

Type in the Toronto subway

Joe Clark

Here’s Nina Bunjevac’s artwork at the Art Gallery of Ontario, entitled “The Observer: The Ascent, Dundas Subway, Sunny Days.” It’s one of two images on walls in front of you and behind you when you stand in the gallery.



That really is what the type on the walls of Dundas subway station looks like. (It’s Toronto’s second-busiest station.) What Bunjevac has given us is a hand-drawn facsimile of the typeface that’s really on the walls, Univers.

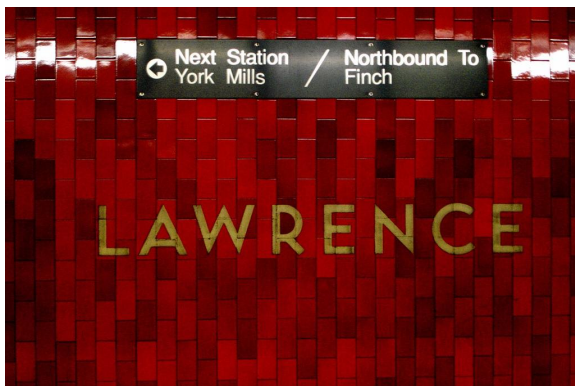
But type in the Toronto subway is much more than Univers on one station wall.

1 Fundamentals

The subway in Toronto is run by the TTC, the Toronto Transit Commission.

The story of type in the Toronto subway is a story about:

- 1. A 50-year-old custom font of almost unknown origin.



Station sign LAWRENCE in TTC typeface, with Helvetica sign added above

- 2. A subway lined with washroom tiles.



- 3. A system that hired a wayfinding expert, paid him to install and test a new signage system, then ignored that new system after it tested better than the old one.



Black sign with white Gill Sans lettering and pictographs

- 4. A billion-dollar corporation that cloned Massimo Vignelli’s work for the New York subway from 40 years ago — but won’t admit it.



- 5. A billion-dollar corporation that refuses to test its signage.
- 6. A billion-dollar corporation that uses as its main font a Helvetica clone that came free with Corel-Draw.

This is the story of a unique typographic heritage that the TTC is *totally blowing*.

2 The subway

Toronto's subway consists of 69 stations on four lines. The subway opened in 1954, and from the very start we've had a unique font on the walls.

The TTC's custom subway font is usually sandblasted into the walls.

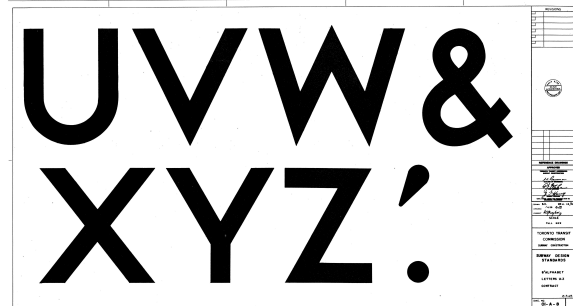


The walls themselves are interesting. In nearly all cases, the walls are finished in tiles. Originally we used glossy large-format Vitrolite tiles, then different kinds of tiles later.



EGLINTON letters embossed into large glossy grey tiles

The typeface itself is a geometric sansserif, upper case only, with some unusual features:

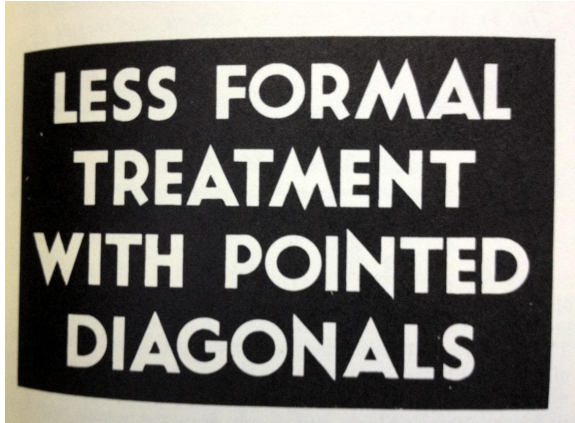


1. Low waist of the R.
2. Points of A V N W M that extend past the baseline or cap height.
3. What we'd consider nowadays to be quite a heavy weight for signage, though you also find some rare usages of a light weight (as seen in the Eglinton example above) for which we don't have any drawings.

