

#3B5998

35ml



The Digital Blues

Jennifer
Kabat



On a beach as a teenager, the artist Yves Klein and two friends decided, like Greek gods, to divide up the realms. One got the sea, another the earth, and Klein the sky. Here by the Mediterranean's shores, he complained about the gulls stealing his vision, tearing through the azure overhead. "I began to feel hatred," he wrote later, "for the birds which flew back and forth across my blue sky, cloudless sky, because they tried to bore holes in my greatest and most beautiful work." Soon the sky became his domain. He went on to trademark a shade of blue. International Klein Blue was modeled on lapis lazuli. In 1957 he declared that we'd entered the *Époque Bleue*, the blue age. I think of him now, claiming the sky, hating the birds, calling that blue above his best work, as I consider different skies, different blues, different realms. These too are divvied up and doled out. They appear on the internet and our computers and phones, where blue is the most common color, as if that blue, the *époque bleue*, has only just dawned.

I started pondering this blue age as an accident. I stared at my screen, a proverbial window, facing an actual window as I stood at my desk. I was writing, hence easily distracted. I noticed the icons for different apps lined up in the dock, as Apple calls it. Scrolling left to right, there was the Finder's square smiley face, a cubist rendering in two blues, the face split like Picasso's *Demoiselles*, shrunk to a half-inch square. The App Store, iChat, Mail, and Safari veered close to Klein's luminescent lapis. Microsoft Word was turquoise with shadows in the folds of the *W*, as if to trick me into believing it had dimensionality, and the few apps that were white or gray took on a blue cast from the LED screen. On the document I wrote in, the formatting was blue, the margins marked in blue. An hour later I started an email, and the recipients' names came in two different blues: a pale one indicating the To line, while, as I typed the email address, Mail helpfully offered a list of names in navy to jog my memory. And online, links were blue. I returned to my writing but couldn't escape the blues. I highlighted text to delete it and start my sentence over, and this, too, was the same aching blue of a winter's sky in the Catskills, where I live.

I tried to work, told myself not to think of these hues, but the blues did something to me. I couldn't shake them. It was the spring of my mother's death, and distraction came easily. Research was the only thing that soothed me, as if getting lost in ideas was my salvation. My sister was sick and another friend was, too, both with cancers that had spread. It felt like my world was engulfed in waves of grief. Perhaps my blue was one of sadness, though I hate it when emotions are attached to the color, as if that might explain its grip. Blue held me in its sway through all the seasons from spring to summer to fall and the following spring again. Someone told me this ether of screens that could suck up attention was called the blue nowhere. I googled the phrase, and the string of search results turned up in blue. It's the name of a thriller by Jeffery Deaver. I didn't want to share his blues. Still, the shade I saw was foreboding, the gathering dark as the sky settled to night. In this vision, the clouds were black, and the mountains, too, at the horizon, but the sky was a deep, deep blue. Illuminated from behind, it was vivid and inky while the rest of the landscape had sunk into dusk.

Another artist, Derek Jarman, equated blue with death and loss—his own death and loss. In 1993 he made a film titled simply *Blue*. The movie is one uninterrupted royal blue shade for eighty minutes. He'd partially lost his vision to complications from AIDS and the vision he had left was tinged by the movie's color: blue. In it Tibetan bells chime and voices speak; there's ambient sound from a world he was losing: streets, cafés, doctors' offices; the whir and click of an eye test as the machine measures his retina. The experience is intensely intimate as the screen is reduced to a single field of vision. "Blue transcends," Jarman's rich voice intones, "the solemn geography of human limits." *Blue* had been his final film, and I watched it on YouTube. It'd had more than 104,000 views, with 463 thumbs up and 11 down. I clicked a thumbs up, and it, too, was blue.

I was convinced something more lurked in the shades, something perhaps prophetic. Onscreen, they beckoned and also seemed to hope I might miss them entirely, which seemed to be the point of blue—to appear and disappear, as if it were the color of nothing and everything. The color might just be a bit

of digital detritus or marketing. What was the difference, after all, between these virtual blues and the ones in the “real” world, where the color dominated corporate logos and those of Major League Baseball teams?

This blue, this sky, this screen-as-window, has a nearly universal reach thanks to computers. The colors, however, come largely from one small sliver of the world’s population, in one small sliver of the world on the West Coast of the United States. Those facts of place and people started to seem prophetic, too. Friendship is blue, and our language for images is watery. They come in streams, torrents, and floods. We have an image stream, video streams, and, on the iPhone, a photo stream. Even that dock, where the apps line up so they are easier to find, suggests that the programs are moored boats waiting to take out on the water. Meanwhile our data is in the sky, in the “cloud.” We have clouds and currents, streams, skies, and windows. And blue.

The internet dates to the late ’60s and the Cold War. Developed by an agency within the United States Department of Defense called the Defense Advanced Research Projects Agency (DARPA), the idea had been to link computers in case of war, but also to connect universities and knowledge and ideas. Knowledge, war, freedom, and information had been at the internet’s heart. Technology is never neutral. It always bears out the biases of its moment. This was why I wanted to examine blue, to slow down enough over something that might seem insignificant. The color would have been easy to ignore, yet it now literally underlines our maps and paths of the world with highlighting and links as the color extends our ideas, networks, and commerce. The internet is our new civic realm, and things there are invisible because we made them so. The internet has shaped our interactions, and here was a color that had become intrinsic to them.

FACEBOOK—HEX: #3B5998; RGB: 59, 89, 152

Dusty, dark, the skin of a ripe blueberry or my need for distraction. Its lowercase f sits off-center, the top curling, beckoning like a finger saying “come here.” I nearly left it on my birthday when the site exhorted my friends to “help Jennifer Kabat celebrate their birthday,” but I didn’t. Or couldn’t. Or wouldn’t.

Facebook's thumb, sticking up in a shade of dusty indigo, nagged at me, as did the news about LED screens. They glowed blue dangerously. Meant to mimic daylight, LEDs steal sleep and interrupt circadian rhythms, stopping the production of melatonin, creating problems with memory and insomnia. Cancer is blamed on this blue light, and death and disease were inflecting my worries, though I didn't blame blue for these hazards. Instead it was the values smuggled in with the color that disturbed me. British pollsters YouGov undertook a survey in 2015 and claimed blue is the world's most popular color, picked nearly twice as often as the nearest competitor by respondents from Britain to Germany, Australia, China, Indonesia, Malaysia, Thailand, and beyond. Of course, the survey was online. The internet age, our blue era, is so short that it's possible to see the history unfold before our eyes. Moments that seem far off happened only five years ago. Facebook is just a decade and a half old, so maybe it was also possible to untangle blue's meaning before it congealed into accepted norms.

Yves Klein had made blue his quest, seeking something spiritual in the color. Achieving it had been a struggle since the Renaissance. The shade had required binders that diluted the intensity, and the color, ultramarine, was expensive. Lapis lazuli, from which it's made, came from a remote region of Afghanistan. The pigment's price had been as stable as an ounce of gold, and until a synthetic blue was created in the early nineteenth century only the richest patrons could afford it. Maybe what we were witnessing was the same migration that happened to other colors and pigments with trade across borders and markets. Ultramarine had moved west and north with the Crusades to Europe, and cochineal, a rich crimson made from crushed beetles in the Americas, became a valuable commodity in the sixteenth and seventeenth centuries. It had changed the tastes of Europe's wealthy and eventually returned to the Americas in the red coats of the British army.

