

KRISTIN MILLER

# Mapping Our Disconnect

On the transit system we have, not the one we might have had, or wish we had

**M**aps have power. They can make the illegible legible and the invisible visible. They can make the obvious even more obvious and the impossible seem possible.

When Stamen Design mapped the routes of the private buses that ferry techies between their homes in San Francisco and their jobs in Silicon Valley for the 2012 Zero1 Biennial, the aesthetic choice to render the map as a transit-system schematic made an open secret within San Francisco obvious to the world. The city is becoming a suburb of the Silicon Valley suburbs.

The “Google buses” had had the aura of urban myth since they began running in 2006. There was a vague sense of their increasing presence, but little knowledge about how many of the large, unmarked motorcoaches blended in with the tourist traffic on city streets. San Francisco’s transit authorities requested Stamen’s data because they were unsure how many tech buses were using city bus stops to pick up and drop off workers. The “Google bus” was mentioned in jealous wonder by those without a free, comfy commute, and more angrily when the arrival of the buses began to be implicated in ever-higher rents in city neighborhoods or when their outsize bulk bottomed out on San Francisco’s precipitous hills.

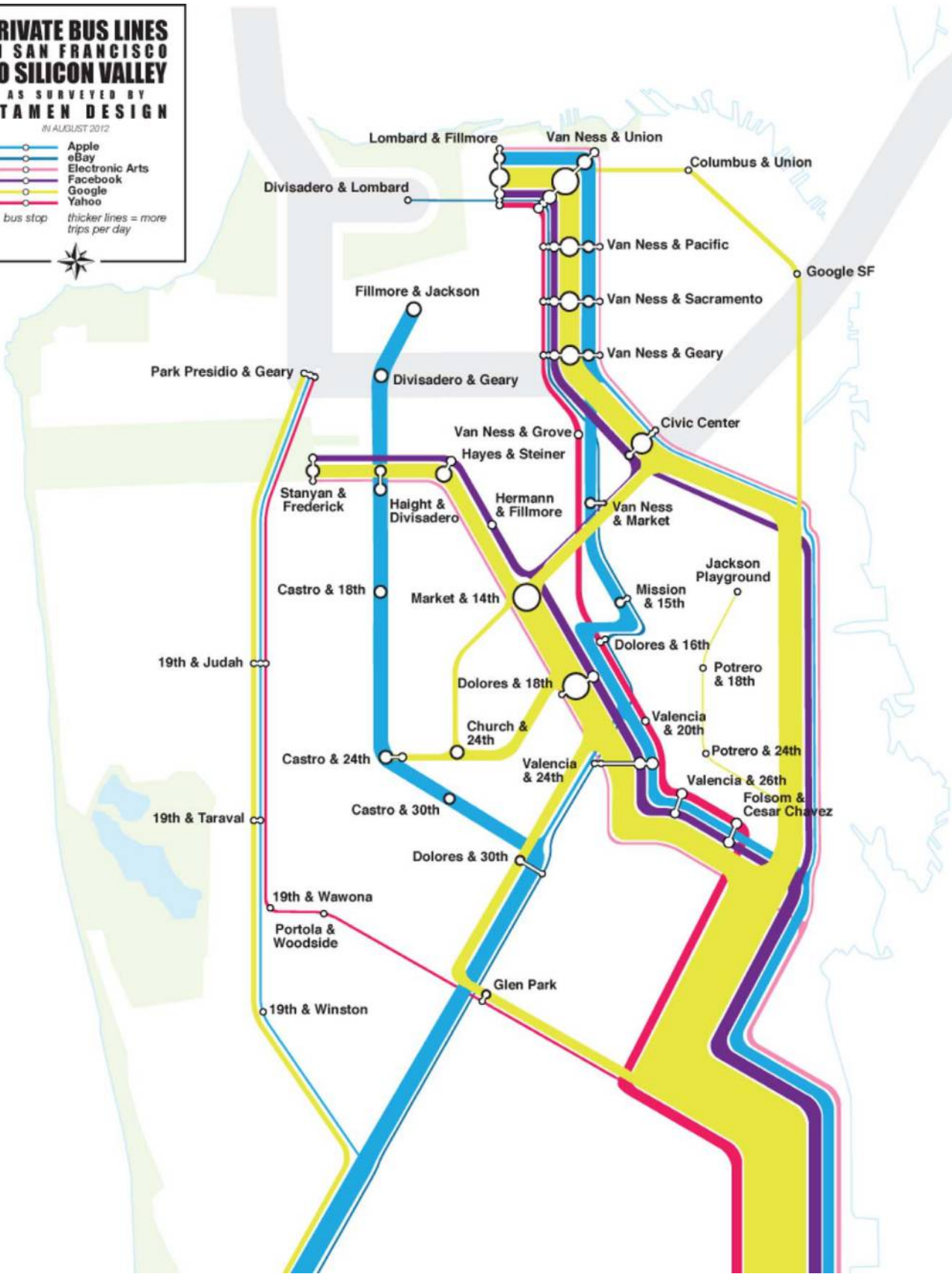
In a piece in *The London Review of Books* shortly after the appearance of Stamen’s map, Rebecca Solnit appropriated a geek-world in-joke from “The Simpsons,” dubbing the buses the “the spaceships on which our alien overlords have landed to rule over us.” But she and many others were not ready to welcome them. The buses had become a synecdoche—a part that symbolized the whole, like the crown signifies the monarch—for all the ways that the most recent tech boom was altering San Francisco.

