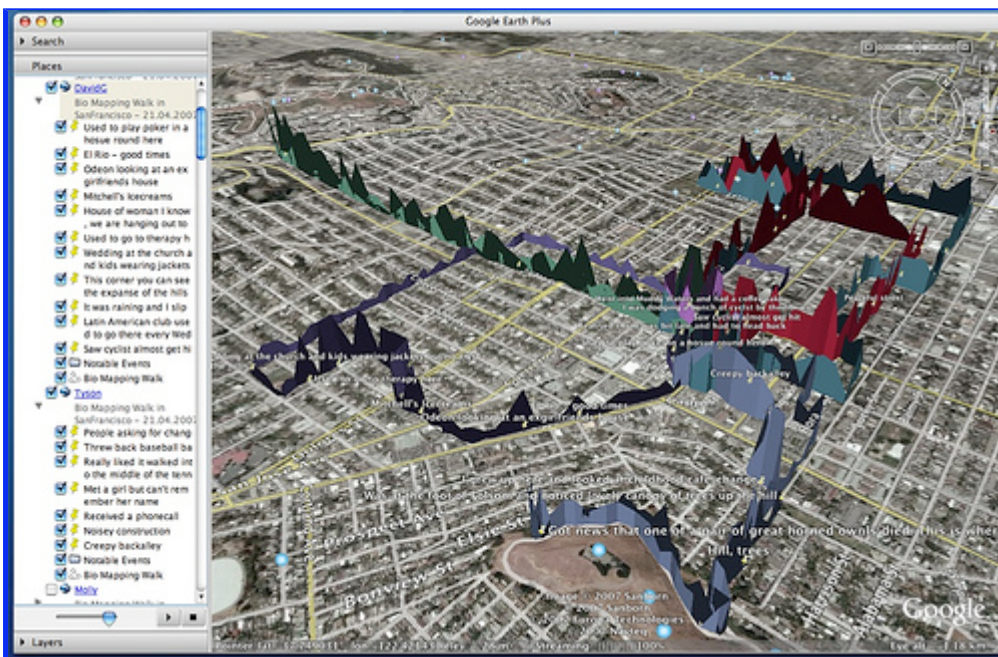




[Galvanic Skin Response, Heart Rates, GPS, Art and You \(and TomTom\)](#)

August 8, 2007 at 1:03 pm · Filed under [gps](#), [maps](#), [urban mapping](#), [hardware](#)

You lot all know this but [Christian Nold](#) runs the [Bio Mapping project](#). In which he wires people up to a combined [Galvanic Skin Response \(GSR\) sensor, GPS unit and data logger](#) and sends them out into the urban wilderness. Then via the magic of Galvanic Skin (ok, ok, electrical resistance) figure out where and when you had “emotional response”. The examples in the screengrab below include peaks at “Creepy backally”, “Odeon looking at an ex girlfriend’s house” and “Saw cyclist almost get hit”.

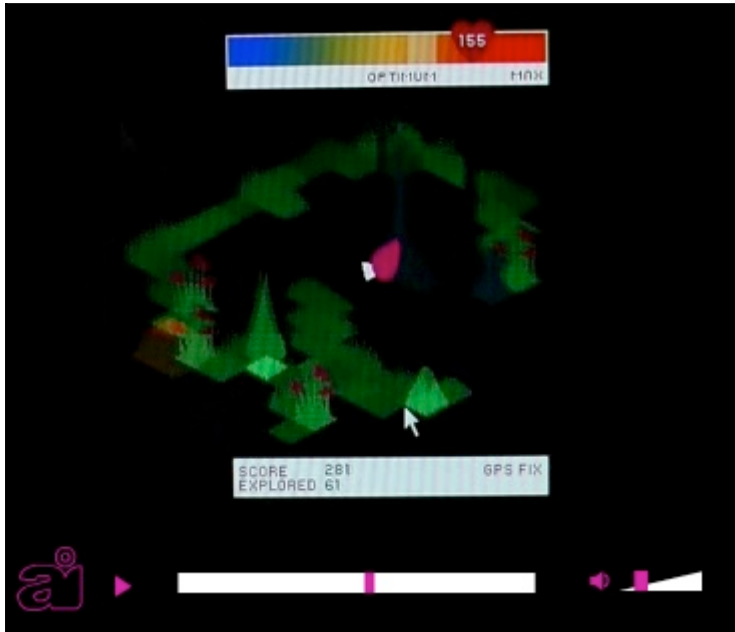


The above is *some* of the data that’s bundled up in a KML file, which you can get over at <http://sf.biomapping.net/>. It’s a bit much viewing it all at the same time so I turned a bunch off for the screenshot. Bonus is that there’s another pretty map too which shows the ‘hot’ areas of the Mission district, which is near the drug dealers at the entrance to BART on 24th by the looks of it. Not sure how well this would combine with Crime Maps.

I seem to recall a project that stuck GSRs onto a camera so that it also recorded ‘emotional state’ at the time the photo was taken, but alas I can’t find the reference now.

Either way you can also read (and see) more [over here](#).

Now on a slightly smaller scale, ['Ere be Dragons](#), ([video here](#)) is a single and multiplayer game that measures people's Heart Rate and movement in space and time, or maybe just some town over lunch. Either way, as you walk around you create land tiles and 'capture' them, and you can capture other people's land too. From what I can make out, you're supposed to keep your Heart Rate at the ideal level, the closer to ideal the better quality of land you create. To steal someone else's land, your heart rate needs to be more ideal than theirs *was* when they created the land.



It's quite possible I made that last bit up, but if that isn't the case then their game is rubbish and it should be how I say it is :)

Anyway, it's all Art and in theory Art you could do yourself with various bits and bob on the shelf.

So why have I roped [TomTom](#) into the whole blog post.

1) I enjoy being fairly random with these things.

2) Well, with the whole [TomTom buys Tele Atlas thing](#), here's what I'd like to see. Each car has a TomTom GPS device in it. The steering wheel has Galvanic Skin Response pads and Heart Rate monitors built in. Secondary data from the passenger would be useful too I guess. The car then records emotional state during the journey and uploads the results.

Then when users use web mapping tools to pick a route, "Less Stressful" is an option, allowing you to avoid emotional hotspots.

See this is why I'm a genius.

Then [Stamen Design](#) can make a nifty visualization of it.

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Mapgeek said,

August 9, 2007 @ [4:54 am](#)

You know...that really is a phenomenal idea to embed GSR pads in the steering wheel. The whole field of bio-mapping is expanding and your idea is one way to gather data that may have a larger societal benefit. Although you would likely need to “train” the system to dismiss anomalies and outliers in the data in order to average out the “typical” emotional response of a driver. For example, the average Joe would not get an emotional response by passing some stranger’s ex-girlfriend’s house (as shown on the SF map)! However, perhaps it could become a personalized emotional map of your own travels. I think a geographer in London performed a similar biomapping project during the past year or two.

Several years ago I used the Hertz NeverLost system to guide me from John Wayne airport in LA to Long Beach. Thankfully it didn’t direct me through any high crime areas, but a “less stressful” option on the GPS would have come in handy!


Nice post!

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photo by Jef Poskanzer



Dan Catt works for Flickr. He also works on Maps. Sometimes he does both of these at the same time.

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