

An introduction to OpenStreetMap

presented by David Dean
<http://www.dbdean.com>

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

What is OpenStreetMap?

- Geographic data
 - For driving, riding, walking, boating, skiing, hiking, anything
- Free
 - Currently CC-BY-SA, moving to ODBL
- Wiki-like editing



<http://www.osm.org>



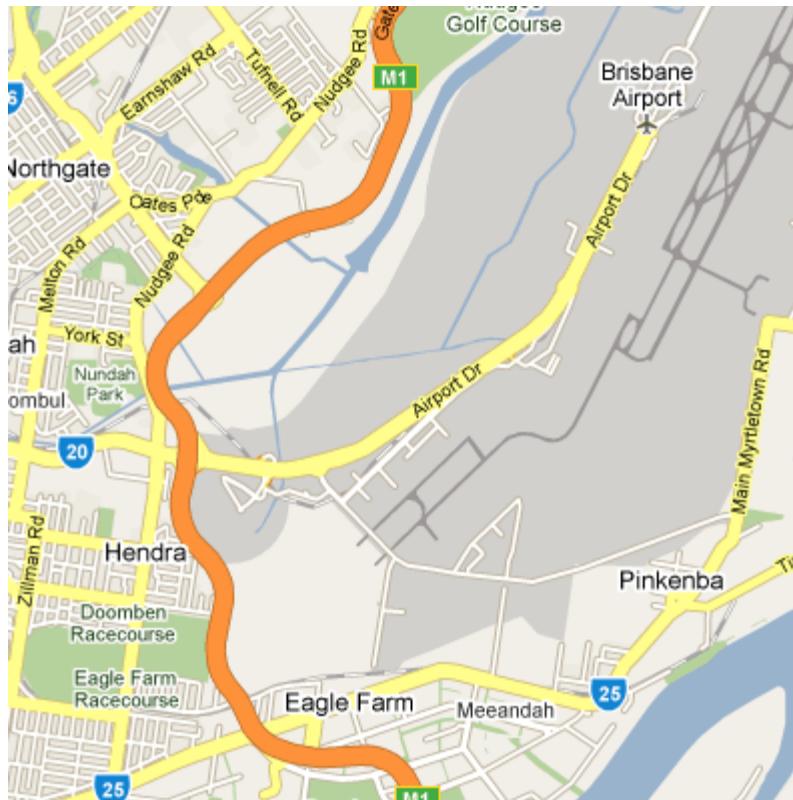
Why not just use Google Maps?

or WhereIs/Yahoo/Bing Maps?

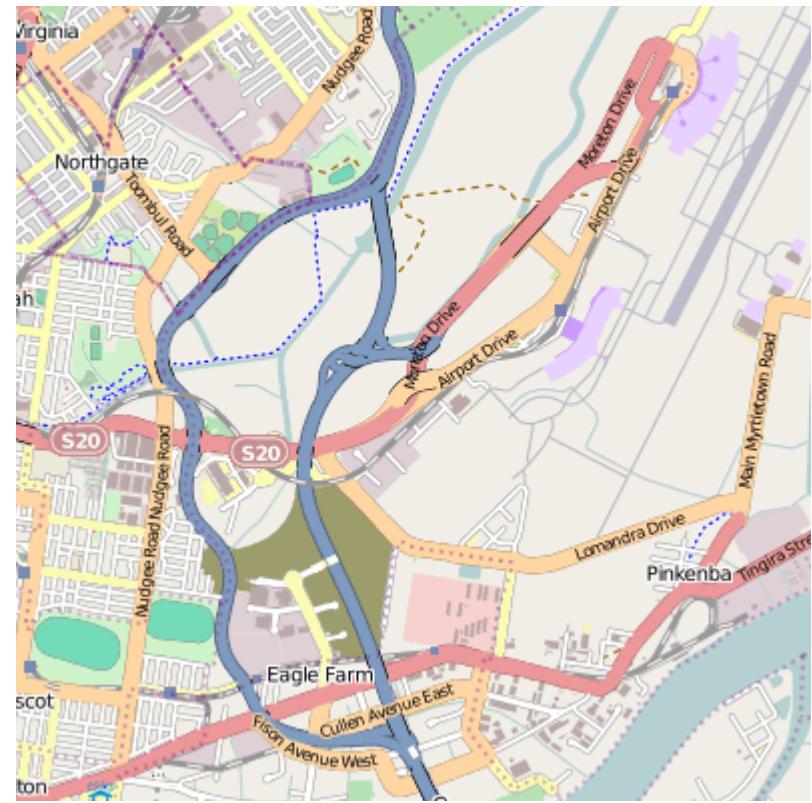
or whatever is on your GPS/Phone?



