology



A project for curating social media data.

Contributorship Badges

Publishing, Credit



collaborate

A project for tracking contributorship in open science.

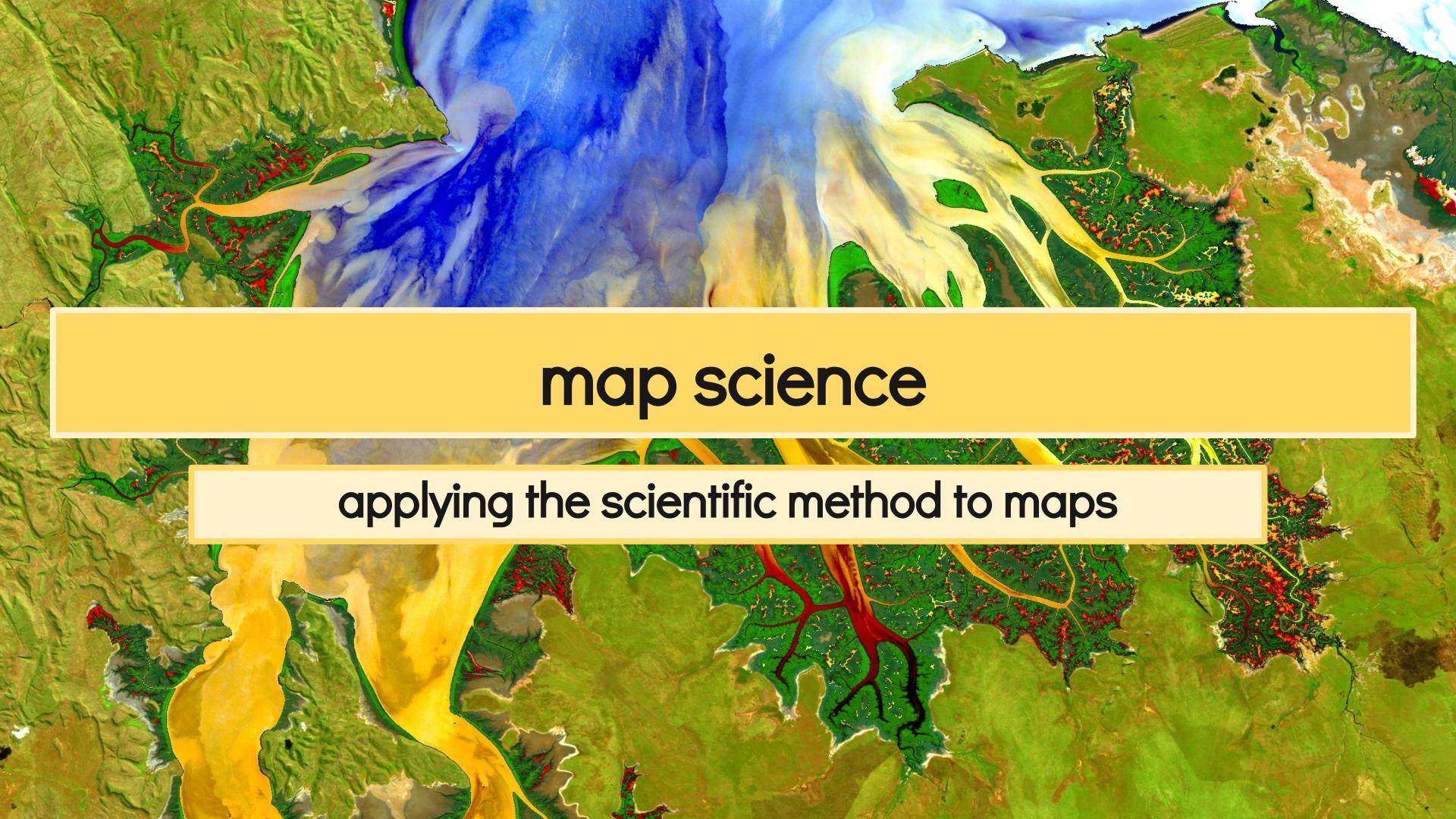
product

Making research collaborative, accessible, and usable

Join a community of peers working, learning and building together to make research thrive on the open web.

[JOIN US](#)[LEARN MORE](#)

The Mozilla Science Lab facilitates learning around open source, open data and offers fellowships for early career researchers.



map science

applying the scientific method to maps



HOW TO

DOWNLOAD DATA

MENU

Search GFW website

SELECT LANGUAGE

GLOBAL
FOREST
WATCH

BETA

FOREST CHANGE

FOREST COVER

FOREST USE

CONSERVATION

PEOPLE

STORIES

COUNTRY LAYERS

FOREST CHANGE

- Tree cover gain
- Tree cover loss

Displaying loss with > 30 % canopy density.

Tree cover loss is not always deforestation.

FOREST COVER

- Mangroves
- Tree cover

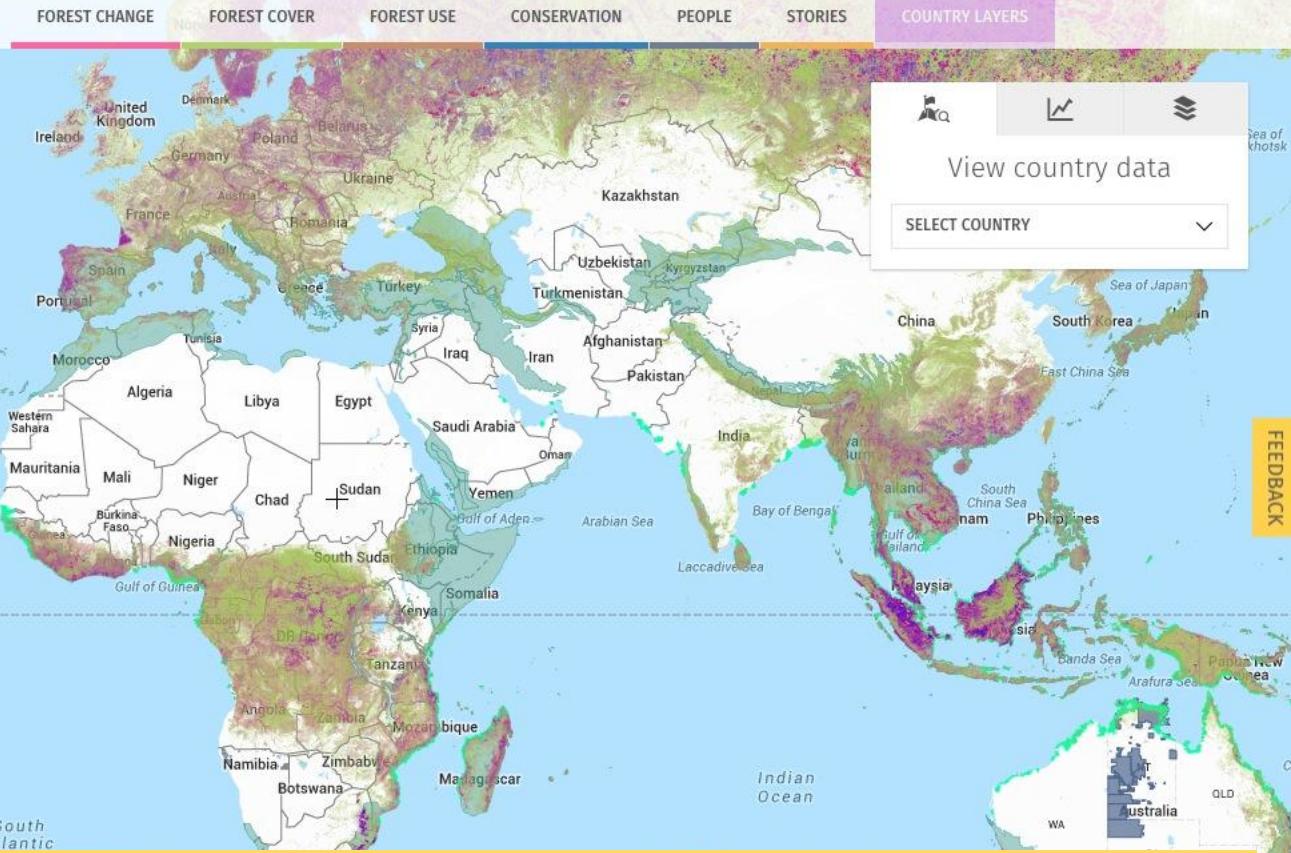
Displaying tree cover with > 30 % canopy density.

PEOPLE

- Resource Rights
- Land Rights

CONSERVATION

- Biodiversity hotspots



global forest watch, <http://www.globalforestwatch.org/>



REST COVER

norwegian

FOREST USE

CONSERVATION

PEOPLE

STORIES

COUNTRY LAYERS

FOREST CHANGE



TREE COVER CHANGE

(Hansen/UMD/Google/USGS/NASA)

Loss

(annual, 30m, Global)



Gain

(12 years, 30m, Global)



TREE COVER LOSS ALERTS

(near real-time)

FORMA

(monthly, 500m, humid tropics, WRI/CBD)



Terra-i

(monthly, 250m, Latin America, CIAT)



SAD

(monthly, 250m, Brazilian Amazon, Imazon)

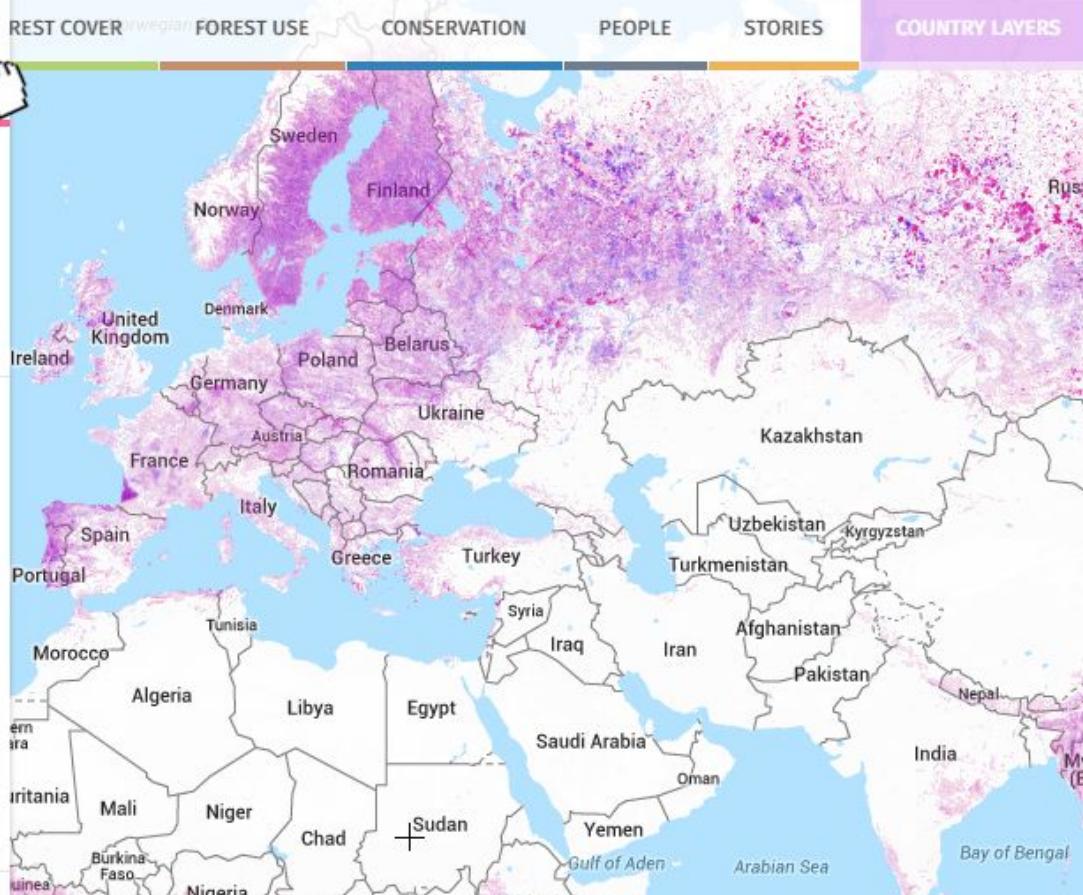


QUICC

(quarterly, 5m, <37 degrees north, NASA)



