Distortion, or Nothing Is Where You Think It Is

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| Johnsonburg, Pennsylvania.

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When Steve Mishenko sat down in 1996 to pen a map of Johnsonburg, he probably never expected that it would still be looked at almost two decades later. He wasn't a geographer. Steve was simply a man with sore feet and a fantastic sense of direction—he never owned a car, and walked most places until the day he died. You wouldn't expect his presence to linger long after his death; yet, there we were, huddled around the dining room table as if it were a fireplace, craning our necks to look at Steve's map of Johnsonburg, Pennsylvania.

"What is it?" I asked, awkwardly twisting my body to get a good peek without knocking over Grandma's china set behind me.

My mother answered, "It's one of Steve's maps—Steve Mishenko, up on Cedar Street, you remember him, right?" I shook my head, eyes still trained on the document. She went on. "Oh, he's the one who never drove a car. Drew all his maps from memory, Steve did." This is how it always goes in Johnsonburg. Everyone knows everyone else in the small town tucked away in the mountains of Northwestern PA. Sometimes she forgets that I didn't grow up there, how would I know Steve? Uncle Tom quickly chimed in, followed by Aunt Mary Jean, and soon the three siblings were enthusing about the man and his funny little cartographies. I was still just staring, captivated.

It was one of two maps that my grandmother had procured from Steve's

still-living sister. Grandma had recently put her house on the market, and to prepare for the big move, we were all visiting to sift through decades of trinkets, hand-me-downs, and antique furniture. Steve's maps were part of the treasures. As Johnsonburg's eternal cloud of paper-mill fog rapped at the windows with wispy gray knuckles, I quietly considered this astonishing map.

It was an earnest, detailed thing. There were no designated symbols, no legend, not even a scale bar. Nothing about it suggested even semi-professional cartography. But this was forgivable—the map's innocence acquitted it of the responsibility to spatial exactness. The east branch of the Clarion cut through the map's center, warbling across the parchment like the war-trumpet for which the river is named. Ticks on the many intersecting railroad tracks tumbled through space like quarter notes chasing one another on a musical staff. It made you want to tap a rhythm. Right between Glen Avenue and Hazel Road, there was a swollen bubble for "Grandpa Mishenko's House." In the upper left corner lay the Old Indian Caves, marked by a set of v-shaped etchings at the top of the Clarion Hill Junction. If you inspect it hard enough, you can even see the Lookout Rock, where Steve writes in a cramped scrawl, "Indian Princess buried under."

As my family looked at the map, we placed ourselves within its boundaries. It only seemed natural. Within the map, there were many people looking back at us from beneath their tiny inkblots, preserved in time's accordion folds. There was Steve Mishenko, and Indian Princess, and the railroad worker on the East Bound Track, and the farmer in the Big Red Barn, and Old Man Vennard, and the blacksmith at The Foundry. They're all staring at us from the humble pulpit of this tattered page. Suddenly, Steve Mishenko and company stopped being the mapmaker and his subjects—they became the storyteller and his characters.

Generally, maps are not storytelling devices. They are utilitarian creatures designed for weather and topography and shortcuts through traffic. But Steve was practically begging us to jump down this rabbit hole with him, to

observe Johnsonburg through his eyes. He invited us to read his map like a story, and who was I to deny such a cordial invitation?

| North London, England.

| Muswell Hill Studio.

| c. 1963.

Steve and his buddies on the map are telling us the same type of story that Dave Davies told when he took a single-sided Gillette razorblade to the speaker-cone of a 10-watt Elpico amplifier in 1963. Davies was the ripe, frustrated age of sixteen, living in London. He was the guitarist for a band called The Ravens; later, this band would be known as The Kinks. Tired of the redundant sound of rock and roll that was circulating the airwaves, Davies wanted to make a new noise. He didn't know exactly what he wanted, but he had this faint concept of a "distorted, jagged roar." In his curiosity, he decided to conduct an experiment on the amp.

Wielding his razor like some mighty sword, he shredded the speaker's cone from the center to the edge. He didn't destroy it, but rather left the speaker torturously close to death, hanging on to itself by literal threads. The resultant sound can be heard most famously in the first three seconds of their definitive 1964 hit, "You Really Got Me." There's this working-class growl and grime to it, a song totally stripped down and fuzzed up. You can feel the frustration of the nine-to-fives ringing through that iconic guitar riff. Of his experiment, Davies said, "All of British culture—the movies, playwrights, politics, television—was defined by the middle or upper-middle classes, the 'terribly, terribly' types. Then you started to get those films like *Saturday Night, Sunday Morning*, all the 'aye, god, bloody hell,' swearing, drinking pints of beer... and we related to that." He explains that distorting the guitar gave working-class people a voice in the late 50's and early 60's.