Updated rapidly



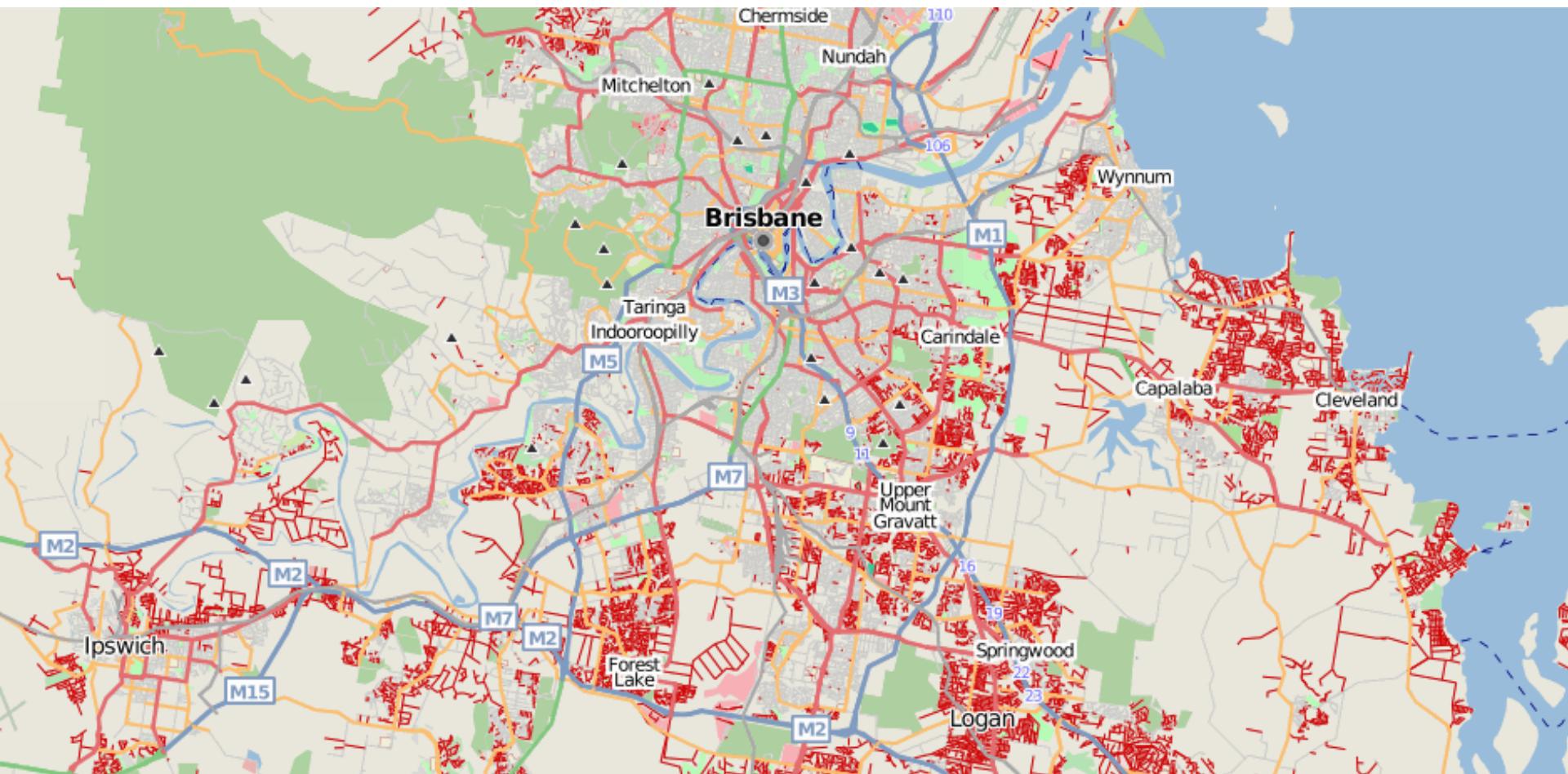
Google



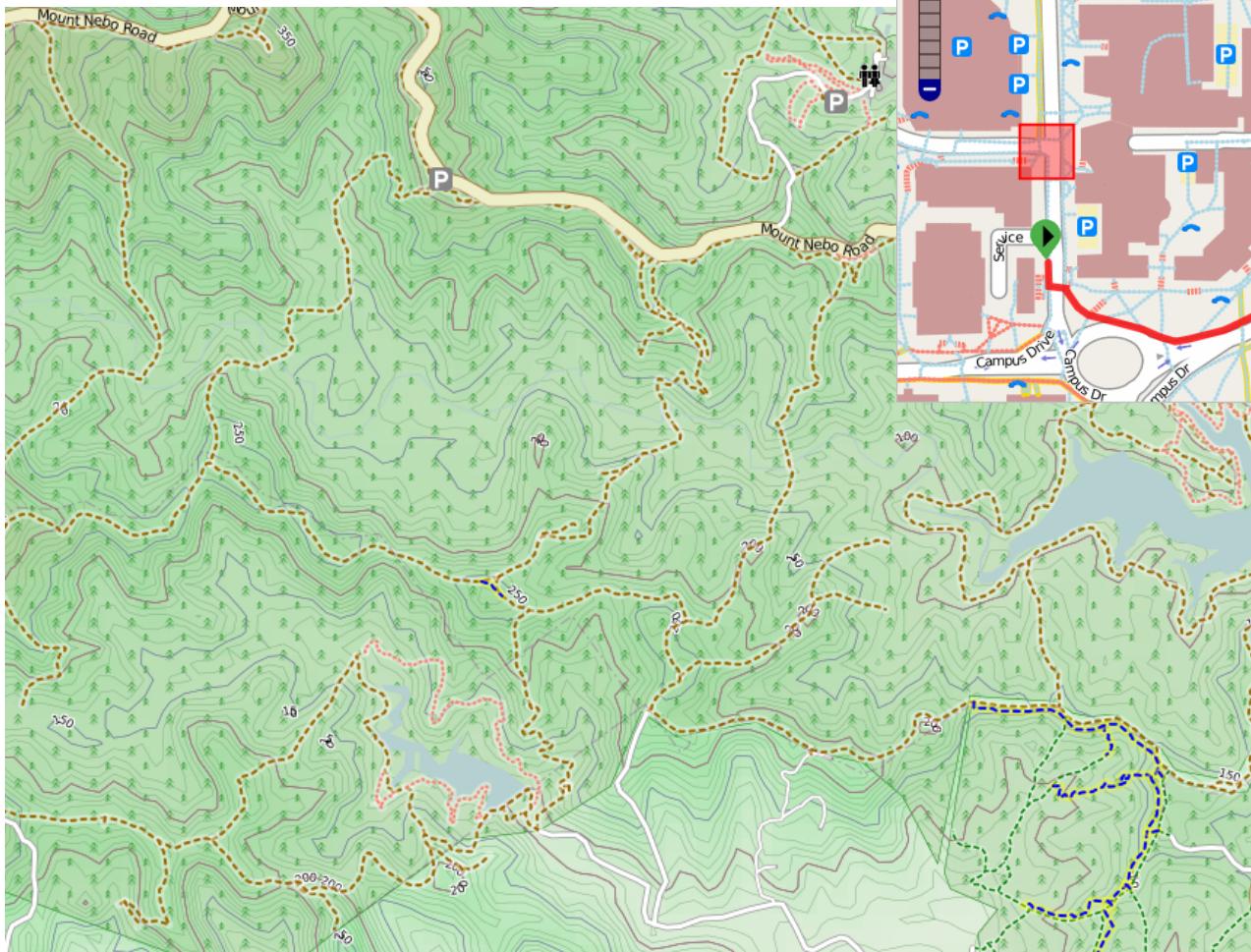
OpenStreetMap



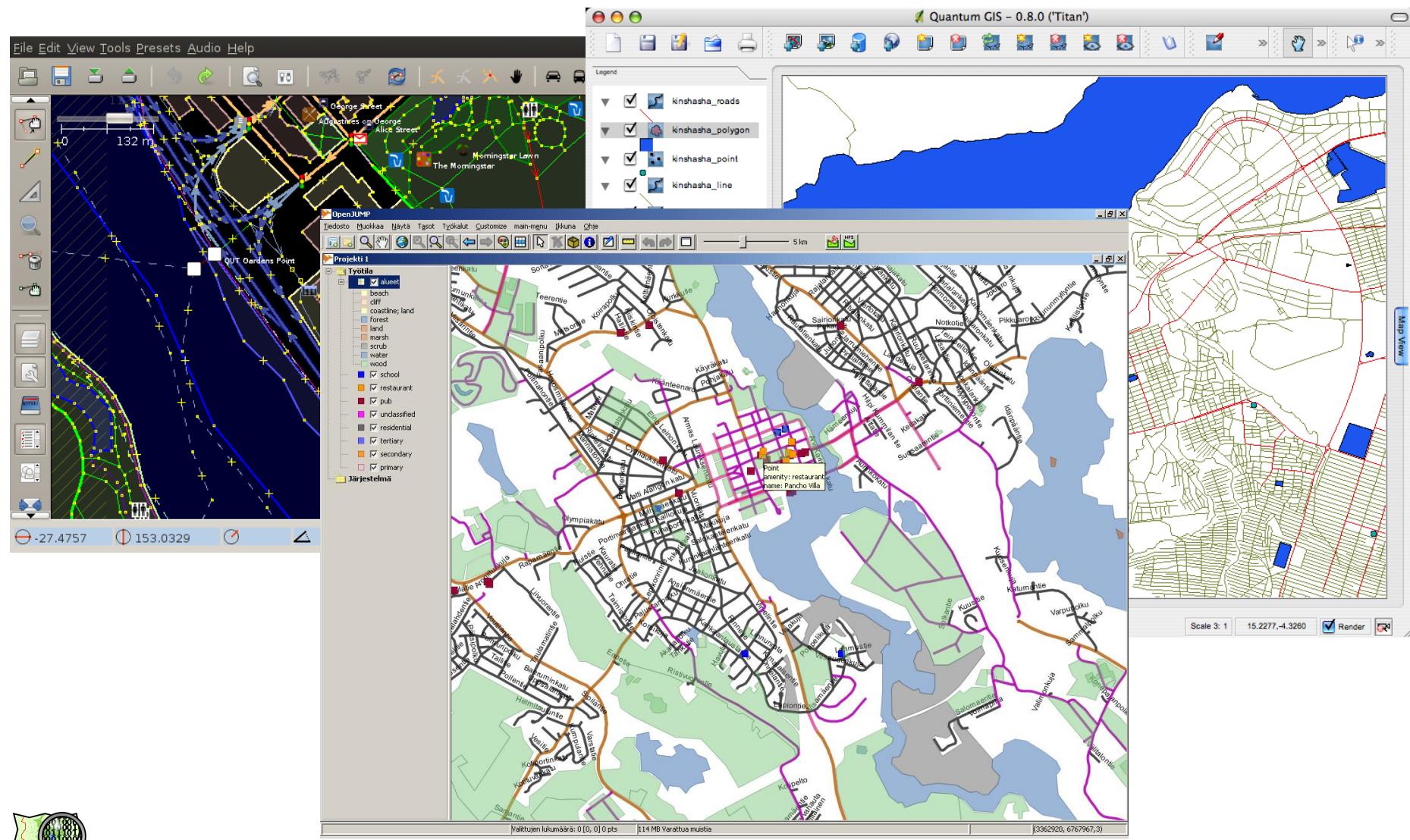
But, coverage can be poor



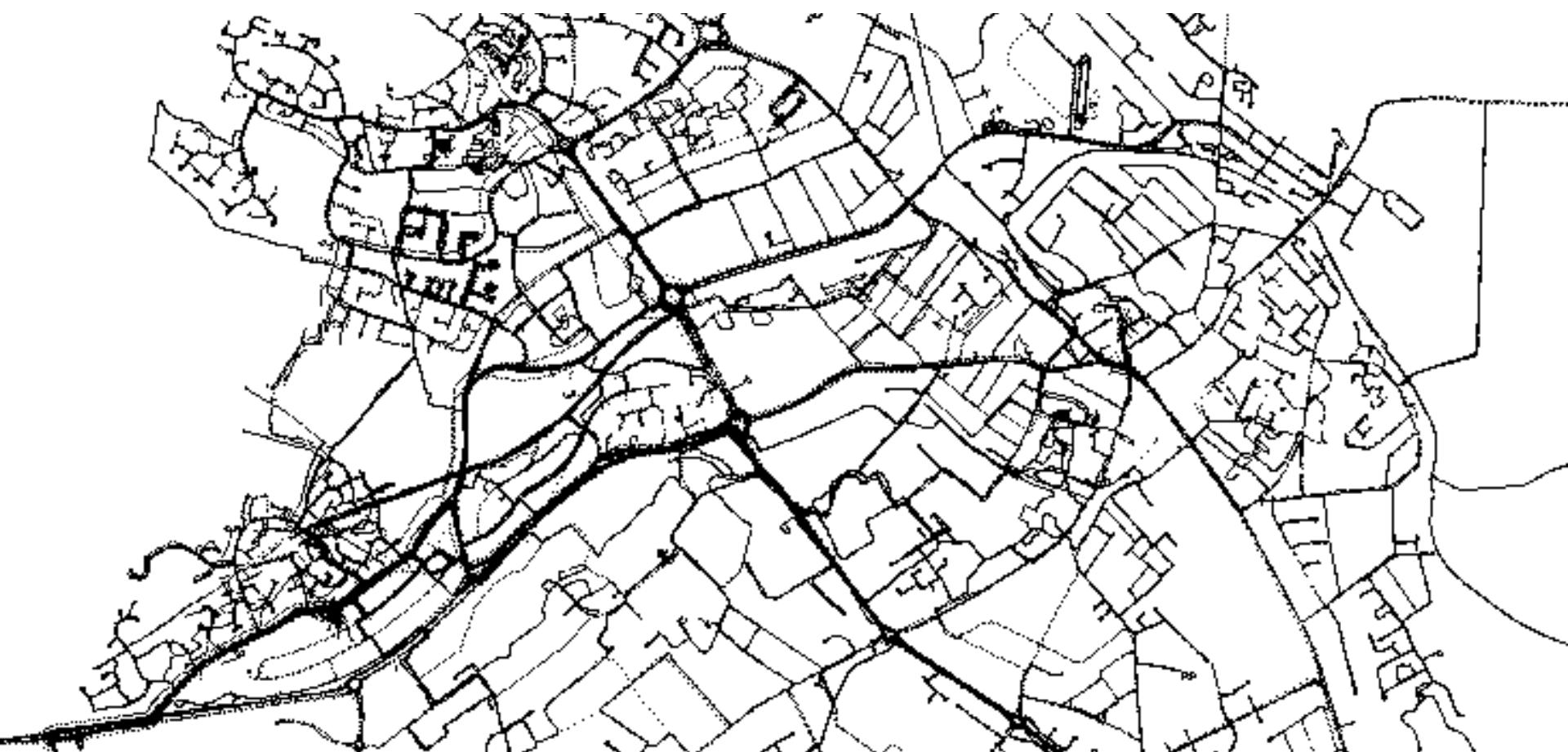
Not just for cars



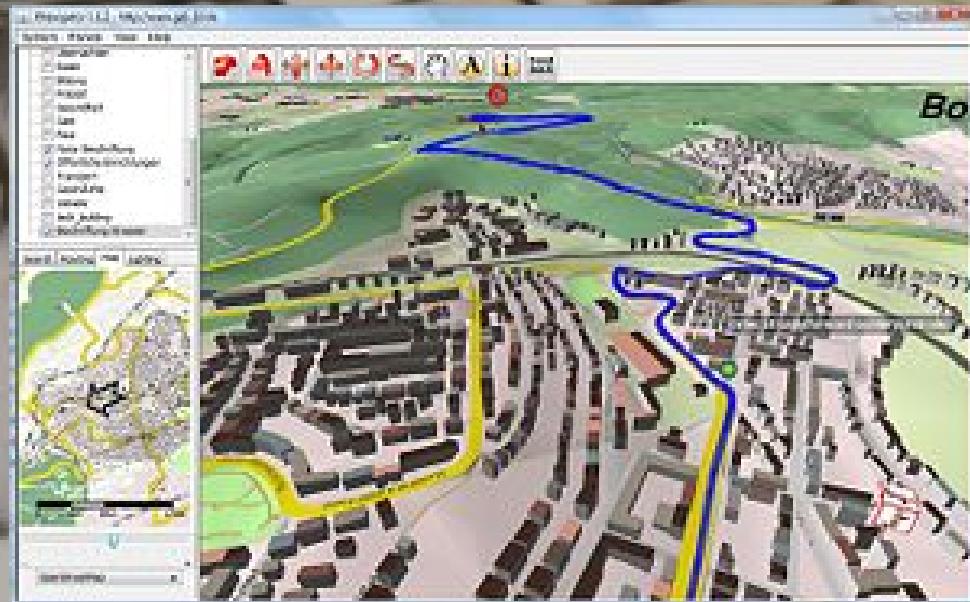