I remembered hearing a story on NPR about blue and global politics. Online, I found the segment and listened again as the *Morning Edition* host asked what the color blue meant to me. "Is it sad," she said, "or soothing, trustworthy or cold?" The burr of her voice reverberated, and in her list were hints of how people perceived the color. Her sentence arced up at the end of her introduction

to tell me that in Ethiopia blue was now the color of resistance. A reporter, a man, in Addis Ababa, explained it was the name for the opposition Blue Party, chosen because it was the color of freedom and Twitter and Facebook. Social media was still uncensored in the country. His comments were all the proof I needed that blue bore symbolic values which we were exporting.

A friend, a poet, asked what my issue was with blue. She pointed out that I was wearing a blue sweater, blue jeans, and a blue down jacket. I didn't have a problem with the color per se, I said, but with what I thought it contained. British painter Chris Ofili has said, "Blue had a strength other than color strength." I realized I was being driven by what he called "the blue devils."

I listened to the NPR story over and over. The eager journalist was always bright and cheery as he reported on a woman's blue pedicure and scarf and got around to blue being the color of social media. It took hearing the segment a half dozen times to realize the American reporter had been the only one suggesting it was the opposition party's color because of social media. It was just him and me conflating color and cause. No one he interviewed did. The Blue Party spokesperson gave the reason as the Blue Nile and the Red Sea, which appeared turquoise.

Each time the NPR announcer asked if blue made me sad, her voice settled in my chest, and I thought of my father. He'd written to Adlai Stevenson in 1952, the day after Stevenson lost his first presidential bid. I found a blue carbon copy of the letter in my mother's files. My dad was twenty-six and wrote that he was sad about Stevenson's loss. He was scared of war and of returning to active duty. At the time he managed a tiny electric co-op in upstate New York, and he worried, too, that the state would privatize its big power projects in Niagara Falls and the Saint Lawrence River. He believed these resources belonged to the public. He believed in the public good, not privatizing infrastructure. This was the thing with blue—I was sure it was bound up with privatizing something that should be a public resource.

TWITTER—HEX: #55ACEE; RGB: 85, 172, 238

Bold azure, the endless sky on days of weight and ache.

I called Michael Bierut, the designer who created Hillary Clinton's 2016 presidential campaign logo, to ask about blue, and he sent me to Jessica Helfand for answers. Together, they cofounded Design Observer, a site dedicated to thinking broadly about design and culture. She teaches a class at Yale on the color blue. Yale's color is blue, and she told me a story of the day Twitter launched. She'd been at a design conference where a Twitter spokesperson introduced this little bird, the bluebird of happiness. It was a jaunty aqua, and she thought the whole thing ridiculous. "Typing a hundred and forty-character messages?" She gave me a self-deprecating laugh.

Jessica also offered up a story of Paul Rand, as if by example. The legendary designer had created logos for IBM and ABC, and tried to turn American Express a teal nearly the color of Tiffany's. "It wasn't exactly Tiffany blue," she related, "but this was before the digital age, so people couldn't track down your hexadecimal code¹ and say, 'You stole my swatch.' He was alluding to that very bright shade of robin's-egg blue, and felt that he was psychologically importing the value proposition. It was the color of money. It said wealth, it said exclusive. He was borrowing the cumulative cultural legacy of that memory." She also hinted that he'd stepped very close to the line between borrowing and maybe something more. Perhaps this was blue, borrowing a legacy and bordering on theft? Maybe all these logos were just built on the color's previous uses and the myriad values we think blue has, from sadness to freedom and peace and money.

Amex now comes in two blues: one darker, a serious navy shade; the other lighter and closer to Tiffany's. Skype and Twitter use a similar hue. Skype's is in the shape of a cloud, Twitter's the bird, and Jessica said, "Blue is the path of least resistance. These blue brands," she told me, "aren't worthy of your efforts. These visual decisions are just the result of external consensus-building."

I could feel her telling me to give up my quest. She said I was a dog with a bone. A blue bone, I joked, or blue blood. The color might be easy to shrug off, but that's why I wasn't going to.

1. The six-digit alphanumeric code that defines a specific RGB color used on the internet.

A friend at Apple, who couldn't legally discuss with me the blues like Mail or Safari or even Finder that his company had created, sent me to another creative director, Aki Shelton, who used to work at the company. Connected by Skype's cyan cloud, she told me about working for a design agency in Japan. One of her clients was a bank in Taiwan. "In Japan," she said, "blue never had negative connotations, but for the bank I was making a logo mark, and it was blue, a sky blue they called 'dead man's face blue' as if it were the color of death." She explained that in China and Taiwan people take the fact that red and gold represent good luck very seriously.

She had been thinking, however, of a different meaning for the color. "In the U.S. and UK, it's trustworthy and friendly, safe and modern—all these make it popular. Health-care companies and health insurance providers are blue."²

She leaned toward her screen and toward me and said another thing about blue: "It recedes." This was why paintings used blue to convey distance. With atmospheric perspective, contrast decreased and everything blended into the background color—blue, most often.

"When looking at Facebook," she said, "that blue basically disappears. Facebook is about users' content and photos. They should stand out so the color should step back, and social media uses blue for that reason."

The color disappears. Blue is the color you don't see, the color of neutrality but also safety and trust. Perhaps because blue is so ubiquitous, it can represent all of them or nothing, just neutral space. Perhaps blue can represent those values because it's so common it's invisible. At the same time, I think its familiarity renders it trustworthy and reassuring. We see the color so often, it doesn't jar us. Blue is comfortable.

Just before I got off my Skype call with Aki she mentioned that she'd recently created a blue identity—it was a dusty indigo and she used it for the Public Internet Registry. It's the nonprofit responsible for all .org and .ngo domain names, most often associated with nonprofits. Their shade? "Blue," she said, "for trust."

2. Aki also explained that her team knows how common blue is online and tries to point it out to clients, who don't necessarily listen to their designers' advice.

SKYPE—HEX: #00AFF0; RGB: 0, 175, 240

A cyan daydream, hidden in a cloud and promising conversations with anyone anywhere, as if talk were cheap.

Anytime anyone told me blue was the color of *something*—of, say, trust or peace or calm—I got suspicious. I’d wanted to tell the NPR host that, yes, I was sad, but it had nothing to do with color. Color as feelings seemed too facile, like the results from an online psych quiz:

I am a:

Male Female

My future seems hopeless:

- Not at all
- Just a little
- Somewhat
- Moderately
- Quite a lot
- Very much

A creative director from ABC News who had also been in charge of its digital platform told me blue was “authority.” It was why news outlets used it. She also mentioned that red couldn’t be used well on screens until recently. You couldn’t reproduce it without “bleeding.” It had been too hard to control until the new retinal displays were developed. “Social networks have built on the legacy of blue, on the trust from news organizations,” she explained.

