

GPS and the End of the Road

Ari N. Schulman

Whither goest thou, America, in thy shiny car at night?

—Jack Kerouac

Each generation reimagines the allure of the unknown world, and reinvents the means of discovering it. The greatest journeyer, Odysseus, traveled by ship, beset by monsters and the whims of the gods, seeking not new lands or conquests but only to return home. Later wayfarers yearned for odysseys of their own; but since the Old World was by then pretty well tamed and charted, the old gods vanquished and the dragons fought back to the corners of the maps, they set out on horseback in shining armor, seeking after a quest for questing's sake. The finest of these knights errant, Don Quixote, readily acknowledged that he'd taken to the road because it was better than the inn.

The Age of Exploration that drew Europe to the Americas made the world seem, at least at first, bigger and more mysterious. The ensuing conquests and technical innovations seemed to open new frontiers just as quickly as they closed old ones: the exploration and charting of the unknown continent gave way to pioneers and prospectors; the taming of the West gave way to settlers. Even once the Americas had been crisscrossed with rails and paved roads, a new age of discovery was opened—the age of personal discovery celebrated in the mythology of Kerouac and the open road. The horizon of the unknown is constantly shifting, but not necessarily receding.

If each successive era has closed an old realm of exploration while opening up another, then what are we to make of the innovations in navigational technologies that have just gotten underway in earnest over the last ten years? The rise of digital mapping and the Global Positioning System (GPS) has seemed to come upon us almost as a matter of course, blended in with the general dawning of the digital age, and on its own relatively unremarked—but it has in a blink ushered in the greatest revolution in navigation since the map and compass.

The conception of GPS by the U.S. military began in the 1960s. Satellites with extremely precise onboard clocks constantly send out

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packets of information containing the time and coordinate at which they were sent; navigation devices here below receive the signal and calculate the transit time and distance. By combining information from several satellites, an accurate and precise coordinate for the navigation device can be calculated. In 1983, a navigational error sent Korean Air Lines Flight 007 into restricted Soviet airspace, where it was shot down, killing all 269 people aboard; subsequently, President Reagan directed that GPS be opened up for civilian use once it had been fully implemented. This occurred in the early 1990s, when a network of satellites was put in place.

Just as GPS was coming online, digital mapping applications were coming into widespread use. The first widely popular Web-based mapping application was MapQuest, launched in 1996; it also automatically generated driving directions. The most notable competitor to MapQuest has been Google Maps, which upon its 2005 premiere provided dramatic innovations in ease of use—as well as satellite and aerial images of the entire world, of sufficiently high resolution in many populated areas to see people walking down the street. In 2007, Google enhanced its maps with Street View, which added panoramic street-level photographs of almost all public roads in major U.S. cities (and is now expanding to include smaller cities, rural areas, and cities around the world). Many related applications have risen to prominence as well, most notably the website Yelp, designed to improve online maps by uniting them with the kind of information once found in phonebooks and travel guides.

Digital maps and GPS receivers were combined in the late 1990s to create relatively inexpensive, commercial GPS navigation devices. Aside from their obvious military and industrial applications, these have become widely popular as in-car navigational aids. Typically, a screen about the size of a small paperback book displays a live-updated map around the user's current location, along with instructions on how to reach his destination. Global sales of purpose-built GPS receivers are expected to surpass 42 million this year, according to industry analysts, while annual sales of GPS-enabled smartphones are expected to reach nearly a billion by 2014.

Digital mapping and GPS are just the beginning of a much larger revolution in technologies designed to facilitate our interactions with places and travel between them. But it is astounding how quickly these technologies have changed one of the most basic aspects of our existence: the way we move through the world. When driving down the highway, you can now expect to see, in a sizable portion of the cars around you, GPS screens glowing on dashboards and windshields. What these devices

promise, like the opening of the Western frontier, and like the automobile and the open road, is a greater freedom—although the freedom promised by GPS is of a very strange new sort.

No Signposts in a Strange Land

The machine which at first blush seems a means of isolating man from the great problems of nature, actually plunges him more deeply into them. As for the peasant so for the pilot, dawn and twilight become events of consequence. His essential problems are set him by the mountain, the sea, the wind.

—Antoine de Saint-Exupéry

Not long ago, I moved from my native home of Austin, Texas, to the Washington, D.C., area. Austin has its share of driving woes: congestion, incomplete frontage roads, discontinuous streets with a single name, and potholes that ought to shame a warm, prosperous city. Still, it was where I learned to drive, so when GPS devices became popular, I never found much use for them.

But driving in the Washington metro area is a very different experience. The traffic is so dense it would have made Kerouac abandon his car for the subway. Even when the roads are clear, the layout itself is labyrinthine: ironically for a city that began with a central, geometric plan, in mid-navigation it is sometimes tempting to believe that the map of the surrounding area was generated by tossing spaghetti noodles at it and building roads where they lay. In fact, Eastern cities in general, because they long predate the automobile era, are less than optimally designed for traveling in cars. The problem is compounded by the inexplicable dearth of road signs in the Washington area. At any rate, soon after I moved, it became clear to me that, if ever there were a case to be made for GPS devices, the Washington area would be it.

So recently, I got a GPS device: an adorable little thing called a Garmin nüvi 350 (“nüvi” seemingly derives from “navigator”; “nüvi” would probably have been too on-the-nose, and a bit too suggestive of a certain moony faith). The touch-screen affixes to the windshield; when I want to go somewhere, I just type in the address. It consults its on-board map database, and in just a few seconds, the screen view changes to show me a representation of my car as if I were following behind myself in a helicopter, watching in special goggles that show a symbolic map of the area ahead, with my route through it highlighted in purple. As I drive, my car stays centered on the screen as the imaginary helicopter follows

behind, the view updating every couple of seconds. The device also relays directions to me turn-by-turn: at every moment it displays onscreen what my next turn will be, and as I approach the turn, a computer voice announces it.

This setup sounds simple enough: like asking for directions beforehand, only the navigator knows *every* route, and I don't have to worry about remembering the directions or experiencing that stock shame of pulling over and asking for help if I forget them. GPS particularly seems like a godsend in a cluttered suburban outpost, where even a seemingly simple one-step direction can turn out to be a monster. For example, consider the instruction "take Arlington Boulevard to Leesburg Pike south," which involves navigating Northern Virginia's notorious Seven Corners—a seven-way intersection with seven traffic lights, two levels, 150-degree turns into merging traffic, and signs that refer almost exclusively to state and federal route numbers but not the familiar local street names.

Thinking I can now rely just on the GPS's instructions, at Seven Corners I discover just how measly they are: "bear left onto Leesburg Pike," "continue right"—but which left, and which right? There are many turns within a small angle to choose from, and the instructions aren't specific enough. And the screen isn't much help either: the two-second lag time in updating and the lack of resolution below sixty feet or so become real impediments when attempting to negotiate several successive tight intersections. Even when I make the correct turn on my first attempt, I immediately find myself in another intersection, and in the wrong lane to make the next turn I need, because I only knew about one turn at a time.

Similar scenarios play out again and again in the area's many complicated intersections, particularly Washington's traffic circles. At Dupont Circle, for example, one must quickly choose between ten different exits off the circle, which is divided into an inner and outer ring by a concrete island, each ring having two lanes. Maneuvering through the circle is a feat in and of itself using one's own spatial reasoning and the paltry street signage provided. But when I attempt to obey the GPS, it becomes nearly impossible: the device just can't provide information detailed or fast enough to reliably let me know which turn to take. Attempting to negotiate the inner and outer rings, the multiple traffic lights at odd angles, and the pedestrians darting in and out of traffic all over the place would be enough of a challenge without also having to translate the lagging onscreen map to the circle I'm spinning around.