Data freely available (and editable)



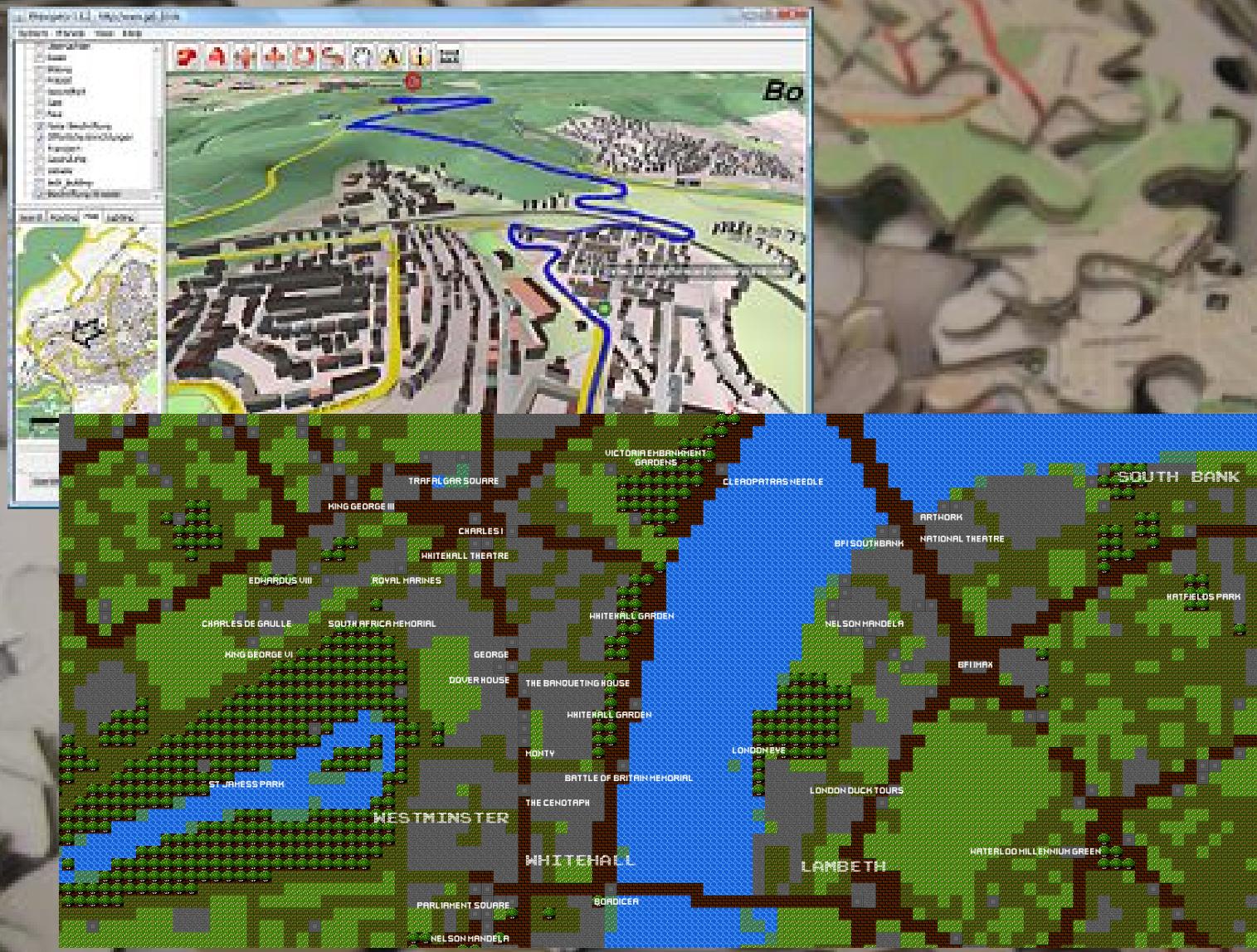
Raw traces are available too



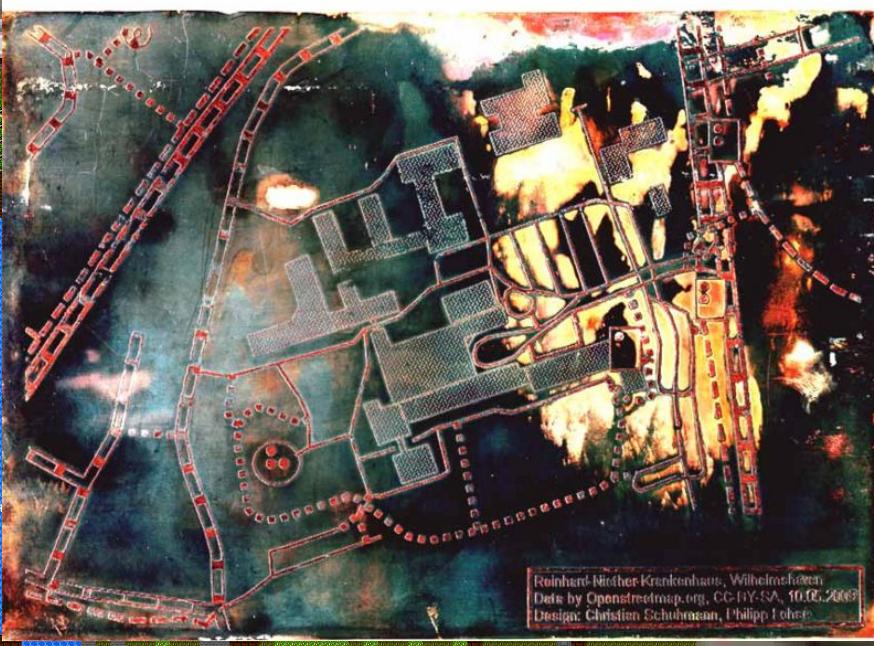
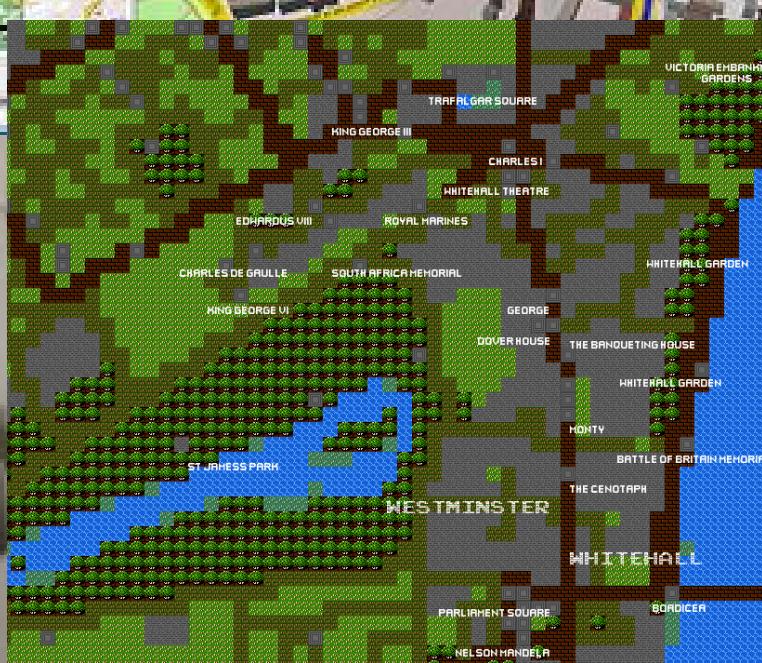
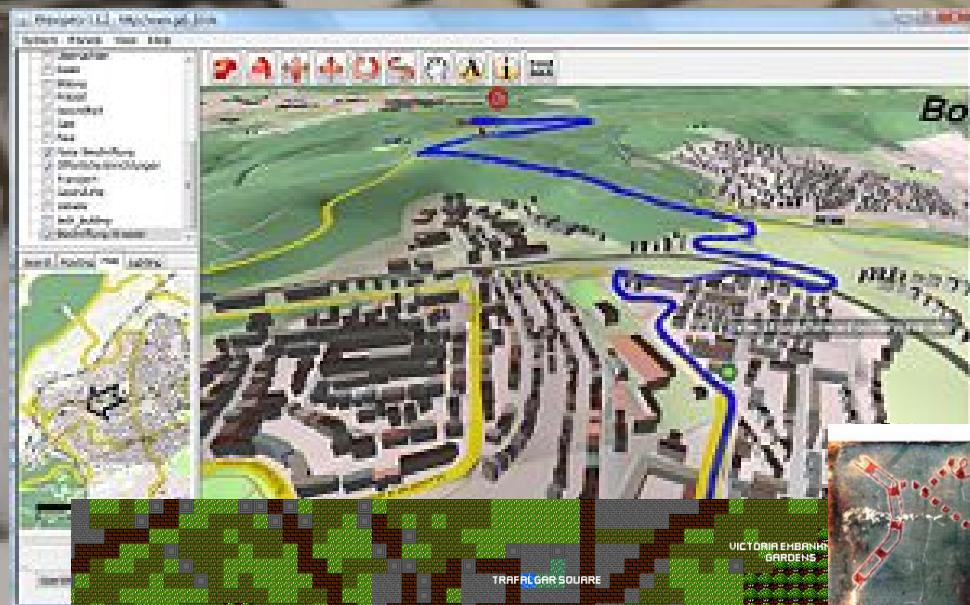
Free data means you can do more neat stuff



