

An introduction to OpenStreetMap

presented by David Dean

Slides will be available at <http://www.slideshare.net/dbdean>

What is OpenStreetMap?

- Geographic data
 - For driving, riding, walking, boating, skiing, hiking, anything
- Free
 - Available under the Open Database License (ODBL)
- Wiki-like editing



<http://www.osm.org>



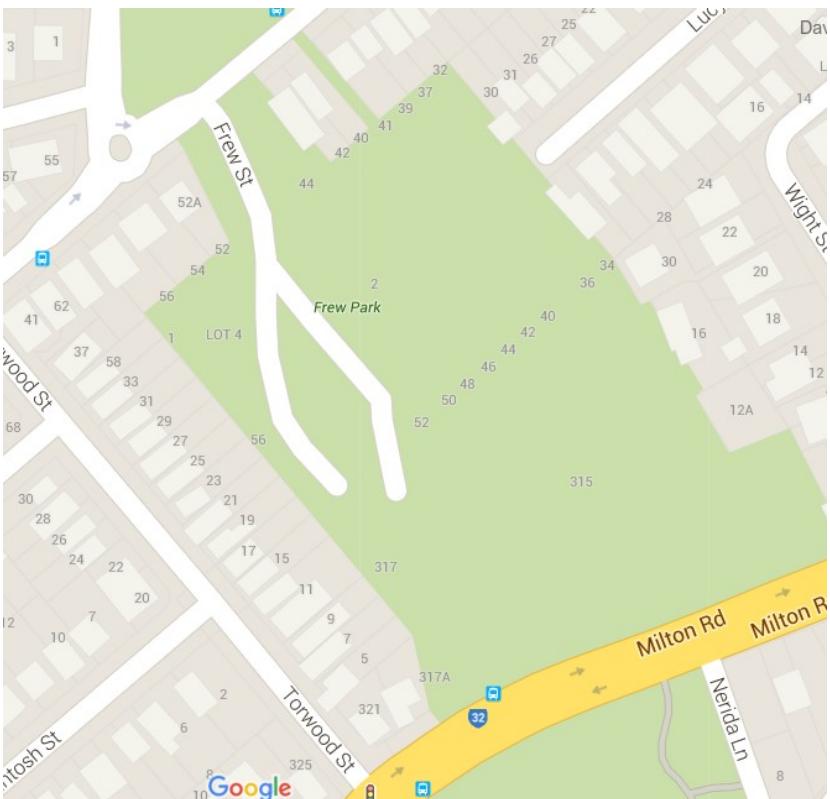
Why not just use Google Maps?

or WhereIs/Yahoo/Bing Maps?

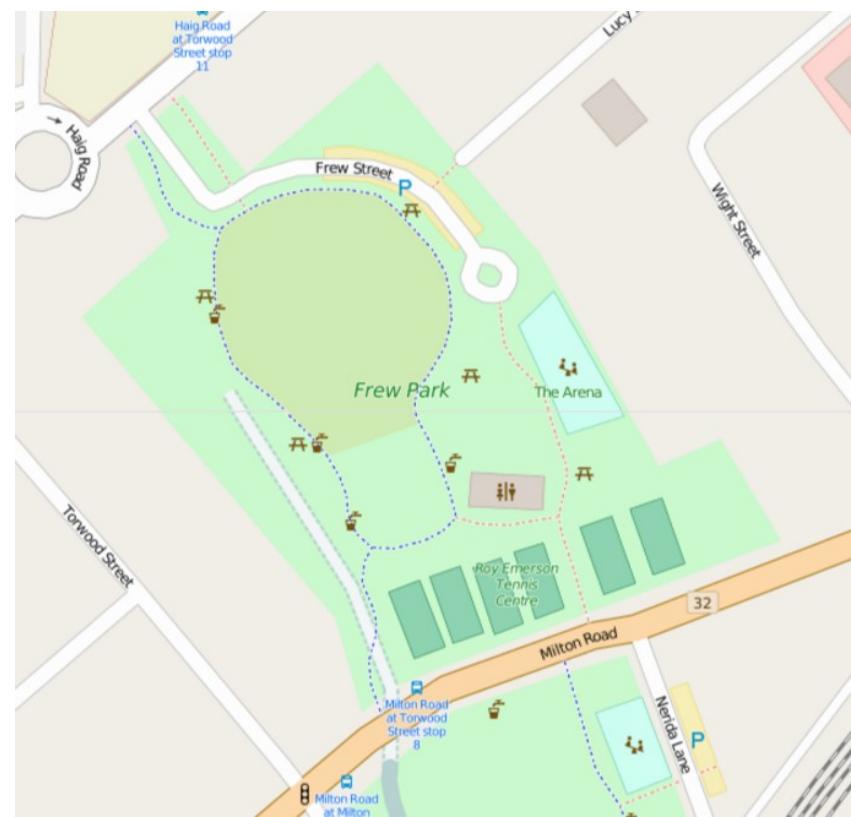
or whatever is on your GPS/Phone?