Country Layers



DEFAULT



TERRAIN



SATELLITE



ROADS

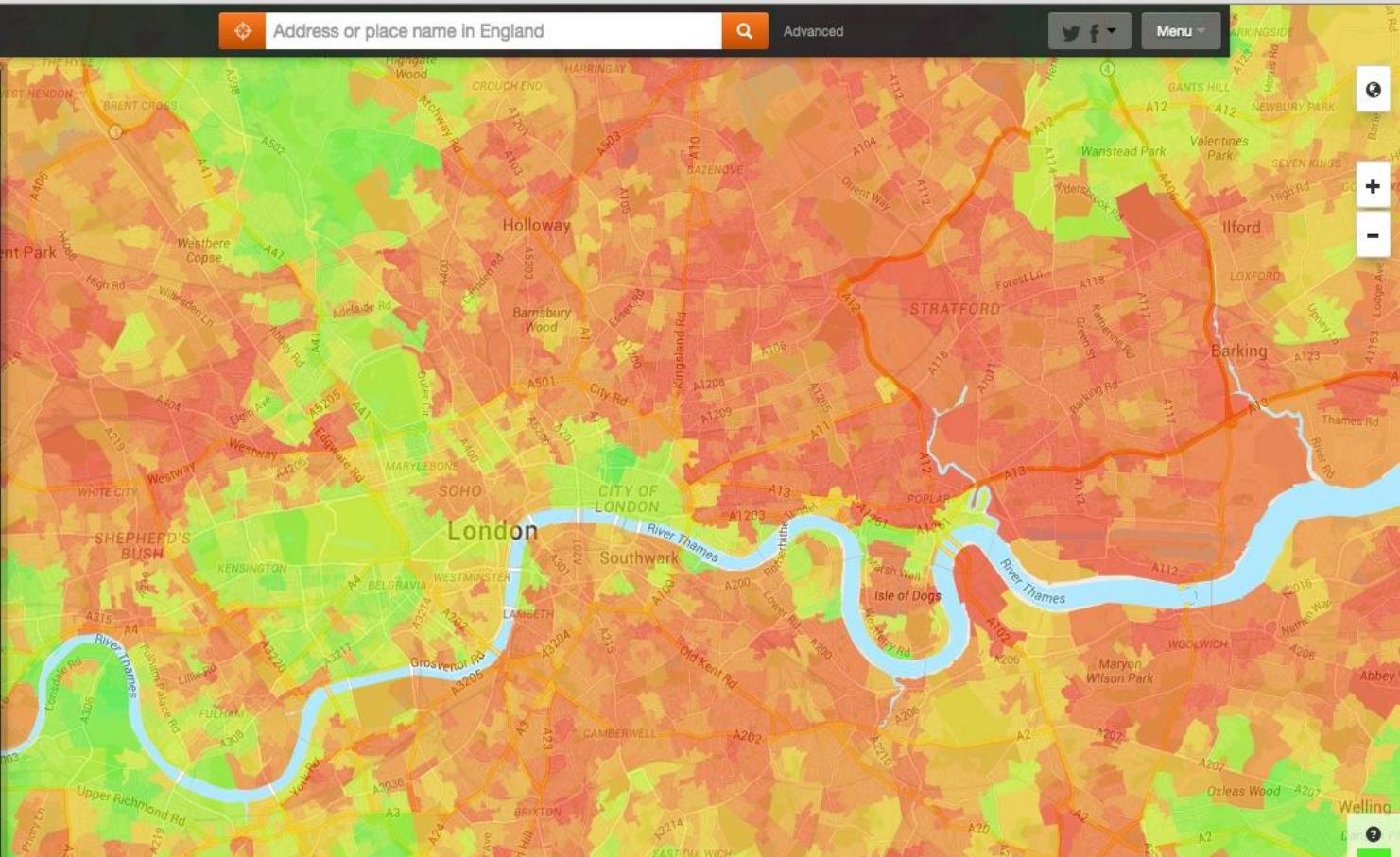


TREE HEIGHT



LANDSAT

global forest watch, <http://www.globalforestwatch.org/>



illustreets econ report, <http://illustreets.co.uk/>

The Northeast Corridor's Curviest Stretches, and Amtrak's Plans for Safety and Speed

By JEREMY B. MERRILL JUNE 23, 2015

The site of a deadly crash last month is the most curved stretch between Washington and New York, excluding areas near stations.

Just west of a creek and just behind a Walmart in Philadelphia lies one of the curviest stretches of railroad on the Northeast Corridor, [Amtrak's](#) heavily traveled route from Washington to Boston.

That stretch of track, called Frankford Junction, is where a northbound [Amtrak train derailed](#) last month while going [over 100 miles per hour](#), leading to eight deaths. Here — by splitting the corridor into mile-long segments of track and ranking each stretch for straightness — we identify the eight sharpest curves on the Northeast Corridor (excluding entrances to stations). Frankford Junction emerges as the most curved stretch between Washington and New York.



Thousands of trains pass safely over these curves each month, but curves can be dangerous if trains go too fast, as seen in the Amtrak 188 crash and the December 2013 crash of a Metro-North Railroad train on a curve in the

curves on the northeast corridor, <http://nyti.ms/1DwPqaC>

Travel time between counties:

1880 and 1900

This map presents shortest travel times between counties by land or railroad in 1880 and 1900. Railroad data and method for computing travel times come from [Fernando Pérez-Cervantes](#).

Click on any county to make it the departure point.

http://mdweaver.github.io/times_year

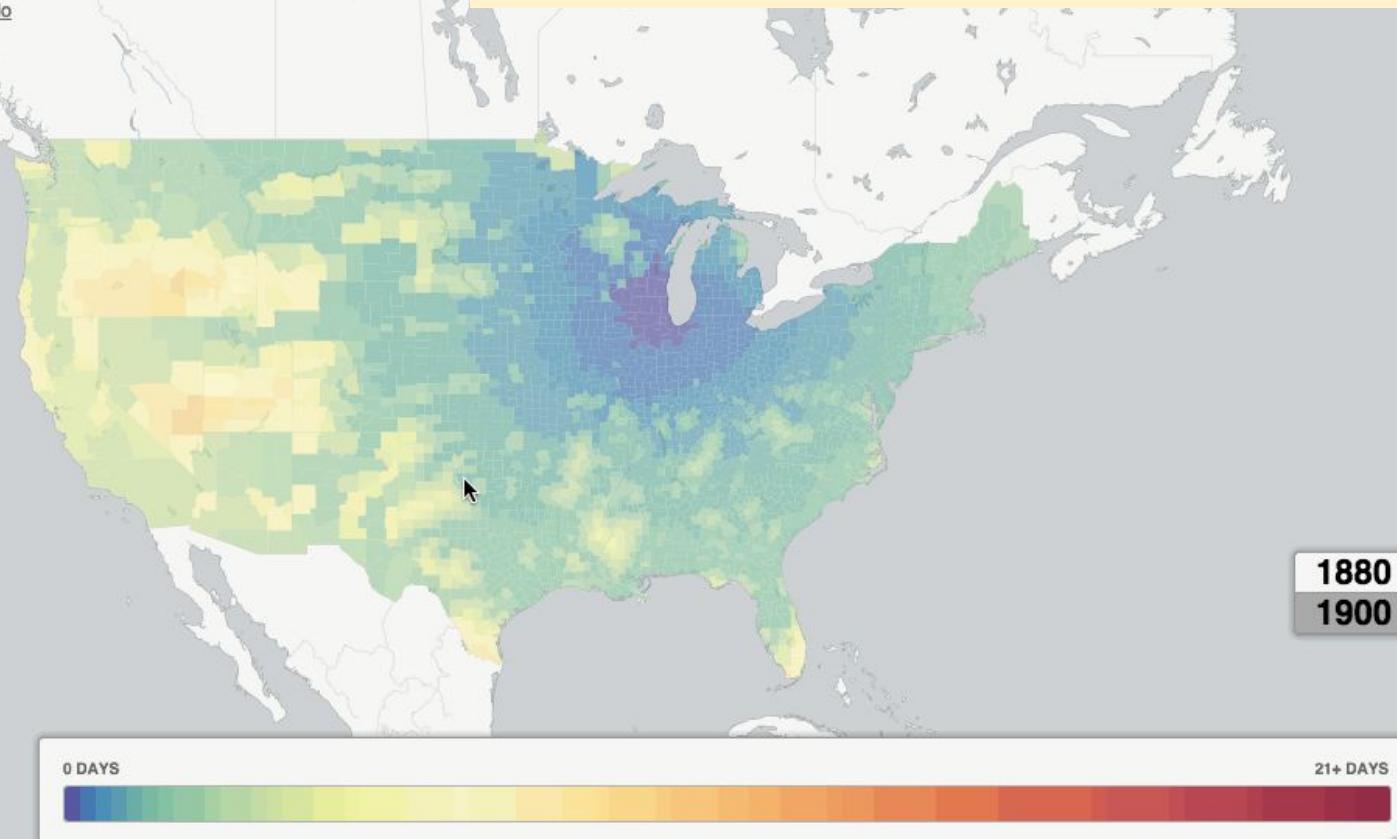
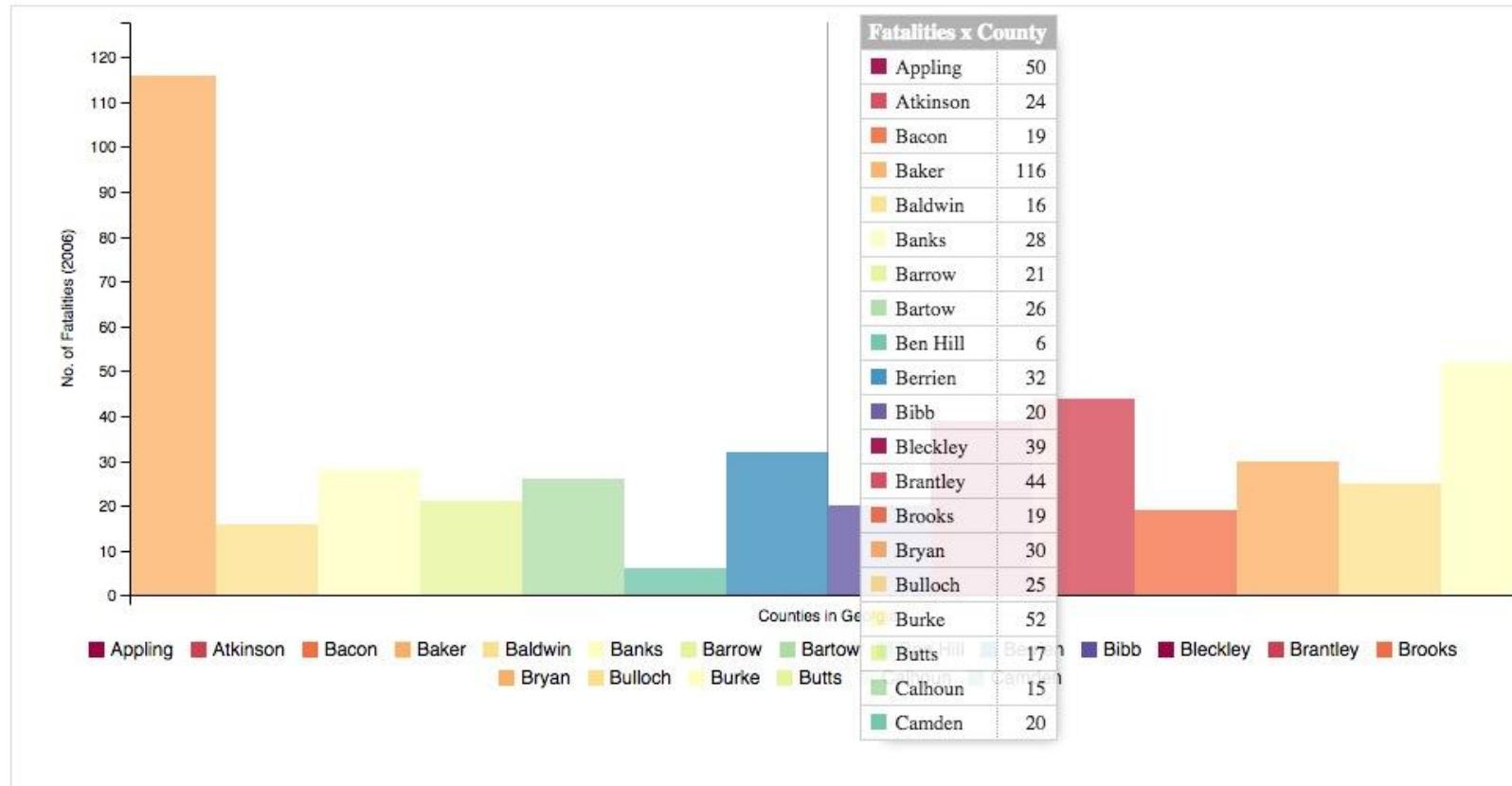
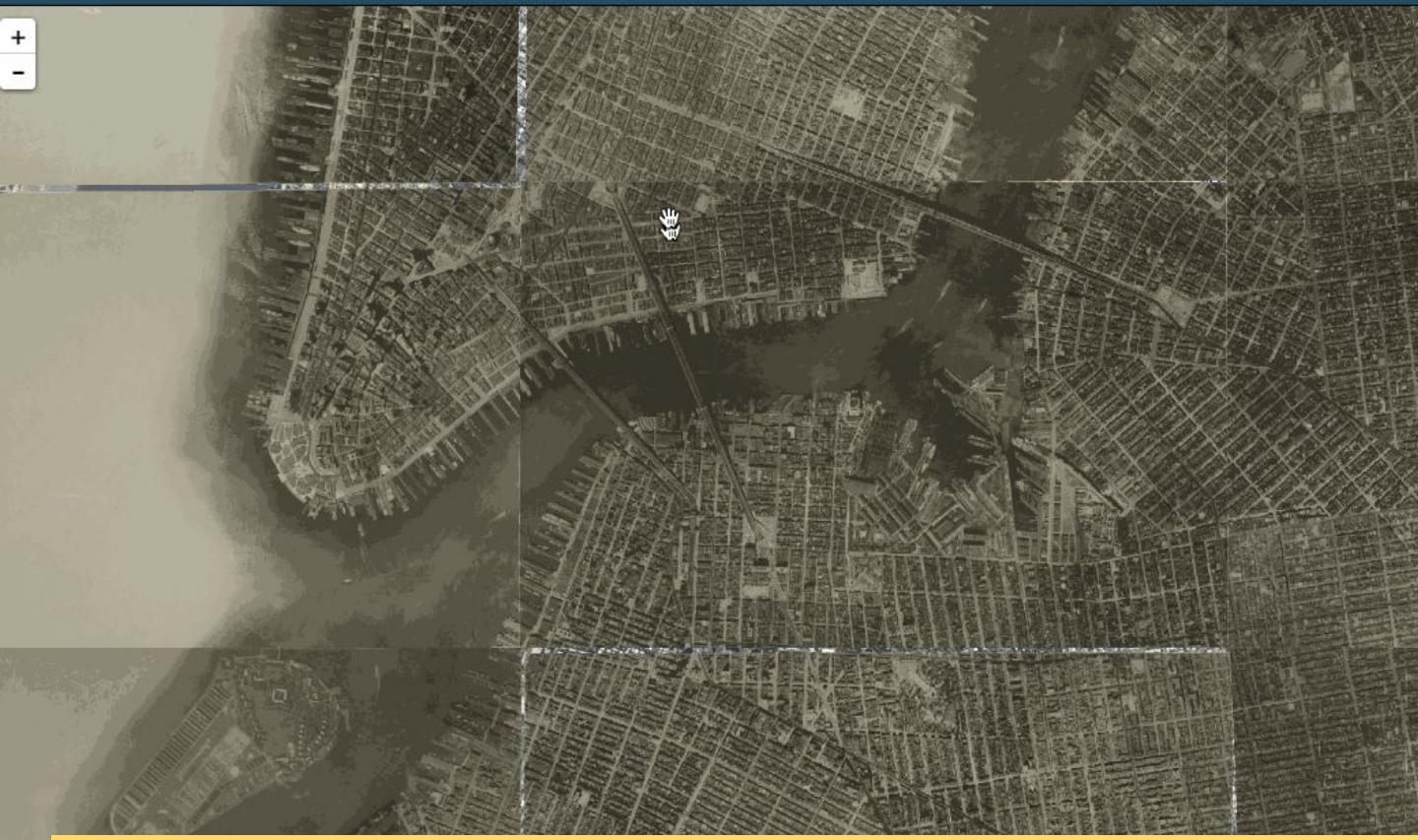


