February 2016

Term has now started at the University of Essex, and this one has seen the commencement of my brand new module, *Transit Maps: Past, Present & Future*. Preparation for this is very intensive and, along with my other commitments, has taken up most of my time for the last month. Apologies for any unanswered emails, but if you want to jog my memory for a reply, feel free to contact me again with a reminder. Elsewhere, I hear that Peter B. Lloyd has very nearly completed Volume 6 in his series of books on the History of the New York City Subway map. This one covers the events surrounding the demise of the Vignelli map, more details [here](#) when he is ready to make an announcement.

**In the media, on the web**
- More web coverage of my [Paris concentric circles map](#). There is an English language article from *Flaneur Paris Metro*. Articles in French are from *Comment Ca Marche*, *PaperBlog*, *Lumière de la Ville*, and in Dutch at *Parijs magazine*. For a more exotic language, try *Plastic News*.
- One more article about my [Frank Lloyd Wright-inspired Chicago El map](#): I was interviewed for *New City Design Magazine*.

**Map Teaching**

My advanced elective, *Transit Maps: Past, Present & Future* (University of Essex course code PS499) runs for the first time for the 2015/2016 academic year. It is intended to provide a lively multidisciplinary overview of all aspects of transit map design, but delivered from the perspective of a psychologist. There are no course pre-requisites, and it is intended that any student with any background, who is interested in any aspect of transit map design, can enroll and engage with the content successfully. This module is intended to be fully portable, and so with minor changes I could offer this at any university in any appropriate department.

**Web page news**
- The course overview and all lecture slides for *Transit Maps: Past, Present & Future* will be posted on my website as soon as each one has been written and delivered. There are nine lectures in total, plus two laboratory classes. All materials can be downloaded [here](#).
- For newsflashes and updates don’t forget my Twitter page: [@TubeMapCentral](#).

**Dates for your diary**
- I have been invited to give an address at *Typo Berlin*, 12-14th May 2016. More details will be posted when we are currently investigating the possibility of including a small exhibition.
- I will be giving my talk *Transit Maps: The Good, the Bad, and the Ugly* to the University of the Third Age *Hillingdon branch*, Monday 9th January 2017, 11:00 at Winston Churchill Hall, Ruislip, HA4 7QL.

**Map of the Month:** Simple networks that are hard work to map

Sometimes it is the smallest networks that present the stiffest challenge to the designer, with their deceptive simplicity raising expectations that an exceptional design should be easy to produce. Readers might remember my Boston marathon, some of these designs appeared in my September, October, and November newsletters in 2014, with several more versions on my list of things to do (the coastline is in fact the most time-consuming part of the process, far harder than laying out the lines). There are also my six attempts at the Washington, DC, Metro, which can be seen [here](#). One of my St Petersburg attempts appeared on the 2015 *Tube Map Central Calendar*.

St Petersburg is an infuriating network. The topographical map suggests that a simple, elegant, and highly geometric design should be easy to create, perfectly fitting a hexagonal grid. But the Soviet tradition of a separate station name for every line at every interchange makes the central area almost impossible to lay out cleanly, and the trajectory of Line 4 (orange) puts paid to any remaining possibility of a neat solution.

The map here (which includes planned expansion) is a rotated hexalinear design with an extra angle for Line 4, so technically it is irregular octolinear. Overall, the line trajectories are quite simple, but the compactness of the design causes some topographical weirdness in the suburbs. Am I happy with this map? No, I am not. That extra angle damages the centre, and the alternative, Line 4 zig-zagging across the middle of the map like a staircase, would be even worse. Surely, this simple network could be mapped nicely
and yet still preserve the relative spatial positions of stations in the dense central area.

With Washington, DC, the challenge is to show the central loop in an interesting, neat way. The concentric circles map is very topographically distorting, and the design lacks power in my eyes because the strict design rules lead to differently-radiused circles for the blue line versus the yellow/purple lines. [Why a purple line? Because when I created these maps, consideration was being given to the introduction of a new service with a new colour.]

This time round, I have tried a hybrid design, with the curves of the loop carefully distorted to give the illusion of symmetry, the red line sweeping down and up again on its own trajectory, and the slanted axis of the green/yellow lines giving the illusion of deviating to follow topography without actually disrupting the smooth routing. Somehow all these different rules work together without too much conflict, and I was pleased to be able to position all the station names horizontally. But the rivers and parks look as though they need reworking, they are not quite blending in with the lines. Like Boston, configuring the rivers and parks is the slow part of the creation process.

One reason why smaller networks are not as easy to map as might first appear, is because they are relatively unconstrained. For a larger network, with complex interchanges, there are often few options for configuring them, with the result that once these have been determined, the rest of the map falls into place around them almost automatically. With fewer constraints for smaller networks, all the different options can be almost overwhelming.

A full linearity exploration for St Petersburg, a re-exploration for Washington, DC, and the completion of my exploration for Boston, are all still on my list of things to do. Perhaps a project for the summer if I get time. Next month, my lectures for Transit Maps, Past Present & Future will be completed, and Map of the Month will feature my simplest network map yet, and it will be seasonally appropriate too. You can subscribe to my newsletter at my web pages, www.tubemapcentral.com.

Max Roberts, mjr@tubemapcentral.com