

I use the term train enthusiast quite loosely. Being excessively pedantic about semantics, I concur that it describes my affinity neither precisely nor accurately. But in the interest of using a generally understood term (as opposed to “enthusiast of underground intracity trains *only*”), the term will do.

My earliest memory is of me looking out from my upper story window in my home in Osterley, West London on the tracks of the Piccadilly Line on its southwestern Heathrow branch. This was in 1999. But this is irrelevant to the explanation.

I deem that the most methodical way to elucidate my situation is to systematically describe the sensory experience I relish, as the senses are at least common ground for most humans. Before proceeding, note that almost all the data will be exclusively drawn from my experiences of the London Underground. This is not to say that the LU is the ‘best’ train system in the world, but if I were indeed a favouritist, I might be tempted to call it so. For reference, I have been on intracity trains in Madrid, Berlin, New York, San Francisco, Delhi, Philadelphia, Washington DC, Boston, and several other places, and I still remain attached to the London Underground above all.

Taste will not be covered in my overview of the senses for obvious reasons, so I shall start with sight. Transport for London (TfL) has done a phenomenal job of creating a visually and aesthetically consistent system of the London Underground. The Johnston font family (which I have used here) is utilized exclusively across the network, the roundel logo has become an internationally recognized icon, praised for its simplicity and versatility, and the innovative station designs of Charles Holden and Leslie Green (amongst others), make for an enjoyable experience. But what good is language to describe the visual? Sample a Leslie Green surface building below. The classic red tiles have become a signature of LU at many stations across the network.



Source: http://s0.geograph.org.uk/geophotos/02/79/86/2798637_f03f6e17.jpg

Aesthetic planning at stations is also striking, with several generations of varying doctrines manifested across the 270-station network. Island platforms with spinal roundels (e.g., at Clapham Common and Clapham North) reflect an era where overcrowding was not a problem and simple efficiency was optimized while flying junctions with multi-level tube tunnel crossings (e.g., around Warren Street, where the trains pass each other on the *right*, curiously) to eliminate traditional signalling problems show the innovative genius that puts the Tube ahead of other global metro rail systems. All in all, the sense of awe I get from marvelling at the feats of engineering, design, and architecture pervading the network are unparalleled by any other transit system.

The smell is always an aspect that confuses many and turns off others. Despite my weak olfactory processing skills, the distinctive mix of tunnel air and the trains' individual scents are delightful to me despite their potential hazardous effects. (Several years ago, a twenty-minute journey on the Northern Line was likened to consuming one cigarette, although this has since been fixed with more recent rolling stock.) There is hardly much else to say on this matter aside from the fact that it is highly personal.

The sound is another aspect I am particularly fond of. In my extensive experience with computer train simulators, graphics are often the first priority of the average train enthusiast, but for me nothing beats accuracy of sound. Ironically, two of the most rudimentary (i.e., graphically) routes have excellent sounds, and I play these occasionally despite their completely inaccurate visual representations. (Hint: they are from BENO BVE.) The sound of the traction motor is a bit like a Shepard tone, a sound consisting of superimposed sine waves giving the fascinating illusion of an endlessly ascending or descending pitch. Tragically, the rolling stock from the 1960's and 1970's with these retro traction motors have been phasing out slowly as new trains are being introduced to the Tube lines, with rather futuristic and artificial-sounding motor sounds that I find far less pleasing. Nonetheless, I have very fond memories of travels on these older trains, and several fleets are still extant today, although perhaps not for long. Beyond the pitched sounds, the non-pitched sounds form another part of the natural symphony. Upon standing by the inter-car window in between two underground stations, a discerning ear can distinguish several different sources of sound (or music, if I dare call it so). The clacking of wheels on the track junctions, forming an irregular but not disorganized percussive backbone, the whistle of air flowing in currents between the train and the tunnel walls, the occasional screeching of the third and fourth rails against the electrical receiving units all form the basis for a spontaneous but highly organized aleatoric music of sorts. By design, it is pure (no extramusical meaning) and inhuman, and it is these qualities that I find appealing. Many find this fascination inane, insane, or worse, but the sensory experience is common to us all, perception and evaluation withheld.

Finally, we arrive to the sense of touch. TfL has been more conscious of touch than any other transit firm I know, and this is consistent with their high standards of aesthetic organization. Moquettes (seat covers on trains) are not only visually appealing but cushioned comfortably and laid out in innovative styles rarely found elsewhere. For example, the D stock, which ran on the District Line until 2017, featured pairs of seats facing one another, quadruples of seats facing windows, and solo seats perpendicular to the train's motion mixed together in a compelling design. All manner of commuters and enthusiasts alike are bound to find an ideal spot to rest, trainspot, or read the paper by daylight. Handbars are color-coded per

line and not intrusive but thoughtfully placed, and armrests are likewise ingeniously engineered. In short, I would be hard-pressed to find any serious shortcoming in the realm of touch on the LU network.

Before concluding, it is important to note that my affinity for TfL is not reflective nor a result of my separate affinity for London and its other offerings. Allow me to briefly describe a facet of the Metropolitan Transportation Authority in New York that I am particularly fond of to prove this point. New York has a different topographical setting than London, so optimal tunneling practices are necessarily different. The River Thames renders South London very difficult to build tube tunnels in while the Manhattan island makes it easier to build subsurface lines. A network of completely subsurface lines in New York would perhaps not be optimal, so MTA has figured out how to successfully hybridize tube and subsurface tunneling. Indeed in certain sections, e.g., on the B/D from W4th to 34th, a subsurface tunnel appear to submerge below another subsurface tunnel to provide a high-speed express line. This multi-layered approach to subsurface tunneling is innovative as far as my exposure goes, and I am impressed that it has worked so well, considering MTA's many other disappointments. Pardon me if the aforementioned explanation of tube and subsurface tunneling is incomprehensible: the main distinction is that subsurface tunnels exist in large flat swathes just below the surface while tube tunnels are tight circular bore tunnels deep below the surface used by individual tracks.

By no means is this description (or attempt at conviction) exhaustive or comprehensive. I have not touched upon the ingenuity of the diagrammatic Tube map, semaphore signalling, automatic train operation, acceleration differences amongst rolling stock, generations of the roundel, the natural use of light in open architectural spaces, or a host of other highly commendable and most certainly enjoyable features. But perhaps this introduction will serve as an inspiration to instill reverence for one of the great achievements of humanity.