The font doesn't have a name and nobody knows who designed it. What I have shown above are believed to be the original drawings for the typeface, but they're dated 1960, six years after the subway opened.

But we now have a few clues about the origins of the font.

1. First, a little birdie found this very similar face in an old book of type specimens:



That's maybe halfway to the TTC font. Typefaces similar to each other have been designed more or less simultaneously even though the designers in question had no knowledge of each other. Helvetica and Univers were a case of that. So this general type family might just have been in the air in the 1950s.

2. Next we've got a bit of skulduggery from an online forum. Someone named simply Brent looked more carefully than I ever did at the signatures on some of the old TTC drawings. And Brent says:

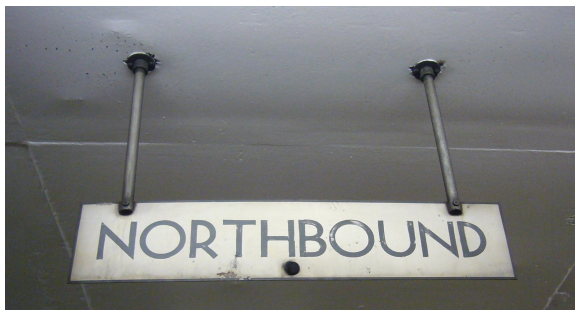
The drawing for the 4" standard alphabet indicates that it was drawn by a P. Butt, and reviewed/checked by a W.F.G. Godfrey...

A little digging leads to William Frederick George Godfrey (b. London, England, 1884; d. Toronto, 1971). He was a Toronto artist who did engravings and other line drawings, but he was originally trained as an architect.

I am guessing that Godfrey was the designer, and that Butt was the draftsman.

There are different kinds of signfaces that use the TTC font, not just sandblasted letters.

1. Very early white signs with black letters.



2. Backlit box signs with white type on black.



3. And the most cherished of all, massive enamelled-steel plates that have lasted almost without a blemish for 40 years or longer.



These signs have never really been tested, but they *appear* to be mostly functional.

Nonetheless, the TTC is run by jumped-up motor-men and engineers and old guys who think anything related to “print” or “design” is girly and decorative. You know what these people are like. They think design is the icing on the cake. They don’t know that design is the *recipe for* the cake. They don’t know that the cake *is* design.

At any rate, starting in the 1970s, the TTC began to pollute its nice tidy uniform design.

They extended the first subway line north and also south around a loop at the southern point of downtown.

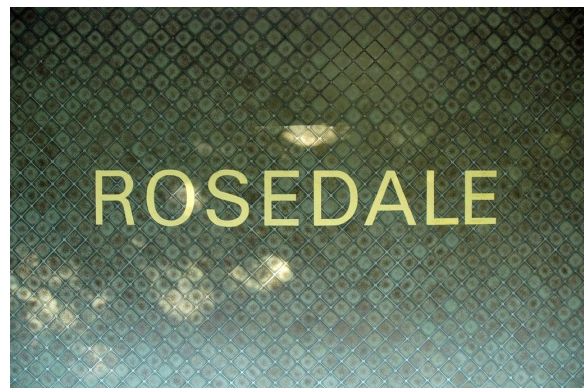
They opened a crosstown line with the original fonts.



They renovated some of the *original* subway stations. They destroyed the original Vitrolite tiles in all but one of them and replaced them with haphazard tiles and haphazard fonts. I’ve got bad and good examples here.



For reference, Dundas station originally looked like this (with pale yellow walls):



Then they extended the first line again, with each station ostensibly using nothing but Univers.



Then they opened a suburban line using toy trains. It uses signage in Helvetica on curved-metal blades.



Then they opened a couple of extra stations here and there using Helvetica.



All the while, behind the scenes they were replacing signage with whatever they could get their hands on, mostly Helvetica.

And finally they spent nearly a billion bucks on a new *five-station* subway line to nowhere using fake Helvetica — or fake Helvetica, as we shall soon see.



What we've got now is a completely unplanned mixture of signs in the true TTC typeface, and signs in Helvetica, fake Helvetica, Univers . . . and Arial.

Now, it's really hard to get this point across to the TTC, but when your signage is all hither and yon like this then (a) people get lost, especially tourists and people who haven't learned the system the hard way, and (b) your entire subway system looks *undesigned* and people are encouraged not to believe a word your signs say.

