VISUAL FIELDS

Transit Diagrams

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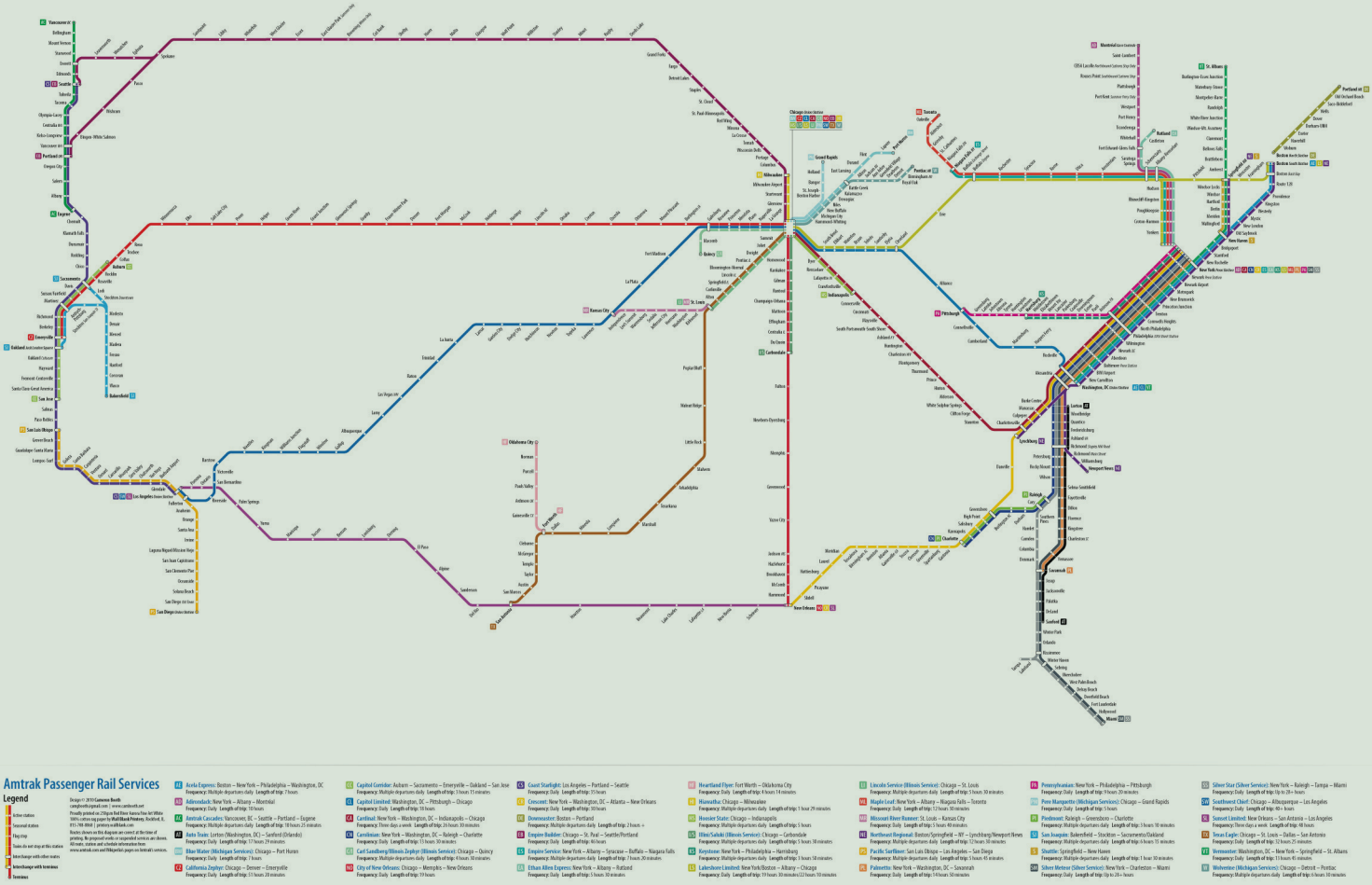

Visual Fields focuses on the appreciation of cartographic aesthetics and design, featuring examples of inspirational, beautiful, and intriguing work. Suggestions of works that will help enhance the appreciation and understanding of the cartographic arts are welcomed, and should be directed to the section editor, Daniel Huffman: daniel.p.huffman@gmail.com.