This sort of situation typifies driving with a GPS in D.C. It's pretty easy and convenient to do when a trip involves only a few turns, well-spaced apart on wide, clear roads. But just the situations that would seem to make GPS indispensable in this area are the ones that make it most difficult to use. Just following the GPS in these dense spots itself requires an almost hypnotic attention to it. But what makes this particularly vexing is all of the other, non-navigational things that must be paid attention to. Here, the lack of signage about street names and route information seems to be compensated for by signs every few yards for changing speed limits and special traffic zones; attending to all this to avoid breaking the law is difficult enough, not to mention dealing with frequent construction, closed roads, and pedestrians and drivers who each think they have the right of way.

Even when (as is most often the case) I am able to correctly follow the directions, I often find myself unsure of the current speed limit and my own speed; careening towards the rear end of the car ahead and only realizing it at the last moment; having to look around to take stock of where cars are when I suddenly need to swerve across several lanes; entering a school or construction zone without having realized it; or approaching a closed lane or a stopped car with barely enough time to swerve or stop. Driving in this way with a GPS often becomes downright hazardous or dangerous, and makes me nerve-wracked. Instead of the best place in the country to make use of a GPS device, it seems it must be one of the worst.

'Failure to Pay Full Attention'

It's just the danger when you're riding at your own risk.

—Dire Straits

The problem I've encountered in using a GPS device is one of which the manufacturers are well aware, because every time I turn on the device, I'm greeted with a warning that "Failure to pay full attention to the operation of your vehicle could result in death, serious injury, or property damage. You assume total responsibility and risk for using this device." This is a standard disclaimer of technological apologists generally, high technologists and firearms defenders alike: we just make the thing; how you choose to use it is up to you. Apropos as that claim may be for arguments about legal culpability, devices are still designed for a particular mode of use. The way GPS devices are designed to be used requires learning a new sort of multitasking, because it separates what were formerly two

intertwined acts, or two aspects of the same act, into the two distinct acts of *driving* and *navigating*—which must now be performed separately but simultaneously, in real time.

Attesting to this problem is the slew of “news of the stupid” stories about GPS errors that have made their way through the press in recent years. In 2009, New York state reported that it was cracking down on the rash of truck drivers who use GPS to find new but prohibited routes and end up crashing into low overpasses. The same year, a Swedish couple was bound for the isle of Capri, but a typo on their GPS led them instead to the northern Italian town of Carpi, one letter and four hundred miles away. (A tourism official in Carpi noted, “Capri is an island. They did not even wonder why they didn’t cross any bridge or take any boat.”) Another widely reported story was of a couple who, instructed by their GPS, nearly died on a remote Oregon road when they became stuck in the snow for three days. Sadly, many other such stories involve fatalities.

Aside from the growing mounds of anecdotal evidence, there is some research to support the idea that GPS navigation weakens driving ability, and that, as a 2008 review by the National Highway Traffic Safety Administration put it, “the mere presence of a navigation system in a vehicle might encourage increasingly frequent and unnecessary use of the system, including browsing through lists of attractions.” However, most of this research only compares different types of navigation systems to each other (and to using a paper map during the actual act of driving); as of yet, there seems to be no research comparing GPS navigation to internalized navigation, nor are there any comprehensive statistical studies on the effects of GPS on accident rates. But one 2008 survey found that GPS devices had contributed to 300,000 crashes in the United Kingdom, and over a million drivers veering dangerously while following GPS directions. And a 2007 Dutch study found that GPS devices increased traffic accident casualties, and “purposely put the driver into a situation of unacceptable social behavior.”

In the popular attention drawn to GPS horror stories, the common conclusion is that they indicate a woeful over-reliance on GPS. But such worries are usually about what we are to do when the technology *fails*. These are easy for defenders to answer by claiming, justifiably, that the technology is still young and only bound to improve, and that this is no more a claim against it than it is against cars, which also break down.

The more significant lesson of these stories and statistics ought to be that GPS devices, as we use them, erode our judgment and faculties, making us worse drivers. Consider the act of driving with the aid of a map

or other directions learned in part before undertaking a trip. Researcher Véronique Bohbot of McGill University has identified two basic ways that people navigate. One involves learning the spatial relationships between various landmarks and destinations and forming a sort of mental map; the other involves memorizing sequences of turns, with landmarks serving as cues. This is an old and well-known division, but either alternative requires paying careful attention to your surrounding environment when navigating: you have to notice the landmarks, sense the distance passed, and match these up to your internalized directions. These necessary objects of attention in navigation, as it happens, overlap with those of driving, particularly insofar as they reside in the same visual space. Paying attention to where you are and where you're going is bound up in the same general act as paying attention to other cars around you, where you are in a lane, the curve of the road ahead of you, the presence of barriers or pedestrians, and so on.

There is an idea popular in technophilia, dating back at least to Marshall McLuhan, that some technologies may be considered an “extension” of our own minds or selves. Scott Adams, sounding not unlike the drones who spin corporate techno-jargon in his comic strip *Dilbert*, has said just such a thing about GPS devices, claiming that they are part of our “exobrain” (and that this means that “technically, you’re already a cyborg”). It seems a rosy picture with a rosy appeal: GPS gives us additional abilities in physical space; therefore it extends our abilities into space; therefore it *is* an extension of *us*, or of our minds or brains. More precisely, as Adams puts it, “your regular brain uses your exobrain to outsource part of its memory, and perform other functions.”

Such a notion of an “exobrain,” like most extensions-of-man ideas, is essentially meaningless, as *all* technology “outsources” some functions from humans and so in some sense extends our capabilities. But if we are charitable to the “extended mind” claim, we can see it as an attempt to articulate the peculiar way we use some technologies—that is, we can see it as grasping at the idea of *instrumentality*: the usage of tools that becomes so intuitive that they seem to function as an organic element of our native bodily agency. Using a device as an instrument contrasts with operations that require conscious thought, such as programming a computer or working a complicated control panel.

Among the best examples of such “extensions of our mind” are our cars, which, properly designed and properly learned, can be operated so intuitively that we feel as if they were *bodily* extensions of ourselves in the physical world. This is a well-known principle among race-car drivers, but

the same is true, if less consciously acknowledged, of competent nonprofessional drivers. Ask a student driver to parallel park or negotiate a tight turn, and he will nervously tell you that he has no idea how far the *car* extends in front of and behind him; but ask a person who has been driving for a while, and he can easily tell you how close *he* is to some object, as if he were the car. Similarly, an experienced driver on the highway will know at all times where the cars are in his immediate vicinity, which are steady with him, which are approaching and which pulling away, even and especially those outside his immediate field of vision; checking his mirrors before changing lanes should only be a matter of verifying what he already knows. Without having to consciously meditate upon the fact, the driver of an automobile learns to assimilate it, so that it becomes the site of his physical agency in the world. He drives, that is, as if the car were his own body—and so achieves a remarkable though commonplace feat of human instrumentality.