And in some cases that's literally true:

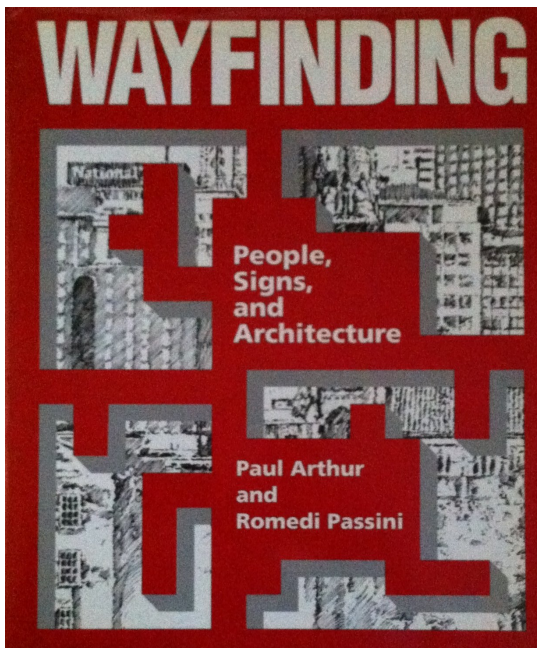


The only westbound vehicles from this station (Bathurst) are trains. Buses and streetcars don't travel west. This is a sign that lies to you.

3 But, along the way, they *did* try to fix it

In the early 1990s, the TTC hired Paul Arthur to develop a new signage system. Paul Arthur, a British-born Canadian graphic designer, died in 2001. He left behind a substantial legacy that is unknown to designers outside Canada.

1. Paul Arthur was a pioneer of signage and wayfinding. He designed the pictographs at Expo '67 in Montreal, widely seen as the first high-profile use of pictographs in a public setting.
2. He cowrote a couple of books, the most important of which is *Wayfinding: People, Signs and Architecture* (McGraw-Hill, 1992, reprinted 2005 by Focus Strategic Communications; [amazon.com/dp/0075510162](https://www.amazon.com/dp/0075510162)).



TTC spent about a quarter of a million dollars coming up with new designs with Paul Arthur at the helm. Lance Wyman helped out. (You may know him from Mexico City Olympic signage.) For the TTC, Lance Wyman drew most of a set of new pictographs for subway stations.



Paul Arthur's project remade one half of one station, St. George, an interchange between two lines. The entire east end of the station, on all levels, was made over with the new Paul Arthur signs, while the west end was left intact.

Some of the features of the Paul Arthur system:

1. He used Gill Sans.



Paul Arthur was English and this was really a holdover from his childhood. He considered all sansserifs to be equally legible, which obviously they *are not*.

Gill Sans in this case was too light a weight for signage, though they did expand the tracking.

As ever, there is the notorious difficulty of distinguishing *I*, *l*, and *1* in Gill Sans. Some of Paul Arthur's drawings show the straight-line *l*, others the real numeral *1*.

2. Subway lines would no longer have names, which admittedly are ridiculous in Toronto. They tend to relate to the streets under which the subway runs, which themselves aren't accurate. We've got the Yonge–University–Spadina line (yes, three names for one line), the Bloor–Danforth line, and the Sheppard line. The Scarborough RT runs through the neighbourhood, and former city, named Scarborough, and RT means "rapid transit." The nomenclature is a mess.

In Arthur's new system, lines would each get a colour and a number. And the colour would be written out in words to be accessible to colour-blind people.

3. Every station had a strapline above the tracks on the train-wall side in the line colour, with the name written out and the station's custom pictograph. In principle, even if you couldn't read you could at least find your station.



Paul Arthur tested the St. George prototype with four groups—the “general population,” meaning riders without disabilities who could read English; the visually impaired; a “multicultural” group, that is, English-as-a-second-language speakers; and an English-speaking group “with a low level of literacy,” who were often students.

1. The low-vision people hated all the signs, but they hated the new ones less, and all the other groups preferred the *new* signs.
2. This was just an opinion survey, not a test of tasks and performance. Nonetheless, the *new* signs were deemed better.

So the TTC ignored the results. Literally. It would have cost about \$8 million to convert the whole subway to the new system, but the Toronto Transit Commission never voted on doing that. It was never brought to the elected commissioners. It was killed internally, and there are no records of how that happened.

And many of the Paul Arthur signs were simply left in place. They’re still there a decade and a half later! But, as of three years ago, TTC started phasing out line names in favour of numbers and colours.