Free data means you can do more neat stuff

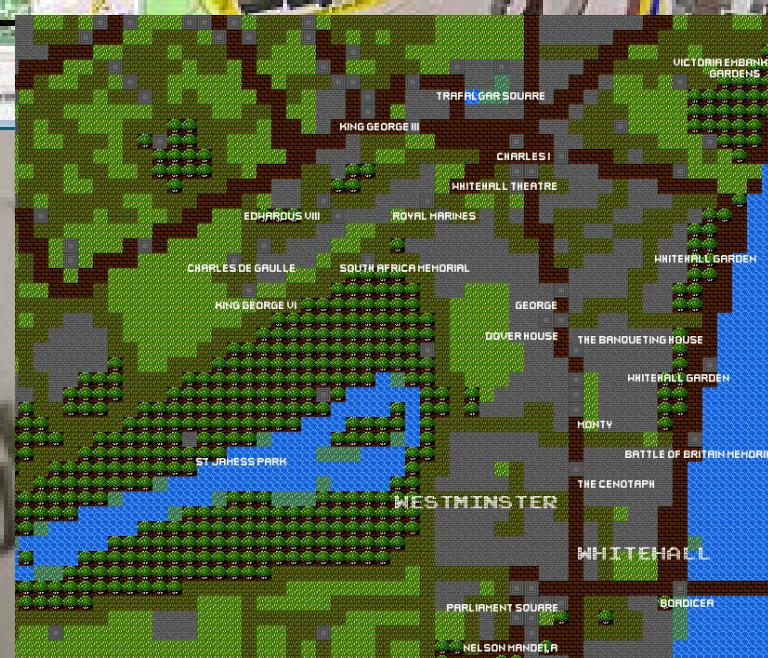
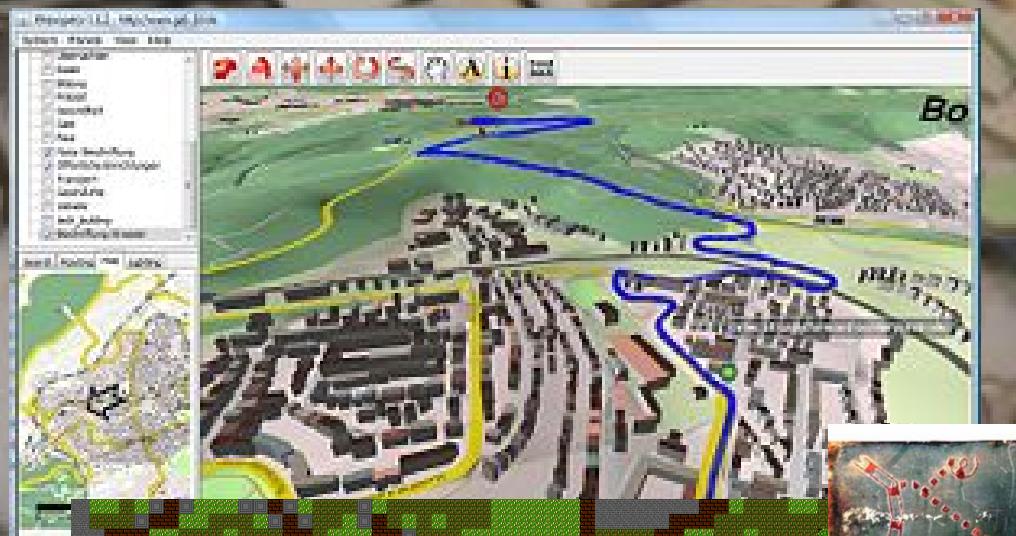


Free data means you can do more neat stuff



Reinhard-Nicther Krantenhaus, 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



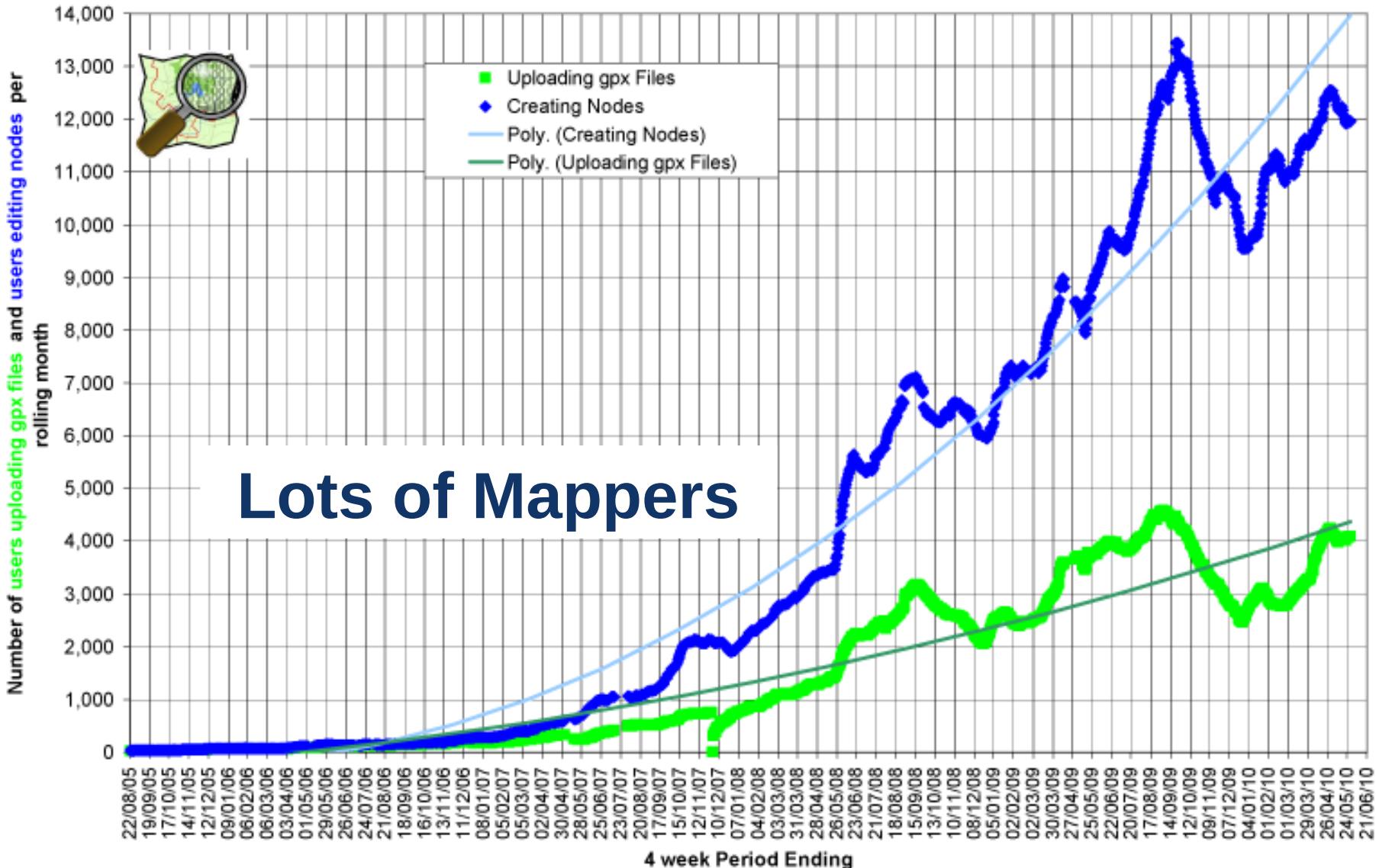
FlightGear Development Screenshots
<http://gallery.flightgear.org.uk>



Reinhard-Nicther Krantenhaus, Wilhelmshaven
Data by Openstreetmap.org, CC-BY-SA, 10.08.2009
Design: Christian Schuhmann, Philipp Löher

OpenStreetMap Database Statistics

Users Uploading or Editing Nodes (Rolling Month)

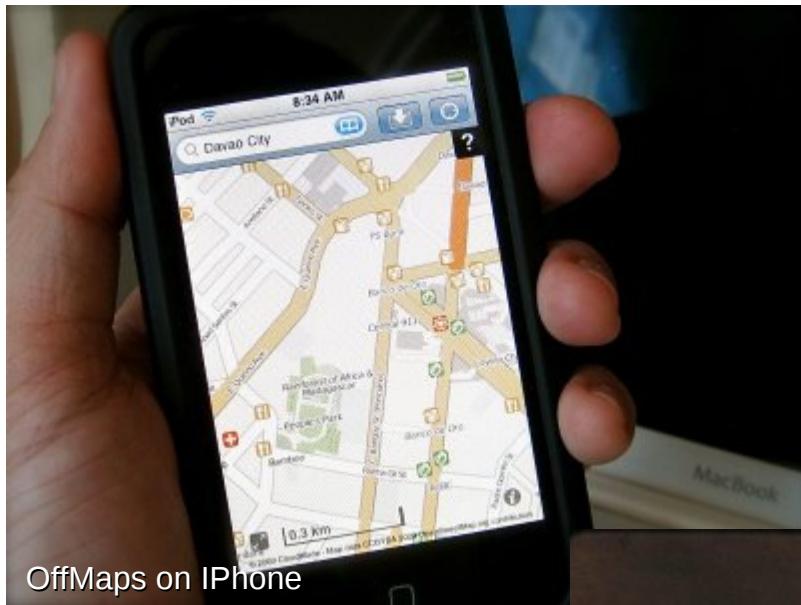


Worldwide activity

OSM 2008: A Year of Edits
(from <http://vimeo.com/2598878>)