Like Rand, they had been borrowing—or stealing—associations. So red was tricky; blue was trust and authority. And credit cards and commerce, news outlets and technology, are all using a color to represent these ideals. There’s something unnerving about the way the notion of trust (and specifically what news organizations and tech companies and financial institutions consider trust) is derived from simple consensus-building that can be summed up in a color. The feedback loop reinforces blue’s ubiquity, so we see it more and

more, become more and more accustomed to it, and that repetition translates into trust. We don't have to work to understand blue.

Perhaps what disturbs me more is how this twinning of trust and authority connects to the ease of consumption. Blue serves as shorthand, a signal of trust. Thus the news story is easier to consume, the social-media platform more familiar. The more comfortable we feel on it, the more likely we are to put our data and our political decisions into a site. Companies seem to think that all we need to trust something is to be shown it repeatedly—no matter its actual relation to fact or security.

DROPBOX—HEX: #0061FE; RGB: 0, 97, 254

*Egyptian blue, close to the hue recreated by chemist and former slave George Washington Carver around 1930. He made it from mud, from clay... And, under this shade, I store things, share and trade them with friends: images, words, their art, my writing, believing these will all last. Or float free.*³

My husband, a graphic designer, overheard these conversations. He'd been listening to them for months and finally told me he thought the blues had a longer and deeper history, one that wasn't about feelings or abstract ideals, one that was more about how colors work on screens. The blues came, he suspected, from the web-safe color palette. It was a name I'd not heard for a decade. The palette had been the set of colors for the internet that could reliably be reproduced on both Macs and PCs. Both systems could display their own set of 256 shades. They had 216 of these shades in common, which were therefore deemed trustworthy. Of those, twenty-two were truly reliable. Stray from them and specify a different color, he explained, and it would "dither." That was the hatched pattern of visual noise combining two different shades like red and yellow to approximate the one you'd chosen. He pulled up the color palette

3. And I owe knowledge of this blue and Carver to the late Terry Adkins, whose installation and recital *Nenuphar* compared Carver and Yves Klein and their two blues.

on his screen and the hues were garish: acid lime greens and yellows, purples that veered to neon.

On a hike that summer, I was still harping on blue. The hill and trees were lush and green. Ferns brushed our legs and the blackberries were starting to ripen. We climbed to a fire tower to see the atmospheric blues scattering light and creating a sense of distance, that blue of perspective Aki had talked about, which appeared and receded. Before we reached the top, my husband said that the web-safe color palette had always looked random to him. “There was no logic to it. It didn’t conform to nature or skin tones. The colors would go from really saturated to really dark, none of which was helpful as a designer. It was a cube of colors that was a mathematically derived formula, so they don’t correspond to nature, and in a way that is amazing.”

What he meant in calling it amazing was that it wasn’t biased towards skin tones, unlike technologies like printing that, when aiming to recreate flesh colors, skewed white with an implicit racism. He hoisted his backpack. “But the palette was designed to depict every physical color within 216 mathematical divisions. So it was perfectly inhuman, but it also meant there were few attractive colors, and we often would try to find clever ways to make our own, creating our own dithered patterns of stripes and hatches to modify a shade. Or use blue.”

WORDPRESS—HEX: #21759B; RGB: 33, 117, 155

Inky blue, it’s the flash of a magpie’s wings. A common bird, a corvid, it’s as smart as an ape and uses language, too. It speaks and shares grief, tools, and emotions. The bird’s name is a compound noun: mag, short for Margaret and once used as a synonym for all women, and pie, meaning pointed, like its beak and tail. It was the pointed bird that chattered like a woman. Its words were cheap, everywhere, chatter... Language that has become chatter, words made common, everywhere, every day.

The web-safe color palette was created for Netscape Navigator, the first commercial browser. It launched at the end of 1994, its logo the aqua of the North

Atlantic. The company's first press release declared that Netscape would sponsor the altruistic free flow of information—and money.

“Making Netscape freely available to Internet users is Mosaic Communications' way of contributing to the explosive growth of innovative information applications on global networks,” said Marc Andreessen, the company's vice president of technology, more than two decades ago. He was twenty-three years old and had recently graduated from the University of Illinois, where he'd co-created Mosaic, the first popular web browser. It had been funded by the federal government, and when he made it there'd only been twenty-six websites worldwide. He moved to California afterwards and started Mosaic Communications to create a commercial browser, Netscape.

“We expect Netscape's ease of use,” his statement continued, “to spark another major leap in Internet usage... Netscape now lays the foundation for commerce on the net.”

By the time it was available that December, the browser was no longer free. Not even half a year later, Bill Gates pronounced in an internal memo, “Now I assign the internet the highest level of importance.” Up to that point, Microsoft had had only six people working on browsers. After Gates's memo the company went on a hiring spree, and soon my friend Matt became part of the multitude working on the internet at Microsoft. We met around that time, a year or so after he'd started at the company.

The internet had been hailed as a utopia where we would express ourselves, but it was also a realm of competition and capital. Andreessen later wrote for the *Wall Street Journal* about how software companies working online “invade and overturn” and “disrupt” to become the dominant force. I thought of that “invasion” with Gates's intense desire to own the internet. Microsoft Windows 95 launched in August 1995,⁴ and the software soon came bundled with Microsoft's own web browser, Internet Explorer. Its early versions were identified by a small blue marble of the earth over which hung a tiny magnifying glass.

4. Windows's logo was a window flying across a blue sky. A rainbow filled the panes, and a contrail of colors followed behind. The identity looked like NEXT's rainbow cube,

That earth was quickly replaced with a lowercase cerulean *e*. Microsoft's Internet Explorer had become the earth.

Microsoft's browser killed off Netscape. In what may have been the biggest irony, Microsoft licensed Andreessen's first browser, Mosaic, in order to jump quickly into the browser market itself, then poured millions into starting a browser war. Internet Explorer was essentially Mosaic, and it was pitted against Netscape, which never recovered. Meanwhile, Internet Explorer, with its little blue *e*, took over the world. Perhaps it was this blue, the globe, the marble of the earth, that became a brand that killed off the competition and tried to dominate what and how we see?

SAFARI—HEX: #1C9BF7; RGB: 28, 155, 247

*Nautical blue. With a compass in the middle, it has promised me
the world or a web or both, that I might find direction.*

In the fall Matt and I met at a café in Soho. We sat outside. He was now an artist and a creative director and had recently quit his job for Ace Hotels. Our breath puffed in large clouds. On his lap was a tiny dog named Biggie with the face of Yoda. Matt had started at Microsoft soon after he'd graduated from the Rhode Island School of Design. He said back then Microsoft was hiring everyone to keep them all away from the competition. "The Tetris guy, who invented the game, they paid him not to work for anyone else, and they paid the Rolling Stones to use 'Start Me Up' in Windows 95's first ad campaign and Brian Eno \$35,000 for the three notes you'd hear when you booted up Windows."