When I was growing up in my hometown of Sydney, Australia, we moved house to a suburb far, far away from my school. Instead of a familiar short bus ride, I was suddenly confronted with a train journey of some distance. Making that initially daunting journey much easier was Sydney's CityRail network diagram, which reassuringly presented the complex and lengthy routes as simplified colored lines, with the stations I needed to know about clearly indicated. Over the next few years, I got to know that diagram very well, as I used it to plan journeys all over Sydney for school, college, and employment.

As time went by and I pursued a career in graphic design, I learned of the origins of this style of network diagram—the famous London Underground Tube map—and found out just how many imitations of it there are around the world. While in London in 1997, I purchased the excellent book *Mr. Beck's Diagram*, a full history of the development of the Tube Map, and my love affair with the transit diagram began. I personally believe that the Underground Map is one of the greatest pieces of informational graphic design ever, even with all the changes that is has undergone over the years.

These days, with the transit diagram an almost ubiquitous design form, it can be difficult to realize exactly how revolutionary this visual approach was in the 1930s: thick, brightly-colored, starkly angled route lines with geography reduced to the barest elements. The diagram emphasized connections and station

Figure 1. US Interstate diagram

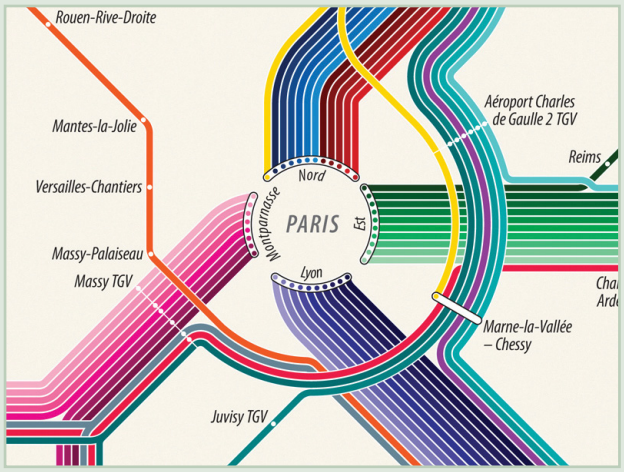

Figure 2. TGV diagram (detail): Île-de-France

sequencing over geographical reality, and helped make visual sense of a vast and chaotic transportation network. Originally only grudgingly released by the London Underground as an experimental pamphlet in 1933, Londoners quickly embraced the Tube Map as their own, and it now stands as an instantly recognizable symbol of their city.

Over the years, I tried my hand at a few transit diagrams myself: redesigning the diagrams of Sydney and my new hometown of Portland, Oregon, but with only limited success. Then, in late 2009, I came across a series of interesting diagrams on the Internet by various authors, all of which showed the US Interstate highway system in diagrammatic form.

Many commenters were calling these "subway-style" maps, but I felt that none of them really captured the essence of the best transit diagrams: none used different colors for different "lines," or clearly differentiated "transfer stations," for example. Taking the London Tube map as my inspiration, I set about designing my own version (Figure 1), using Google Maps and Wikipedia entries as my main sources of information. The first version took me about 80 hours of work in Adobe Illustrator and met with great success, both critically and as posters that I offered for sale. The diagram was also featured in the excellent book *Mapping America: Exploring the Continent,* foreworded by Fritz Kessler and Frank Jacobs. I revised the poster at the beginning of 2011 to correct some inaccuracies and technical errors that I discovered in the first version.

After the enormous success of this first diagram, I started thinking about other networks that I could represent the same way. Part of me definitely enjoyed the slightly subversive nature of the Interstate Diagram: taking a system that is normally depicted with the absolute geographic accuracy of a road map, and showing it instead in the simplified rectilinear form of a transit diagram. It turns our perceptions around; what if this was a transit network instead of roads? Doesn't America look small when it's presented at the apparent scale of a large city, as most transit diagrams represent?

