Christmas is coming, and I am having a clearout. For the rest of 2018, you can buy *Underground Maps Unravelled*, plus one other title (*Underground Maps After Beck*, *Mr Beck’s Underground Map*, *Paris Metro Style in Map and Station Design*), including delivery, for £35 UK, £45 continental Europe, or £55 USA/Rest of the World. Email me to order. UK last posting dates for Christmas international orders are 7th December onwards, but range widely, for example 14th December for the USA. A full list is here.

**Date for your diary**

- The second Schematic Mapping Workshop will be held on 11th/12th April 2019, at TU Wien, Austria. Details are on the workshop website and the program will be announced once it is finalised. The web page for contributions is now accepting submissions. Online registration will be up-and-running very soon.

**Map of the Month: How much of map design is typography?**

I recently got into a debate concerning publishing some of my maps: the opposing views were (1) station names distract from understanding the geometry of the design, therefore text should be deleted, versus (2) station names are an integral component of the design, without the text the geometry makes no sense. This disagreement is not likely to be resolved any time soon, but it got me thinking.

Long station names in awkward locations are an endless source of map designer complaints. In London, Tottenham Court Road, Ravenscourt Park, and Tower Gateway are annoyances. By themselves, difficult station names can determine the shape and size of the map, and if a designer neglects the placement of just one single name, the entire map might need to be rebuilt.

Examples of the dire consequences of designing a map without planning for station names include a 1960s sketch by Henry Beck for a curvilinear design, and also output from computer software for creating schematic maps automatically. I’ve added the station names myself to both prototypes. Each one is essentially unfixable: So much rebuilding is required, it would be easier to start again.
I was interested in what might be possible creating an Underground map with no long station names anywhere. One way to achieve this is to use the three-letter codes that are used to denote full station names (although the TfL codes have been created somewhat haphazardly). I started with the priority of simple line trajectories, but a closer look at the current TfL map revealed so much topographical distortion that I decided that a compromise map would be interesting: simple line trajectories, an even distribution of stations across the page, and no potentially misleading geographical distortion anywhere; hence there are bendier-than-usual line trajectories in west London. Three-letter station codes are still not trivial to place, but no longer force certain aspects of the design.

Having created a not-too-ugly compromise, what would happen if I used this configuration as the basis for a design with full station names? The font size is determined by Tottenham Court Road, but font size, in turn, determines line thickness (stroke width = height of lower-case x). Line thickness determines station tickmark size (stroke width = ⅔ line stroke width) and interchange circles (diameter = stroke width of three touching lines). Reducing stroke width means that the touching lines need rebuilding, and parallel interchanging lines are now too far apart. At this point I gave up. Allowing Tottenham Court Road to determine font size means that most of the other stations are over-spaced. Designing a map without due consideration for the typography of individual station names is a futile exercise.

The maps that triggered the debate were for Washington DC, so I have not quite broken the promise in my previous newsletter. I have been spending much of the last two months travelling, and finally have a break from this, so there is every possibility that the December newsletter will be distributed before Christmas. Wish me luck, and subscribe to it at www.tubemapcentral.com.

Max Roberts, mjr@tubemapcentral.com