Chart: C3.JS + CartoDB





Welcome!

Welcome to Urban Scratchoff! This site gives you a clever way to explore historical aerial imagery of New York City. You can click and drag on the map to "scratch off" the historical imagery and reveal the same location's present-day imagery. Hit the swap button below to reverse the layers. Have fun!

Mode

 [Pan & Zoom Map](#) [Scratch Off!](#)

Layer Order

 [1924 Aerials](#) [Swap](#) [Present Day Aerials](#)

Points of Interest

Coming Soon!

urban scratch off, <http://chriswhong.github.io/urbanscratchoff/>

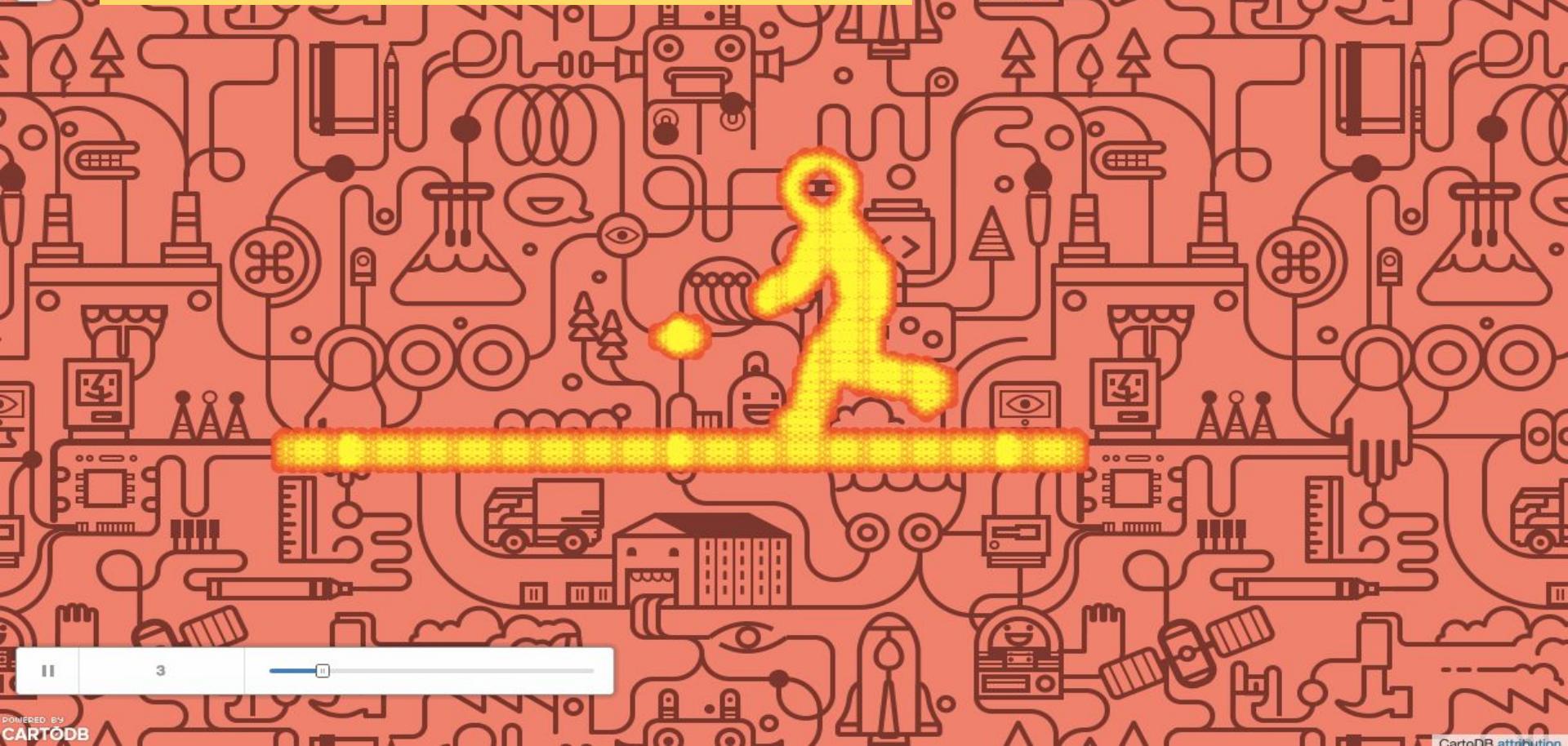


technique for time-series

spacetime in a box



“This is not a map”