In this sense, the GPS navigation device is quite the opposite of an extension of our minds; in fact, in adding a mediator between our own actions and the physical world, it shrinks us back into ourselves, reintroducing the division between the person and the vehicle, and between the vehicle and the world, that is experienced by the student driver. When we are constantly taking immediate directions from GPS, a car largely ceases to be a vehicle *of ourselves*, in the sense in which a vehicle is not just a means of transportation but a medium of realization. The car becomes much less a habitual extension of our own physical agency and much more a *thing before us* that we must command.

Driving's End

A couple of things America got right: cars and freedom.

—Dodge commercial

In truth, our trust in the American driver has long been on the decline; the changes wrought by GPS navigation are only the latest in a long series of efforts to crutch his abilities. All of the recent brouhaha about “distracted driving” has deepened a growing distrust we already have of ourselves as drivers, leading auto manufacturers to devise systems not to make us better drivers, but to take more and more of the responsibilities of driving out of our hands. The last decade has seen a proliferation in automobile features—first in luxury cars, but now increasingly in standard models—that notify the driver of looming obstacles or if he veers out of a

lane, or that will even automatically stop the car if it detects an impending collision. Some new cars will alert the driver if they sense, based on braking, acceleration, and steering patterns, that the driver has lost his own alertness, whether through drowsiness, drunkenness, or distraction. And the next generation of so-called “smart cars” will communicate with each other wirelessly, far extending the power of the car to direct the driver and automatically take control to avoid collisions.

This attitude in traffic planning goes back even further, to choices made in the design of the U.S. roadway system. A 2008 *Atlantic* essay by John Staddon describes how, in place of driver immersion, the American system emphasizes signage that goes beyond road labels to specify every small detail of how drivers should drive. He argues: “The more you look for signs, for police, and at your speedometer, the less attentive you will be to traffic conditions. . . . A more systematic effort to train drivers to ignore road conditions can hardly be imagined. By training drivers to drive according to the signs rather than their judgment in great conditions, the American system also subtly encourages them to rely on the signs rather than judgment in poor conditions, when merely following the signs would be dangerous.” Moreover, “as cars become safer, drivers tend to take more risks,” and “often undercut well-intentioned safety initiatives.” While acknowledging the effectiveness of many safety systems, such as seatbelts and airbags, Staddon proposes shifting U.S. traffic policy from its emphasis on micro-directing drivers through signage to the British system, which emphasizes and encourages driver attention and judgment, and, Staddon claims, has a much lower accident rate.

It is necessary neither for cars nor roadway systems that technical progress come at the expense of driver skill—and neither must this be true of the new technology of navigation. It is notable that, as detailed in *The New Yorker*, the turn-by-turn system that has become the norm in GPS navigation devices is in fact a technological regress, hearkening back to the form of road maps provided to the earliest automobile drivers. The turn-by-turn model neglects one of the greatest achievements of the highway system: any long trip, no matter where the start and end points or what the distance in between, can usually be described in just a few major steps. In part, this is achieved through the system of route numbers: interstates, federal highways, state highways, and all the other roads with numbers give the illusion that they are discrete roads, when in fact they are joined together from numerous different roads—many of which were around before they were incorporated into a route system—and are better understood as guarantees of moving simply between major points.

One route number may span dozens of roads with different local names, while any one segment of a road may implement several different route numbers. It is a brilliant means of imposing order, comprehensibility, and ease of use, of creating a system of networks out of the roadway's tangled, ever-shifting web of concrete. Using this system, you can get, say, from Little Compton, Rhode Island, to Boston's Logan Airport in just four steps: 77 to 24 to I-93 to I-90—as long as you pay attention. But computer navigation systems don't take advantage of this: Google Maps, for example, breaks up the same trip into eighteen steps, varying in length from 230 feet to 30 miles—which is too much to try to internalize.

One can imagine a navigation technology that would group such steps together, showing only the major necessary steps of a path, while perhaps including the smaller street details for reference; portions of trips that involve a few short turns or distances of mere hundreds of feet could similarly be grouped together. Such a tool would potentially permit the convenience of existing navigation technology, but would actually supplement and encourage rather than impede and weaken our own judgment and navigational skill. Such a program would likely be simple for even novice developers to create using the public interface for Google Maps. And GPS devices could be designed similarly, with the added benefit of portability, to aid users in *learning* where they are driving, rather than feeding them instructions from the dashboard. In short, such designs might begin to show how navigation technology could work for us like maps but better—like running shoes rather than crutches.

But rather than nudging us toward greater independence and reclaimed skills, the future of driving seems to point in the opposite direction—toward the sense that we are becoming obsolete as drivers, and so toward granting us ever less control. Enter the dream of the driverless car. The technology has made great strides in recent years due to competitions sponsored by DARPA, the research agency of the U.S. Department of Defense. And alongside this, Google has been developing autonomous cars for commercial use and quietly testing them out on populated streets and highways with regular traffic. Futuristic as it sounds, the major technical hurdles to the fully-*auto*-mobile have already been met using cameras, GPS navigation, and artificial-intelligence software. The *New York Times* reported in October 2010 that “[Google’s] test cars have driven 1,000 miles without human intervention and more than 140,000 miles with only occasional human control,” with only one accident, caused by another driver. Although most technology forecasters agree that commercial availability is still many years away, Google has already begun lobbying for its

legalization. Meanwhile, the idea has begun to gain some popular traction, particularly on the grounds of the potential gains in efficiency and safety, with economist Tyler Cowen recently advocating it in the *Times*.

Given the decline of the human driver, robotic driving, once we are sure of its reliability, seems to be the natural next step. There indeed seems to be something strange—superfluous, even—in the current human-GPS-car setup, in which people are already mostly just relaying information from one machine to another, only adding in some extra input and error correction. The problems I encountered at Seven Corners and Dupont Circle did not owe to a shortcoming in the technology so much as in human-computer communication. More than inefficient and error-prone, it seems beneath our stature to be relegated to this role—and so only appropriate for us to step out of the loop.

One can anticipate a few concerns about the likely transition to driverless cars. There are those doomed concerns about over-reliance. There may be skepticism that full automation won't work in rural or extreme conditions—but of course manual driving, like horseback riding, would likely stick around in niche applications. Then there are the “neuro”-concerns, which bring us back to the already-ongoing debate over GPS: Many claim that GPS may be “bad for our brains” because it causes us to stop using them for certain functions; navigational skill is associated with the hippocampus, and Véronique Bohbot has found that using GPS may contribute to its atrophy. This can lead to a decay in—wait for it—spatial reasoning skills. Poor hippocampal health is also associated with dementia and decline in memory function, including Alzheimer's disease.

But it is hard to muster too much sympathy for our hippocampi. Any tools we use shift the balance of power in our brains. And it is not as if we can't think up yet another technological fix to this apparent problem: in order to maintain hippocampal health, Bohbot and her team have begun to develop a sort of treadmill for the GPS age—an exercise regimen that involves using a computer program to navigate around a virtual building. At worst, GPS would seem to join a long line of technologies that have relieved us from burdensome tasks that also gave us some incidental health benefits attainable by other means. Of course, the idea of navigational exercise seems frankly silly, not to mention a bit of a drag: people already tend to be lax about going to the gym, and Bohbot admits that her navigational exercise regimen is “boring!” And it is curious to note that our need to go to the gym has accompanied a shift in the primary meaning of “exercise” from “the action of employing a faculty in its appropriate activity” to “bodily exertion for the sake of maintaining physical fitness.”