Updated rapidly



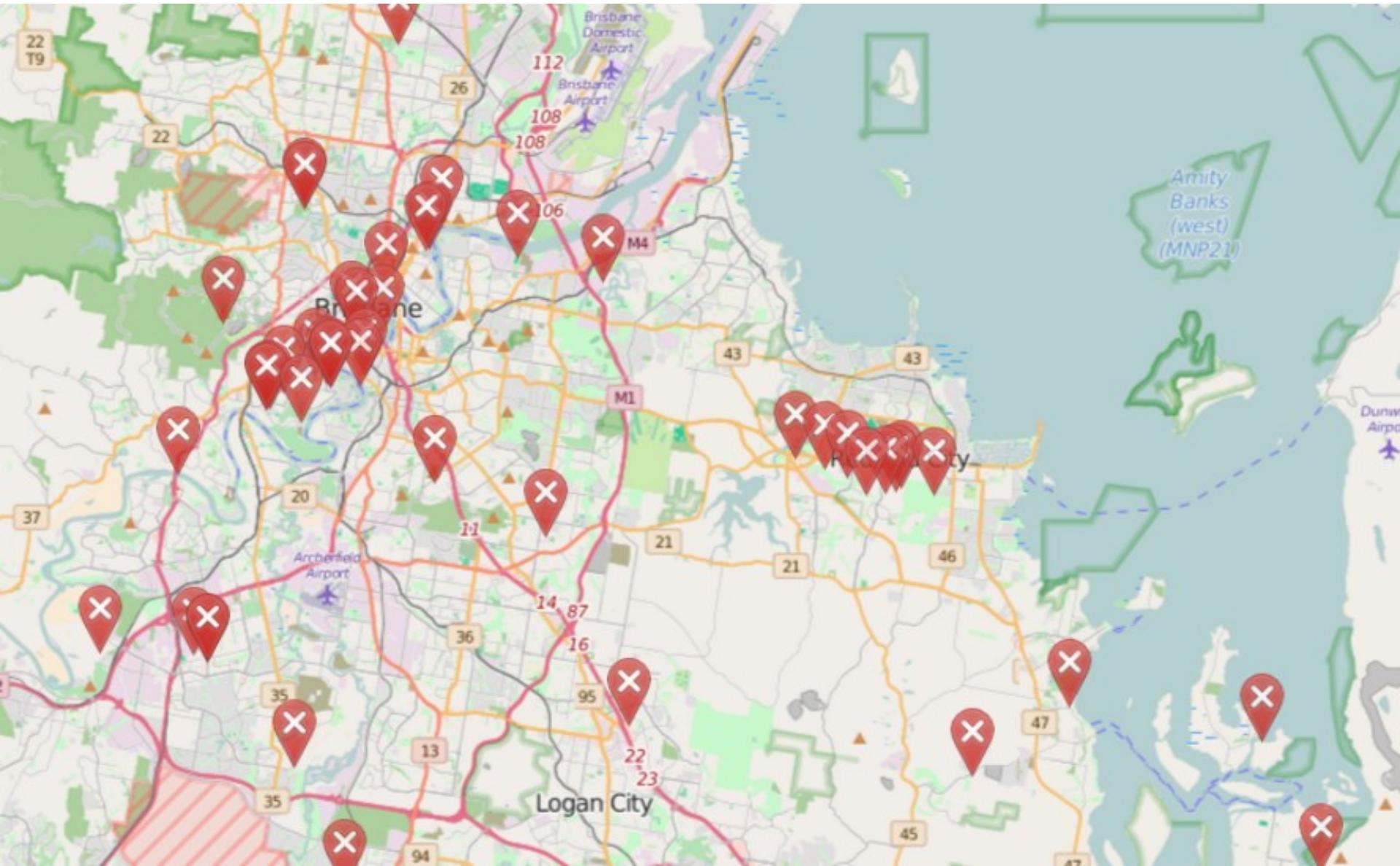
Google



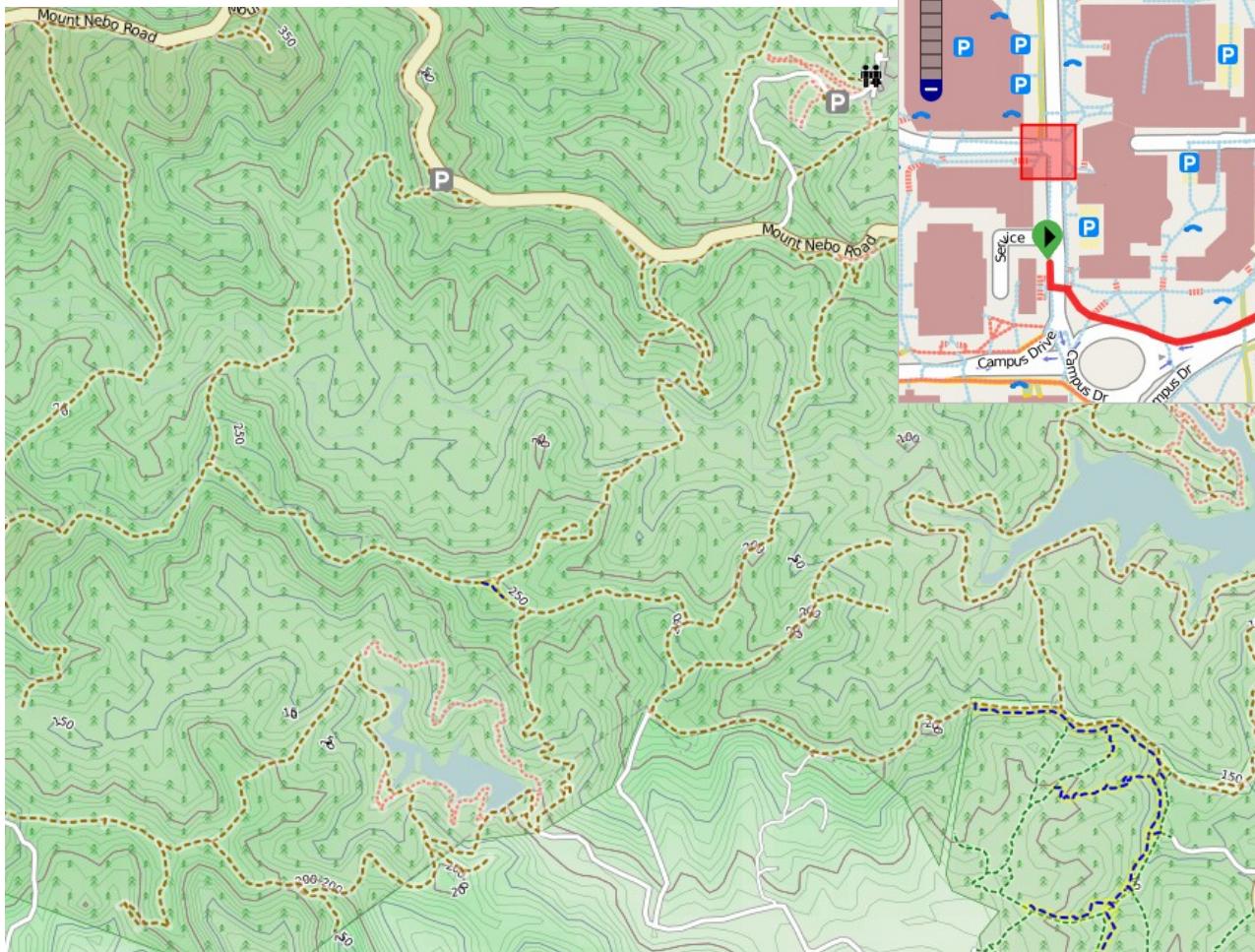
OpenStreetMap



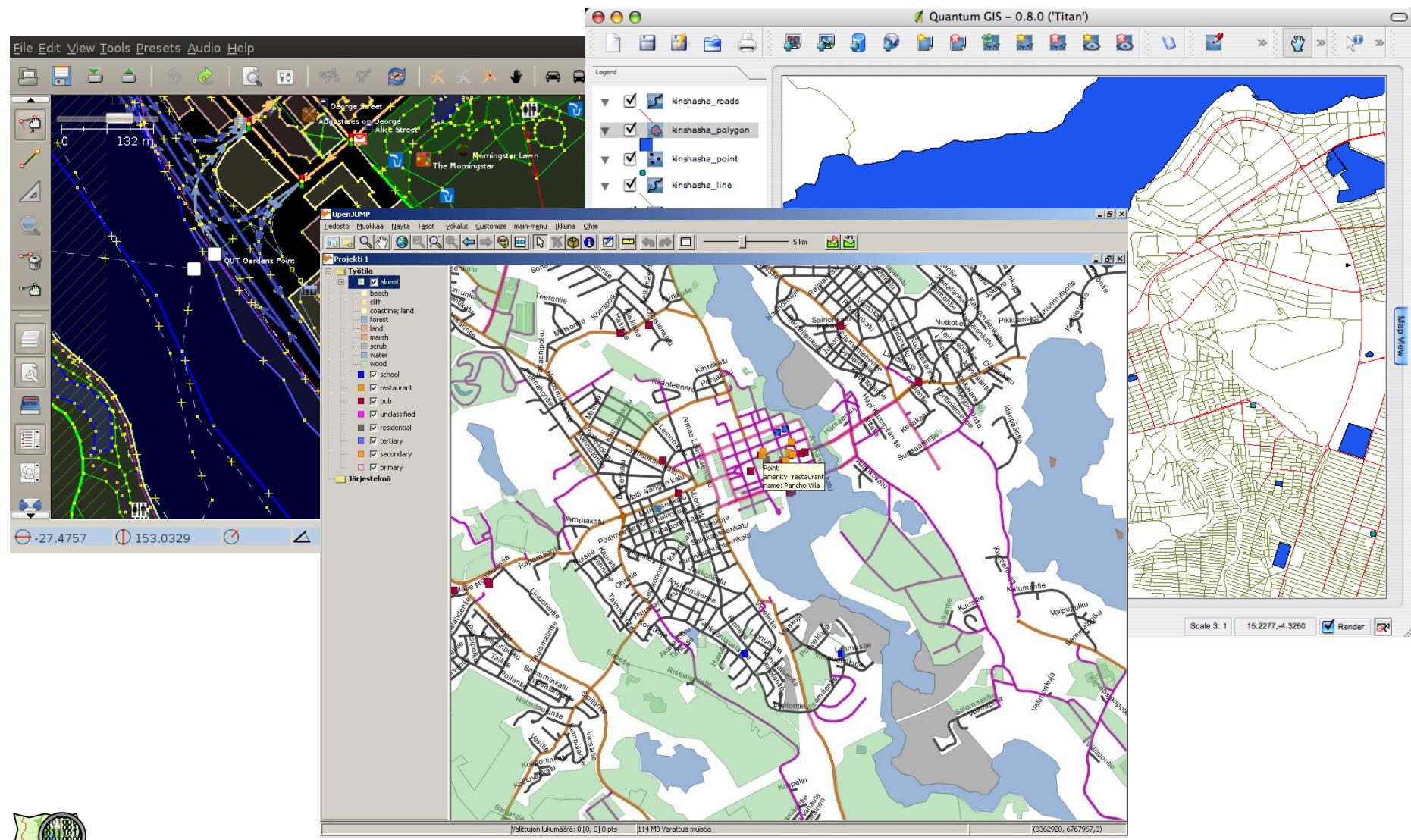
