Summer is well and truly here, but there is no time for a holiday, and amidst the ongoing research, design, and writing projects, in the background there are big changes afoot at Tube Map Central.

Web page news
After almost four months of programming, my reworked web pages are finally drafted, with the intention of taking them live this month. They are better structured, easier to navigate, up to date, and filled with new content. They can still be previewed at www.tubemapcentral.com/testweb/index.html, and emails with comments and suggestions are always welcome.

Research news
Peter Lloyd at the University of Kent has finished piloting a study investigating the effects of different colour coding systems on map usability, using the New York City Subway map as a testbed. It is too early to interpret the findings, but we are expecting interesting results once the full study is completed.

Map of the Month: What shape is Paris?
When I publish a map, it doesn’t necessarily mean that I am recommending it as an effective design. Sometimes an exploration shows that a concept might be inappropriate for a city. My Paris Circles map from 2013 is a nice example. The shape of the Paris orbit formed by Lines 2 and 6 is, if anything, elliptical rather than circular, and the major axis, formed by Line 1 and RER Line A, is tilted at around 26° to horizontal. The circles map elongated the city too much vertically, and in a desperate attempt to reduce this, Line 1 was twisted nastily between Champs Elysées Clemenceau and Charles de Gaulle Étoile. That didn’t stop the map going viral, with a chance tweet from the French designer, Jean François Porchez, bringing the map to people’s attention, and suddenly the French Media went haywire.

I’ve known for several years that a design based upon ellipses might be worth trying for Paris, even before I thought of creating concentric circles maps. The inspiration was an unusual design in a Paris tourist guide (right). The Line 2/Line 6 ellipse is a good match to the shape of Paris. However, there is no attempt to show the infamous Paris tilt, and the map demonstrates well the problem of how to treat the radial lines. Ellipses do not have simple spokes, and this is a topic I explored in Newsletter no 15. Thanks to the assistance I received from a call for help in Newsletter no. 43, I am now able to calculate perpendiculare to ellipses efficiently.
Unfortunately, the elegant solution, with true concentric ellipses and perfect perpendicular radials for every single crossing of every ellipse (left), does not quite solve the problem of matching the design rules to the shape of the Paris network. True concentric ellipses become proportionately less elongated as their size increases, which is opposite to the effect I needed to map Paris.

I therefore returned to scaled ellipses. For these the height/width ratio is constant for every ellipse but there are problems for determining radials. My compromise (right) gives the map a slightly wacky appearance at the periphery, where the radials are not remotely perpendicular to the ellipses. Overall, I’m pleased with this result, and prefer it to the original 2013 concentric circles design, and also a new one with design priorities matched to the ellipses maps (left). The distorted proportions will be obvious to anyone who knows Paris (left). However, usability and aesthetic preferences are harder to predict, and so these maps will feature in future research.

My Map of the Month for August is not yet chosen, but it might have a seaside theme. Whatever I may decide, to see it first, subscribe to my newsletter via my webpages at www.tubemapcentral.com.

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