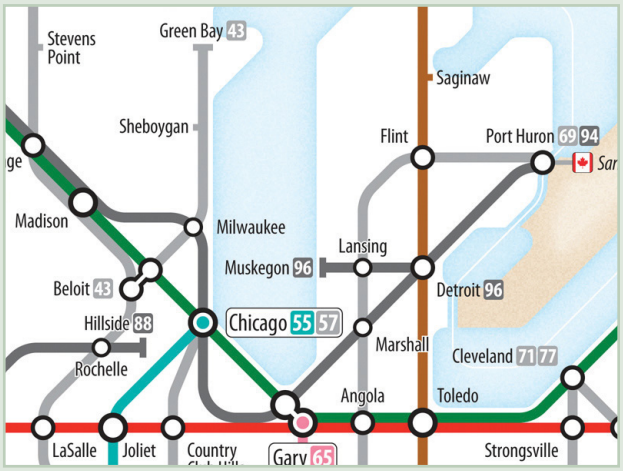

Figure 3. US Interstate diagram (detail)

Most of my work since carries on this theme: *transit network diagrams of things that aren't*. Almost as successful as my Interstate Diagram is my diagram of the Amtrak passenger train network (Figure 4)—reducing an extensive America-wide system down to a simplified diagram. Every Amtrak train route is denoted by a different colored line, and (unlike Amtrak's own geographically accurate map) every station is shown. For me, the interesting things that can be seen from this diagram are the incredible dominance of the Northeast Corridor (routes from Boston to Washington, DC) in terms of service, and the major hub of Chicago's Union Station, where

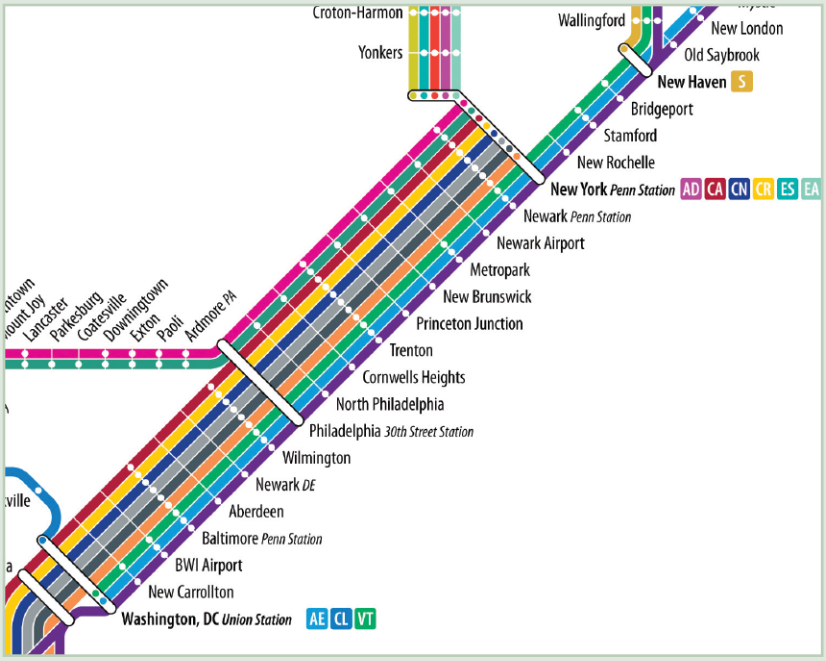

Figure 4. Amtrak diagram (detail)

trains from across the country meet at one place, every one of them ending their journey there. Expect to change trains at Chicago!

Finally, I revisited the theme of highways as transit diagram with my European International E-Road diagram (Figure 5). Similar to the US Interstate system, the E-Road network criss-crosses Europe and even extends into Asia and parts of the Middle East. Most European nations are signatories to the United Nations resolution that defines the network, but not all of them signpost it. This network actually proved to be far more complex than the Interstate diagram, and it took me two separate attempts to finally nail the design, which I definitely consider one of my best pieces.

Cameron Booth is a graphic designer with 20 years of experience. These transit maps are his idea of fun after a day of work. You can find more information about these diagrams and more on his blog at:
www.cambooth.net

Figure 5. European E-Road diagram (detail)