But, there's still work to be done



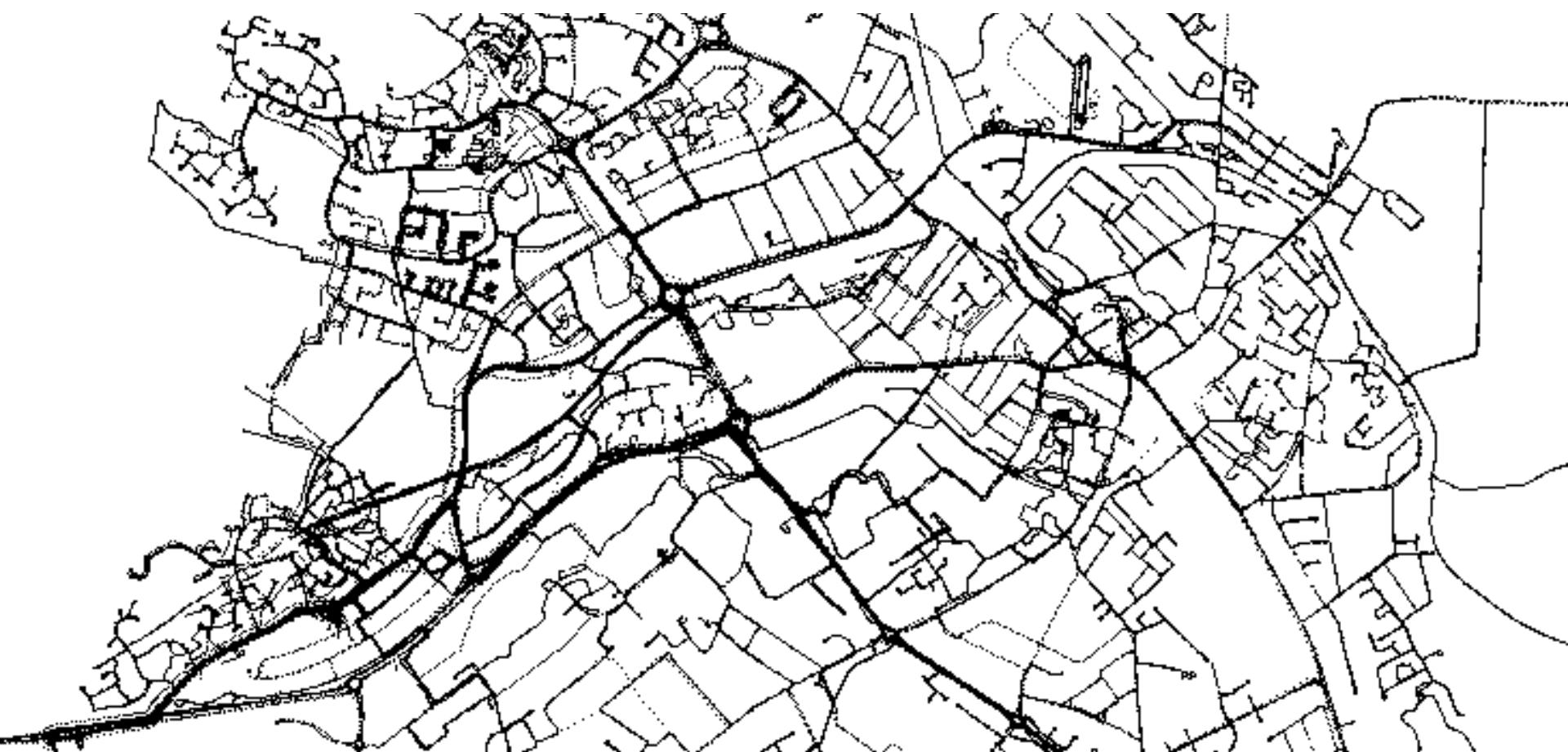
Not just for cars



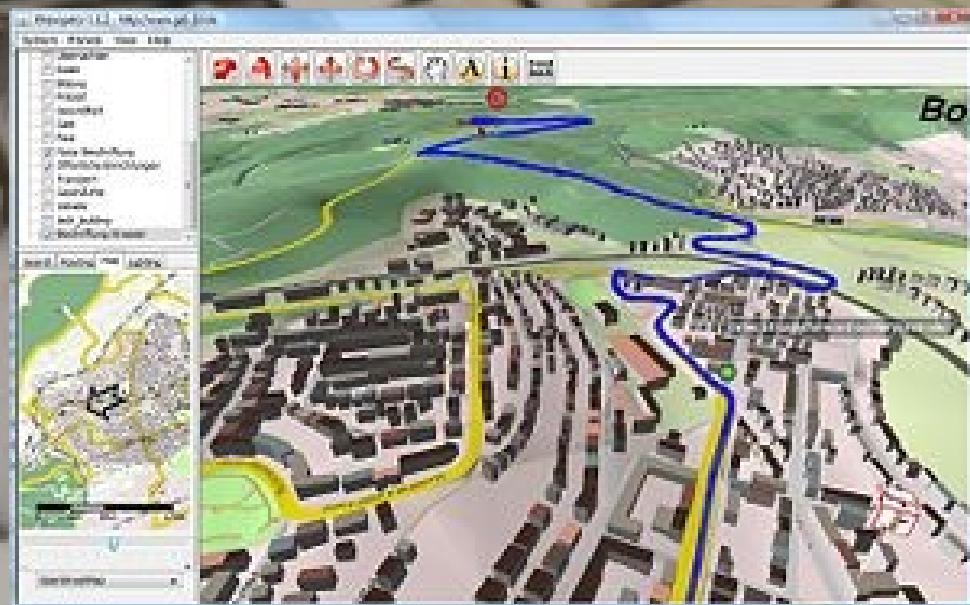
Data freely available (and editable)



