

TUBE • MAP • CENTRAL

Newsletter, August 2014

Welcome to my August 2014 newsletter. This month I tried something different, and sent out *Map of the Month* to some of you in advance. It generated a lot of interest, and was picked up by *Metro* newspaper in New York. Elsewhere, the UK heatwave has been slowing down progress on a number of projects. Back to normal in September I hope. Apologies to everyone who tuned into the *Today* programme on BBC Radio 4 hoping to hear the discussion on maps versus diagrams. This had to be cancelled due to illness (not mine).

On the web

- The *Map of the Month* for my [July newsletter](#) was discussed in a [blog post](#) by [Geoff Marshall](#).
- Out of the blue, [Microsoft Network](#) decided to write about my London and New York circles maps.
- [Mark Byrnes](#) at [The Atlantic Citylab](#) ran an article on the current *Map of the Month*. This was then picked up by [Time Out New York](#), [6sqft](#), [NY Curbed](#), and [New York Metro](#). Only Mark, and Anna Sanders from *Metro* interviewed me, and so the other articles didn't necessarily take the right end of the stick.

Map research

- The internet survey on map design is still live. So far, 330 people have taken part, but only 50 of them are female. It would be really good to have opinions and evaluations from more women, and so any help in spreading the word would be much appreciated. The survey takes around 15 minutes to complete, and you can access it at www.tubemapcentral.com/survey.
- I have a heads-up from [Professor Alex Wolff](#) at the University of Würzburg in Germany. The conference: [22nd International Symposium on Graph Drawing](#) is running a competition to redesign the Würzburg bus/tram map. Full details are [here](#). I've looked at the [official schematic map](#), and it certainly looks as though it could do with some, um, adjustment. For reference, the geographical map is [here](#).

Map of the month: A new Angle on Vignelli's Iconic Design

New York subway maps continue to attract debate. The unique combination of the network features, plus its sheer size, challenges designers and bemuses the public. There are express and local trains (some trains skip some stations), stations are named by intersecting streets (five stations in Manhattan named *23rd Street*, for example) and there are different service patterns for rush hours, daytimes, weekends, and nights.

But there is another, more interesting problem for the designer attempting to create a diagrammatic map. The trajectories of many New York subway lines don't really match 45° diagonals, which means that there is always going to be a battle to intersect lines in the right places and get the proportions of the network right. If the angles are a very poor match, then the line trajectories will need lots of bends in order to correct their routes, defeating the whole purpose of a diagrammatic map: simple straight lines.

In the [June newsletter](#), I mentioned [Vignelli's own updated map](#). Part of the motivation for redesigning the original was to fix its many geographical aberrations. However, one result of this was a lot of extra corners in Lower Manhattan, one of the most complicated parts of the map. Worse, in attempting to present a more geographically accurate impression, new distortions





have been created. For example, on the 1972 Vignelli original, Broad Street on the J/Z lines was shown due south of Fulton Street. This has now been modified to show Broad Street southeast of Fulton Street. Consult any street map of Manhattan to find out that the redesigned map, in attempting to be more geographically correct, has exaggerated reality. The 1972 original was closer to the truth at this location.

So, the task I set myself was to create a Vignelli-style New York Subway diagram which was geographically reasonable – no strongly upsetting deviations from reality – using 30° and 60° diagonal lines in order to explore whether different angles might permit a design with straighter, simpler line trajectories. The result is a map with the straighter lines than either the Vignelli 1972 original, or the redesign. There are no geographical nasties,

other than those that would upset people with zero-tolerance for distortion. Manhattan (and therefore Bronx) is too wide, but this is a problem faced by all New York Subway maps including the official one. In reality, railway lines don't have to swerve round station names half-a-mile wide.

New York has a useful test for personal tolerance of geographical distortion. The 4/5/6 lines (green on the map) should take a zigzag in Manhattan near Grand Central station, where the lines hop from Lexington Avenue to Park Avenue South. Any user who cannot accept a straight line for this part of the map, hiding the jump, will not be satisfied with the design here (or any other diagram that distorts reality). Any user who believes that the benefits (a simple straight line from the top to bottom of Manhattan) outweigh the geographical costs will be happy with this design: all the other minor distortions should be acceptable too.

The 1972 Vignelli map was a powerful, orderly piece of work. The redesigned Weekender map loses the simplicity of the original (the lines have more complicated trajectories) and is much larger. In my opinion, the two go together to kill the original power. What about this new 30-60 map? With extra angles, the coherence of any design can break down: it loses its clear shape. If not treated with care, the diagonals fight with each other and the orderliness vanishes. Also, although the new diagonals are a good match for many trajectories in New York, not all subway lines fit these perfectly, and so this inevitably leads to my contemplation of a map with 22.5°, 45°, and 67.5° diagonal lines. An even better match perhaps, but with even more scope for poor coherence? A design sequence, similar to my ones for London and Berlin, is in the offering, but I expect that none of the new attempts will achieve the iconic power of Vignelli's original.

For the map of the month in the September newsletter, I will be heading up the coast from New York to New England. You can subscribe to this at my web pages www.tubemapcentral.com.