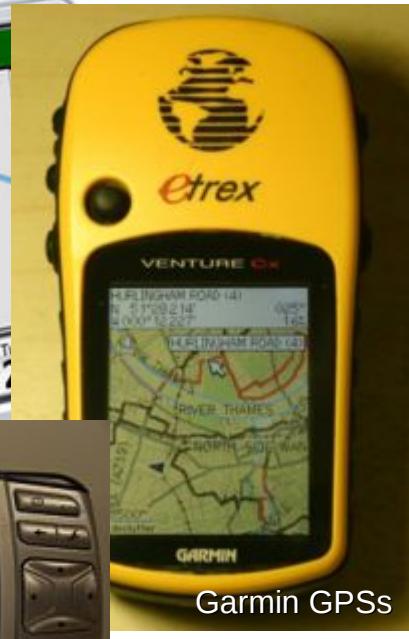
Available on many devices



OffMaps on iPhone



Garmin PNDs



Garmin GPSs



AndNav2 on Android



GPSMid on J2ME



Gosmore on Windows Mobile



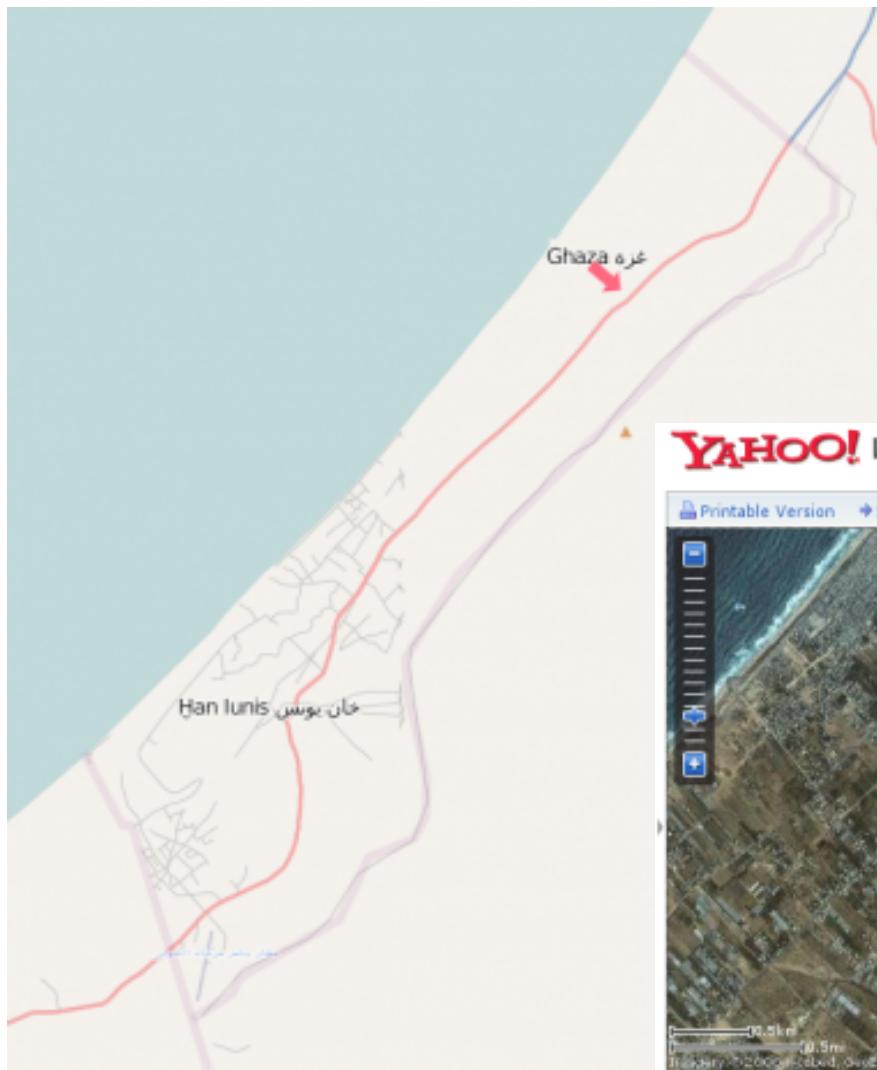
MaemoMapper on Nokia Maemo



Humanitarian OpenStreetMap Team

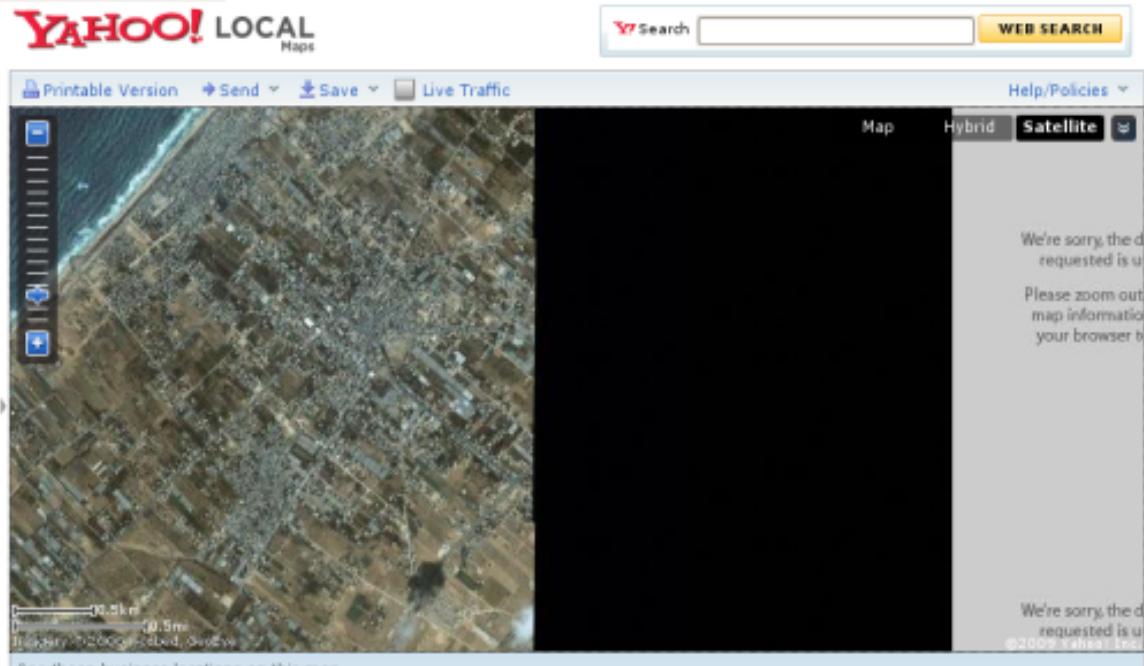


OpenStreetMap Gaza Project

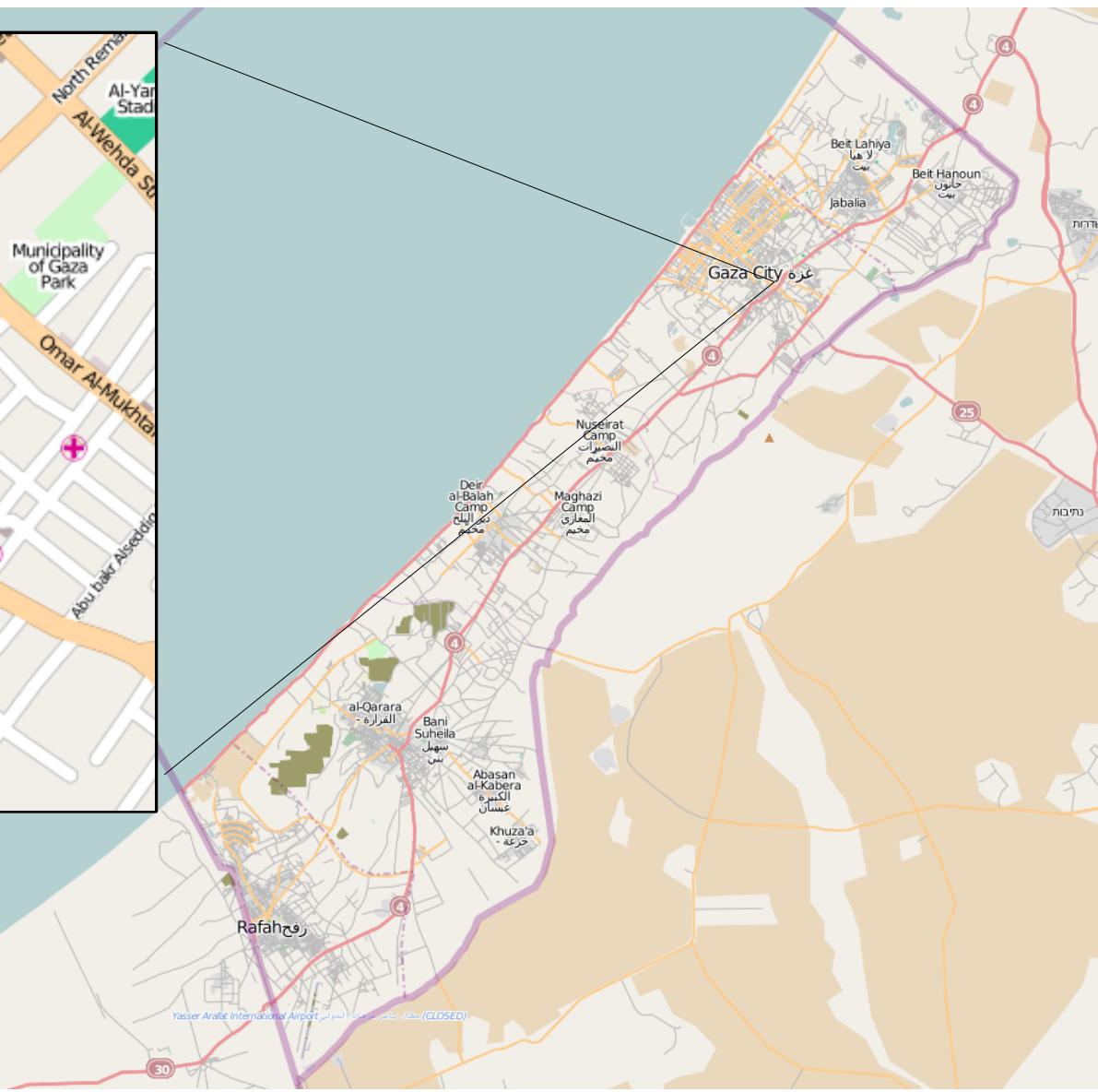
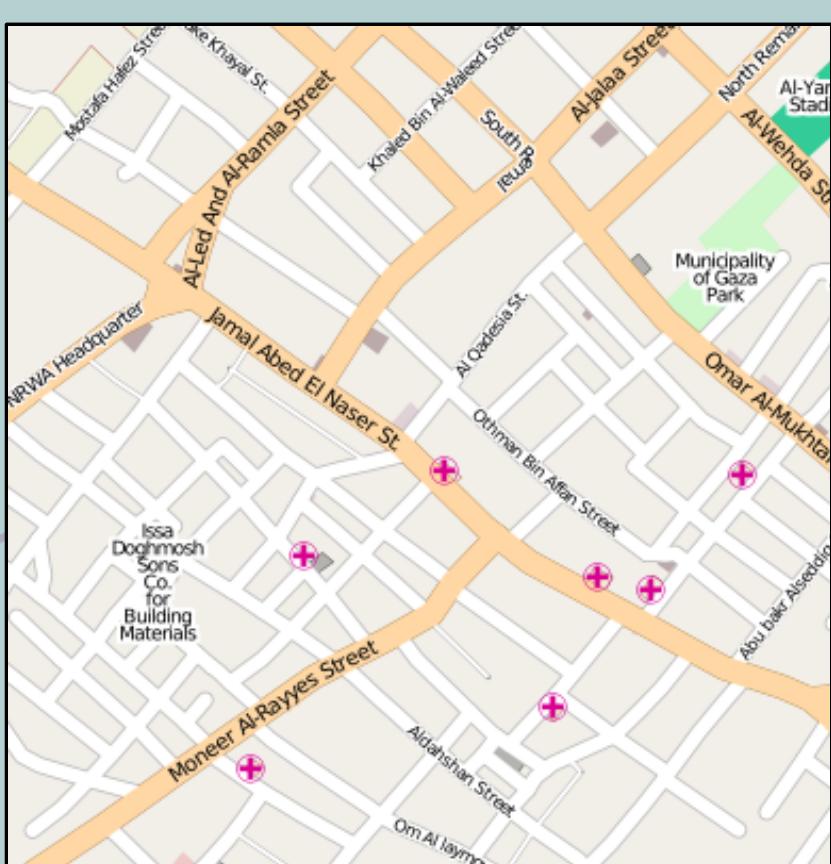