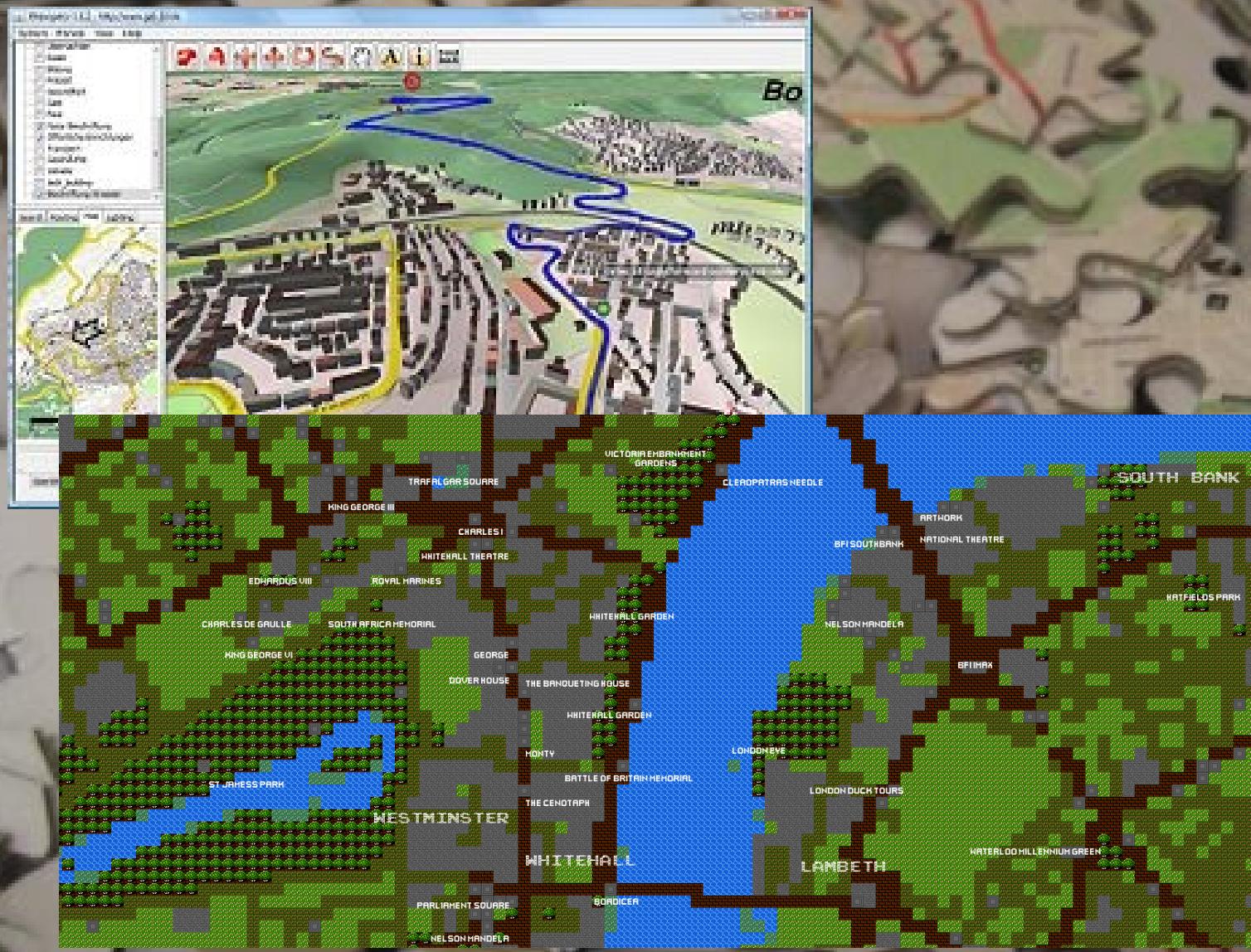
Raw traces are available too



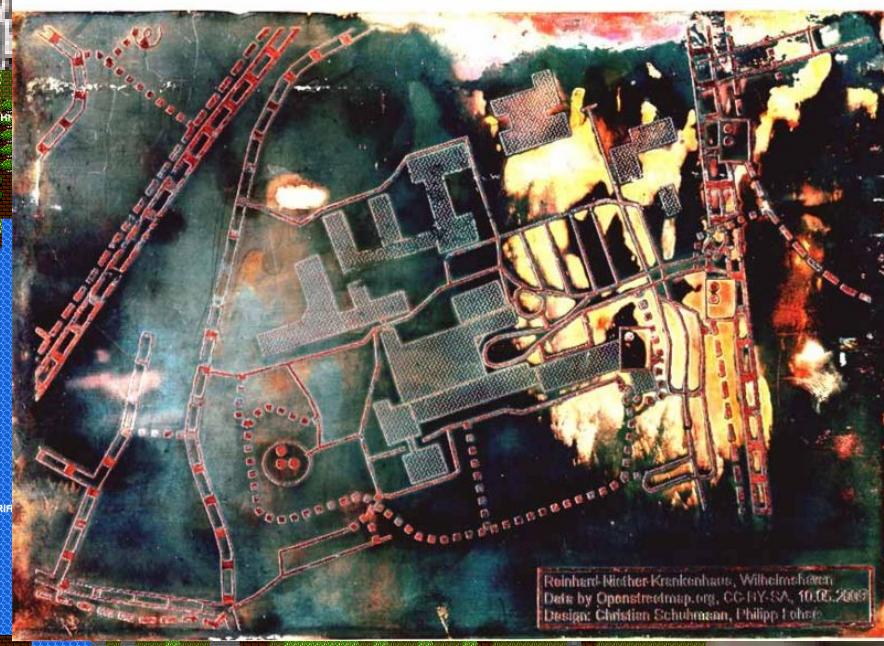
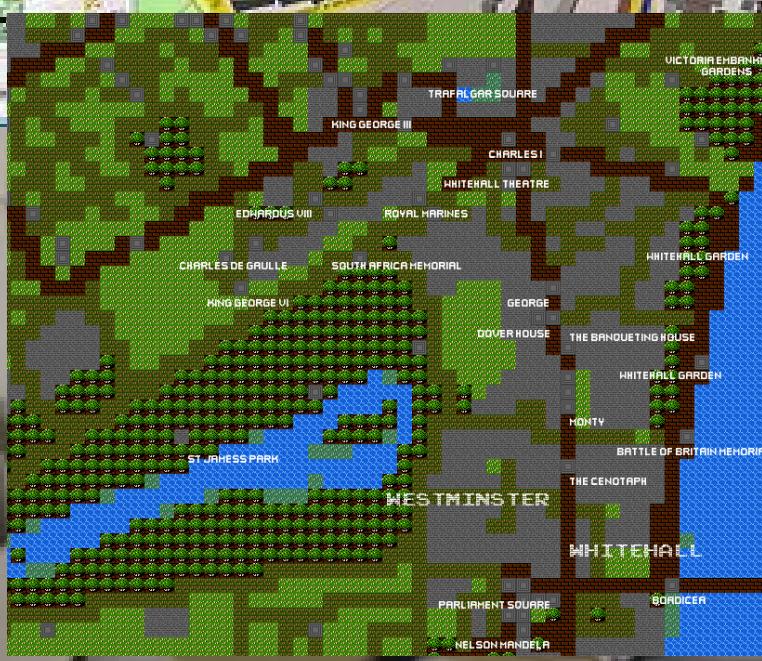
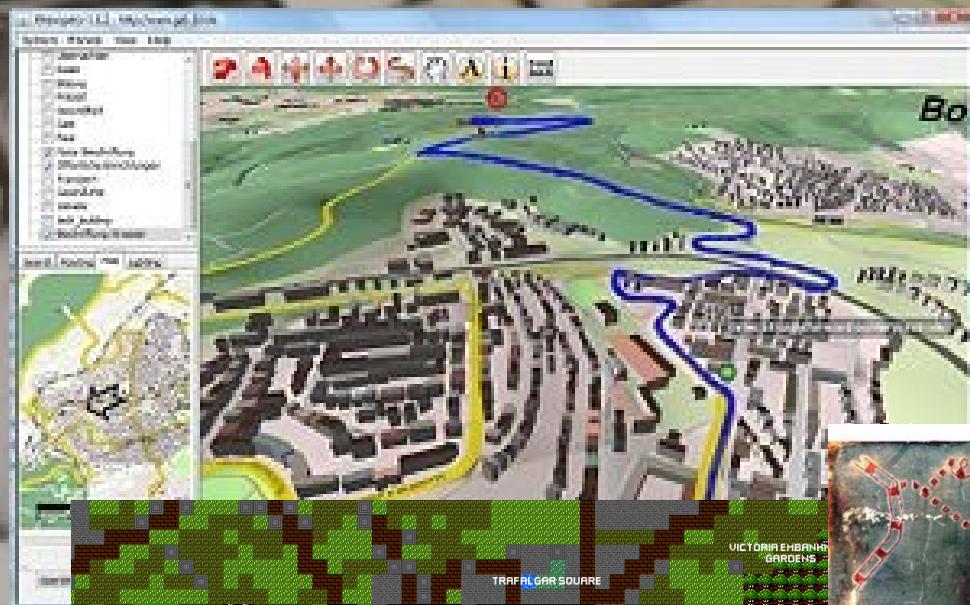
Free data means you can do more neat stuff



Free data means you can do more neat stuff

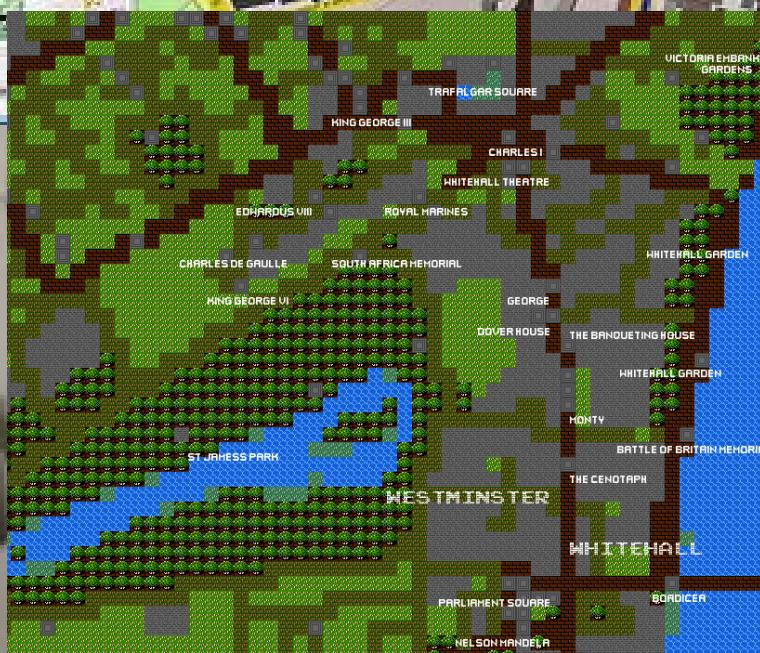
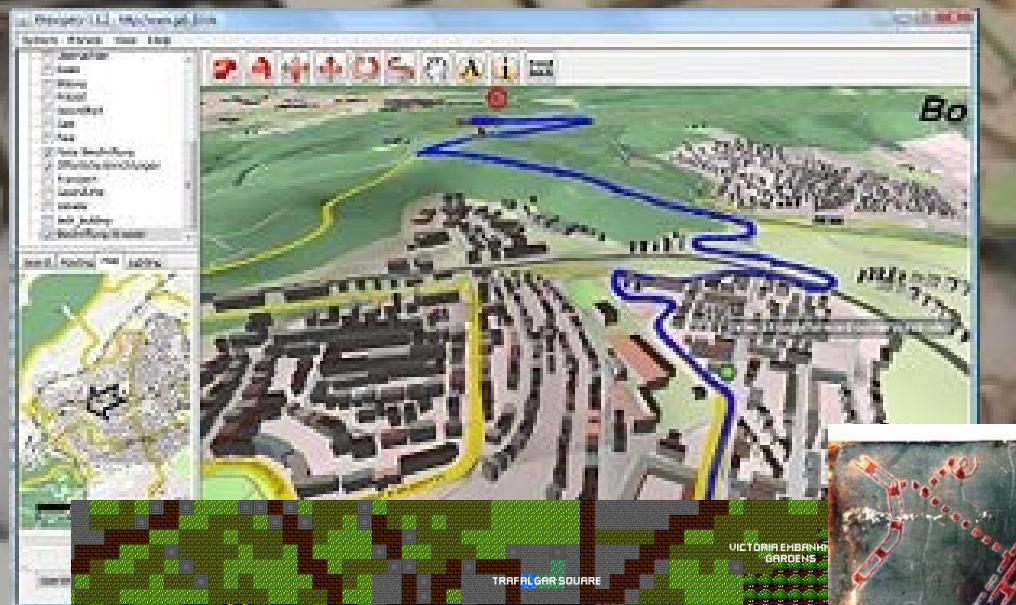