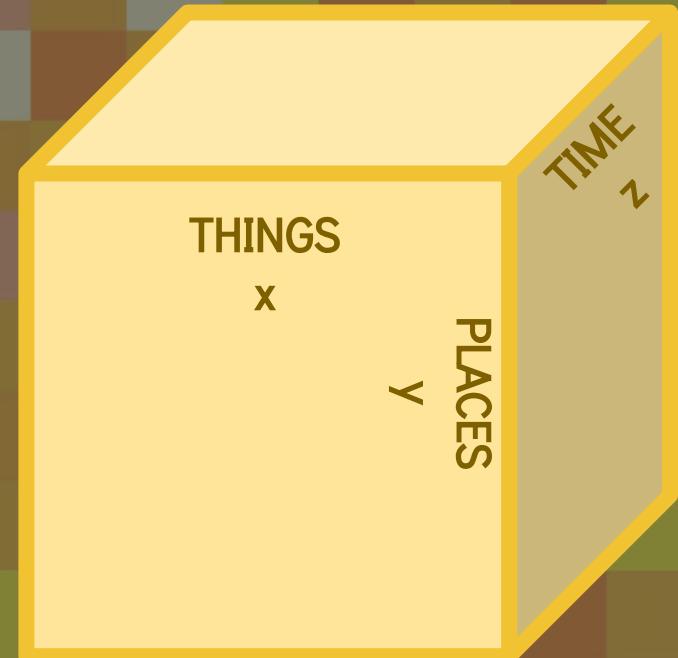


Torque DataCube

flux capacitor for maps

slices of data on the client

~~tiling data~~, data³



PRO

Fast

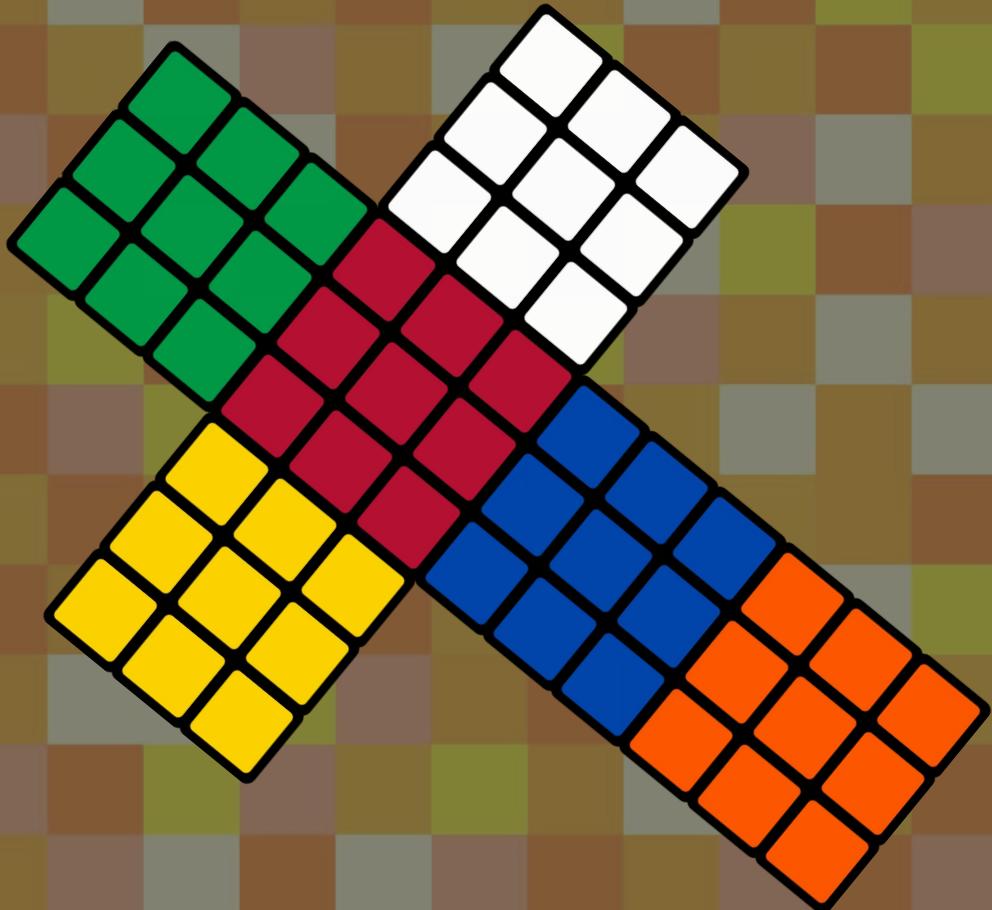
Light

Cachy

CON

Time Suck

Lossy



PRO

Fast

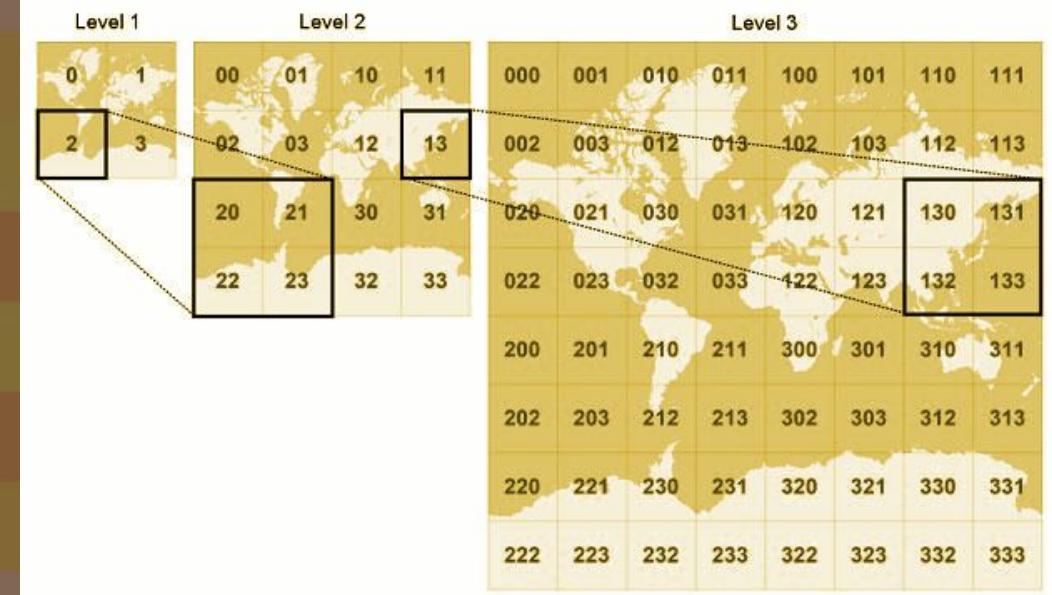
Light

Cachy

CON

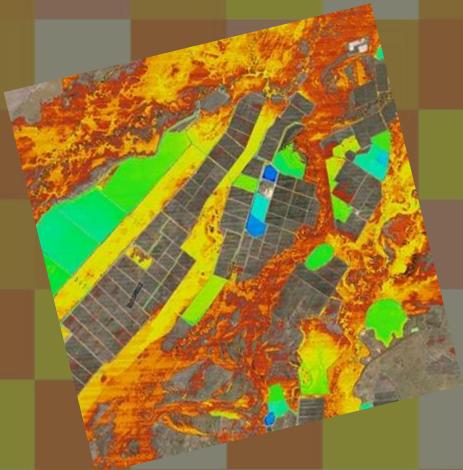
Time Suck

Lossy



Torque Encoding

delta encoding



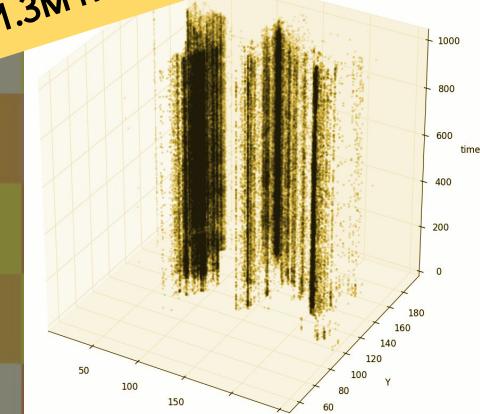
gzip compression

```
1 {  
2   . . .  
3   x_uint8: [.....],  
4   y_uint8: [.....],  
5   vals_uint8: [.....],  
6   dates_uint16 : [.....],  
7 }  
8 }
```

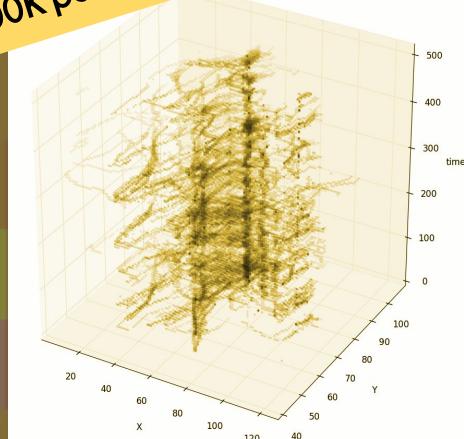
binning by step

```
1 {  
2   0: {  
3     . . .  
4     x_uint8: [.....],  
5     y_uint8: [.....],  
6     vals_uint8: [.....],  
7   },  
8   1: {...}  
9 }
```

1.3M tweets



800K points





narrative for time-series



spacetime out of the box



ODYSSEY

A simple way for journalists, designers,
and creators to weave interactive stories

[CREATE STORY](#)

[DOCUMENTATION](#)



odyssey.js





Aqmola



Satpaev

Beyneu

Aral'sk

Äyteke Bi

Bayqoñır

Kyzylorda

al Sea

Moynaq

Zhanaqorgan

Sholakkorgan

Kentau

Zhantas

Türkystan

Shauyldyr

Ordabasi

Audani

Kungrad
Leninabad

Chimbay

Takhtakulyr
Nukus

Ellikqala UZBEKISTAN



CARTO

Leaflet | data OSM - map CartoDB, CartoDB attribution

A combination of satellite imagery and water resource data ~~comes~~ that many natural lakes are progressively shrinking in size and coverage. This can both devastate landscapes dependent on water, and reveal new landscapes that expose terrain to human civilization.

The following chapters tell that story using [data from historical lakes and current lakes](#).

historical lakes, odyssey @cartodb, blocks.org/auremoser

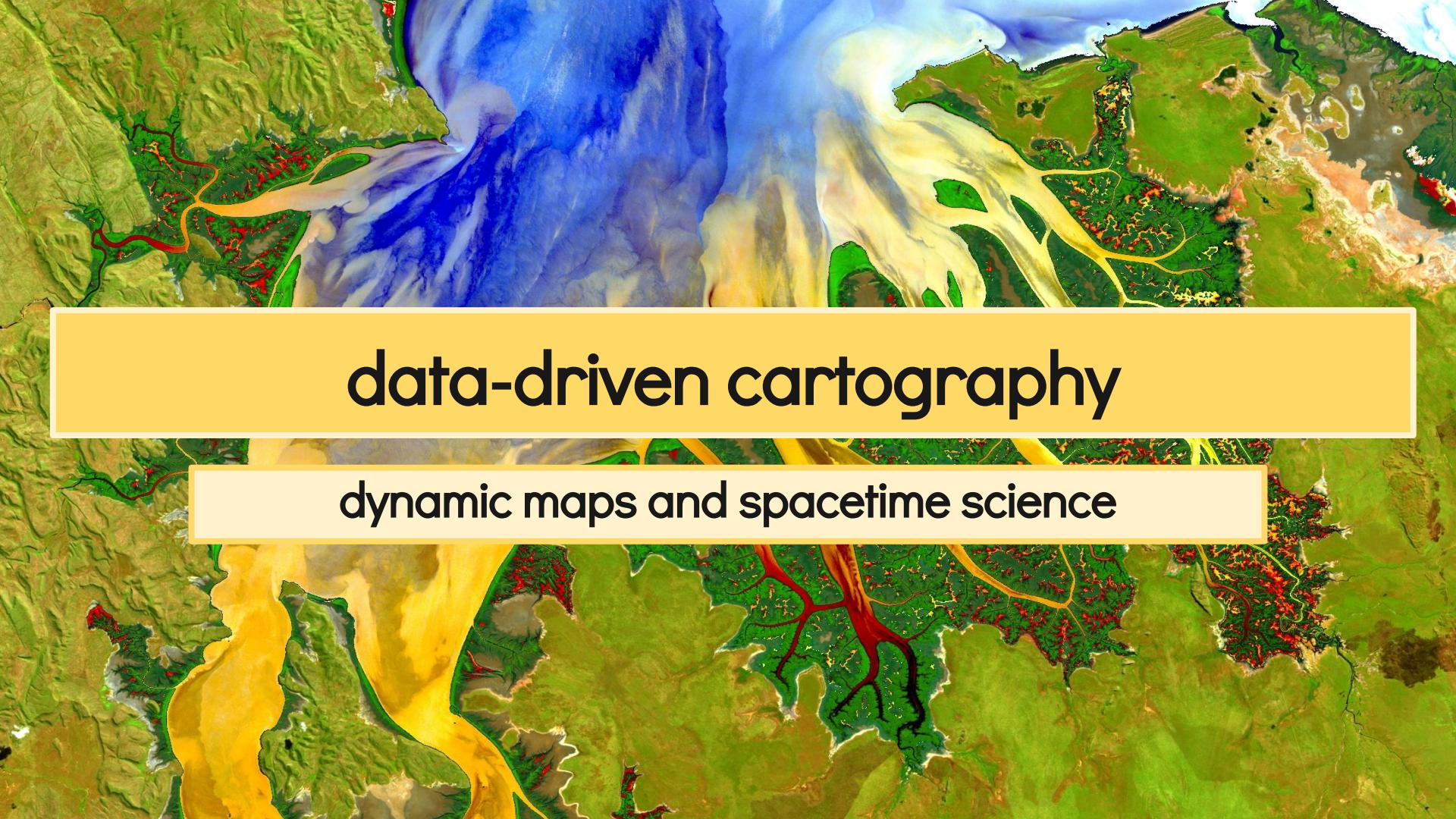
mi), the Aral Sea has been steadily shrinking since the 1960s after the rivers that fed it were diverted by Soviet irrigation projects. By 2007, it had declined to 10% of its original

Hide Slides | Add Element | Configure Canvas

Freedom Rides: Story of Rosa Parks

Rosa Louise McCauley Parks (February 4, 1913 – October 24, 2005) was an African-American activist, whose contributions to the Montgomery Bus Boycott became important symbols of the modern Civil Rights Movement. Follow along to trace her road to freedom!

 Change basemap Options



data-driven cartography

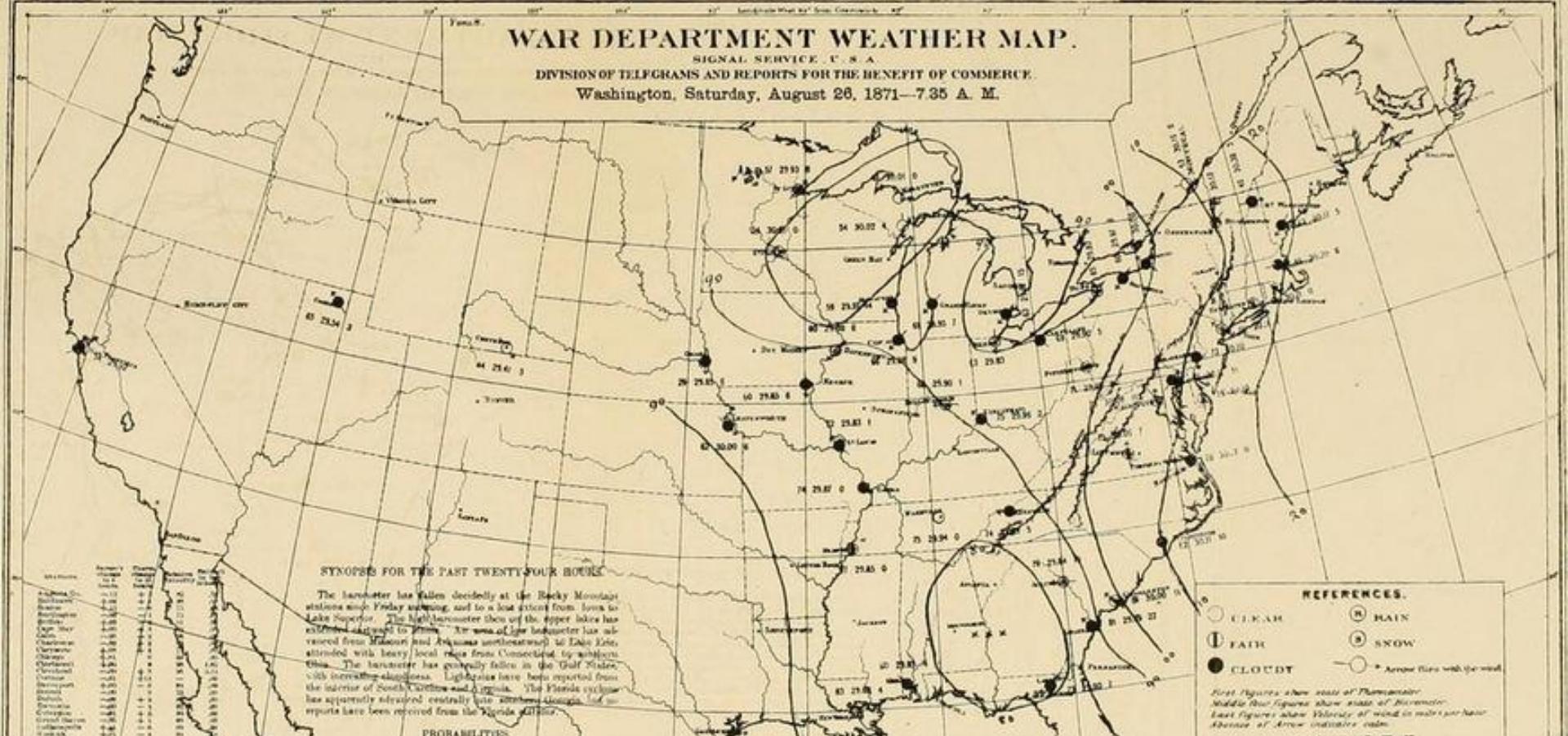
dynamic maps and spacetime science

WAR DEPARTMENT WEATHER MAP.

SIGNAL SERVICE U.S.A.

DIVISION OF TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE.

Washington, Saturday, August 26, 1871—7:35 A. M.