Surely, however, these all seem like problems we can figure out. Any argument made solely on the grounds of health, safety, or practicality as to why we should drive or navigate ourselves seems unlikely to persuade over the long term. Automated navigating and driving relieve us from great burdens, and the notion of driverless cars seems to appeal on a fundamental level to what we want out of technology today. One writer argues that “working people will be anxious for the freedom to work granted by robocars” and young people may someday “be unwilling to set foot in a car that doesn’t allow them to tune out and immerse themselves in their electronics.” And Sebastian Thrun, the leader of the Google research team, describes the main goal thusly: with self-driving cars, we can “text twice as much while driving, without the guilt.”

There is a hint in these claims of some stronger truth that the neuro-concerns are grasping at. The decline of driving, and of finding our own way around, means that we are losing a broad set of skills and practices. And while it is true that the *rise* of driving itself spelled the decline of other skills and practices, driving also opened up in their place a wide range of new faculties for us to exercise—new modes of excellence, and novel, exciting, adventurous ways of experiencing the world. But if the glorious future consists mostly of things like getting to text more, oughtn’t we to wonder what new skills, what novel forms of adventure, are taking the place of what is being lost with the decline of driving and navigation?

Location Awareness

Isn't it strange how this castle changes as soon as one imagines that Hamlet lived here? As scientists we believe that a castle consists only of stones, and admire the way the architect put them together.

—Niels Bohr, to Werner Heisenberg, at Kronborg Castle

At a 2009 technology conference, Brad Templeton of the Electronic Frontier Foundation lectured on the promise of autonomous vehicles; when asked by a member of the audience how a society that didn’t have to pay attention to the world would be affected in its perception and cognitive abilities, he responded: “I don’t think that’s a bug. I think it’s a feature.” After all, he said, we would be freed to read or be otherwise productive in the car. Of course, one might object that there are ways in which paying attention to the world is a “feature” and not a “bug”: surely, for one thing, there are things in the world worth paying attention to.

To this objection, there is an entire branch of developers of GPS-based technology who would respond: why yes—and there’s an app for that. GPS

technology now not only shows users how to get where they are going, but increasingly can suggest where they should go in the first place. These are popularly known as “location-awareness” technologies. For example, Yelp, used by tens of millions of people, provides general information and user-generated reviews for restaurants, businesses, parks, and destinations of all sorts. It has an application for GPS-enabled smartphones that can tell you the best places nearby to eat, shop, sightsee, and so forth. Lonely Planet and other tour-book publishers have released apps along the same lines.

Similar software exists for sightseeing, allowing smartphone users to learn about the sites they are visiting as well as nearby attractions. The app HearPlanet reads audio recordings of Wikipedia entries for places as you approach them, and boasts that it “is like having a professional tour guide always by your side—no matter where you are.” The GeoTour app advertises, “Imagine visiting a new city. Your iPhone knows where you are, it’s guiding you to the town’s hot spots, and it’s automatically entertaining you with multimedia relevant to your surroundings.” Similar purpose-built devices are now increasingly being used at national parks, historical sites, and other points of interest. The devices, like the smartphone apps, are used as automated tour guides: walk a trail at a park, come to a landmark, and the device, able to sense your location, will play an audio recording or display on-screen information telling you exactly why you should find the site interesting.

Location awareness, of course, is also social. The enormously popular app FourSquare, currently with over eight million users, turns venturing around a city into a sort of game, where users compete with each other by “checking in” with their phones at certain venues and receiving “badges,” thereby learning also where their friends are and have been. Loopt, another popular app, runs constantly in the background, allowing users to post updates about what they are doing, and to receive alerts about what nearby friends are doing. Other developers are working on a sort of ideal realization of this people/location-optimization ethos: an app that would allow people to take videos of parties they are attending, upload them to YouTube, and then use the app to find other videos of nearby parties to determine whether they should stay where they are or leave for someplace that’s really hopping. Another app, which already boasts some two million users, facilitates casual encounters of a more intimate nature, allowing users to find other users on nearby phones who are interested in, to put it delicately, turning two GPS coordinates into one.

It is worth noting that that is not the only way location-aware technology is developing. Some of these new technologies encourage users to

really engage with places—to attempt to discover places for themselves. For example, one group of Japanese researchers has proposed a GPS navigation system for tourists that requires them to take a more active role in touring, using the device to plan on their own what route to take, in hopes of “creat[ing] accidental encounters.” In another vein, a practice known as “geocaching” has arisen, in which people hide objects and post their GPS coordinates online so that others may seek and discover them.

A similar attitude is at work in a practice called “geotagging,” in which photographers place their photos online by marking on a digital map the place where they were taken. Google’s popular website Panoramio, for example, pins on a digital map many millions of user-submitted photos from around the world, and many newer, GPS-enabled cameras will automatically embed coordinates into photos. (As it happens, in a former life as a software developer in Austin, I created an early geotagging website known as the Austin Map Project. The site was meant as a side project in art and localism rather than a serious venture. But, like many other people who have developed location-based software, I hoped that the site would help deepen its users’ relationship with place—one place in particular—by allowing us to, as it were, look *through* the map into what it both represents and conceals. Through photography, I hoped also that it would elicit a certain sort of exploration, encouraging us to seek out new and hidden places, and, more importantly, new views on the familiar.)

The future of location-based technology, however, seems headed in a different direction. The next generation, and logical conclusion, of location-awareness technology is called “augmented reality.” The highest-end smartphones come enabled not only with GPS, but with video cameras, and with sensors that enable the phone to know where it is pointing. Combining these abilities, augmented-reality applications allow you to hold up your smartphone to, say, an unfamiliar city street, of which it will show you a live video feed, with hovering information boxes over points of interest showing you customer reviews, historical data, photographs, coupons, advertisements, and the like. One such augmented-reality app is called Layar because it allows you to see reality “layered” over, either with fanciful images or with helpful bubbles of information telling you what to see and why. Proposals are in the works to display such information on glasses or contact lenses, eliminating even the burden of holding up one’s arm.

The great and simple promise of these technologies is to deliver to us the goods of finding things in the world in the most efficient way possible. After Brad Templeton: their feature is to find the most interesting things in the world, and to explain why they are interesting, while eliminat-

ing the apparent bug that most of the things we encounter seem pretty boring. Moreover, location awareness and augmented reality, paired with GPS navigation, transmit us to these interesting places with the minimum possible requirement of effort and attention paid to the boring places that intervene. We can get where we're going, and see what we want to see, without having to look.

On the Road

The air was soft, the stars so fine, the promise of every cobbled alley so great, that I thought I was in a dream.

—Jack Kerouac

If we are to take seriously the promise these technologies make to facilitate our experience of new places, we must understand not only the technologists' view, but our own, and ask how the new technology of location fits in with what we hope to get out of travel. And there is no greater sage for those hopes in the American conscience than Jack Kerouac. While *On the Road's* reputation rather outstrips the literary merits of the book itself, the mythology surrounding it taps into our deeper aspirations for the possibility, freedom, and adventure granted by travel, and deserves to be taken seriously in understanding what we seem to want out of travel today.

The mythology of the road has come to be wrapped up in our desire to imagine ourselves as part of stories like Kerouac's, to experience them for ourselves, and so to partially emulate them in our own journeys. How, then, would the new technology of location affect an *On the Road* today? Can we imagine its characters, and by extension ourselves, escaping into the Western night, navigating by GPS and choosing where to go with Yelp, supplied with surrounding-relevant multimedia by GeoTour, encountering city streets with their iPhones held up and overlaying the view, and still having the same adventure? Something about this image is absurd. To better appreciate what and why that might be, it is helpful to step back and consider *On The Road's* forerunner in American wayfaring legend, the classic *Adventures of Huckleberry Finn*.