Free data means you can do more neat stuff



Reinhard-Nicther Krantenhamm, Wilhelmshaven
Data by OpenStreetMap.org, CC-BY-SA, 10.05.2009
Design: Christian Schuhmann, Philipp Löher

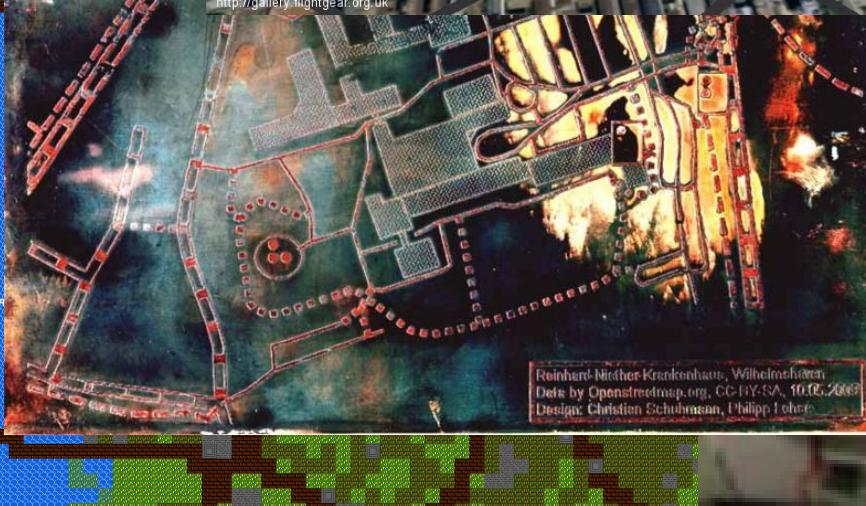
Free data means you can do more neat stuff



FlightGear Development Screenshots

<http://gallery.flightgear.org.uk>

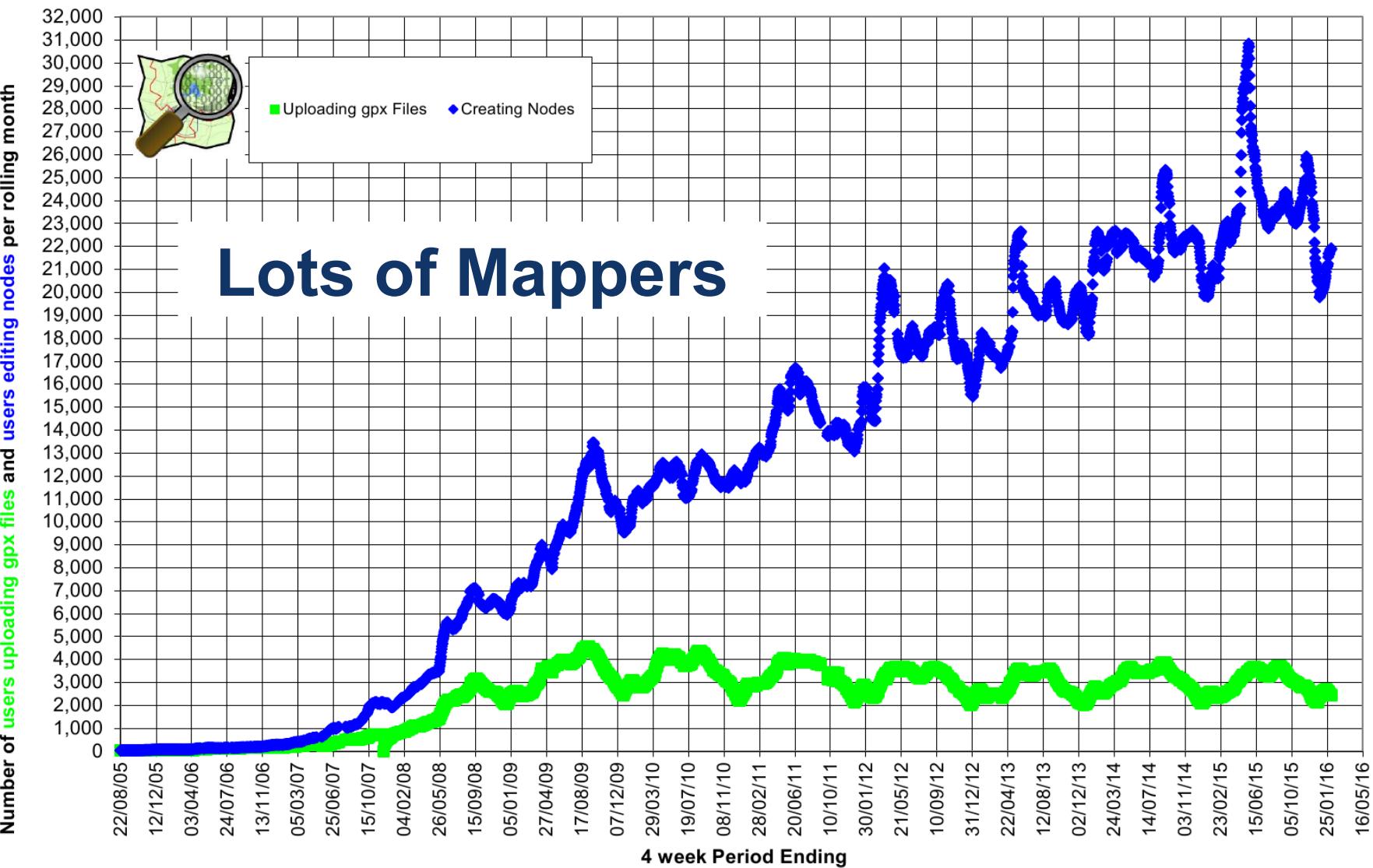
osm_scenery-06.jpg
© Jon Stockill



Reinhard-Nicther Krantenhamm, Wilhelmshaven
Data by Openstreetmap.org, CC-BY-SA, 10.05.2009
Design: Christian Schuhmann, Philipp Löher

OpenStreetMap Database Statistics

Users Uploading or Editing Nodes (Rolling Month)



Worldwide activity

2013 Year of Edits
(from <https://vimeo.com/83164362>)



Humanitarian OpenStreetMap Team



FEATURED PROJECT

Mapping Financial Inclusion in Uganda

Access to digital financial services is fundamental to enabling poor people to become more economically stable, prosperous, and resilient. HOT, with support from the Bill and Melinda Gates Foundation, will initiate a six-month pilot program in Uganda starting in December 2015.

The Humanitarian OpenStreetMap Team [HOT] applies the principles of open source and open data sharing for humanitarian response and economic development.