Microsoft launched MSN (the Microsoft Network) as its version of AOL, and Matt created a youth-culture zine for it called *Mint*. (I wrote for *Mint*, too.) "We had this idea," he said, Biggie shivering into his coat, "that we'd flip the Microsoft logo upside down. The brand people came in and said no. So, we asked again." He'd been in his early twenties and hadn't realized a brand identity

as if rainbows summed up the possibilities of technology to this point. Of course, Apple had a rainbow, too. But Microsoft's window linked it to blue.

was sacrosanct—that it was the vehicle for the company’s values. “In all this we were being lectured about the brand guidelines, and what they meant and why. They said the brand’s packaging had to be blue because blue was the most popular color.” He shook his head. The moment stuck with him for more than two decades. “Blue was the world’s most popular color,” he repeated wistfully.

Another friend, who’d worked at Microsoft’s ad agency on the launch of Windows 95, concurred. The blue hadn’t been about beauty or function. The reasoning hadn’t even been as good as blue skies, open windows, and freedom. It was reductive. Everything at Microsoft was data-driven, he explained. “They’d give you three options and ask which one you preferred. They didn’t make decisions. They responded to data points.”

This agency employee, my friend, didn’t want his name quoted. He still works in advertising, still works for tech companies, and said, “Microsoft used quantitative research testing, delivered by companies that... link the data to preexisting normative data in order to predict the values. It’s an egregious misuse of data.” Essentially, Microsoft was making decisions on data that other companies collected and analyzed. My friend linked this back to Robert McNamara, the Ford executive who’d made design and manufacturing decisions based on data, and how McNamara used this data-driven decision-making process to measure success in Vietnam when he became Secretary of Defense. “By 19-whatever-it-was, McNamara’s data and his much-vaunted computers in California had models saying we were six months away from winning the war and exterminating every Vietnamese human being.” My friend swallowed a bitter laugh.

In World War II, McNamara’s statistics were responsible for decisions to firebomb civilians in Japan, and they turned Vietnam into war by body count. In both cases, numbers were supposed to rationalize war, making it logical. Instead, they dehumanized everyone. Soldiers became nothing more than killing machines; massacres like My Lai resulted, and everyone the United States killed was recorded as Vietcong and North Vietnamese, regardless of their affiliation. The statistics were reported weekly in United States newspapers. While he was Secretary of Defense, McNamara’s data was often so

complex it was impossible to contradict. It built a wall around his decisions. No one could question it, and the statistics seemed to remove human fallibility.

My friend said it showed how wrong data can be. At best you get blue; you get algorithms making decisions.⁵ The thing is, though, technology doesn't exist *ex nihilo*. It's created not in a vacuum but by humans, repeating our biases, our prejudices. The algorithms deployed by companies like Google or Facebook allow for only a seeming objectivity, and when a company trots out claims of objectivity, it cloaks them in a color, blue, to reinforce that image.

GOOGLE CHROME—HEX: #418BF3; RGB: 65, 140, 243

A blue dot encircled in a swirl of red, yellow, and green, like a camera shutter closing on it, or an iris. A similar blue dot is at the Firefox logo's center. The flame-red fox spins, trying to catch its tail as it chases a globe. The globe, the earth, that marble, has not disappeared from web browsers even after twenty years.

"Blue is the richest color for me," Mark Zuckerberg told the *New Yorker* when Facebook was going public. "I can see all of blue." And according to Zuckerberg, this was why Facebook is blue. His classmate Andrew McCollum created the logo in 2004 when Zuckerberg was launching the social network and made it blue on blue. The web-safe palette still held, and, for the identity, he paired a denim shade with Yves Klein's bold one. The network's name was The Facebook, which appeared wrapped in brackets as if a whisper or an aside. The site was just that at first, accessible only to students at Harvard and a few other elite universities. Zuckerberg had likely chosen blue because he was colorblind, something he discovered only years later in a test online.

5. In 2009, Google tested forty-one different blues to see which people used most. That same year, Microsoft launched its search engine, Bing, to compete with Google, believing the correct blue for links would translate into \$80 million of revenue from searches—a paltry figure compared to the \$200 million Google pulled in from their new shade of blue. For a company built on data-point tracking like Google, the 1 percent who click one shade of blue over another is mechanistic, not humanistic.

Like him, about 8 percent of men with Northern European ancestry have red-green colorblindness.

LINKEDIN—HEX: #007BB6; RGB: 0, 123, 182

Almost royal, not quite navy, not bright, not receding. There, it's a blue that is just there. Perhaps this is what they mean by corporate blue and why I never use LinkedIn—ignoring requests to “connect” or reports the site sends me—helpfully, hopefully—telling me I've appeared in three searches this week, or nine. What kinds of jobs are there for writers who lose a year to the color blue?

Maybe I was trying too hard. Maybe blue was just popular or signified trust; maybe people did copy others; maybe designers were simply at the behest of executives. The idea, though, that blue receded, that it was the distance, that it was meant to be the unseen element like formatting, as Aki had said, made me think there was something more. But some of the very first web pages, designed around 1989, used green for links. Blue wasn't always the default. Convinced that there had to be an explanation for the color's continued dominance, I called a digital curator at the New Museum who archived early websites, and a professor at Stanford, an expert in interface design who'd advised Larry Page as he developed Google. They both said there was no logical reason for blue. “It's not functional,” said the professor, Page's advisor, “but fashion.”

I still couldn't give up the idea of functionality. Or at least I wouldn't. There had to be an explanation. Google itself had spoofed all the blue online a few years ago, launching something called Gmail Blue as an April Fool's joke. It was a version of Gmail where everything had been turned blue. All this blue seemed problematic given Silicon Valley's goals. Companies there, as Andreessen wrote, quested after “disruption.” They wanted technologies that altered behaviors or enabled new ones, new ways of communicating or shopping or having friends. If you wanted to disrupt, to build a revolution, why use a color that might remind us of all the old ways of working and

thinking and talking? In that case, it seemed like there must be more to the perception of blue, like how red couldn't be rendered well on monitors. What if the choice of blue was about us, about how we see? Maybe blue got at the nature of vision itself.

My knowledge of vision ended at high school biology, where I'd learned that the eye sees in three frequencies, red, green, and blue, and that the brain then processes those three colors to trick us into perceiving multiple shades across the spectrum. That's been the accepted science since 1801, and it was the paradigm used for all screens and displays from TVs to cameras and phones. They were all still based on RGB some two hundred years later. At NYU, where I teach, I turned to Eric Rosenthal, a vision expert who's worked with DARPA as well as Disney. He promised he could help. I met him in his university office. It was in an old manufacturing building on lower Broadway where women had once sewed clothes in sweatshops, and I was led past warrens of desks with low light and glowing screens.

In a room with plate-glass windows, a workbench was covered by tackle boxes filled with circuits that twinkled like rubies. Eric introduced me to his collaborator, Richard Solomon. The two made a strange pair. Eric was elfin with a carefully trimmed beard and gravelly voice from the Bronx, where he grew up. Everything about Richard was askew: glasses, hair, and even his speech. He zoomed around subjects in urgent swerves of information. Both men were in blue, though—Richard in blue jeans, and Eric in a blue dress shirt, his NYU lanyard neatly tucked inside. I was excited about the DARPA/Disney connection, sure that this conjunction of war and entertainment would illuminate the conspiracy I suspected lay behind blue. DARPA had been responsible for the internet, and Disney has long used color to play on emotions. Instead, the two men overturned everything I'd ever learned about vision.