Mark Twain's tale is one of the great depictions of discovery through travel. The power of this depiction comes not just from Twain's storytelling skill, but from the element he chooses to give structure to the story: the river, which conveys Huck and Jim through one scene of adventure after another. T. S. Eliot found this device so powerful that he dubbed it "the River God," claiming that "a river, a very big and powerful river, is the only force that can wholly determine the course of human peregrination."

For Huck and Jim, this determination of their course becomes a source of hope, of the possibility of escape from their wretched lives: for Jim, it is a hope for freedom from the miseries of slavery, and for Huck, from his life under a poor, abusive father. And they hope not just to escape their old lives but to find new ones—a broader moral hope that can be felt by the readers who enter imaginatively into the story, who come to apprehend this possibility for discovery and renewal in themselves.

Huck Finn arrived at a curious moment—set in antebellum America but published in 1885, when the wild frontier, on whose edge the novel was set, was quickly vanishing. For many of its contemporary readers, the novel could provide not just imaginary access to that source of discovery, but a reminder of their own actual experiences of the very same regions, and of at least the possibility for setting out on a similar adventure themselves. By the middle of the twentieth century, however, the Mississippi had been dammed and locked, its banks developed, tamed, and civilized. It was no longer open for us as it had been for Huck and Jim and their real-life contemporaries.

It was this void that Kerouac stepped in to fill. The open road—the one suitable for travel by automobile—was a product of the technological and civilizational progress that closed off the sort of discovery depicted in *Huck Finn*. But that progress also opened up a new mode of travel, filled with new opportunities for discovery: while the frontier had been closed in its original sense, in another sense, it had been newly opened.

If the displacement of *Huck Finn*—its relegation to the realm of imagination—was what made *On the Road* possible, it was also what made it necessary: the citizens of the automobile age still needed a River God. It was Kerouac who reincarnated that god, in the form of The Road, showing how the possibility for revelation can be achieved even when the means is much more under human control, and the things discovered more tamed by human hands and populated by human affairs. There was still, Kerouac showed us, something wild in the West that was won.

It is this struggle with civilization that is the subtext of *On the Road*, as much as of *Huck Finn*. The protagonists of *On the Road*, Sal Paradise and Dean Moriarty (fictionalized versions of Kerouac himself and fellow-traveler Neal Cassady), set out to find freedom and adventure, and through that some elusive truth. The novel chronicles miles of wayfaring, spontaneous settlings down and lightings out again upon the road. But in truth, there is a deep tension underlying it. As in *Huck Finn*, it expresses a desire to escape from civilization; and the freedom championed in *On the Road* is often viewed as an expression of defiance against the strictures and mundanities of civilization. Yet the story's means of freedom are parasitic

upon civilization—not only in using its vehicles, often stolen, but in using roads, a product of its tendency toward order. And the escape is always just a step ahead of civilization’s advance—the raft on the river just ahead of the settling and development springing up around the river, the travelers on the highways that are enabling the massive expansion and homogenization of the commercial society from which they provide an escape.

It is another paradox of both books that the supposed escape from civilization in large part consists of escape *to* civilization, or at least to its lesser-known boroughs. In each case, their travels are set against the grandeur of the natural world, but the scenes of their adventures are composed of unknown people in unfamiliar places. The “promise of every cobbled alley” is wrapped up in the possibility of the stranger—more fully, the chance encounter with the mysterious stranger in the enchanted place.

Seen in the right way, what the two novels show us is not the virtue of quitting civilization, but the freedom that comes from finding our own way through a world that is not of our own making—and with it, a glimpse of the possibility of reaching out beyond our everyday selves into something greater. And the progression from *Huck Finn* to *On the Road* suggests that the advance of technology and civilization need not spell the end of this possibility, but just the shift of its scenes.

Why, then, is it so hard to imagine some form of this journeying as occurring today? In part it is because of that homogenization of place enabled by the open road—the lessening of its difference and so its significance. More fundamentally it is because the mode of travel on the rise today is antithetical to the mode found in *On the Road* and its predecessors. Rather than being filled with adventure and the possibilities of freedom, the GPS-enabled, location-aware adventures of Sal and Dean or Huck and Jim somehow sound dreary before they have begun, filled with anticlimax, boredom, and restlessness. How can this be, when what these technologies seem to promise is a way of freshly opening up the world?

Great Expectations

Why think about that when all the golden land's ahead of you and all kinds of unforeseen events wait lurking to surprise you and make you glad you're alive to see?

—Jack Kerouac

Location awareness and augmented reality would seem, in fact, to be a vastly more powerful incarnation of that classic travel aid, the tour book

or travel guide. Certainly travel would not mean what it does today without the accrued human wisdom of the great sights and points of interest in the world collected in these volumes, and now brought to us electronically. The idea implicit in both is that places and points of interest have some set value, as it were, that can be entered into a data bank, used to inform our choice of destination, and received by us on our arrival.

Among the greatest of these destinations, especially from the perspective of the American traveler, is the Grand Canyon. The sight is awe-inspiring in a way that centuries of recounted visitation to it have never adequately been able to put into words. And yet some visitors to the canyon have discovered there a certain crack in the guidebook façade. Take, for example, the recent account of travel writer Henry Shukman, who admits that he was “disappointed” the first time he saw the canyon: after enduring a long traffic jam in the drive from Los Angeles, “When we eventually managed to park, and walked to the rim, the scale of the sight off the edge was so great it was hard to muster a response. It was so vast, and so familiar from innumerable pictures, it might just as well have been a picture.”

Many other writers over the years have made similar remarks about their travels to other places: William Least Heat-Moon, in his travelogue *Blue Highways* (1983), recounts that New Mexico’s Mogollon Rim “was a spectacular place; the more so because I had not been anesthetized to it by endless Kodachromes.” Yi-Fu Tuan, in *Space and Place* (1977), agrees that a place “may lack the weight of reality because we know it only from the outside—through the eyes as tourists, and from reading about it in a guidebook.” Alain de Botton, in *The Art of Travel* (2002), claims that “where guidebooks praised a site, they pressured a visitor to match their authoritative enthusiasm, and where they were silent, pleasure or interest seemed unwarranted.” Tuan concludes: “The fleeting intimacies of direct experience and the true quality of a place often escape notice because the head is packed with shopworn ideas. The data of the senses are pushed under in favor of what one is taught to see and admire.”

The novelist Walker Percy anticipated these observations in his 1958 essay “The Loss of the Creature” (collected in *The Message in the Bottle*). He begins with the question: do modern tourists see the same sight today at the Grand Canyon as García López de Cárdenas, the first European to discover it, did when he first stumbled out of the mesquite upon the gaping expanse?

The thing is no longer the thing as it confronted the Spaniard; it is rather that which has already been formulated—by picture postcard,

geography book, tourist folders, and the words *Grand Canyon*... If it looks just like the postcard, [the tourist] is pleased; he might even say, "Why it is every bit as beautiful as a picture postcard!" He feels he has not been cheated. But if it does not conform, if the colors are somber, he will not be able to see it directly; he will only be conscious of the disparity between what it is and what it is supposed to be. He will say later that he was unlucky in not being there at the right time. The highest point, the term of the sightseer's satisfaction, is not the sovereign discovery of the thing before him; it is rather the measuring up of the thing to the criterion of the preformed symbolic complex.