1. Obviously the numbers are in Helvetica.
2. And just as obviously, this male-run organization picked a set of colours that colourblind people cannot necessarily tell apart. 4% to 8% of the male population, and some females, have colour deficiency, but over and over again TTC picks green, yellow, and orange as colours.

The point here is that, nearly 20 years on, the TTC finally adopted one of Paul Arthur’s ideas, but, in true Toronto fashion, they half-assed it all the way.

4 Then there was the Sheppard subway

TTC and the City of Toronto proposed an expansion of subway lines in the 1990s. The plan was to run two new lines across midtown Toronto on Eglinton Ave. West and on Sheppard Ave. East and West.

But a new provincial government was elected that hated Toronto. It tried to scotch the whole project. What we ended up with was five stations on Sheppard Ave. East that end in the middle of nowhere. And this *five*-station Sheppard line cost \$933 million to build.

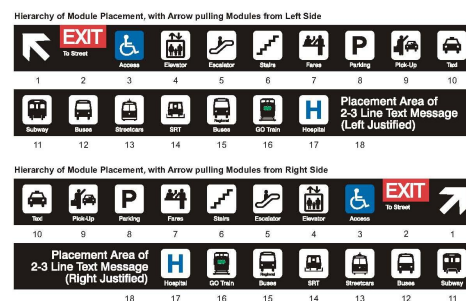
For a nice new subway line, you need nice new signs. So, guess what, the TTC ignored the Paul Arthur designs they’d already paid for and cooked something up in-house.

1. They threw together two prototype overhead signs and installed them—where else?—at St. George station. And of course they’re still up today!
2. And the biggest type on those signs is set in . . . Arial.
3. One of the signs could not even construct a lower-case *g* correctly.



4. So, to recap St. George station: It’s got more than half of its original signs, or at least signs from the 1980s, plus many of the Paul Arthur prototype signs from the early ’90s, plus the Sheppard prototype signs. Still. Today.
5. The TTC threw together these fake-Helvetica signs and ran them by a dozen people. That was their testing. And from that they wrote a 350-page instruction manual on how to clone Massimo Vignelli’s designs for the New York City subway in the ’60s.

Toronto Transit Commission Signage & Graphics Master Modules & Specifications Graphic Standards Module Placement Hierarchy Information – General



- Numbers indicate placement order of each âign module for each individual Photo Module.
- Arrow modules always “pull” adjacent Photo âign information, including which direction the wayfinding information applies to.
- The amount of white space after the text may be increased, or decreased, depending upon the total available space and the number of Photo Modules to be added.
- Standard Photo (with Description) are used on signs 400mm High, or larger.
- Medium Photo (without Description) are used on signs 300mm High, or smaller.



- Line Band Colours are used only in conjunction with Subway Photo signs and/or Text relating to Subway Line Directional Information.
- Dual Line Band Colours are used only at TTC Interchange Stations, where one Subway Line intersects with another.

You see, Toronto has an inferiority complex. Still. Today. Deep down, we wish we were as good as New York. The fact that we're better than New York on a lot of scores means nothing. New York is the summit of a mountain we can never reach. But it also means that anything New York does is axiomatically the best.

That further means the use of Helvetica for transit signage. Now, in the 1960s, Massimo Vignelli chose Helvetica because he's an arch-Modernist. Although of course the typeface he chose was really Standard or Akzidenz-Grotesk, because Helvetica wasn't available at the time in the formats he needed. (You should read Paul Shaw's book *Helvetica and the New York City Subway System*, helveticasubway.com.)

But anyway, we don't live in the 1960s. We have engineered signage fonts now, and we can design new engineered sign fonts if we need them, *and* we know more about testing.

But TTC staff are visual illiterates and Windows users and they have no taste whatsoever. Their powers of analysis begin and end with "I can read it" and "It looks clean."

So what do we have in the Sheppard subway? Wall-to-wall Helvetica. And half the time it's backlit or electronically scrunched.



It looks pleasingly uniform compared to the mish-mash on the other lines, but is that enough? No, not for transit signage, because it has to *perform*.

Helvetica does not work well in signage. There are some reasons for that, which, while obvious, are not obvious enough to dissuade the TTC.