In the early '90s they'd worked on separate projects developing digital TV and cameras, and neither knew the other. Eric was Vice President of Advanced Technology Research at Walt Disney Imagineering Research and Development, Inc.; Richard had co-written a book on information infrastructure, and both

were working on projects at MIT. Someone at the NSA thought the two should meet. Both have worked for what Richard called “the three-letter agencies” ever since then.

At the time the Department of Defense had set a project, a crucible of sorts, for the two of them to make better television, with even higher resolution than HDTV. But, I asked, what did the military want with TV?

They explained it was for analysis. “With analog film,” Eric said, stroking his beard, “it took three days to process and land on an analyst’s desk, but digital went directly there. Only, after HDTV”—DARPA had co-sponsored the research—“the resolution still wasn’t good enough for analysts to read the images in enough detail, so they asked us what we’d do, and we said we’d rethink vision entirely.”

Their quest had perhaps been as dogged as mine. They rejected all the accepted science around vision. It wasn’t RGB. All of that had been wrong, they insisted, and in great wandering asides Richard explained why. Their process took them across Europe and the United States to Newcastle and Dusseldorf, London, Berkeley, Stanford, even the hippy enclave of Ojai, California.

Outside Eric’s office, the sun was setting, and I was sure we’d never get to blue. The men were talking about how goldfish see infrared and how the skin behind our knees is light sensitive; how reptile skin is also light sensitive, and how frogs’ vision is linked to their tongues, and how our eyes are aware of color even before the brain begins to process it. Finally, though, they got to blue. “The interesting thing about blue perceptually,” Eric said, “is that we have the worst color resolution for blue and the best resolution for colors in reds, oranges, and yellows—mostly oranges and yellows—so we have the least ability to define shades of blue.”

Blue was different, but it didn’t sound like its differences should make it a default color, not if orange or red or yellow were easier to see. They told me, too, that specific cones in the eye catch the wavelengths for specific color frequencies, but that none of them work particularly well for blue. I told them I’d never find my answer, and Eric smiled slyly.

“The eye,” he explained, “has a vitreous fluid. It’s an ultraviolet filter to

protect the eye and also a blue diffuser. It causes the blue to be diffused so the rods detect it. The rods are all one size in the wavelength of blue. We've got twenty million rods processing blue, and they can't do anything but process blue. And then we've got all these cones, and they're trying to read detail and do color definition and chromatic separation so that we can perceive these precise changes in color, but blue is really easy to process."

"We don't have that many blue cones, so it's the rods," he said, "that capture blue." This idea is radical; it contradicts the popular understanding that blue-sensitive cones process blue wavelengths of light.

Richard jumped in. He spoke quickly, gesturing with his hands about numbers of receptors, rods and cones. Eric calmly explained, "It takes more energy to figure out any other color compared to blue. It is easier to perceive blue, and that's why we think the sensation is that blue is more calming. It takes less brainpower. It's easy to process."

To believe them and all the money DARPA had spent to send them out into the world to find a better model of vision to make a better TV to find a better way to spy, blue had a reason for its popularity. It meant I had to trust that Eric and Richard were right. I had no way of proving they were, given that their analysis disagrees with most other scientists' analysis of vision. I was not a biologist. I couldn't do more than talk vaguely about the physics of light, and blue had already possessed me beyond all rationality. I thought of Isaac Newton, who, in trying to understand color, lanced his eyeball. For centuries artists had been driven mad by blue not because it was toxic, like lead in white paint had been, but because it drove them on this quest for a single pure hue. Blue, though, was easy on the eye. It was literally in the eye of the beholder. Only problem: the color didn't always exist, certainly not as we know it.

FACEBOOK MESSENGER—HEX: #0084FF; RGB: 0, 132, 255

A sky-blue speech bubble floats like a balloon, concealing a lightning bolt inside. Words float free, as if hit by lightning, or as if at lightning speed. The case of language now unhinged, in which

friend and social and liking have slipped from their original meanings and images stand in for words. But I love the small gap that opens between a picture and its associations. It makes me think of the Surrealists, of Magritte's pipe that was not a pipe and Dali's telephone that was a lobster.

If there's no word for something, can you see it? Is there a hole in perception or experience? How do we frame that thing? Or describe it? This was my problem with blue. It hadn't always been around, or at least there hadn't always been a word for it. Linguists, anthropologists, and ethnologists have been fighting over this for nearly fifty years. Language shapes how we see. It lays out the common currency of our world; words exist because we communally agree we need them and their meanings, so if we can't talk about something together, what then? Do we talk around it? *The Odyssey* famously has no mention of blue anywhere in the book. It might be an epic about sailing over the Aegean, but for Homer the sea was "wine-dark" and the sky "rosy-fingered"—not blue at all.

Former British Prime Minister William Gladstone also wrote about this in the nineteenth century. He'd been as bedeviled as I was by blue, only Gladstone needed to understand its absence. Other cultures were also missing the color in their vocabularies. The African Himba tribe has no word for it but many words for greens, while Russian has two distinct words for blue.⁶ Light blue is *goluboi* and dark blue *sinij*. The modifiers *light* and *dark* make them seem related to an English speaker, but *goluboi* and *sinij* are akin to red and yellow, two entirely different colors. In 2006 a group of scientists in Boston studied how the two words shaped perception, testing native English speakers and native Russian speakers on these blues. The volunteers had to identify different blue squares on a screen. The ones who'd grown up with *goluboi*, the Russian

6. These words are called basic color terms, not something like *salmon* for pink or *cerulean* for sky blue, but the most reductive of terms, *red*, *green*, *blue*, *yellow*—the simplest way to identify a color.

speakers, were faster than the English speakers at identifying the differences.

In a friends' house upstate I conducted my own study. Alina is Ukrainian, Jeff is Russian; both are artists. He leaned against the desk. Their son's toys were strewn on the floor. She swiveled in her chair, and Jeff said the blues, from *goluboi* to *sinij*, were not all that different even if the words were. "The colors are such a continuum I can't really fix what is light blue. It goes from the lightest of light shades, which are almost white, all the way to black, basically, as *sinij*. So when you say light blue, *goluboi*, it's just a point on an infinite line."

What about mixing colors? Learning to paint?

"You add white or more water," Alina explained. "The blues mix just the same."

How had they learned them as children? She couldn't remember; Jeff said, "The sky is *goluboi*, with tints of gray and greens. Dark blue is the color of the ocean or the night sky."

We were speaking in English of a Russian blue. Already the language was slipping, and I wanted to track down that untranslatable place to understand it in Russian, not Russian rendered into English. There was a hole in our blues. I didn't see the ocean as dark like Jeff and Alina did. For me it was turquoise, and maybe that difference in language shifted how we saw color.

The friend, the poet who'd wondered why I was so dogged by blue, has traveled to Ethiopia. She asked a few Amharic and Oromo speakers about the color for me. One person was a student of hers in New York, and he wrote, "The only thing I can think of, besides the opposition Blue Party, is that the word for blue and the word for sky are nearly identical: *semay* (sky) and *semayawi* (blue). There aren't any other colors that have double meanings like that." No one mentioned social media.