Percy outlines a number of ways in which the sightseer might avoid this disappointment, each of which involves avoiding his expectations of the place. One such strategy is "getting off the beaten track." Or he can take the beaten track, but in an unbeaten sort of way: Percy notes the feeling of good fortune when a family visits the canyon and, finding it unexpectedly empty, can report to friends, "We had the whole place to ourselves." Henry Shukman chose just such a strategy on his return trip to the canyon: he went during the winter, when, as a park ranger told him, "You'll more or less have the place to yourself." In a more extreme example, Percy describes the effect of a hypothetical national disaster or global near-apocalypse, in which the infrastructure for "seeing" the canyon is ruined, and the visitor there is able to recover that sense of awe about the canyon—to *see* it as if for the first time.

In short, Percy says, the sightseer "sees the canyon by avoiding all the facilities for seeing the canyon." Our assumption is "that the Grand Canyon is a remarkably interesting and beautiful place and that if it had a certain value *P* for Cárdenas, the same value *P* may be transmitted to any number of sightseers." But this is belied by our experience, as the accounts of the travel writers and the general appeal of strategies like "getting off the beaten track" attest. As William Least Heat-Moon discovered during an unexpected detour, "little is so satisfying to the traveler as realizing he missed seeing what he assumed to be in a place before he went."

What Percy and these other writers are getting at is that just as important as *what* we see in the world is *how* we go about seeing it. We are adept at identifying points of interest, but pay scant attention to the importance of our approaches to exploring them; our efforts to facilitate the experience of place often end up being self-defeating. What Percy's strategies aim to do, in part, is to put the traveler into a state of willingness and hunger to encounter the world as it is, to discover the great sights with

the freshness, the newness, that is so much of what we seek from them. Alain de Botton also describes this attitude as the solution to the guidebook problem, and identifies it as the mode of *receptivity*.

Practices like geocaching and geotagging rely on this receptivity. Geocaching asks the user to be an active participant in seeking, and to seek something unknown. Viewing geotagged photography may impel us to go forth into the world and seek with our own eyes what the images present to us, thus claiming them in some way for ourselves. It is a tricky balance: as always, photographs, especially when so readily viewed at the very places they were taken, hold the potential to substitute for rather than deepen our own awareness. But these practices at least give some idea as to how location-based technologies can encourage us to orient ourselves to the world in its primary, phenomenal sense—as a realm of places.

But GPS navigation, in its present form, seems to do quite the opposite: it dulls our receptivity to our surroundings by granting us the supposed luxury of not having to pay attention to them at all. In travel facilitated by “location awareness,” we begin to encounter places not by attending to what they present to us, but by bringing our expectations to them, and demanding that they *perform* for us as advertised. In traveling through “augmented reality,” even the need for places to perform begins to fade, as our openness to the world gives way to the desire to paper over it entirely. It is an admission of our seeming distrust in places to be sufficiently interesting on their own. But in attempting to find the most valuable places and secure the greatest value from them, the places themselves become increasingly irrelevant to our experiences, which become less and less experiences *of* those places we go.

This is a large part of why *Huck Finn* or *On the Road* as enacted today sound so dreary. Where Percy, in another essay, describes Huck and Jim as “reposing... all hope in what may lie around the bend,” we can hardly imagine them doing so when what lies around the bend is displayed at all times on a screen before them. Nor can we imagine Sal and Dean dreaming the promise of every cobbled alley, or of all kinds of unforeseen events lurking to surprise them, when they are striving to make sure that events *are* foreseen. The technology that is meant to facilitate travel deadens the spirit of discovery that draws us to the experience—moreover, it traduces that spirit: *dis*-covery, the removal of the things that paper over our vision so as to reveal the truth of the world, gives way to covering the world over deliberately, and calling that an enhanced revelation.

Space and Place

To see what is in front of one's nose needs a constant struggle.

—George Orwell

The strategies that Percy describes for avoiding the tourist's dulled experience all involve subverting our expectations of a place in some way or another. But these strategies do require a consciousness of our expectations: getting off the beaten path is still a negotiation (even if a contrarian one) with the pre-formed idea of a place, rather than with the place itself. And soon enough, it becomes incorporated into the approved, expected experience: witness the advertisements for SUVs and sporting gear that now use that phrase as a slogan. Indeed, the presumption of location-aware technologies is that place can be a sort of consumer artifact, a packaged item in a showroom awaiting evaluation and purchase.

But this presumption doesn't fit our actual experiences of place. In his 1997 essay "How to Get from Space to Place in a Fairly Short Stretch of Time," Edward S. Casey, a professor of philosophy at Stony Brook University, disassembles the ideas we have piled atop our experience of place, suffocating our understanding of it. Our Cartesian and Newtonian mindset regards *space* as the inert medium of the universe onto which *places* cling: "space is absolute and infinite as well as empty and *a priori* in status," while places are "the mere apportionings of space, its compartmentalizations," and the sensory experiences of sight, sound, smell, and so forth are mere "secondary qualities." Space, we might say, is like the empty walls of a house, and place the furniture and paintings added later as decoration. Visiting places and traveling through the world must then be like touring a giant museum, gazing at the pictures and artifacts. This is the mode of travel presupposed by the users of location-awareness technology: it tells them, first, where to go, and second, what to see in what they are looking at—permitting them to leave without ever stepping outside the confines of the guided and certified experience, and into actual exploration.

But however useful and appropriate the Cartesian formulation is for our mathematical understanding of space, the quality of our experience is quite different. As Casey observes, places are not secondary things in the world, because we cannot grasp the abstract realm of "space" except *in* and *through* whatever particular place we occupy at any given time. When we describe the universals of which a place is a part, it is as an abstraction from these so-called "secondary" qualities that are first in our experience.

In short, as Casey says, “We come to the world—we come into it and keep returning to it—as already placed there.”

This primacy of our qualitative experience indicates that even the notion of “receptivity” only begins to account for our engagement with sights and places. As Casey notes, “perception is never entirely a matter of what Kant calls ‘receptivity,’ as if the perceiving subject were merely passive.” And, echoing another philosopher, Casey adds in his 1998 book *The Fate of Place* that “the perceiver’s body is not a mere mechanism for registering sensations but an active participant in the scene of perception.”

Indeed, the very notion of *engagement* means that we cannot treat places as mere sensory data, as *sights*: we cannot truly experience places simply by arriving and gazing at them, even if attentively. Being in a place, rather, means *doing* in it. But places are not mere bundles of stuff to do—activity tables in a museum to supplement the paintings—any more than they are mere accretions of stuff to see. A place is a realm of affairs for Nature and for humans; the term of our first entry into a place is recognizing our individual potential to be involved in those affairs. When we sense that potential, it manifests as a sort of *invitation* to enter into them—a “solicitation to action,” as Matthew B. Crawford puts it—a beckoning to discovery, of the place and of our selves, through what we might encounter there and how we might face it. This is the element crucial to seeing a place: discerning what it invites us to do and answering the challenge.