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**PRIVATE BUS LINES  
IN SAN FRANCISCO  
TO SILICON VALLEY**  
AS SURVEYED BY  
**STAMEN DESIGN**  
IN AUGUST 2012

- Apple
  - eBay
  - Electronic Arts
  - Facebook
  - Google
  - Yahoo
- bus stop  thicker lines = more trips per day



In 2012 Stamen Design mapped the routes of the private buses that ferry techies between San Francisco and Silicon Valley. MAP COURTESY OF STAMEN DESIGN.

With a plan in hand that showed not only where the buses stopped but how often, San Franciscans suddenly had a sense of the impact of the tech shuttles. By adding width to the lines to convey the volume of riders, the map also showed the scale of the problem, using a venerable graphic technique famously used by Charles Joseph Minard to chart Napoleon's campaign against Russia and eventual retreat with a much diminished army. By compressing the routes of Google, Apple, Facebook, Yahoo!, and eBay into a single visualization, Stamen's design made it possible to argue that these routes in fact constituted a de facto transit system using city bus stops to move tens of thousands of people each day. In fact, Marty Lev, Google's vice president of safety, security, and transportation, had said back in 2007, when the Google buses carried only 1,200 employees daily: "We are basically running a small municipal transit agency."

A debate now rages over whether the buses should be permitted and taxed by the city. Tech bus stops in San Francisco and Oakland have been hit by direct action protests. A decision to charge the bus operators a \$1-per-stop fee for using 200 approved city bus stops temporarily quieted the protests, but not the ill feelings.

The argument over the buses and the change they represent often breaks down into pro- and anti-tech camps, with personal attacks against the culture of tech workers or protestors, as embodied in a recent piece of street theater where a protestor playing a techie belligerently told those blocking a Google bus to "get a better job," or the all-too-real comments made by former AngelHack CEO Greg Gopman that San Francisco is "grotesque" and "overrun by . . . drug dealers, dropouts, and trash."

What's really at stake—and what is foregrounded by visualizing the presence of the buses as Stamen did—is a failure of belief in the city as a commons, a city that supports existing residents and new arrivals by integrating them into the collective spaces and systems perhaps best represented

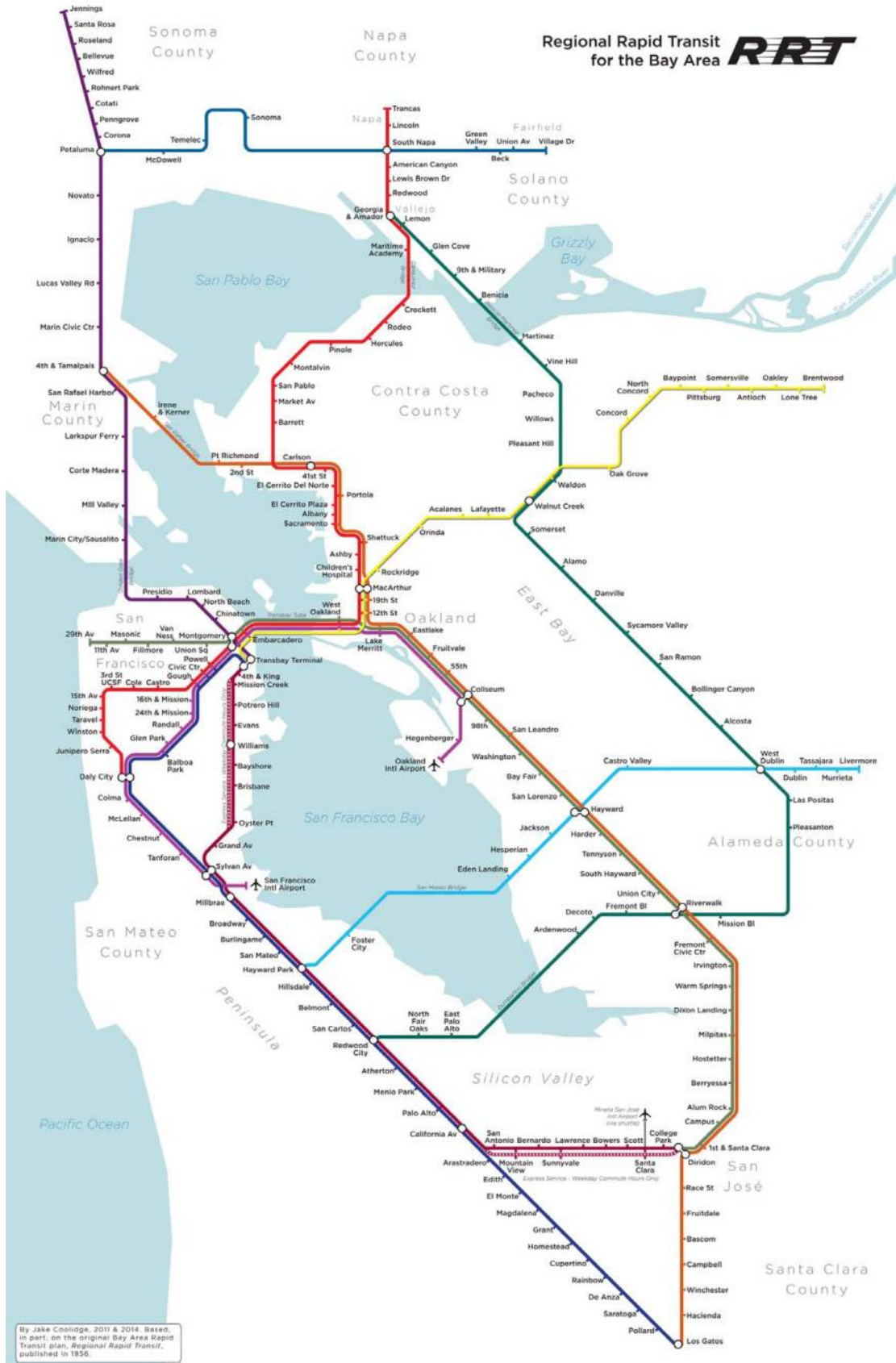
by public transportation. That there are entire networks of free transit options available to only some of the city's wealthiest residents cannot help but create tension, especially against a background of skyrocketing housing costs and a wave of no-fault evictions.