Weather Map 1871 (7:35AM), Internet Archive Digitization Project



ABOUT THIS VISUALIZATION

This visualization maps 1 million WWI Royal Navy locations transcribed by the citizen scientists of [Old Weather](#).
Read more at blog.cartodb.com

Jan
1920

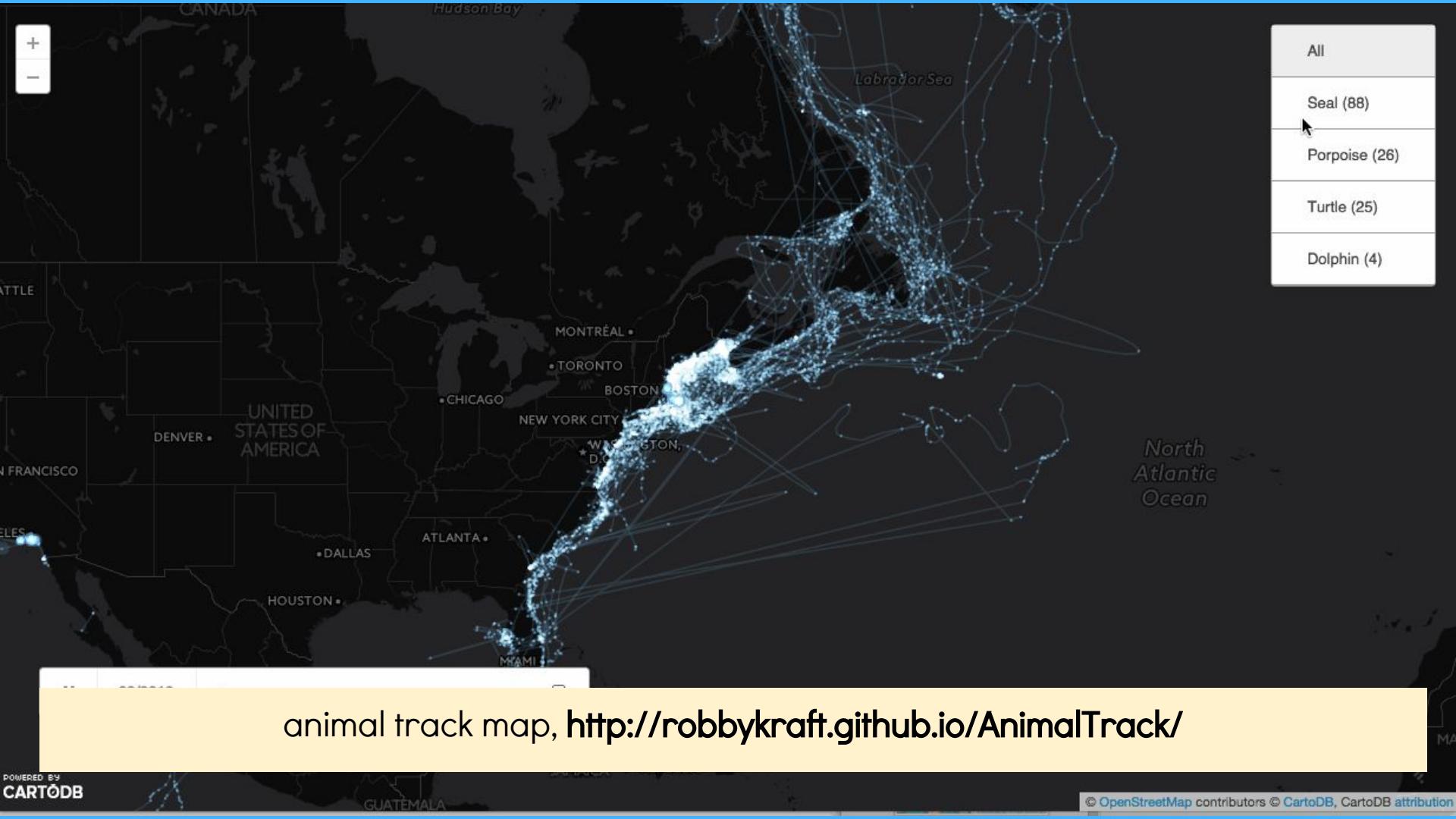
WANT TO BECOME A CITIZEN SCIENTIST?

We need your brains! Help unlock the origin of galaxies by classifying the distant universe at GalaxyZoo.org

FIRES IN THE AMAZON

[Español](#)[Português](#)

fires in the amazon (2012-2014), <http://infoamazonia.org/projects/fire/>



Common Crane

Phenology

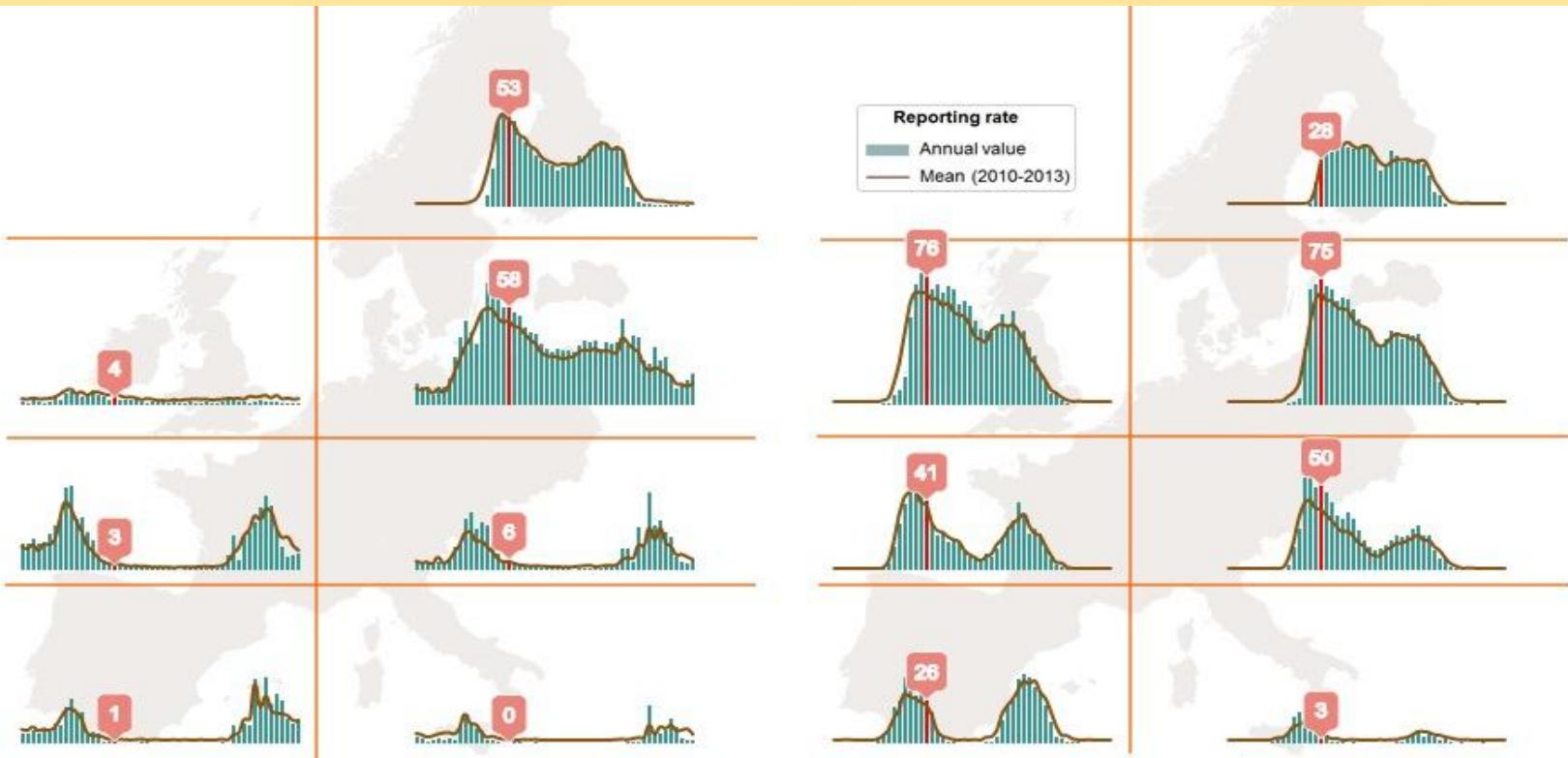
2013

Willow Warbler

Phenology

2013

bird watching + comparison



2013

Week
30 Apr - 6 May

2013

Speed



Eurasian Teal

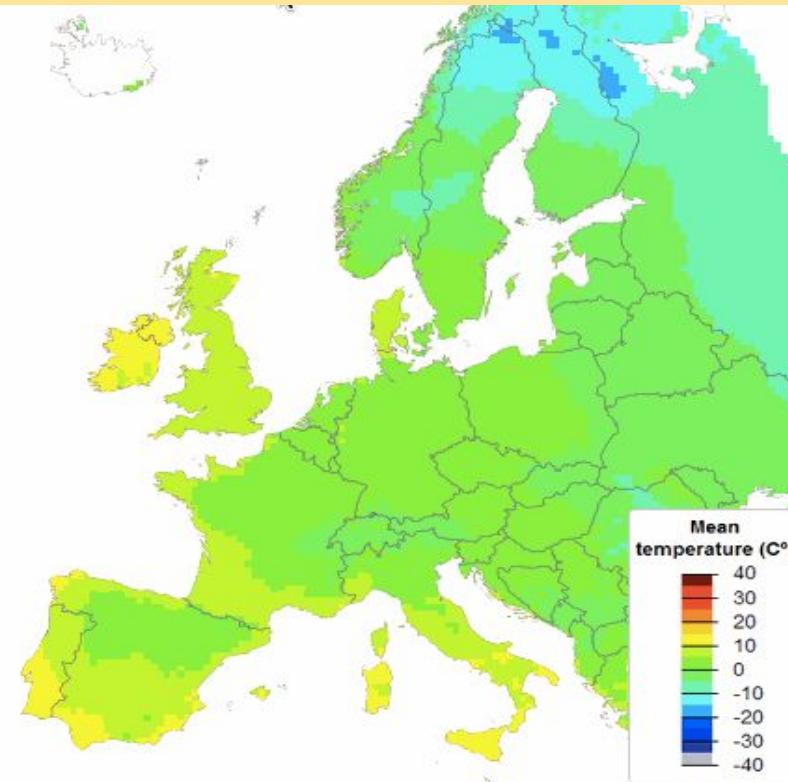
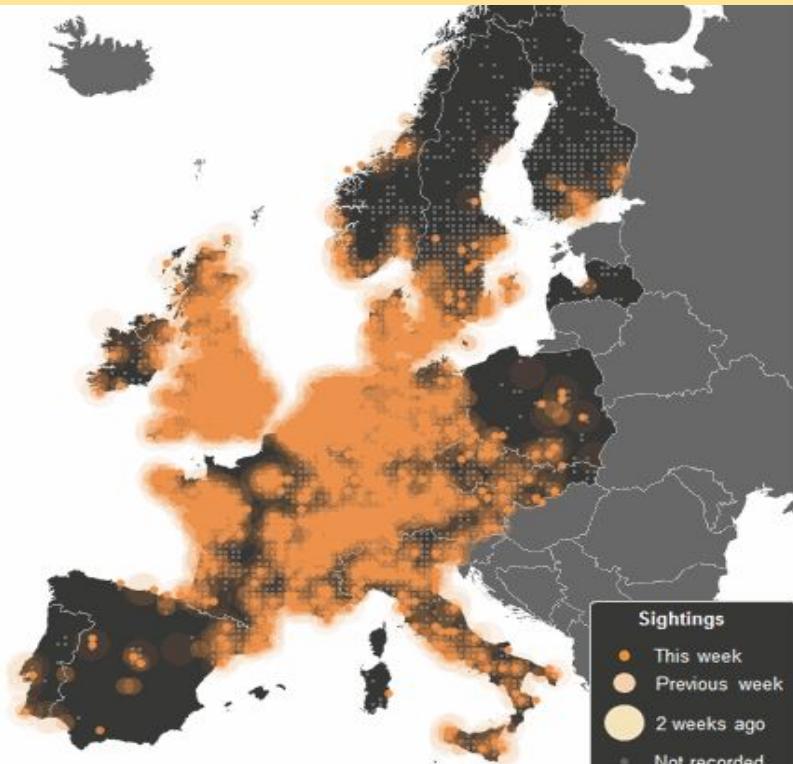
Traces

2013

Temperature (mean)