Blue came to English from the Norse, from *blae*, a word that meant blue-black. It was connected to death and lividity, migrating from early German, as *blâw*, to Romance languages via the Barbarians, and for years the color was associated with heathens. In northern England and Scotland, they had blue and versions of the original *bla* as *blae* and *blay*. Not blue, it was more "blah," almost as I would picture it: a dull sunless day. A friend in China wrote to tell me that in Chinese culture color stemmed from the five elements, and

blue wasn't one of them. "The color associated with the Water—think winter, stillness, etc.—is black, not blue," he emailed. *Bla*, black-blue, wine-dark.

APP STORE—HEX: #0287F1; RGB: 2, 135, 241

Encircled in royal blue and scrawled onto Yves Klein's sky, an A—the shape of the anarchy symbol—is formed by a brush and pencil. Here, anarchy sells games for micropayments.

The British YouGov opinion poll that found that blue was the world's favorite color included China, which also picked the shade as its top choice. In places like the United States and United Kingdom, though, the survey found that preference broke down by gender. Forty percent of men, while only a quarter of women, preferred blue. Silicon Valley is famously male-dominated. Maybe blue was about gender? I turned to a cognitive psychologist to find out if this was true. Karen Schloss, then a professor at Brown, told me the issue of gender and color was "hairy and complicated." She'd done her graduate research at Berkeley, near Silicon Valley. She asked if YouGov's poll had shown colors or just used the word *blue*. I told her it was only the word, and she sighed. "There are particular blues women might not call blue, that they'd say were their favorite color if they were shown them"—like her own current favorite, electric blue. She picked up her laptop; the keyboard was vibrant indigo. She wore a blue scarf and was sitting in her midnight-blue dining room, an eggplant color that I thought of as nearly wine-dark.

She studies visual perception and cognition and has made color preferences her life's work. She said Homer had possibly been colorblind, or that the phrase "wine-dark" could have been a convention at the time. "The Greeks," she assured me, "definitely had a way of talking about blue, if not the word itself as we know it."

She explained that what we think of a color is shaped by all we associate with it. The more positive things you experience in a certain shade, the more you like it, which is where kids' gendered preferences come in. Pink reinforces pink with girls' toys. This meant, too, that the associative values with blue are

only becoming more powerful the more it's used. She also said many studies had reliably proved blue was indeed the world's favorite color. "There are two things everyone has in common, globally—clean, pure water and the sky, and also biological waste. Water and the sky are blue, and waste, feces, vomit skew to yellow, brown, and green."

This made sense. She was a scientist and didn't think we all saw the same colors in the same ways. In Berkeley, though, where she'd done her research, she found no gender difference in color choices, while in Serbia women apparently picked pinks and purples.

To be provocative, I asked why the formatting on the document I was typing as we talked was blue, and she cautioned that her response was only a guess. "We're used to seeing and discounting the sky all the time. It's always there, and yes, it's white now, unfortunately." We were talking on a bleak winter's day. "But for the most part it's invariant, and our visual system is trained to detect differences and trained to discount things that are constant. You don't want to have to process every single thing going on at once, so if you are sitting in your dining room and a squirrel runs by the window up the tree, that is something new and different. I want to devote resources to that, so I know if that is a danger or if it's just a squirrel outside my window. This is purely speculation," she repeated. "We are used to discounting the most prevalent background, which is the sky, which is shades of grays and blues."

The sky receded and appeared. We could focus on it as we needed. On a document, the blues and grays were the easiest to see and ignore, to see without being distracted. When we met, Eric and Richard had called the brain a difference engine. It responded to change because change triggers perception. For his students, Eric used the example of staring at a cloudless sky on the beach. "Look at it for ten minutes," he said, "and you start to see black blotches, because the brain needs something to change for perception."

Yves Klein hadn't wanted anything tracking across his sky and disrupting his vision. Karen Schloss said he wanted to give people all the possibilities of the pure blue sky. She talked about his paintings' associative power. "If

you put in representative information”—her hands were spread wide, as if summoning the world into her dark blue dining room—“you lose the abstract associations. He wanted to create an experience for the viewer about that spiritual possibility contained in a single hue.”

SIGNAL—HEX: #0090E9; RGB: 0, 144, 233

The jaunty blue of an indigo bunting, a blue bird that is not blue, just appears as such because of a trick of the light. The “jewel-like color comes instead from microscopic structures in the feathers that refract and reflect blue light, much like the airborne particles that cause the sky to look blue,” explains the Cornell Ornithology Lab. Shine light behind a feather and the blue disappears like language on Signal. That’s why I joined, so my speech could disappear. I worried not only about the future of my privacy but about the actions I might take to protect my notion of freedom and trust.

In San Francisco in early spring I went in search of one Yves Klein. It was tiny, just bigger than an app icon. Its owner was the artist and filmmaker Lynn Hershman Leeson. She’s worked with interaction, technology, privacy, and mass communication since the 1970s, revolutionizing digital art in the process. Her *Difference Engine* used an early robotic interface, and in the mid-’90s she created telerobotic dolls with webcams for eyes that gallery visitors controlled. Online you could see what the dolls saw, a prescient example of internet surveillance.

We sat in an Italian restaurant in North Beach, not far from where she taught at the San Francisco Art Institute. She’d promised to bring the painting. “It’s the size of a stamp,” she said on the phone, “but it still has the special power of that Yves Klein blue.”

Inside the lights were dim, though it was bright outside, and I wanted to ask where the Klein was before any pleasantries. Sheathed in black, Lynn had a ring of keys jangling around her wrist like a bangle. Sparkling water, bread,

and olive oil all materialized on the table, and I wondered how she might produce the painting. We talked about the monograph on her work that'd just come out, and she reached for her bag. I expected her to take out the book, but instead she pulled out a gold rectangle—the frame. My heart leapt. No tissue or bubble wrap protected the painting. The only thing between the Yves Klein and me was a tiny sliver of glass. The painting was luminous, and I could call the blue *royal* or *French* but describing it would diminish its power. The painting did light up our table, just as Lynn had promised. It even had serrated edges like a stamp. “Its size doesn’t matter,” she said. “It has this internal essence. For him—” meaning Klein—“there was this mysticism, this floating sense of being erased in blue.”

I'd been waiting months to see the painting, and here we were with it in a restaurant, of all places. I cradled the frame in my hands, and Klein's blue pigment saturated my space. I didn't want her to put it away, but I couldn't hold onto it forever. I'd been in the Bay Area for a month at an artists' residency, living on a former military base and thinking about the language of Silicon Valley—freedom, individualism, and creativity. I told Lynn I'd been writing about Jack Dorsey's—Twitter's founder—libertarianism, and Twitter's blue bird. It trumpets free language; meanwhile, Dorsey's other invention, Square, processes mobile payments, making commerce ever more free and ethereal.

She slid the painting back into her purse and stowed it on the floor. There was an Yves Klein at my feet and now a beet salad before me. If I bent awkwardly to the side, I could see a hint of the frame. I explained how my quest had been going wrong. I was losing hope (a blue-hued emotion if ever there was one), and blue had driven me to the edge. I told her I'd been mourning my parents, too, as I thought about how these ideas manifested, and maybe thinking about blue had helped me deal with those emotions.