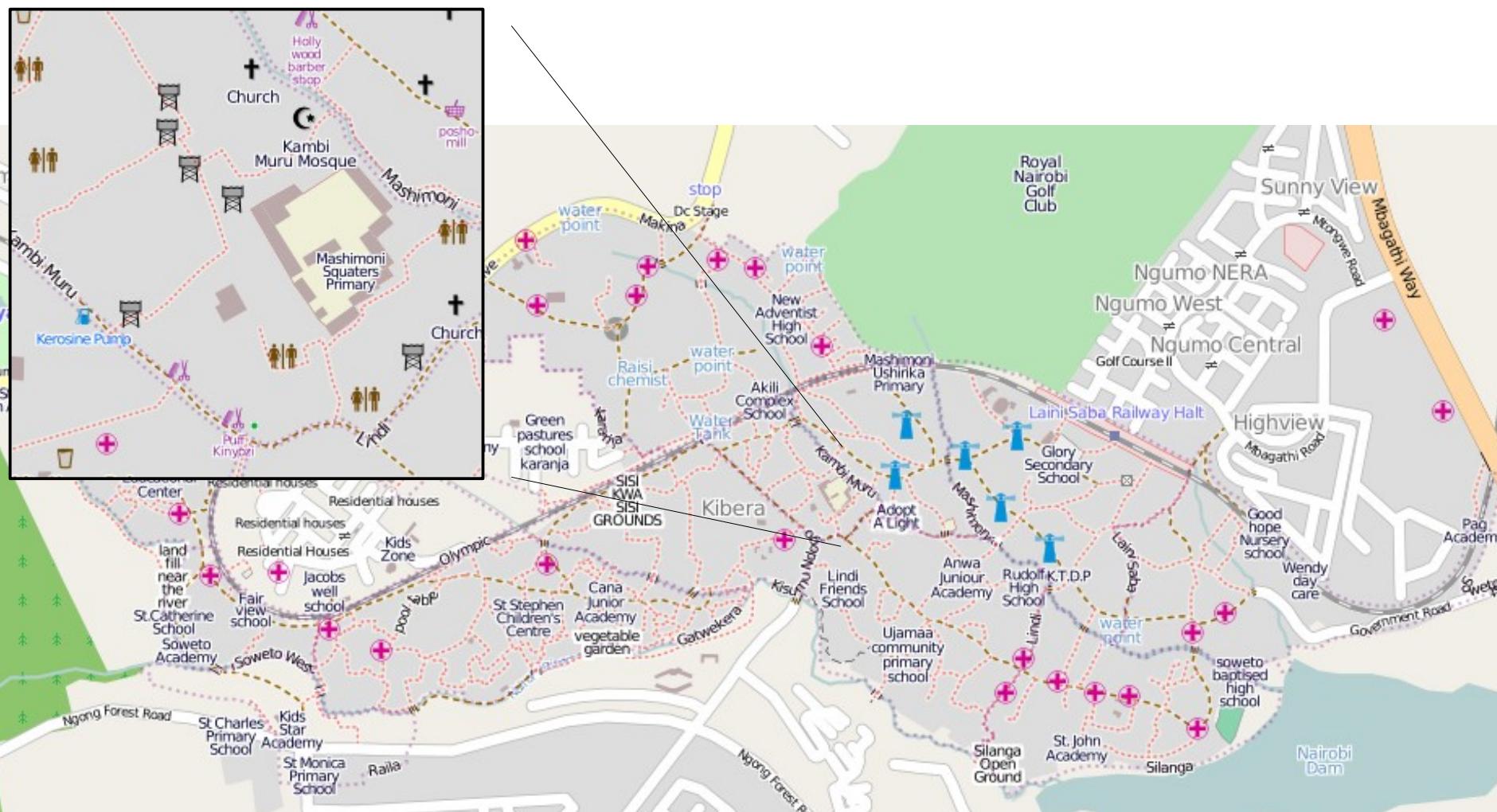
MAP Kibera (April 2009)

- First complete, free and open map of Kibera, Nairobi.
- Mapped primarily with local volunteers with the assistance of MAP Kibera.

