August 2015

For connoisseurs of irony, strikes by London Underground drivers unfortunately led to the Sign Design Society event being cancelled (hopefully to be rescheduled) and also cut short my attendance at the TfL Archives event. Even so, the Wednesday of this was very busy, with lots of interesting comments, questions and discussions. Thanks to everyone who said hello and who attended my presentation.

In the media, on the web

• I was interviewed for the 1000 Londoners project back in January and my entry has now been posted. You can go to the video directly, and there is also a blog post.
• This seems to have been the summer of redesigned Underground maps although I’m not quite sure how my inspiration applies to this one! More redesigns are discussed here, including my London Circles Map.
• A mention for my Washington, DC circles map, although I am in the process of reworking this.

Web page news
The next web page to have been revamped is my publications catalogue. I have been neglecting this recently, but the new format will make it easy to add new works as I write them. Take a look at this even if you have been downloading my work, there might be articles that you have not seen before.

Date for your diary
• I will be giving my talk Transit Maps: The Good, the Bad, and the Ugly to the University of the Third Age Hillingdon branch on Monday 9th May 2016, 11:00 at Winston Churchill Hall, Ruislip, HA4 7QL.

Map of the Month: Topologically reasonable maps of Berlin
I first visited Berlin in January 2012, loved the city, but hated the official S-Bahn/U-Bahn map. This led me to attempt a step-by-step design sequence for the city, with twelve different versions created, later joined by a concentric circles map. This work was discussed by several German newspapers, and the widespread coverage inevitably stirred up the topographical accuracy brigade.

I have always argued that topographically accurate maps, and simplified compact schematic maps, have different strengths and weaknesses, and different uses. A good compromise is difficult to achieve, and so every transport undertaking should make both types of design available to all users, so that each person can choose the design that works best for him or her. However, in the world of internet commentators, there exist people who not only have zero tolerance of any topographical distortion for their own maps, but who are also deeply upset by the idea that distorted maps might be made available to other people who might want to use them, even though they won’t have to use them personally. As a psychologist, this level of cartographic intolerance is intriguing, and perhaps worthy of investigation in its own right.

Berlin presents the same problem as London for topographical accuracy. It has a sprawling network with sparse widely-spaced stations in the suburbs, and dense closely-spaced stations at the centre. A scale urban rail map (U-Bahn plus S-Bahn) would be massive, but comprise mainly blank paper. The network is therefore a good candidate for a variable-scale design, expanding the centre and compressing the suburbs, but it is important to remember that such a map still needs to portray relative positions of all nearby stations as accurately as possible, both for orientation and distance between them: there is no way that the user can know which areas of the map are correctly configured to provide travel hints, and which areas are not to be trusted. The technique that I used for London was to take a scale map and apply a mathematical transform to it around a central point. This was then converted to a schematic, attempting to find the design rules that were the least incompatible with the ensuing chaos. This technique can enable a far more accurate end-product than if alternative methods are applied. However, the user must remember that such a map is topographically informative rather than topographically accurate. At the centre of the map, a depicted distance between stations might be easy to walk. In the far distant suburbs the same distance might be less amenable, especially if the local road network prevents a direct route from being taken between stations.
The result of this process for Berlin is certainly different from the official map, and comparing the two shows that the official version is not nearly as topographically accurate at the centre as many Berliners seem to believe. The benefits of schematisation have been lost. The lines have complex trajectories, making their routes and also the underlying network structure much harder to identify. Of course, we could try different design rules, and for a complex network such as this, a curvilinear map might be more appropriate. If a linear schematic just results in a tangled mass of unstructured zigzags, then smooth curves might be easier to follow.

How else could these designs be improved? Perhaps a hybrid approach, originally advocated by Paul Mijksenaar for London would be better, with a topographical curvilinear centre, and schematised linear trajectories beyond the Ringbahn, enabling the suburbs to be compressed much more, but highlighting to users exactly where topographical configuration ends and distortion begins. It might also be an improvement if the map was given more context, such as tourist destinations and major streets, so that the design could be used to identify the best stations as well as to plan journeys between them. However, in order to be legible, such an enhanced design would inevitably need to be printed at a larger size, and then some users might prefer a more compact version instead, with simpler line trajectories even if topography is distorted, and less clutter that could distract them from one of the basic functions of a schematic map, to help people plan journeys between pairs of stations.

I promised a Map of the Month with a Transatlantic theme back in July, but something seems to have gone wrong. I am still not happy with the design that I am working on, and so its release will be postponed. It has been waiting to be completed for over four years, and so another month won’t hurt. Map of the Month predictions do go wrong from time to time for all sorts of reasons, these Berlin maps are the ones that I promised you way back in February for the March newsletter! You can subscribe to my newsletter at my web pages, www.tubemapcentral.com.

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