2013

bird migrations: <http://www.eurobirdportal.org/ebp/en/>

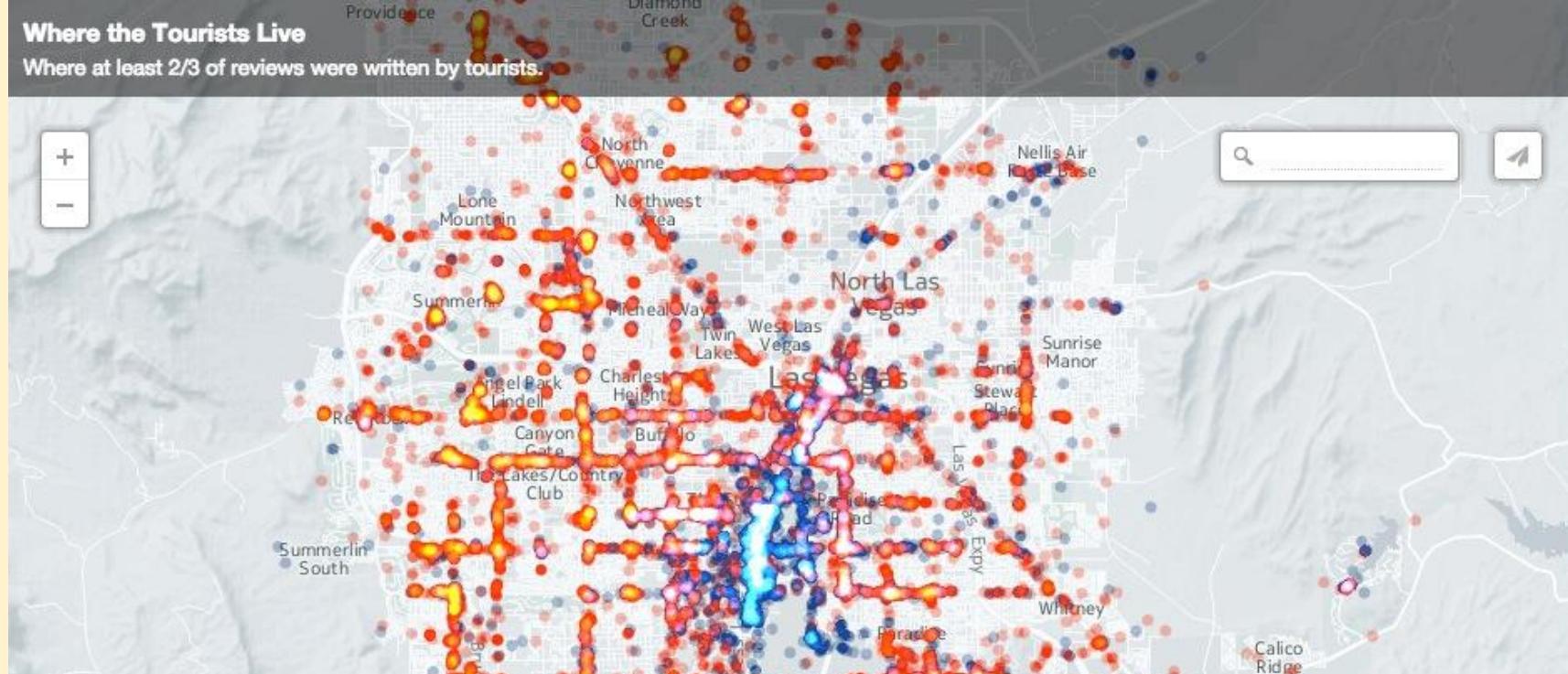


2013 Week
10 - 16 Dec 2013

Speed

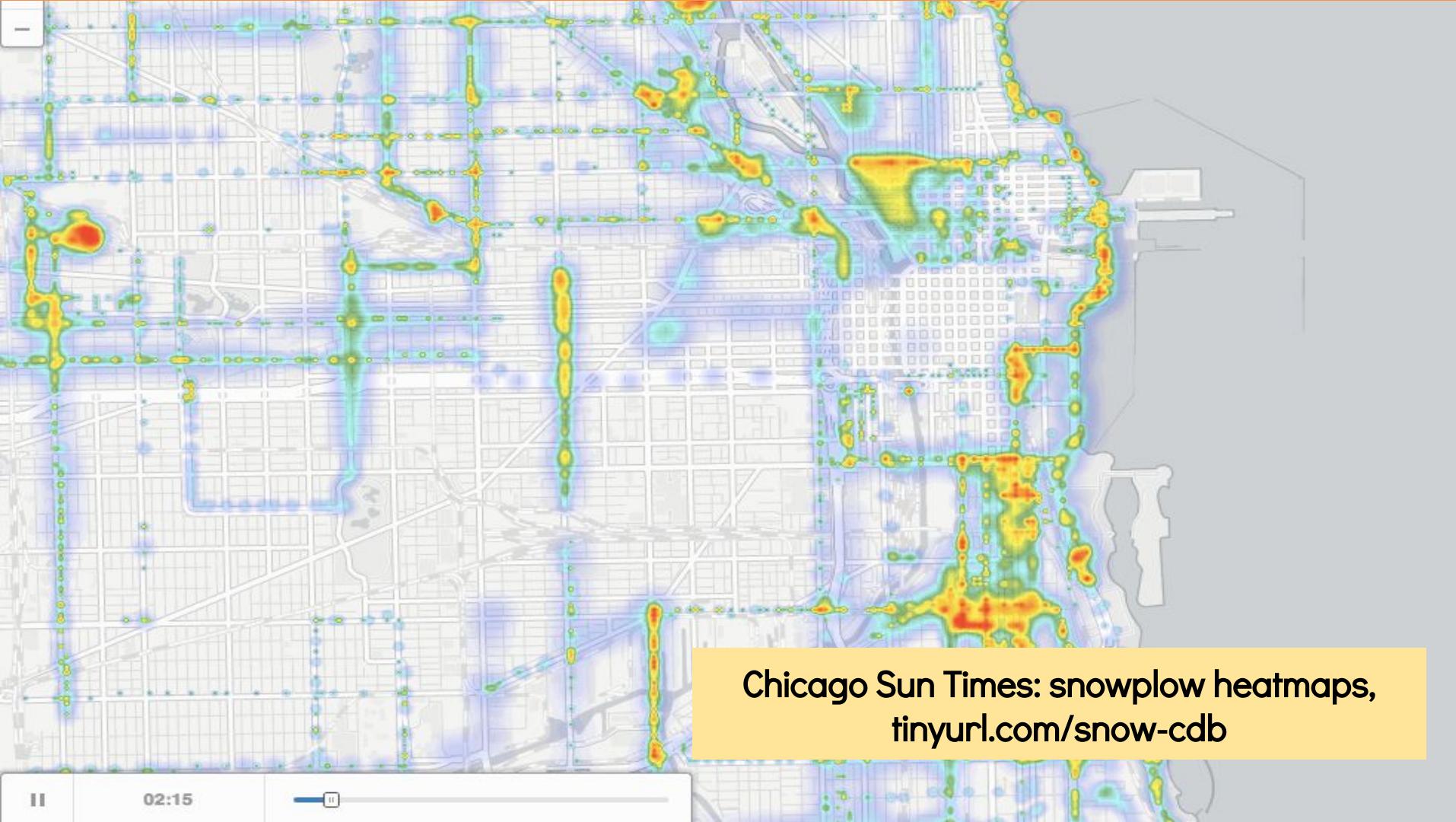
Where the Tourists Live

Where at least 2/3 of reviews were written by tourists.



las vegas tourist traffic, cartodb, tinyurl.com/cdb-tourist





Torque for Media



AUSTRALIA

© OpenStreetMap contributors © CartoDB, CartoDB attribution

The GDELT Project / Maps

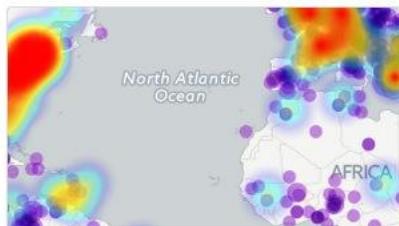
The GDELT Project monitors the world's broadcast, print, and web news from nearly every corner of every country in over 100 languages and identifies the people, locations, organizations, counts, themes, sources, emotions, counts, quotes and events driving our global society every second of every day.

gdeltproject.org/

<https://twitter.com/gdeltproject>



Live Global News Map: All Topics



GDELT Tutorial 1: Transportation I...



Food Security Map

GDELT: Public Profile, gdelt.cartodb.com

3 minutes ago



3 minutes ago

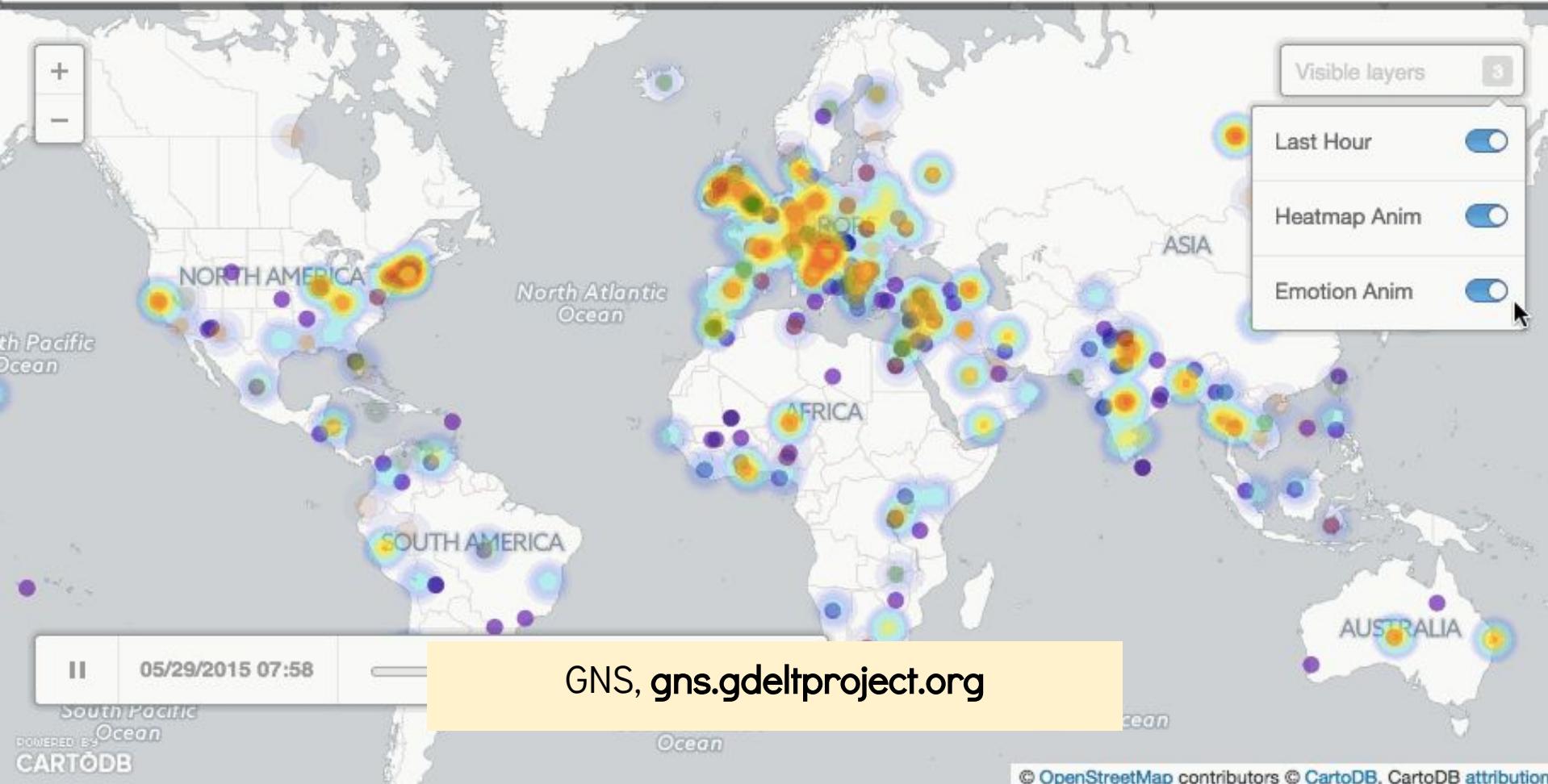


3 minutes ago



GDELT Project: Geographic News Search

PROTEST







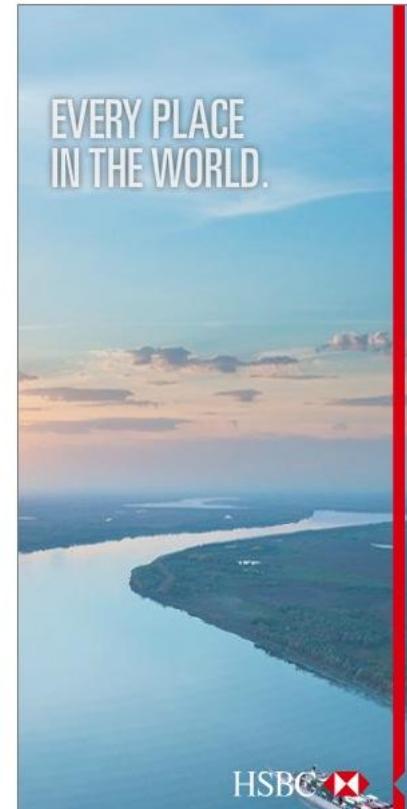
VOICE

Can You Use Big Data to Track an Elephant Poacher?

Why looking at a map of news headlines could help us see critical patterns and trends in wildlife crime.

BY KALEV LEETARU

JUNE 12, 2015





from Feb. 19 through June 2. Each dot on the map represents a location mentioned alongside wildlife crime during that period — clicking on a dot will display a list of monitored coverage mentioning that location. A [separate live-updating map](#) refreshes every hour and provides a real-time glimpse of the most recent coverage.