The demand that a place first makes of us is to be able to *move* in it as our bodily selves. The tourist at the Grand Canyon has a far better chance of “seeing” the canyon if he goes for a hike in it than if he stands gazing at the rim, mightily attempting to behold it (even though he can, in a literal sense, see more of it from the rim). This motion need not be directly a matter of the body; any machine that a person enters and controls as a vehicle of his own powers will do: whether he drives an airplane, a car, or a wheelchair, some relationship between agent and place is formed. As the aviator Antoine de Saint-Exupéry discovered, each machine functions as a different sort of body that permits an encounter with different aspects and scales of a place.

Central to the demand to move in a place is the demand to find one’s way through it. It is the most basic requirement for gaining access to a place—physical access to its features, but also access to those features as experientially meaningful. It is one of the results of learning to “internalize” a map or a set of directions through a place: the qualities of the place itself become “internalized,” taking on new meaning for the traveler. In

internalizing bird's-eye directions, one gets the lay of the land, the depth and configuration of space, that helps tie together the disparate components of a place into a whole; in internalizing landmark-based directions, the sites and features of a place gain significance. It is a crucial part of our first real entry into the revelation of place—a revelation that must be worked for, achieved in stages and through struggles; that can never be simply told or taught.

Through this struggle, place gains an experiential shape. The features of a particular place begin not just to look different from the features of another place, but to *feel* different and *mean* something different. Go to a city and find your way to somewhere new; take a walk or a drive through the streets of Washington, D.C., and you will begin to *feel* how it is a different place from Austin or San Francisco or Paris or New Orleans—how your possibilities for action are different and so too your possibilities for being. Finding your way around is how you begin to escape the realm of mere location and sight, wresting from it *place* and that elusive *sense* of the place.

In short, finding our way around engages us in the way we need to snap us out of the alienation facing Percy's tourist at the Grand Canyon, and to form instead the basis for a connection with the place: a purposive encounter with it whereby we can "get at it." For López de Cárdenas, and the natives who came before him, it was impossible for the canyon to be a mere *sight* because it was a tremendous obstacle; a thing that must be conquered to pass; a possible site for injury and death, or for shelter, food, and water; an opportunity for riches, prospect, and conflict. Its features—a towering crag, a boulder, a valley, a thick of brush, the river at its core—were apprehended in terms of passability and possibility. Only relatively recently has it even become possible to regard the Grand Canyon as merely a sight—to stumble groggy off a tour bus right at the edge, without any sense of having traversed the distance there, and be faced with the challenge of perceiving the thing in itself.

Something like the sight that faced López de Cárdenas is still available to us; but it is and must be a struggle to *see* it. When we circumvent, by whatever means, the demand a place makes of us to find our way through it, we deny ourselves access to the best entry we have into inhabiting that place—and by extension, to really *being* anywhere at all. One *Wired* magazine writer noted at the conclusion of an essay lauding location awareness, though without any apparent sense of irony, this qualification: "I had gained better location awareness but was losing my sense of place." Indeed, there is a doublethink at work in regarding GPS and the

technologies built upon it as engendering “location awareness,” when their aim is to permit us to traverse a place with the minimum necessary awareness of it—to shrink place, as the name suggests, into the mere location fit for experience only by a disembodied machine.

The Voyage Home

*I wish I were a freeway, laid out clearer than a bright day.
I'd run right open down this causeway like brand new.*

—Tift Merritt

The driver on the open road, the world out ahead with unending possibility for him, and he in charge of his own path through it, has for decades been the very image of American freedom. But today the automobile seems more a trap than a source of liberation. This owes in no small part to the ever-growing headaches of congestion, and to legitimate concerns over the environment and safety (though driving fatalities per capita have been on the decline for at least twenty years). Still, it is worth noting the curious inversion in our understanding of “freedom”: the realization of the free person may soon be seen as the one who, to go where he pleases, need not participate in getting there nor even know how, while the person who drives and finds his own way around seems slavish. The freedom of the automobile era, the Kerouacian variety, is a freedom *for* certain ends in the world, while the newer freedom is defined negatively, as a freedom *from*—from the burdens of getting around, but not for anything especially (except, apparently, working, texting, and other glories of the smartphone).

Considering how distant that freedom-for may feel to us today, and how prone its spirit is to abstraction from the realities of travel, it may already seem an irrelevant idealization, rather like the Romantic notions of the sublime and the wild-eyed traveler. Indeed, it seems hard to find much of practical value in what Walker Percy considers, in the titular essay of *The Message in the Bottle*, the purest opportunity for discovery and renewal: that given to the castaway who washes up on an island after a shipwreck, who has forgotten his past and is given a blank slate for a new life. This ideal seems to have little to tell us about the more ordinary travels of the regular person, and especially about the mundane, everyday applications in which today’s technologies of place are mostly put to use.

But the castaway points us also in another direction. Amy A. Kass, in her essay “The Homecoming of Penelope,” notes that upon the return home of Odysseus, it is not he but surprisingly his wife whose reaction is

described as being like the way a shipwrecked sailor welcomes the shore. For the Greeks, Kass notes, “to forget who you are and to forget home... are one and the same.... One’s relations to home make one who and what one is.” And so for Penelope, who loses the habits and convictions attaching her to her household when Odysseus is lost at sea, the homecoming is hers as much as his. It is not a single event, but the beginning of the process by which she can, as Kass puts it, begin to reweave the loosened threads of home.

In another time and place, we might expect that Penelope would have sought relief from the ennui of her home life by setting out on a journey of her own—and perhaps she would have found it, *Eat, Pray, Love*-style. But she shows us that the salvation of Percy’s castaway—the break from alienation—is available not just in escaping from everyday life but in finding a way to reclaim it. This struggle with home lies at the heart of the struggle with civilization in *Huck Finn* and *On the Road*. We seek the revelation of truth, beauty, and possibility in the world; and we seek to know our place in it. But often it seems that one can only come at the expense of the other: the regularity of home, where we find our attachments, blocks us from newness and possibility, obscuring our view of the revelatory.

Perhaps this opposition, too, is born of preexisting expectations, some lingering Romantic influence that equates the revelatory with the aesthetic sublime. In contrast to that tradition, there is a school of art, exemplified by the late American painter Andrew Wyeth, whose subject is not the pristine but the ordinary, even the run-down, the ugly. Yet there is something remarkable and beautiful in Wyeth’s depictions—a transfiguration of the ordinary. His works offer a window not into the point at which we escape the everyday and ascend into a more pure realm, but the point at which the quotidian opens up and, not *in spite of* but *through* itself, becomes something more. It requires the acceptance of frustration and inexcitement on the path to seeing it; but Wyeth shows us that it is there to see for those with the vision and the patience.

Take *Evening at Kuerners* (see facing page), a painting he made of the dingy farmhouse of his neighbor, set from across a small stream in the last light of day. The painting is drab, even bleak, but hauntingly beautiful. Contained in it is the suggestion of two elsewheres: the inside of the farmhouse, whose lonely inhabitation is suggested by a light in the window; and the unseen beyond, past the hill, suggested by the trees against the last light of a wintry gray sky. It hints that what we long to encounter by venturing elsewhere ultimately points back to what we yearn to find in the everyday, at home.



Evening at Kuerners. 1970. Oil on canvas. © Andrew Wyeth. Private Collection.

Andrew Wyeth, *Evening at Kuerners* (1970)

Percy's novel *The Moviegoer* (1961) describes such experiences, at home and abroad, as encounters with "the singularities of time and place." His protagonist recollects a childhood trip to Chicago:

Not a single thing do I remember from the first trip but this: the sense of the place, the savor of the genie-soul of the place which every place has or else is not a place.... [O]ne step out into the brilliant March day and there it is as big as life, the genie-soul of the place which, wherever you go, you must meet and master first thing or be met and mastered.