1. All the usual confusable characters, like *I*, *l*, and *1*, remain confusable. In fact, numerals are *really* confusable.
2. The whole thing sets too tight together by default. When you're at a distance from a piece of text, an optical phenomenon called crowding reduces the legibility of characters that are tightly spaced together. Helvetica sets too close together by default.
3. The now-retired type designer Erik Spiekermann has a couple of graphics that show these issues nicely:



“1milliliter” in typefaces of differing legibility (Helvetica among the least legible)



“LoveIslington” in typefaces of differing legibility (Helvetica among the least legible)

Even if we didn't have evidence already that Helvetica is a lousy choice for signage, my business partner Marc Sullivan and I demonstrated it for another transit system here — GO Transit, the commuter-rail system.

We showed this other transit system a set of alternatives, in positive and negative, sharp and blurry, and proved that Helvetica doesn't work. So GO Transit went with something other than Helvetica. They went with the wrong font, but at least it wasn't Helvetica.



Four sign mockups, black on white, white on black, sharp, and blurry

And there's more: What the TTC is using isn't real Helvetica or Helvetica Neue. It is actually Swiss 721, the Bitstream clone that comes free with CorelDraw. If you've ever used an HP printer or any Corel software, you're familiar with Swiss 721 as Bitstream's Helvetica clone from the late 1980s. A very good copy, but it isn't the real thing. And in the best case one could argue with the propriety of a municipal transit agency's using a copy of a real font.

The most interesting point about the signs in the Sheppard subway is the fact that the man who developed them ultimately could not use his own signage. Bob Brent was a TTC manager in charge at the time. Later, Brent had a hip operation that had him using a wheelchair and then a walker. And on two occasions, right there at Sheppard station, he could not find an accessible exit using his own signs.

The TTC did give us a little sop to the past in the Sheppard subway. The name of the station on the train-wall side uses the old TTC font. Except the font is too small and too tightly spaced. They couldn't even get that right, in other words.



5 What's happening these days?

More than a few interesting things have happened in recent years.

First, TTC now actually has a design department and I actually did some work for them. I set up a few tasks—common ones, unusual ones, and rare ones—and did a test to see if I could carry out those tasks using only existing signage. Usually I couldn't. This design department does not inspire a lot of confidence. It spent almost a year being the world's only Helvetica truthers. TTC Design literally told people—in writing, on Twitter, in their own design manuals—that Swiss 721 is the real typeface and Helvetica is the clone. TTC Design wanted us to believe that those Swiss designers produced a typeface called Neue Haas Grotesk and then one called Swiss 721 and then, finally, a font called Helvetica. That didn't happen, and the Germans didn't win World War II, either.

Also, one of the TTC's junior architects took it upon himself to solve the problem of new wall coverings. They did a test at one downtown station, St. Andrew.



The first couple of installations didn't work, but they kept at it, and now we have a nice new material that looks a lot like the old Vitrolite tile, though the slabs are full height floor-to-ceiling. And in those installations, they're duplicating the original typography *almost* exactly. All that is *pretty good*.



Panoramic fisheye view of original Vitrolite tiles at Osgoode station



Panoramic fisheye view of new wall cladding at Osgoode station

And one more thing that's going on is digging out subway tiles and, apparently, putting them right back up again, albeit with different and bigger caissons, as they're called, for advertisements. But while the tiles are removed, we've all been able to see the true aboriginal TTC type that's behind them, on the *original* tiles, hidden for many many years.





Ad frames at Dundas station reveal pale yellow square Vitrolite tiles, O STREET legend in light TTC typeface



And the TTC is renovating subway stations. They use their own in-house version of the TTC font and you can easily tell the difference. Plus there was that time they installed the letter *N* backwards at Dufferin station. That even made the papers. (It was fixed soon enough.)



Even many years after they should have known better and even after they hired me and well past any point where there was possibly any excuse, exactly a year ago some miscreant unknown gave the order to tear out the destination signs on subway trains and re-“typeset” them in Arial.



This is for real. Before this, the destination signs were set in Futura and some mid-century industrial gothics. Much better, and more historically accurate, and not the total abomination that Arial is.

And, while the TTC has its own in-house outline version of the subway typeface, Toronto designer David Vereschagin produced and sells his own version, entitled Toronto Subway (www.quadrat.com/ts.html).

6 Conclusion

Type in the Toronto subway is a story of just how much of a mess you can make without adult supervision. The TTC started out with something nobody else had, and then, through a combination of ignorance and bad taste, spent 50 years tinkering with it and diluting it.

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