Jan 2009: Mikel Maron announces OpenStreetMap Gaza Project

Feb 2009: Mapping begins with purchased aerial imagery (~ \$6000)



Gaza Strip today



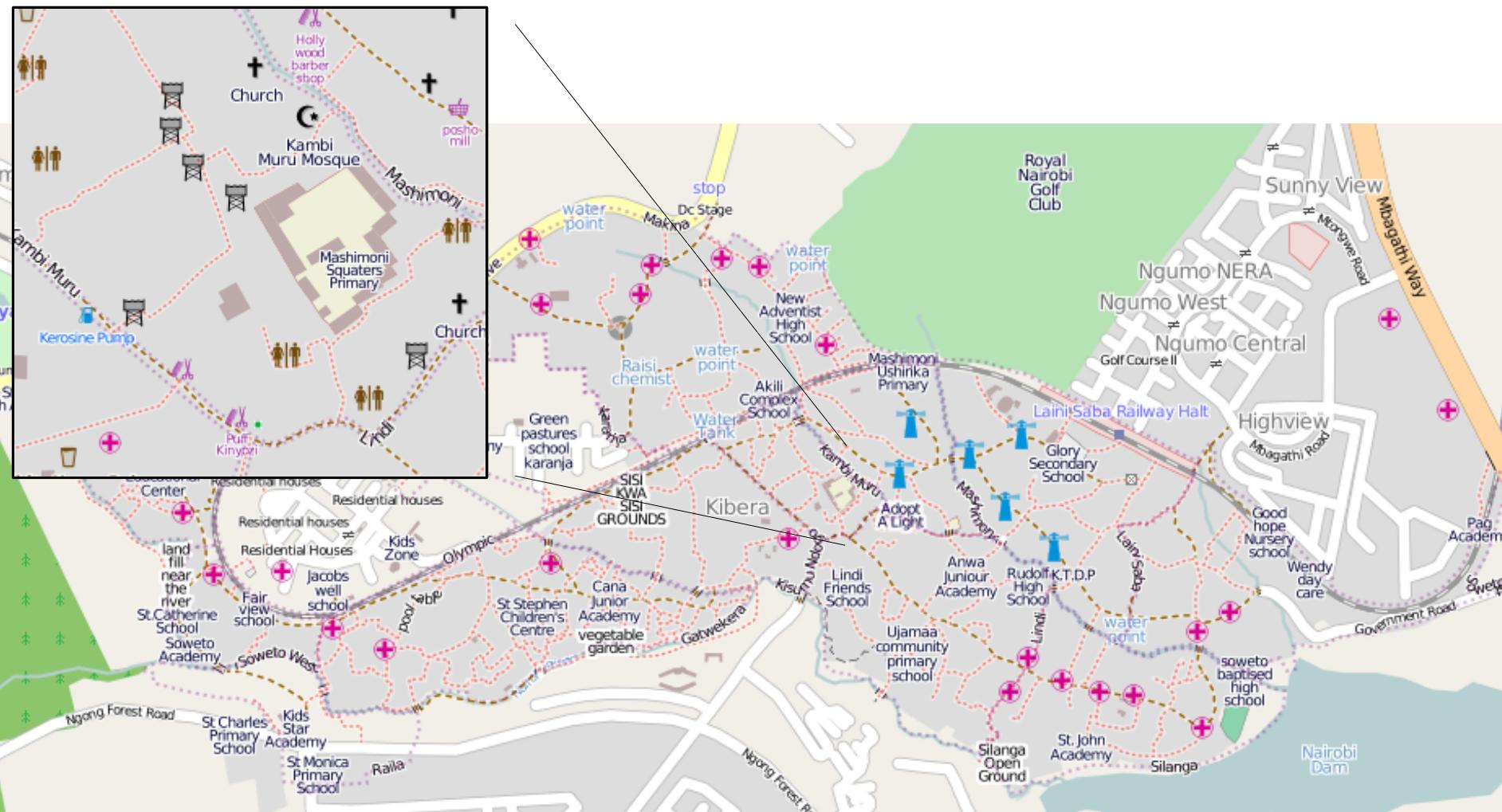
MAP Kibera (April 2009)