SHARE +

2783 SHARES

AFRICA



Saudi Arabia's Unpaid Debt

LARA JAKES | 459 SHARES



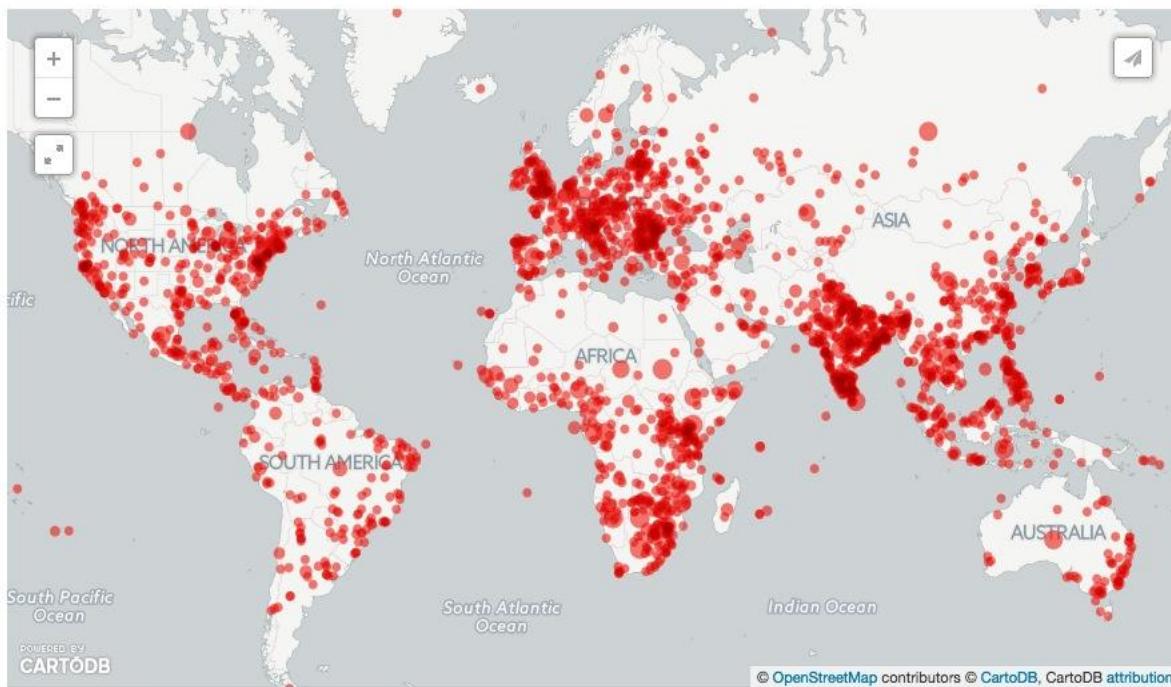
The Top Secret (Fake) Memo to Putin on How to Counter NATO's Latest Move

JAMES STAVRIDIS | 750 SHARES



Is the Islamic State on the Rise in Gaza?

GREGG CARLSTROM | 214 SHARES





telling the future in maps

building modern ‘mappae mundi’

“schematic [maps] made to **illustrate** principles;
a kind of **teaching** aid;
never meant to be used as **navigational charts**;
meant to preserve & illustrate classical learning **easily.**”





mural, queen mary ocean liner, c. 1930

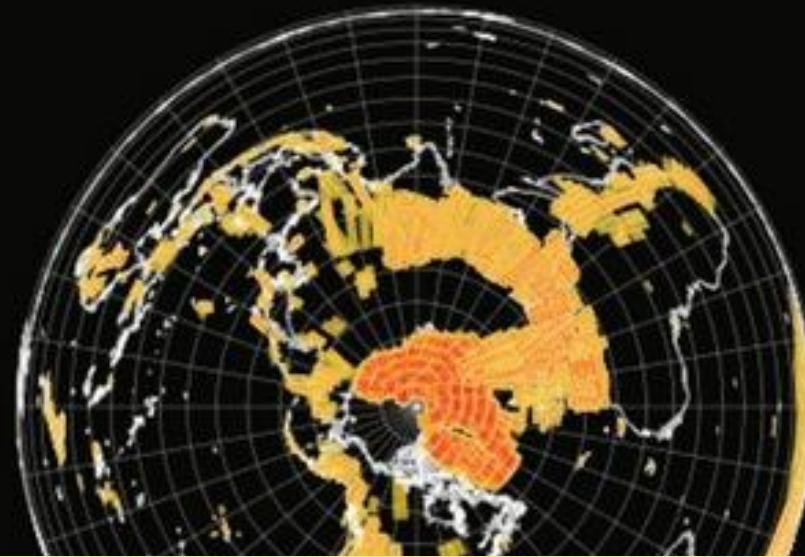
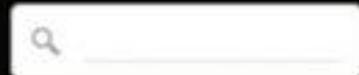
TABLE ALPHABETIQUE DES VILLES PRINCIPALES
DE LA FRANCE.



The background of the slide features a world map composed of numerous small, semi-transparent rectangular tiles. These tiles are colored in a gradient from dark blue at the poles to light green at the equator, representing different geographical or thematic data layers. Overlaid on this map are several types of data points and features: 1) Numerous orange circular markers of varying sizes scattered across the continents, with higher concentrations in North America, Europe, and Asia. 2) A network of thin, dashed white lines connecting points primarily in North America and Europe. 3) A few larger, semi-transparent polygons in shades of purple, pink, and yellow. 4) A small red rectangular button in the top right corner labeled "Pin it".

Pin it

more basemaps



more projections



Search

33 Datasets

22 Shared with you

Liked

Data library



NEW DATASET

**NYC MapPLUTO - Staten Island**

MapPLUTO tax lot data for Staten Island (Richmond County, NY)

123.5K Rows

96 MB

14 days ago from [NYC Planning](#)
Building footprints**NYC MapPLUTO - Brooklyn**

MapPLUTO tax lot data for Brooklyn (Kings County, NY)

277.3K Rows

205 MB

14 days ago from [NYC Planning](#)
Building footprints**NYC MapPLUTO - Bronx**

MapPLUTO tax lot data for the Bronx (Bronx County, NY)

89.7K Rows

69 MB

14 days ago from [NYC Planning](#)
Building footprints**Boundaries of the US National Parks**

National Parks Boundaries

510 Rows

1 MB

14 days ago from [Data.gov](#)
Physical datasets

more open data

**NYC MapPLUTO - Queens**

MapPLUTO tax lot data for Queens (Queens County, NY)

324.2K Rows

244 MB

14 days ago from [NYC Planning](#)
Building footprints



All courses > **Online Mapping for Beginners**

Online Mapping for Beginners



Online Mapping for Beginners

Basic concepts of online mapping



more tutorials

LESSON

Your First Choropleth Map

sets, and experimenting with different ways to display your data, including animated maps. You'll learn how to share your new visualizations with friends, family, and the world.



	NADA PARTY
	NIX PARTY

CartoDB attribution

I Lesson 1

Learn to Style Your Maps with CartoCSS

Cascading Style Sheets for Maps

CartoCSS Properties and Values

Styling a map by category

Using images with CartoCSS

Learn More

Reference

Learn to Style Your Maps with CartoCSS

Lesson 1
Getting Started with Map Design

Lesson 2
Colors, Truth & Insights

Lesson 3
Invisible and Visible Data

Lesson 4
Pacing Your Labels

What you'll learn

In this lesson, you will start learning the basics of design with data and maps. You will begin to explore map design by learning about the use of colors, data, and labels. When you finish the course, you will have developed a set of tools that you can use in any map visualization.

Prerequisites

- Reliable internet access
- A modern browser like Chrome, Firefox, or Safari
- Basic CartoDB knowledge
- Completion of Course 1

04:55

CartoDB

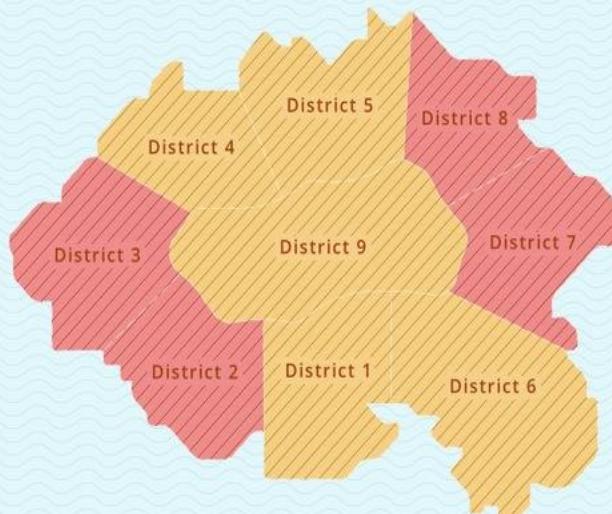
HD

vimeo



+

-



NULL ISLAND ELECTION WINNERS

	NADA PARTY
	NIX PARTY

Examples

Natural Earth II Invert layer order

Maps API endpoint

<http://aureliamoser.cartodb.com/api/v1/map>

SQL

```
1 SELECT *  
2 from sr_hr
```

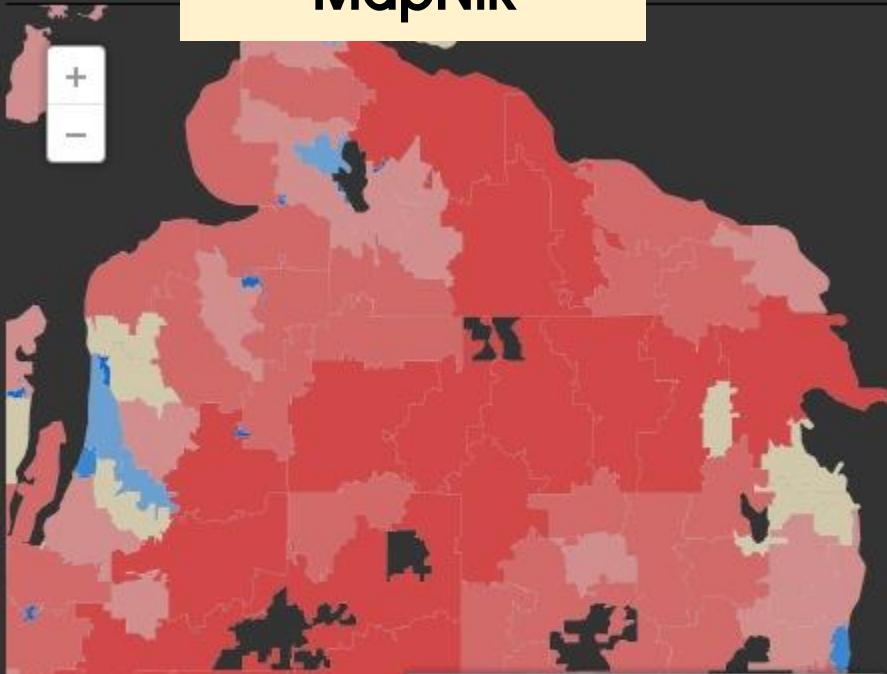
CartoCSS

```
1 #sr_hr {  
2   raster-opacity: 0.1;  
3 }
```