<http://mapkibera.org>



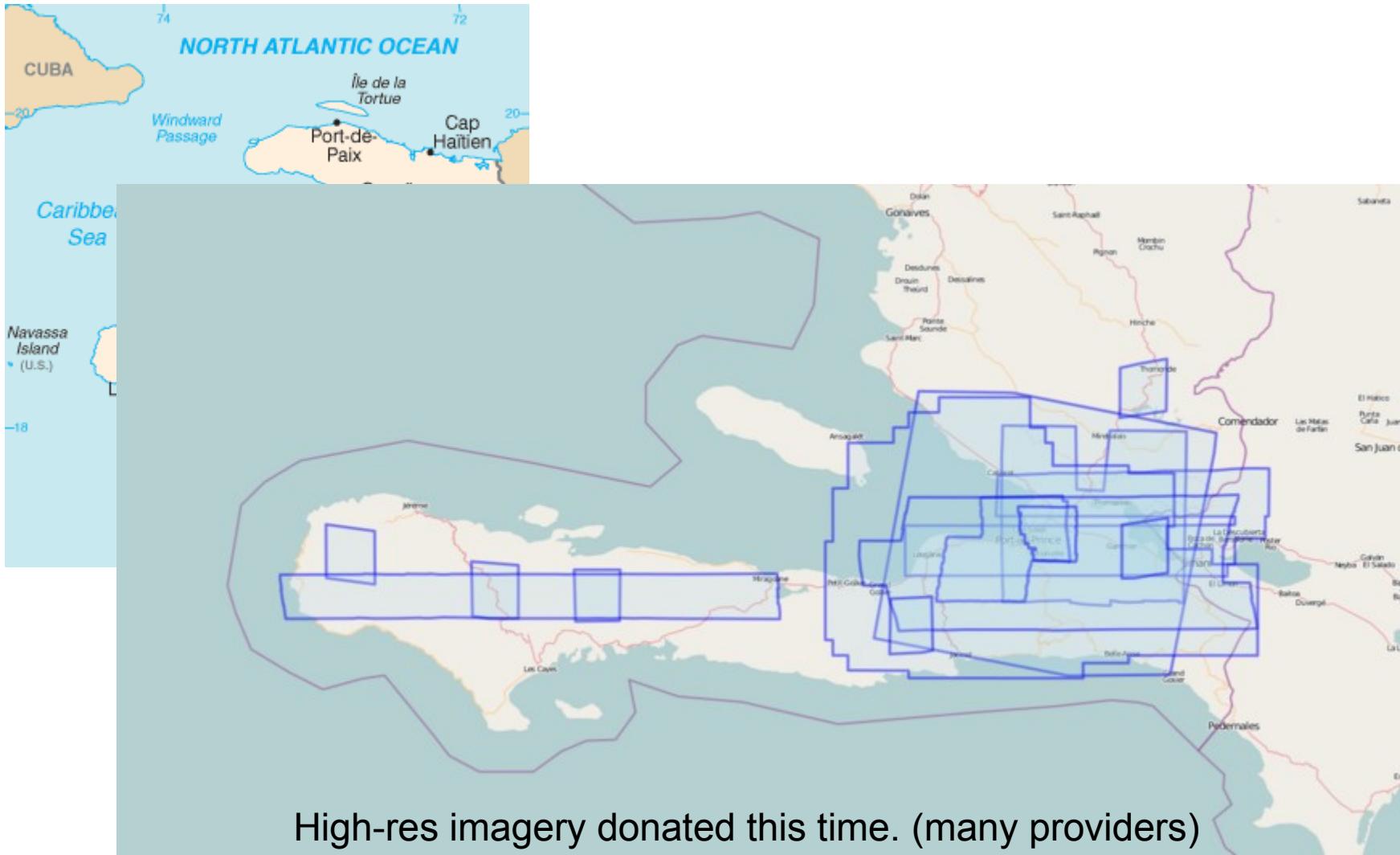
Kibera today



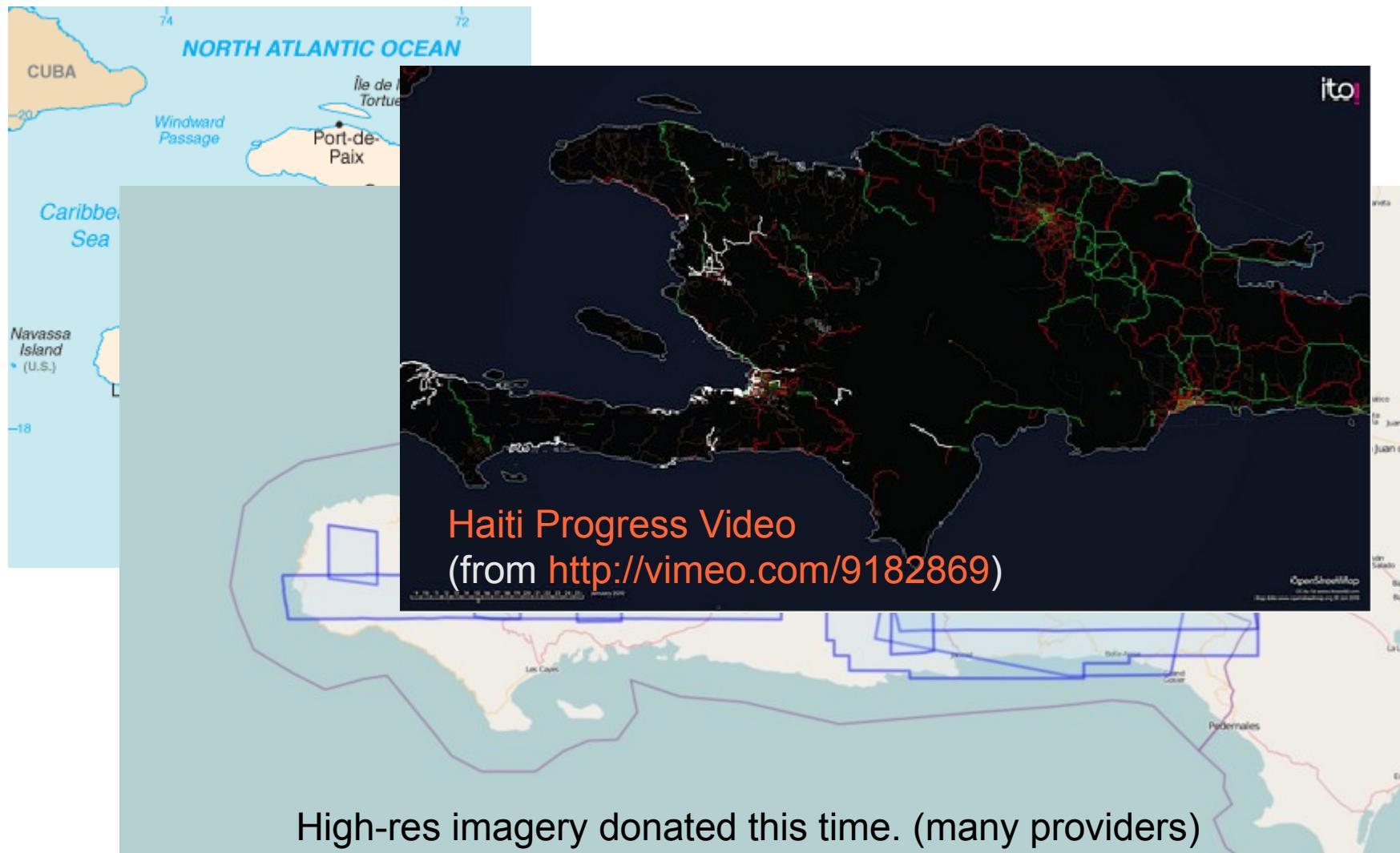
Haiti earthquake, Jan 2010



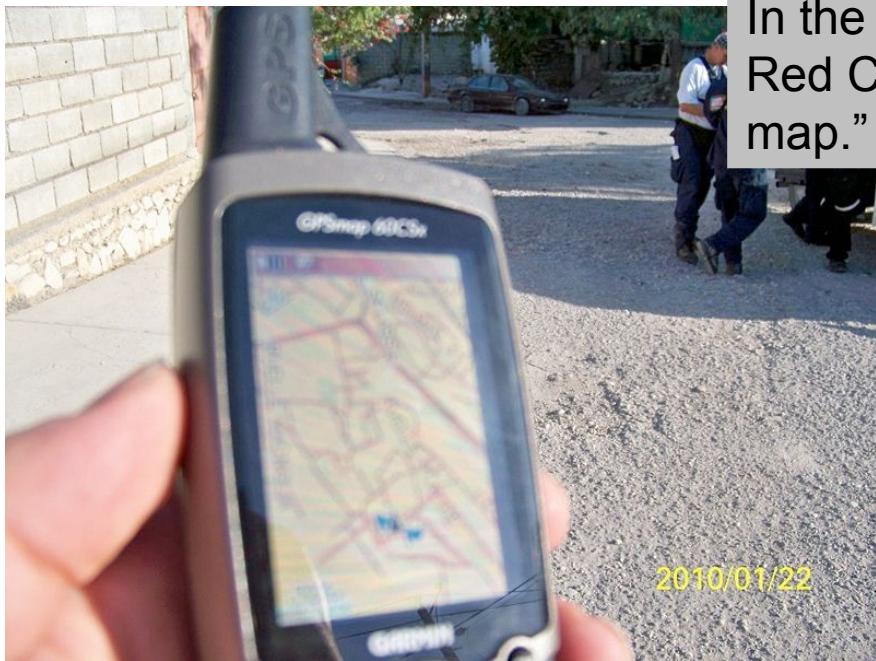
Haiti earthquake, Jan 2010



Haiti earthquake, Jan 2010



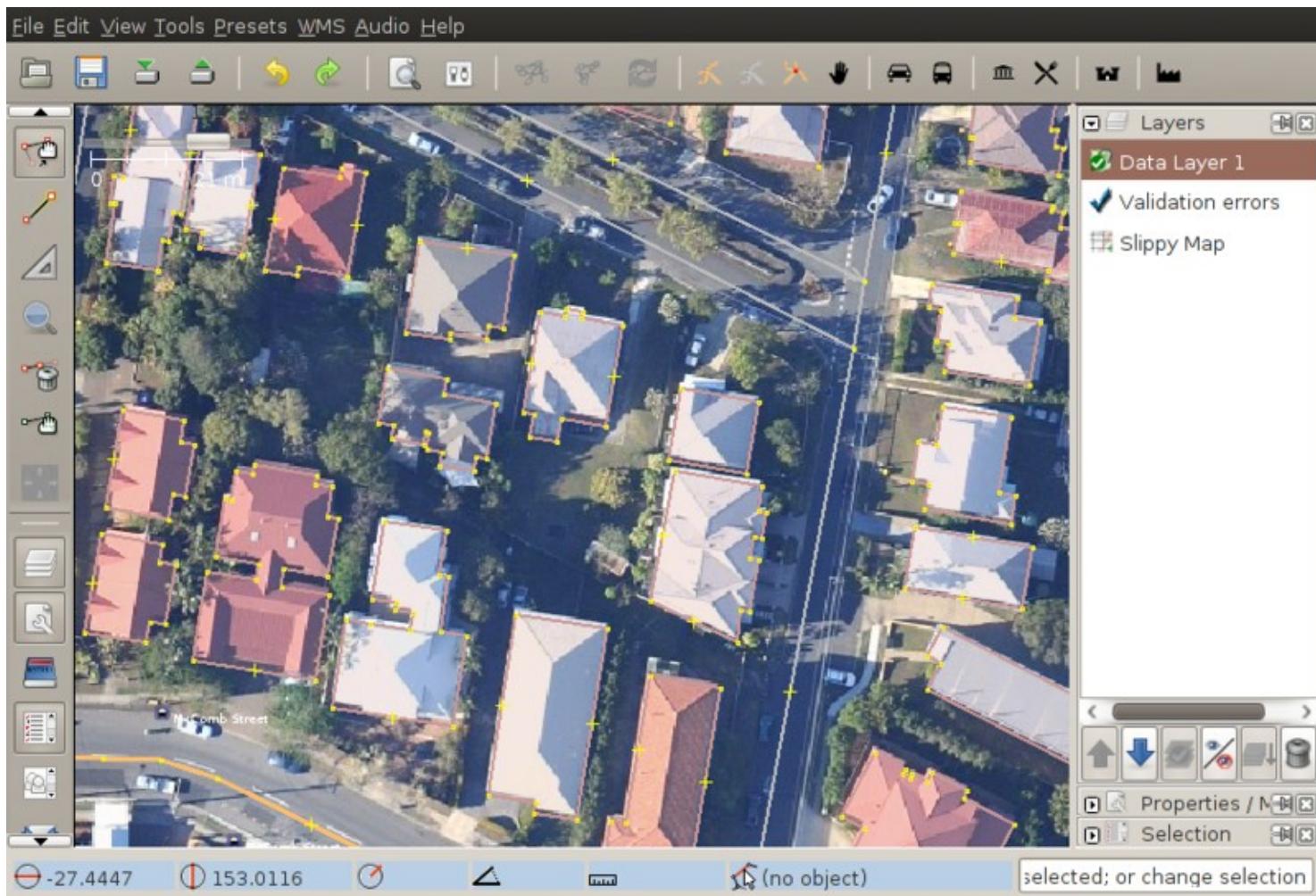
"Hello guys, I just wanted to let you know that your work on improving the Haiti maps is really appreciated here. A few days ago I installed a version on my Garmin Oregon GPS and the result is impressive. It has already saved me and my driver from getting lost twice, and the alternative would have been long delays. In the coming days I will try to update our Red Cross relief GPS receivers with your map." - Kjeld Jensen, Red Cross (IFRC)



So, how can you help map?