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

<http://mapkibera.org>



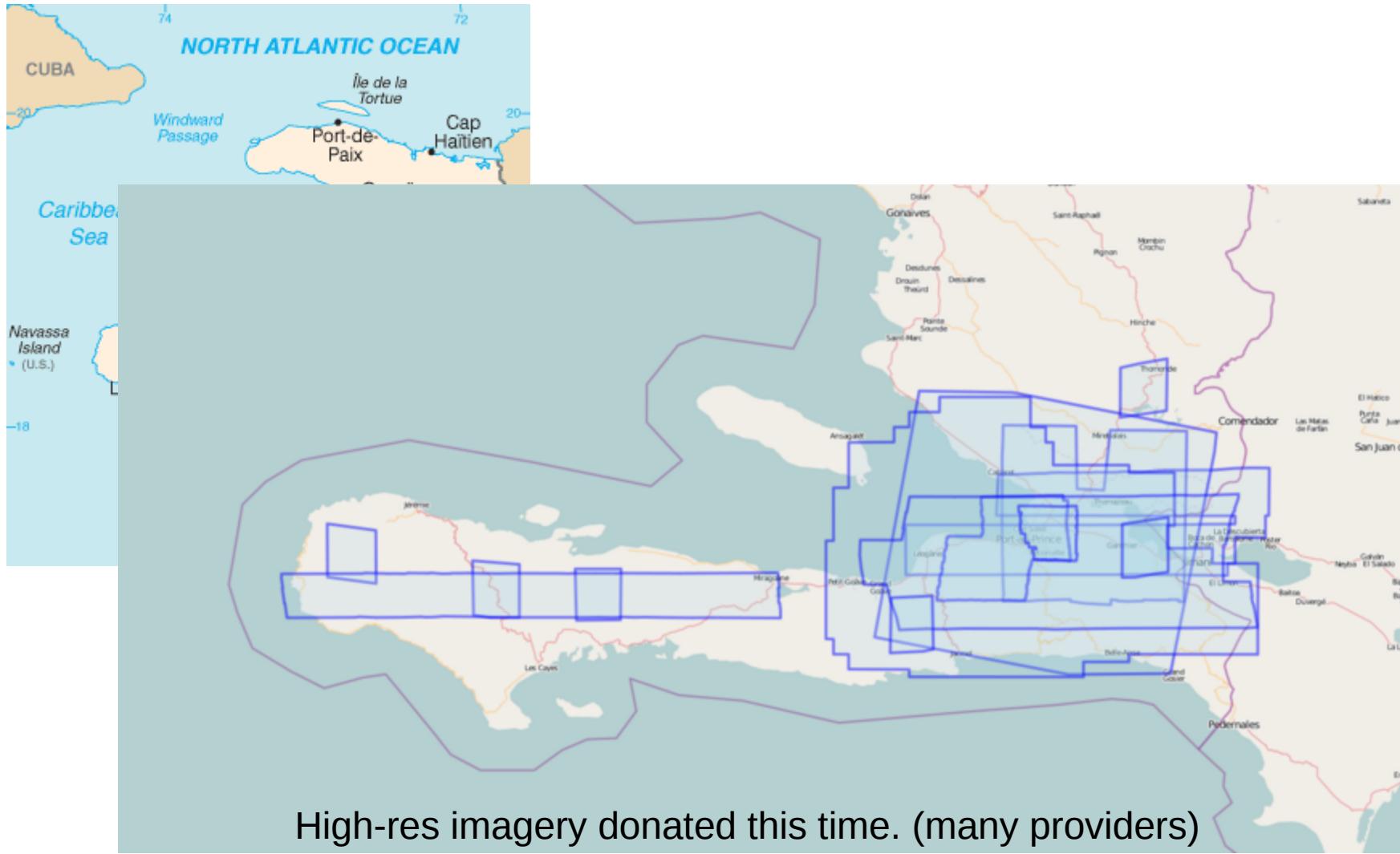
Kibera today



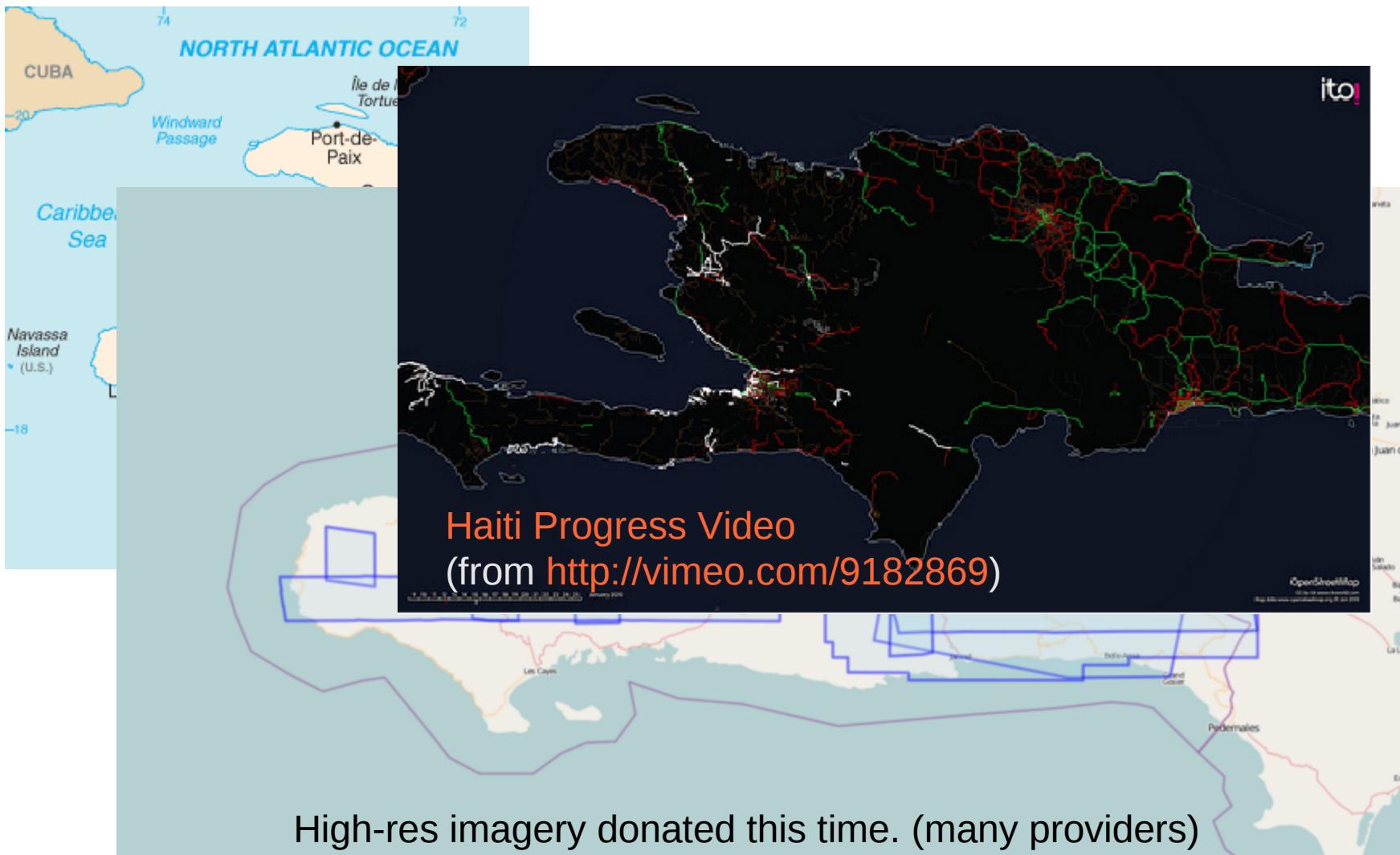
Haiti earthquake, Jan 2010



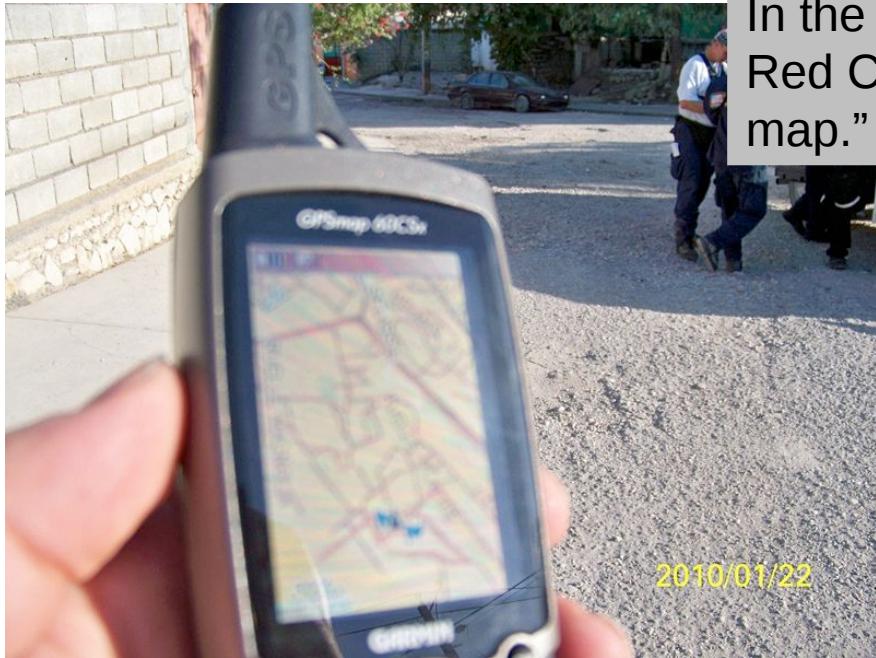
Haiti earthquake, Jan 2010



Haiti earthquake, Jan 2010



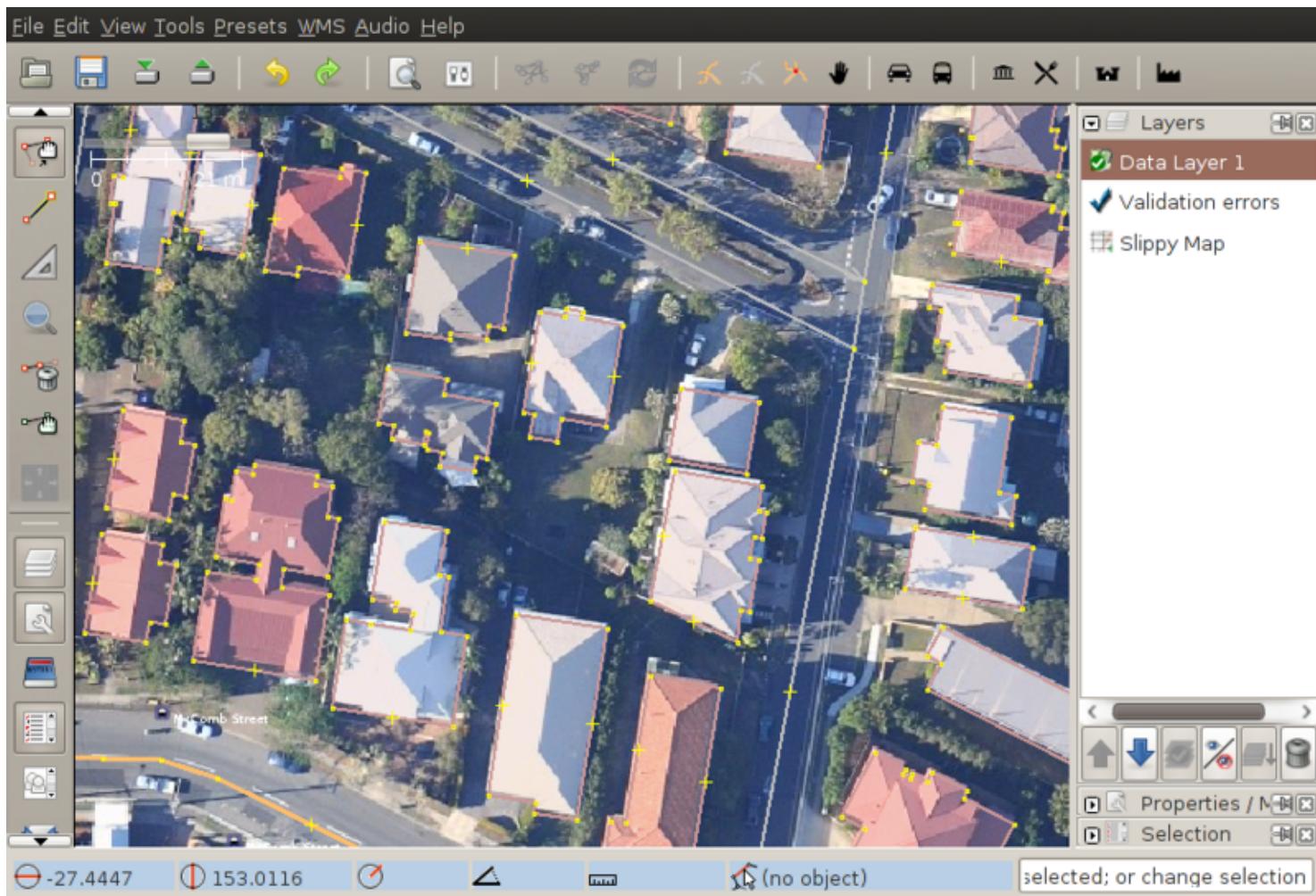
"Hello guys, I just wanted to let you know that your work on improving the Haiti maps is really appreciated here. A few days ago I installed a version on my Garmin Oregon GPS and the result is impressive. It has already saved me and my driver from getting lost twice, and the alternative would have been 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