Yves Klein used blue because he wanted to contain the sky, and Lynn talked about how Derek Jarman made his *Blue* as his world was disappearing. She asked if I'd seen the movie, that it would make sense given my grief. I told her that I'd recently watched it and was ashamed to admit I'd seen it online, chopped into sections with poor resolution—the image and sound compressed,

the thumbs-up and flippant comment threads reducing something profound to a simplistic gesture. That, too, I said, seemed encoded with blue.

She told me I was not crazy for spending all of this time on the color and said that the smallness of the search made it worthwhile as I dug into the values behind the shade. She linked blue to chroma-key, to blue screens, the first technology for special effects. “It was,” she said, “originally blue, a little darker than Twitter.” This blue allowed things to appear and disappear, so someone could seem to be anywhere in the world.

“With blue”—the keys jingled at her wrist as she reached for the asparagus between us—“I always think of the reasons he chose the color—spiritualism and the atmosphere and our sky. With technology there are global issues, ideas going through the air, and ether and air represented by sky and blue and that connectivity. My hope is that the founders of digital media, who were mainly hippies working in garages in the ’60s and ’70s, were also thinking this way, like Yves Klein, using blue as a method of infusing a global spiritual sensibility into technology.”

She’d lived in Berkeley then, too. “It was a moment of opening up to the individual, and technology has always been in the fault lines here. TV was invented here,” she explained, adding that if she hadn’t lived in the Bay Area, she doubted she’d have focused on technology in her own films and art. Place, she explained, shaped the ideas formed there.

Lynn was working now on a documentary about biological computers, run by programmed cells, that could be slipped into bodies to monitor blood-streams. Her projects consider the dark ways technology identifies us, and she told a story of meeting developers in the early ’80s who were working on interactive technology. They talked of how it would track our interests to sell us things. She kept nervously anticipating its release, only the development arrived years later than she expected.

When we left the restaurant, the sky was still bold and vibrant, and I thought of this blue of ether, of disappearance and tracking and surveillance. Blue had driven me crazy. Karen Schloss described the sky I saw and didn’t see, and Yves Klein had trademarked the blue of his sky so no one else could claim it, yet it

was here before me on a bright afternoon in a city that shaped the tech industry.

I called Rob Janoff, one of those hippies Lynn had talked about. He designed Apple's rainbow-striped logo in 1976. He's a friend's father, I'd known him for years, and he explained, too, how those values of openness, freedom, and revolution had been part of the early computer era. They were why he made that rainbow logo. He no longer lived in San Francisco now but had been in the city not long ago for a meeting. He'd been summoned by the founder of a Japanese company, Crooz, because the man liked the Apple logo and wanted Rob to design one for his company. The CEO talked about his company's name and the waters surrounding us, in our bodies and the seas, and how much of the world was water. Crooz, which did everything from online gaming to e-commerce, wanted to be that water *and* the boat—to control where people were going. Rob's solution was a blue drop, flipped onto its side to make a C, with a round droplet at its center. He added one last thing about blue. "It veers to black," he said, "like gathering dusk outside." It was the same dark hue I'd seen in the color as I set out on my search, and maybe also the hue of Homer's wine-dark shade.

Apple's first logo wasn't, in fact, Rob's. For nearly a year the company had used something that looked like a Dürer etching. It was Newton reading under an apple tree as a piece of fruit threatened to fall on his head. A legend at the bottom declared, "Newton: A mind forever voyaging through strange seas... alone." Somehow that seemed fitting, tying back to water but also, in a sense, to color. In the 1660s Newton had been the first to refract light through a prism to get the spectrum. He identified it as having seven colors, including blue, indigo, and violet. Indigo was later dropped from the list. It was thought that he'd only included the shade to make up the number seven, which was rich with symbolism, and his indigo seemed indistinguishable from blue and violet. In fact, Newton's blue had probably been cyan.

Stewart Brand was another of the Berkeley hippies who saw possibility, peace, and freedom uniting in computers. He created the *Whole Earth Catalog* in 1968. Not a catalog at all, it didn't sell anything but instead reviewed tools and technology (though the definition of tool was broad) and ran articles and essays. Brand's guiding ethos was empowering people through information.

In the first edition, he wrote that governments and industries, with their top-down bureaucratic ways, had failed. Instead, he said, “A realm of intimate, personal power is developing—power of the individual to conduct his own education, find his own inspiration, shape his own environment, and share his adventure with whoever is interested.” The *Whole Earth Catalog* aimed to provide what the internet would promise decades later, and Brand saw all the hope that free information could conjure. Nearly thirty years later, Steve Jobs compared the *Whole Earth Catalog* to Google in a commencement speech at Stanford. In the ’60s Brand had also campaigned for NASA to release the first image of the earth from space: the whole earth, he’d called it. That image of the globe as a tiny marble appeared on the catalog’s covers.

The same year the catalog launched, Brand attended what’s now called the Mother of All Demos, where the first working prototype of a computer as we know it was displayed by Douglas Engelbart. It had a graphic interface, mouse, windows, hypertext, even videoconferencing. Brand and Engelbart ran in similar circles, and Brand even helped out at the launch. In 1985, before the first webpage had been created, Brand went on to cofound the WELL, one of the first virtual communities in the United States. Its members even coined the phrase “virtual community.” Standing for Whole Earth ’Lectronic Link, WELL also had a utopian, hippie feel, as if it were embracing the future with free information and a communitarian spirit. I remember living in New York in the early ’90s and being jealous of how the WELL created a sense of a shared new world for its members.

The logo was the name in all caps, except the *e*. It was lowercase, as Microsoft Explorer’s would later be, with a swirling circle at the center like a whirlpool—or perhaps the globe. I thought now of how ideas could be linked to a place, as Lynn described. Here had been a new focus on the individual in the most optimistic sense. The “whole earth,” the globe, the WELL, those images of water, those blues that shaped the early internet came from Brand. So, too, did the saying “information wants to be free.” He said it in the mid-’80s, when the internet as we know it didn’t exist, and when he said *free* he meant money. He was talking about how distributing information was getting cheaper and cheaper, and his

original statement was much longer than the sound bite it's been reduced to. "Information wants to be expensive," he said, "because it's so valuable. The right information in the right place just changes your life. On the other hand, information wants to be free, because the cost of getting it out is getting lower and lower all the time. So you have these two fighting against each other."

By the early 2000s, the phrase had evolved into the clarion call for an open internet with universal access. This idea of free information is also one with no boundaries. It's easy to slip from openness to neoliberalism, though, where that goal of openness is misinterpreted into a laissez-faire system with no protections for users; where businesses, particularly ones online, can conflate the communitarian urge for an open and free internet available to all with the free, unregulated flow of money.⁷ It's a quick slip of language for social-media moguls who want everyone to have access to their sites while maintaining no responsibilities for what that access entails—all the while searching, tracking, and selling users' data.