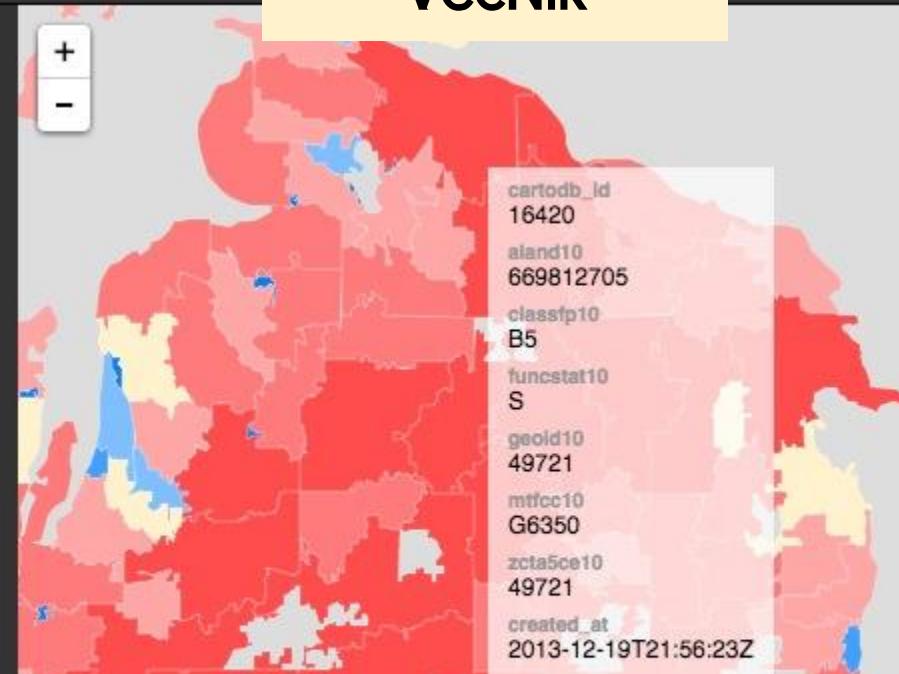


more raster maps

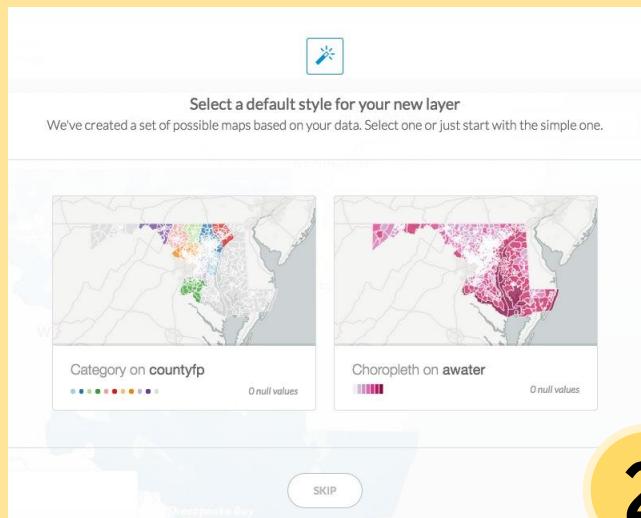
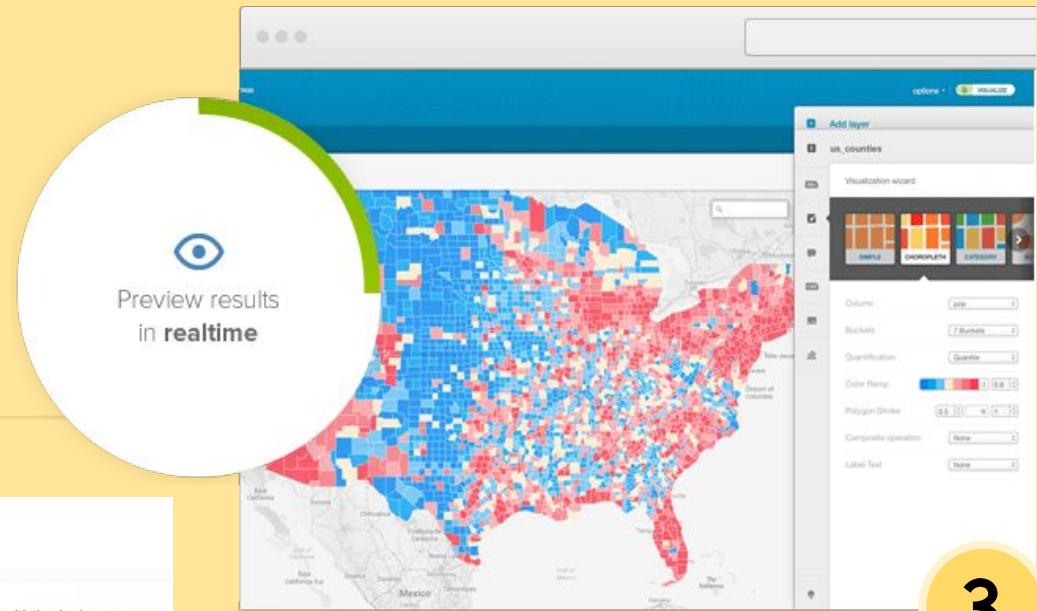
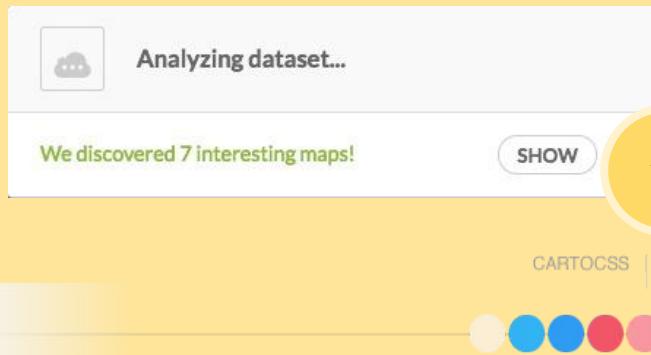
MapNik



VecNik



more vector maps



one-click maps



New York
Public
Library



Knight Foundation

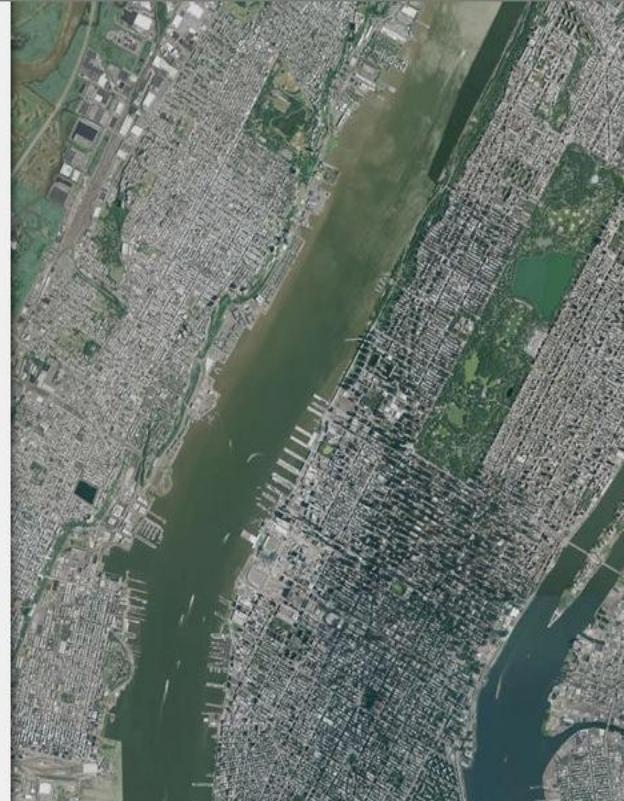
NYC *SPACE/TIME* DIRECTORY

*Let's build the future of
New York City's past*

The New York Public Library is planning a major civic initiative aimed at turning historical maps and other geographic sources into a digital

more partnerships: spacetime.nypl.org

The NYC Space/Time Directory will make urban history accessible



[INDUSTRIES](#)[GALLERY](#)[HELP](#)[PRICING](#)[ENTERPRISE](#)[BLOG](#)[LOGIN](#)[SIGN UP](#)

High Resolution Satellite Imagery on Demand

Access the latest satellite imagery with DigitalGlobe, now available on CartoDB to use with your data.

[CONTACT US TO GET ACCESS](#)

more resolution: satellite captures

Aerial Bold: Kickstart the Planetary Search for Letterforms!



Aerial Bold is the first map and typeface of the earth. We will find earth's alphabet shapes and make a new font and dataset for you!

Created by

Benedikt Groß & Joey Lee



more creativity: aerial bold

LIZ STINSON DESIGN 03.09.16 2:40 PM

SHARE

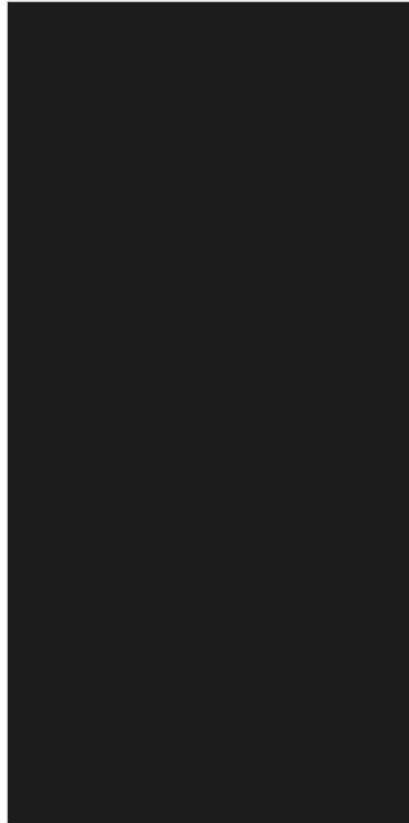
 SHARE
286

TWEET

 PIN
3 COMMENT
0

EMAIL

AERIAL BOLD: A CLEVER TYPEFACE CRAFTED FROM SATELLITE SHOTS OF BUILDINGS



LATEST NEWS



The image is a collage of five screenshots from different CartoDB projects:

- Top Left:** A world map showing the results of the 2015 FIFA presidential election. The map is color-coded by continent, with red representing Africa, Europe, South America, and Oceania; blue for North America and Australia; and grey for Russia and parts of Central America. A legend box in the center identifies the colors: GAO, Algeria, FIFAU FEDERATION CAF, and STEMMER PÅ Blatter.
- Top Right:** A map of a city area, likely New York City, showing a heatmap of tweets per location. The map is overlaid with a Twitter profile for "[Carto]CSS Puns" (@cartocsspuns) which has 15 tweets, 60 following, and 26 followers. The profile picture features a cartoon cat.
- Bottom Left:** A map of the United States showing contour lines of song lyrics about cities. The map is dark blue, and the contour lines are white. A sidebar on the right lists numbers from 1 to 22, with "13" highlighted.
- Bottom Center:** A world map titled "Spotimap a map of songs about cities". It shows green icons representing locations mentioned in songs. A sidebar on the left lists song titles and artists, such as "Convoy" by C.W. McCall, "Omaha" by Counting Crows, "Turn the Page" by Bob Seger, and "Uneasy Rider" by the Charlie Daniels Band. A search bar at the bottom allows users to search for specific cities.
- Bottom Right:** A world map showing the same green song location icons as the Spotimap project. This version includes a "Visible layers" button in the top right corner.

Central Text: A large yellow rectangular overlay contains the text "more experiments" in a bold, black, sans-serif font.

FIFA
presidentvalg

BY torring

AS SEEN ON THIS PAGE

13.5N, -0.2S LOCATION

VIEW ON CARTOBD

13

[Carto]CSS Puns

@cartocsspuns
pun phun
New York, NY

[Tweet to \[Carto\]CSS Puns](#)

Tweets Tweets & replies Photos & videos

[Carto]CSS Puns (@cartocsspuns · May 20)

@ media tv{
#magnum p i:active{
background:
url("http://en.wikipedia.org/wik.../Magnum_P...");

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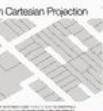
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@cartocsspuns

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New York, NY

14 Photos and videos



Tweets

Tweets & replies

Photos & videos



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#möbius {rotate

3d(translateZ,-10px,0); transform-style:preserve-3d; transform: rotateX(18deg) rotateY(-20deg);}

/* curious: do they have möbius strip malls?

*/



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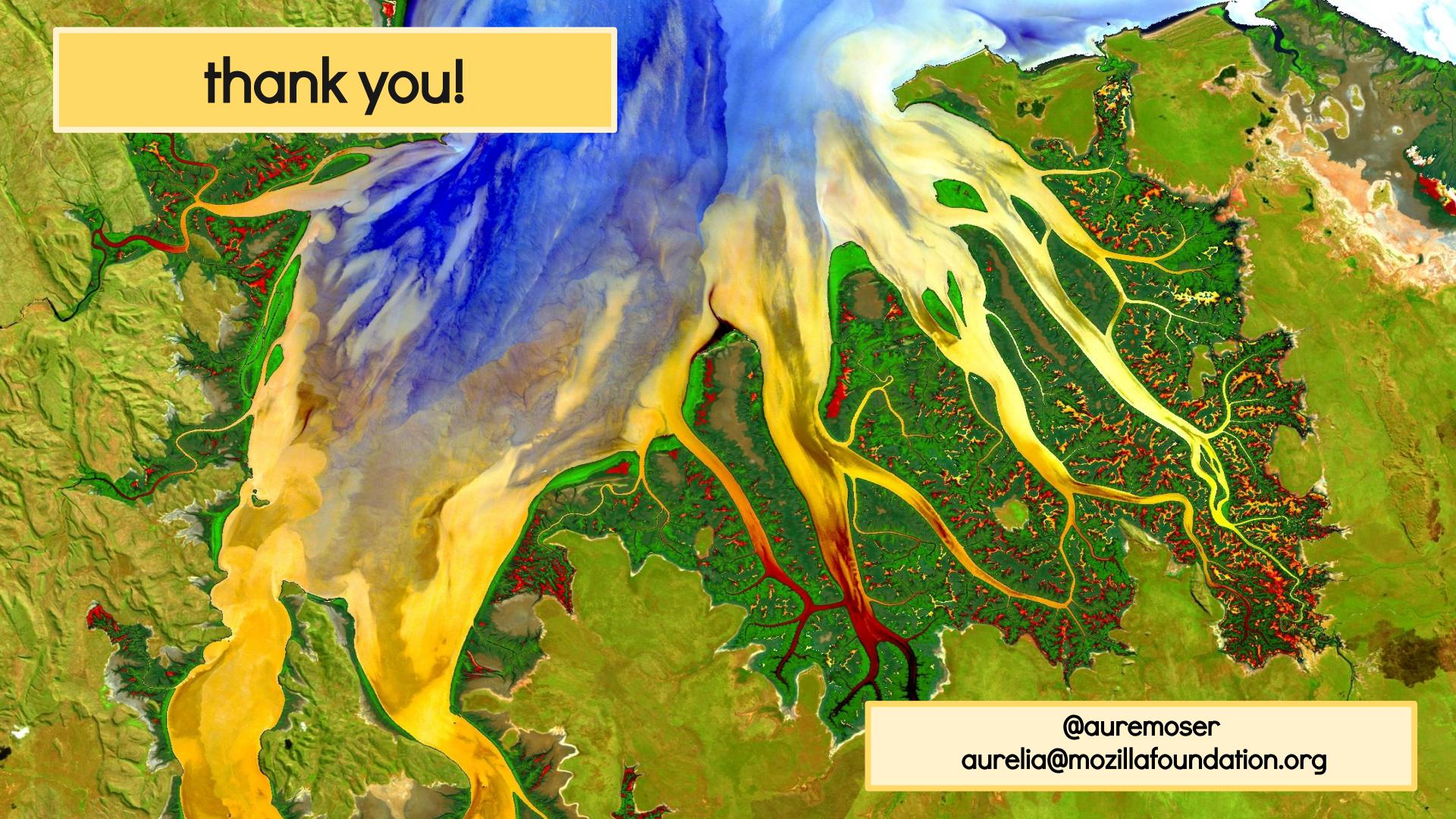
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thank you!

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