And later, when his uncle sends him back to the city on a business trip:

Chicago. Misery misery son of a bitch of all miseries. Not in a thousand years could I explain it to Uncle Jules, but it is no small thing for me to make a trip, travel hundreds of miles across the country by night to a strange place and come out where there is a different smell in the air and people have a different way of sticking themselves into the world. It is a small thing to him but not to me. It is nothing to him to close his eyes in New Orleans and wake up in San Francisco and think the same thoughts on Telegraph Hill that he thought on Carondelet Street. Me, it is my fortune and misfortune to know how the spirit-presence of a strange place can enrich a man or rob a man but never leave him alone,

how, if a man travels lightly to a hundred strange cities and cares nothing for the risk he takes, he may find himself No one and Nowhere.

Places *beckon* us to experience them, and ourselves as through them. But one wonders whether our lives are not now headed towards being carried out on some other plane of existence: today, as a marketing analyst notes in the trade journal *Advertising Age*, young consumers are interested in digital technology that “allows [them] to transcend time and place.”

It is this aspiration that we find frustrated when we speak today of feeling “disconnected”: we mean we are disconnected not from the place where we are standing, but from that realm of virtual transcendence, that place that is no place. Hence we want access to it wherever we go—we demand (and increasingly get) wireless connectivity even in places far and wild, at campgrounds and national parks and remote destinations. And yet at the same time we strangely speak of the thrill of “disconnecting for a while”—as if disconnecting is required for reconnecting.

If feeling “connected” for us means inhabiting the virtual realm, then what we most long to connect to is not what is in front of our eyes. When we speak of feeling “disconnected,” then, we are confessing that we have become displaced: we are losing interest in and forgetting how to inhabit real places on their own. This displacement produces restlessness—but of a very different sort than the restlessness that motivates the traveler to go forward into the world. In fact, this restlessness is *opposed* to the traveler’s impulse: it seeks its relief not in the real world but the virtual. It is not like what Percy’s traveler to Chicago feels—for his anxiety is *of* the place, over who he might be there, whether he might emerge from it changed, and the risks of what that newness might mean. Rather, our anxiety is based in having disengaged from this realm of possibilities, but finding ourselves nonetheless left with the task of figuring out how to be in the world.

It is tempting to believe that the trouble is simply that our digital technology has until recently been itself blind to place, and that consequently GPS and location awareness offer a way to reconnect with places. But this hope is belied by that peculiar habit of the user of GPS and location-awareness technology: he checks first with the device to find out where he is, and only second with the place in front of him to find out what *here* is. Consider the example of a hiker who is guided by GPS and a location-awareness app, and who enters a valley where his device has no reception. Will he suddenly feel alienated, as if his connection to the place has been lost? Or is it likelier that he will feel a nervousness that is actually a quizzical sense of excitement—the excitement of unknown

risk and adventure, experiences that can be found now only at the fringes? Suddenly he is faced with the thrilling anxieties and possibilities of *being in place*. Location awareness, especially when it becomes augmented reality, enshrines the individual in a shell of fancy where he may distract himself from these anxieties—where he is free from them—but at the cost of what he is free for, of the freedom given to him as an earthly being to inhabit the world, and as a human being to forge his path through it.

If the adventures of Huck and Jim, and Sal and Dean, seem impossible under this new mode of travel, it is not just because they would be blocked from encountering places, but more fundamentally because they would be blocked from encountering themselves in those places. Just as our dogma about how to “really see a place” supposes that a place is some vital essence independent of us, the modern task of “finding yourself” supposes that we are some vital essence independent of the world. It directs us to seek after this essence in itself, obscuring from us the truth that *who we are* is mostly a matter of *what we do*—not so much the work or entertainment we choose, but how we act and what we make of ourselves from what we are given. The “reposing of all hope” that Percy describes only partly lies in what may be presented to us around the bend; the rest lies in how we may act in response to what is presented, and who we may become.

How can the traveler sense these dual potentials when the most basic thing he can do in a place—explore it for himself, find his way through it—becomes so little an exploration of possibilities, of *realization* through them? The traveler may sense this gap, but the loss is liable to seem to the user not some consequence of a particular device he holds, escapable by leaving it at home, but an alteration of the world itself—a deflating sense that the optimal path through it has already been determined and recorded, the journey taken, the world emptied of anything new to see or do.

There was already a sense, in *Huck Finn* and *On the Road*, that something in the air was becoming so thick that it threatened to entrap the human spirit. This reached a frantic intensity for Kerouac, whose characters had to be almost constantly on the move, as if they might otherwise get stuck in place like bugs in amber. Today Sal and Dean could not move fast enough to escape what has congealed in the landscape before them. This is why, if Kerouac’s work succeeded Twain’s as the American fable of wayfaring, today there is no clear successor to Kerouac. There are a number of genres popular today that try to recapture the journeyer’s spirit of discovery, but while earlier works could still depict an escape *within* civilization, today’s travelers leave ordinary civilization altogether. Post-apocalyptic tales like Cormac McCarthy’s *The Road*, along with the

rising cult of zombie fiction, recapture a sense of newness of our world by depicting a disaster-stricken version of it (recalling Percy's recommendation). Science fiction lets us escape to other, new worlds (where even cowboy-style frontiers are available again, as in the short-lived TV series *Firefly*). And of course the hugely popular fantasy genres recapture a spirit of adventure and discovery—but only through fantasy.

A smaller subset of recent fiction relies on a much older setting for stories of discovery: the castaway who washes up on an island. The 2000 film *Cast Away* is a fine example, avoiding the phoniness of reality-TV competitions like *Survivor* by making its protagonist a genuine castaway, a wayfarer against his will. But like *Robinson Crusoe*, *Cast Away* is less about discovery than about the doldrums of survival. Another example, the television series *Lost*, eliminates the doldrums and focuses on the mysterious, filling its island with strange people and fantastical things, guaranteeing the stranded islanders (and their viewers) new discoveries behind every bend. But *Lost* had to sustain its mystery by relying on the supernatural, and by setting the story on an island so remote as to be apparently impossible to locate by ordinary cartography. The fact that our tales now have to resort so fully to the strangeness of works like *Lost* and *The Road* to generate stories of discovery suggests that we feel unable to find them in our own thoroughly mapped world.

It is by now an old idea in futurology, originating with Alvin Toffler, that modern man exists in a state of constant shock at the changing landscape of the technological world—akin to “culture shock,” but as ceaseless as the progress of technology. But we quickly become accustomed to, and adjust ourselves to, the technologies that increasingly form the fabric of our interaction with the world—and so their novelty rapidly fades. And then we find our experience of moving through the world is not one of perpetual awe and wonderment, but of boredom and restlessness.

We seem likely only to continue to misunderstand the source of our disappointment—as some inherent shortcoming in the world, rather than a problem in how we place ourselves in it. And our demand will continue to be for it to perform better for us—or, since we cannot make it do that, to seek with ever greater insatiability after images to distract us from reality; rather, to “augment” it, to overlay it with the interestingness it seems to lack on its own. But in consuming these images, the traveler gives up all hope of escaping the plight of the tourist. The harder he seeks to contrive the experience for which he is searching, the further it slips from his grasp. For what the journeyer truly seeks is just that which cannot be contrived.