(Option 1) Trace aerial imagery

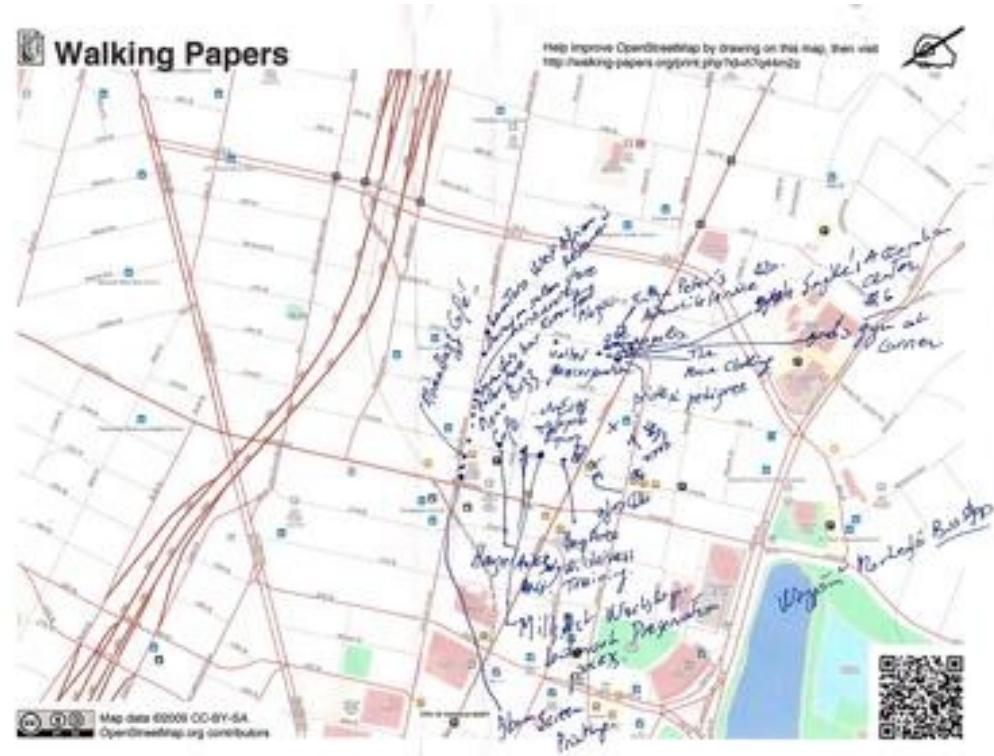


(Option 2) Go outside

Take notes, →



record your trip
(optional),



and update the map from your notes at home



(Option 3) Tell someone about a problem

Unresolved note #464957

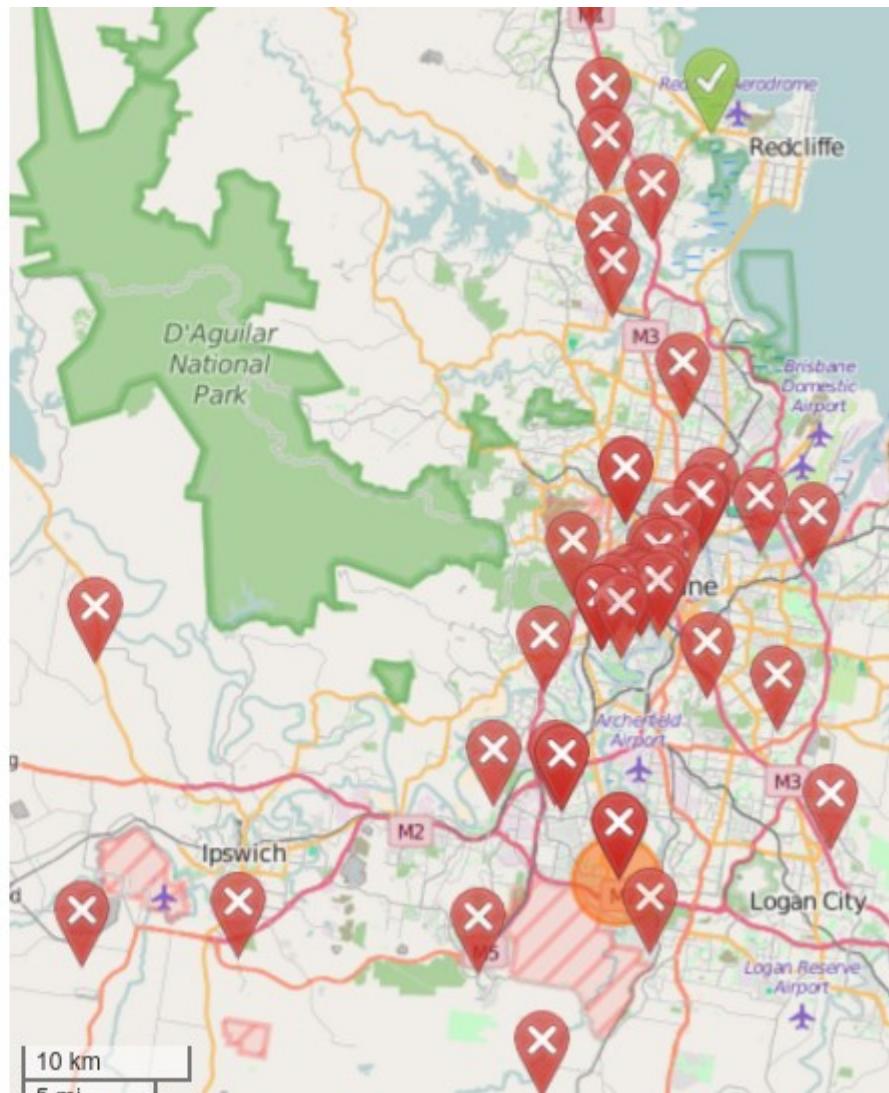
Description

New Pallara Primary School. Opening 2016.

Created by anonymous 4 months ago

This note includes comments from anonymous users which should be independently verified.

Comment



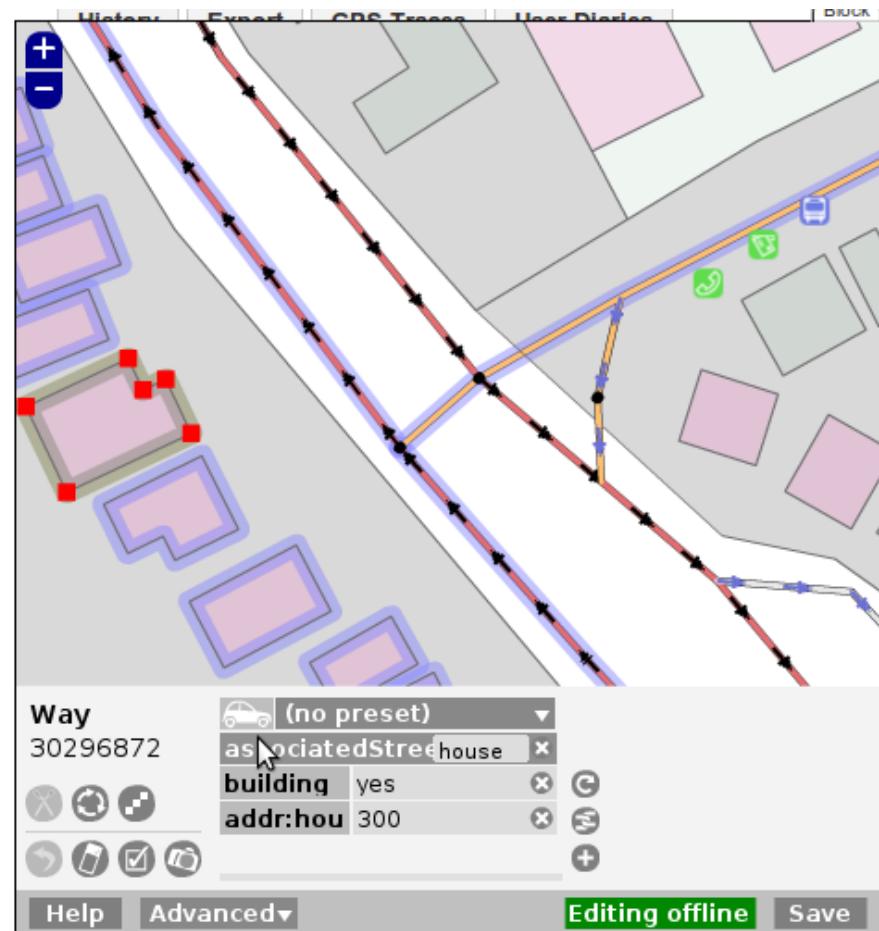
(Option 4) Be social

- Host a mapping party!
- What is a mapping party?
 - A group of people get together to map a large area in a single day
 - Example: Macleay Island in November 2009
(see <http://youtu.be/oxV-nescEIE>)



Data representation

- Geographic information is represented as
 - Nodes
 - Ways
 - Ordered collections of nodes
 - Closed ways can be areas
 - Relations
 - Ordered collections of ways and nodes
- All can be tagged with any key/value pairs



No formal key/value ontology

- Let freedom flourish!
- Common tagging is encouraged
 - Map Features wiki
 - Editor presets
 - Renderers
 - OSMDoc
 - Tagwatch

highway=motorway +/-



Description
Motorways are high capacity highways designed to safely carry fast motor traffic.

Used on these elements [help](#)



Useful combination

- [name=*](#)
- [ref=*](#)
- [oneway=yes](#)
- [lanes=*](#)

Implies

leisure=park +/-



Description
A park. Open, green area for recreation, usually municipal

Used on these elements [help](#)



Useful combination

- [Key:name](#)
- [Key:operator](#)

Usage figures

- [OSMDoc](#)

Used combinations in [show](#)

Status
Undefined



Questions?

Thanks for listening.