Another unofficial Bay Area transit map has highlighted these differences by making the impossible seem possible. Generated by cartographer Jake Coolidge, it shows a speculative plan of a BART network that could have been built based on the original proposals for the system from 1956. This BART has a scale unthinkable in today's transit quagmire, with lines ringing the bay, spurs running through Silicon Valley as far as Los Gatos, and lines running as far north as Sonoma County. Although the final BART plan was significantly more modest, it still included an extension into Silicon Valley that, fifty-three years later, remains unbuilt.

Silicon Valley's major tech companies have acted on something that many other San Francisco Bay residents recognize from personal experience—that the region, one of the largest metropolitan areas in the country, is poorly served by public transit and has the highest percentage of workers commuting two or more hours in the country.

There's no better illustration of the need for a system on the scale of Coolidge's compilation of 1956 BART plans than a map of the Google bus network as of May 2013—a map Matthew Jamieson and I created based on a Google corporate map that, for a time, was available on the Web. Google's white Van Hool buses run from San Rafael in the north to Santa Cruz in the south and Danville in the east. While the battle of the buses has focused on San Francisco neighborhoods, particularly the Mission, the private transit network is an issue on a regional scale. Google's routes represent only a fraction of the miles traveled by buses owned by Apple, Facebook, Electronic Arts, eBay, Yahoo!, Genentech, Box, Netflix, and countless other companies whose transport is subcontracted to Bauer's IT.

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By Jake Coolidge, 2011 & 2014. Based, in part, on the original Bay Area Rapid Transit plan, *Regional Rapid Transit*, published in 1956.

Jake Coolidge's speculative map of a BART network that could have been built based on the original proposals for the system from 1956. MAP COURTESY OF JAKE COOLIDGE.

The tech companies, in their libertarian, do-it-yourself way, have solved the transit problem for themselves, not waiting for a potentially time-consuming, representative political process to do the job. They've put their workers on comfortable, Wi-Fi-equipped buses where they can work during their commute, and it counts as work hours, not lost hours. Despite the vaunted ingenuity of Silicon Valley, however, the lack of coordination within this system results in mammoth buses plying the same routes minutes apart and often traveling partly or mostly empty, begging the sustainability argument that Google and others have put forward in self-defense. Tech companies and the regional governments that enable them claim the buses are “win-win”—relieving traffic, pollution, and further paving of Silicon Valley. But while the buses reduce corporate carbon emissions, they may well expand the

regional footprint, as those underserved by drained public transit systems are more likely to commute by car. What's more, as the downtown cores of Bay Area cities become unaffordable to everyone from civil servants to the many people who provide services for techies who work 60 to 80 hours a week, commuting times for non-tech workers may get longer. The likely result: more commuters sitting in traffic jams, because transferring from bus to Caltrain to BART to bus is a modal transfer or two too far.

Imagine how different this picture would be if the seats on those buses were open to all. In other words, imagine if this were a public transit system. The Bay Area is one of the most highly networked landscapes on Earth, in terms of data. It is a deep irony of the information age that a region so focused on connecting the world through the digital ether is so poorly networked to itself on the ground. **B**



Kristin Miller, Matthew Jamieson, 2014

MAP COURTESY OF KRISTIN MILLER.