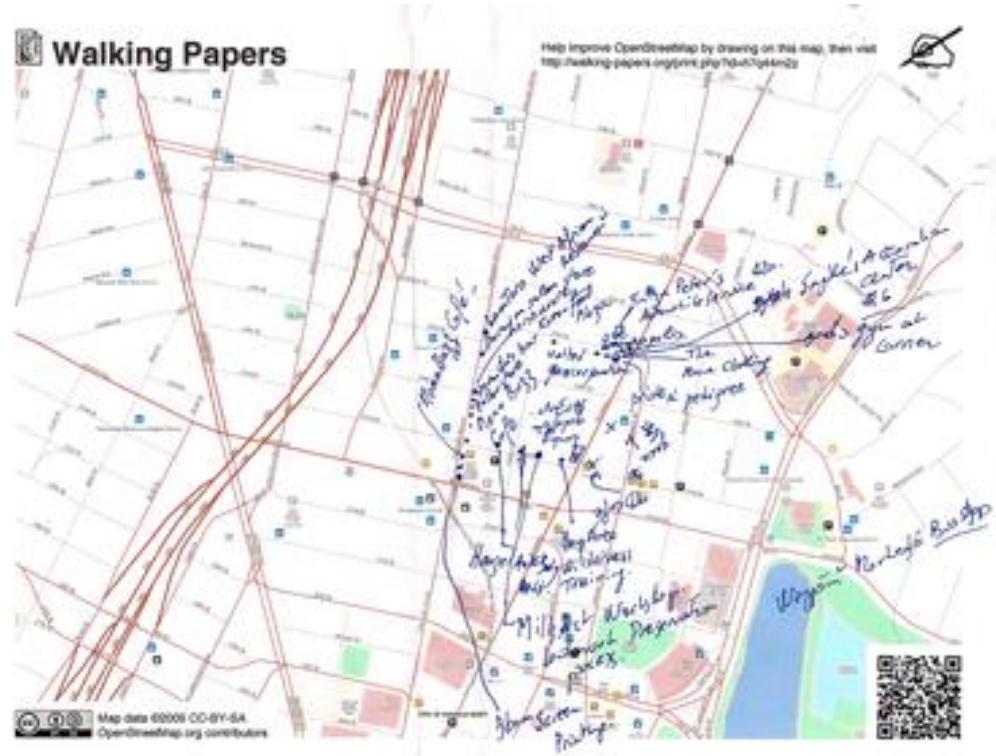


(Option 2) Go outside

Take notes, →



record your trip
(optional),



and update the map from your notes at home



(Option 3) Tell someone about a problem



Feel free to put the modifications you would like to see on [OpenStreetMap](#) on the map.

Do NOT use licensed data like paper maps, Google Maps, etc. Use only your knowledge of the reality or public domain data.

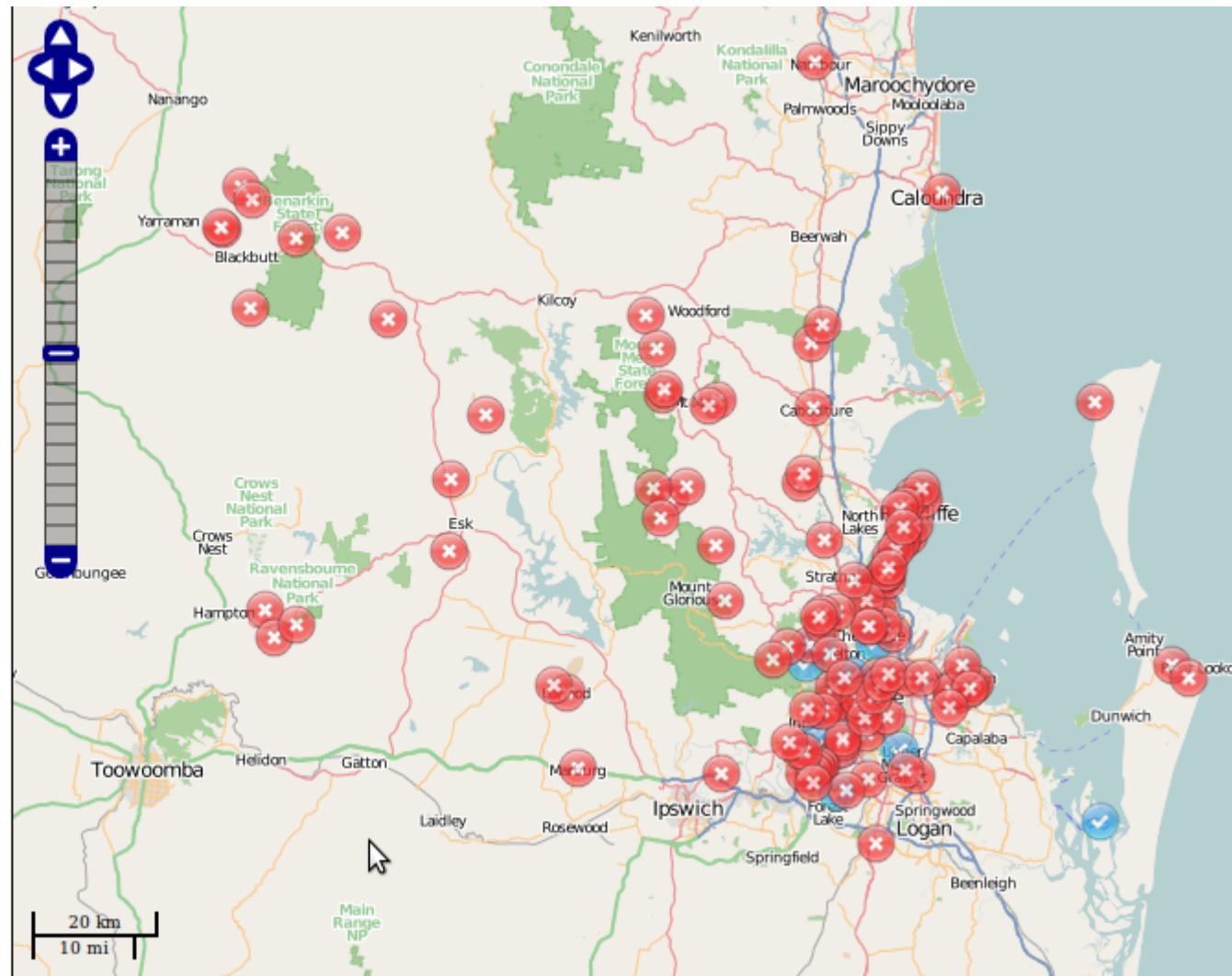
According to the OpenStreetMap license, the data that you add on the map will be licensed [CC BY-SA](#).

To add a bug, click at the desired spot in the map.

[More information](#)

current view

- [Permalink](#)
- [Geofabrik Map](#)



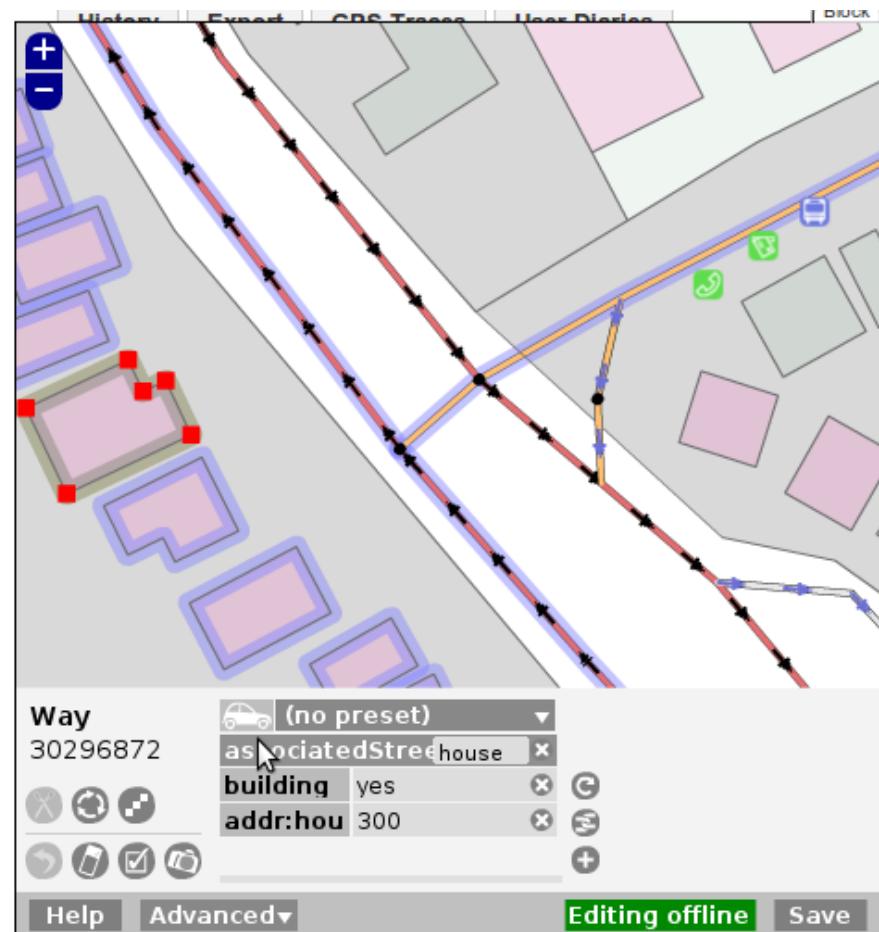
(Option 4) Be social

- Brisbane mapping events occur monthly
 - Alternate between mapping parties and meetups
- Next event: OSM Mapping Party
 - **Saturday 15th January** (Location TBA)
 - See <http://bit.ly/bnemap> for more details
- 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.