"I like technology that is unbiased," Jack Dorsey said. But technology has never been unbiased. Today Mosaic's and Netscape Navigator's creator, Marc Andreessen, embraces libertarian causes.⁸ He is on the board of Facebook and runs a venture capital firm, while Mark Zuckerberg, who could see all of blue, campaigns for internet freedom, but the freedom he wants is one in which everyone has access to Facebook—and Facebook has access to all those users' information. This Berkeley hippie language is being used by the tech industry to posture as if it's creating a better, purer

7. These are conditions that have also made information valued less—just ask a writer how sites like Facebook and Medium aggregate news, writing, and user content. No one pays for news, so people devalue it. Voilà: the 2016 election. I came of age in traditional media, and outside its realms I have a chance to write essays like this. The internet has created spaces for more experimental writing. But money is still a question, and in that question of money is also one about who gets to write what. Whose writing are we reading, and whose news? A single mother, for example, likely can't support herself as an adjunct professor, so probably won't get to write essays like this.

8. His tilt towards libertarian beliefs is ironic given that his first major project, Mosaic, was funded by the federal government while he was attending a public university.

world. I wasted an entire afternoon counting Zuckerberg's posts mentioning freedom and openness online. "For the first time ever," he said in one, "one billion people used Facebook in a single day." In his Congressional testimony about Cambridge Analytica, he talked of his company's "social mission" and called Facebook "idealistic and optimistic." The information he collects—the data and metadata and digital signatures, the things we sign away knowingly and unknowingly—is hardly different from the information the CIA's drone operators use to target terrorism suspects. Only Facebook uses that information to target ads.⁹

Back at the military base-turned-national park where I had been writing for the past month, I hiked up a hill. It was on the edge of the ocean. Waves crashed in the distance, and there was no one nearby. This place was pristine because while it was a base there had been no commercial development here. I was leaving in a few days to see my sisters, and I stood on the bluff by myself and pondered the word *alone* in the first Apple logo with Newton. *Voyaging strange seas alone*. Apple had made Engelbart's designs accessible to millions. Today those innovations are integral to our experiences online. The sky was limpid blue all the way to the horizon, where sea and sky became one, and I kept thinking of language and what got secreted into it and how ideas might resonate over time, haunting our present. The screen had first been called a window in the late '60s, around the time DARPA developed the internet. Now that screen opened onto a new landscape. Yves Klein called his monochromes "landscapes of liberty." The sky, the window, hope... computers were filled with idealism. By the time Netscape Navigator launched, that freedom was tied to commerce, and Lynn saw very quickly that commerce would lead to our being tracked.

After Steve Jobs drained all the color from Rob's logo, he moved his company offshore to Ireland to avoid taxes, embracing that neoliberal ideal that money could travel without borders. The borderless, unchecked internet was the

9. Like algorithms, drones' remoteness works to absolve human involvement and responsibility for war, particularly now that AI analyzes images.

goal of people like Andreessen and Zuckerberg, and this internet celebrated individualism, even as Zuckerberg often called Facebook a community.

I hiked down the hill to a Nike nuclear missile site that was now a museum. Behind razor wire, the sharp white nose of a missile pointed into the air as if about to launch. After a season of El Niño, a winter of winds and rains, the hill was dotted with wildflowers, but once it had been guarded by attack dogs and men with rifles. Nike missiles were installed here in 1954 during the Cold War, and later DARPA would create the internet as a tool for that same war. In World War II we'd seen the results of totalitarianism, how it shackles the self to the state. Forced conformity had been the near-death of civilization as we knew it, and afterwards communism loomed large. Instead the West embraced the opposite of the communal. Over the next few decades, the individual—aleness—had been raised up and had become the answer. The individual equaled freedom. It was a liberation ideology of the self.

The Cold War became the Vietnam War, and in 1968 Brand was still talking about the individual. In light of the failures of the state and corporations, he saw the individual as the path forward. Free self-expression was to be our salvation, except that, with time, freedom transformed into the glut of selfhood splayed out on social media, and all of it came dressed up in blue.

It's no surprise that Cambridge Analytica got its data from something clothed as a personality test. We're all posting our curated selves online—me included. It's the snapping turtle in my yard, the protests I go to, the art I see, and this small shining moment of joy when someone likes them: a heart on Instagram, thumbs up on Facebook. That quest for connection and approval is deeply human. Companies exploit that need and render it addictive, and while they might call themselves communities, these platforms prioritize the individual, that curated self, over the group. This is what we are sending out into the world, and by *we*, I mean the United States; I mean that small corner of the United States where companies like Facebook and Google are based.

The individual has long been an American ideal. It's the pioneer, the yeoman farmer, the entrepreneur, the pull-yourself-up-by-the-bootstraps narrative. It's Mark Zuckerberg working alone in his dorm room at night. It is also Donald

Trump. We lionize this. The core of capitalism is the individual; it's the basis of Adam Smith's liberalism, which was "liberal" in that it had no restrictions, believing the market would create them, believing that when everyone acted out of their own self-interest the appropriate level would be found.

As companies have hijacked the idea of a free internet—"free" only in that it shucks boundaries and regulations—those companies that thrive on advertising dollars get more money. *More than a billion a day on Facebook*, Zuckerberg wrote. All of this is blue. The blue is freedom, expression, the air, the clouds, the sky, the window onto the world. It is innocuous. It seems unthreatening. It is a "landscape of liberty," and it is trust and openness. It is also privatization, the good of the individual over the group, rather than a greater civic good.

Overhead a hawk circled and screeched. I watched it grab a snake and fly off, the long limp body in its talons. I stood at the missile site's gate and thought about my dad writing his letter to Adlai Stevenson in 1952. He'd spend that next year driving hundreds of miles on his own time in his own car to Albany for hearings, testifying and nagging and lobbying various politicians about protecting public power projects, so that private companies couldn't exploit public resources. Then he spent the Cold War building rural electric cooperatives in parts of the country that no utility company wanted to serve because they were too poor and too rural, with too small a population for there to be anything to gain for the utilities. He believed in collective ownership. He would have seen the internet in this way, too, something requiring universal access—collective ownership. I thought also about Stewart Brand, who believed in shared information, and the utopian hopes he'd had in the WELL and in the *Whole Earth Catalog*.

I walked down the bluff to my studio and emailed Brand. His office was nearby, and Lynn suggested I get in touch with him about meeting. "Thanks," he responded almost immediately, "I have to pass." Five brief words, the text highlighted in blue on my screen.

Into this blue go all the data points of our lives. They get mined and harvested by algorithms. There's little difference between how data is collected in contemporary warfare and how it's collected in ad targeting. Data is still

being used to analyze, control, and, in the case of drones, kill with inhuman results—in the lineage of McNamara. The flipside of all this freedom and unbridled selfhood is something totalitarian. They're entwined. This is what blue conceals. It looks like hope. It comes from those hippies in the Bay Area, from Stewart Brand with that marble of the globe, the one Microsoft stole. The blues evolved from something optimistic to something that camouflages surveillance. This is what I found in blue.

I stand at the edge of the ocean one last time before I leave. In this national park that had been a military base, I feel like I've reached the edge of the earth. I am about to return home, and I want this blue to be hopeful. It is a tiny, postage stamp-sized painting and a representation of the sea and sky—and the dream of unlimited freedom. ●