There's something special packed inside Davies' desire to, as the method was named, "slash and burn" his amplifier. That sense of identity that came with

it is what makes distortion important. The howling power chord riff leading into "You Really Got Me" is inexorably connected with the amusing story of some punk kid guitarist hunched over an Elpico amp, brow furrowed in frustration, trying to create something new—trying to push boundaries. At the center of it all, the so-called anguish of the working-class resonates. He was giving them a voice they never had before. When Davies had the "slash and burn" epiphany, he cried the words, "I know! I'll fix you!"

And there it was.

He said, *fix* you. *Fix* you, as if the perfectly sound amp was already broken. *Fix* you, as if society never would have been the same without the divine innovation of slicing through speaker mesh with a small razor in a fit of indignation. *FIX* you, he said! As if the distortion was the solution.

Well, maybe he wasn't wrong.

People yearned for musical distortion long before Dave Davies. Three years prior, in 1960, Ritchie Blackmore of Deep Purple made the executive decision to kick the shit out of his 3-inch VOX speaker until it gave him just the right fuzzy timbre. He had tried to get a real fuzz box made back in '56, but the electricians he asked the favor from denied him outright. They said they were "trying to get away from distortion." They thought he was stupid. So he did it himself, he turned the volume knobs clockwise to their limit, crossing the musical Rubicon, and swung his foot into the amp's mesh speaker. It's a sort of "chance music," he calls it. "... you might get nothing," said Blackmore in an interview with The Highway Star, "But that's what interests me: playing with electricity." Even before Blackmore gave his speaker the boot, Link Wray was sending pencils through the center of amplifier cones. A blues musician from North Carolina, Link Wray used the heavy, ominous tone from the damaged amp to write "Rumble," his classic hit. You can hear tension and defiance in the quivering tune. There's no singing, but the climactic 7th chord transitioning into a two-phrase pentatonic journey down the scale is a reverberating snowdrift of notes that speaks for itself. Despite

its popularity, the lyricless song was banned by mainstream radio stations in America. Wray himself said that the sound reminded him of a rumble, like that of *West Side Story*, and that is where the song got its name. Its implication is juvenile delinquency, a bunch of young kids going crazy in the middle of the street with brass knuckles and switchblades. It invokes a scuffle, a call to fisticuffs. The distortion that Wray's song showcased would surely sting the spotless minds of American youth like a swarm of wild bees. Their innocence would be blemished under the impending tide of a tinny 12-bar blues riff. Everything would go straight to Hell.

Whether he knew it or not, there was a certain rebellion inside Steve Mishenko when he picked up that pen in 1996. It screamed, "I know! I'll fix you!" to the other maps at his disposal. Steve was going to *fix* them. He had this vivid mental image of his activity space, a kaleidoscopic mental map pieced together with his day-by-day affairs. Steve distorted things like the size of his grandfather's house, the exact meanders of the Clarion River, and the precise location of houses. It may not have matched up perfectly with maps of Johnsonburg from the Elk County Township, but it did give an accurate view of the world through Steve's eyes. With his cartography, he plugged in his own defiant amplifier, slashing and poking at speaker cones of geography until he found just the right level of distortion for his maps.

It is a basic principle of human geography that all people have their own mental maps—we all have an internal distortion with which we view space. Maybe Steve Mishenko's cartographic attempt at telling a story wasn't so peculiar after all. Maybe it was his "fix."

| Boston, Massachusetts.
| Daniel K. Wallingford's Residence.
| c. 1930.

In the early 20th century, Daniel Wallingford demonstrated the power of mental mapping when he satirically depicted how Bostonians viewed the US

The map, with Cape Cod twice the size of Florida, New England as large as Quebec, and a hopelessly inaccurate imagining of the American West, bears a warning message. "As this map contains some inaccuracies, its use in connection with problems in navigation, astronomy, meteorology, etc is not recommended." The publishers left this tongue-in-cheek statement of caution in a small box, right by Bermuda. Wallingford also published maps of the US "As Californians See It" and "As Floridians See It." It's all a joke, of course. But at the same time, it's just as accurate as reality.

In theory, maps help us get from one place to the next; they characterize the world we live in, try to ascribe meaning to our surroundings, and help us navigate to the places we want to go. Kevin Lynch observes in his book *The Image of the City* that, "In the process of way-finding, the strategic link is the environmental image, the generalized mental picture that is held by an individual." For example, Ashanti medicine men in Ghana have a deep spiritual connection with plants, animals, and insects in their forest. This mental map of the spirit allowed them to "'read' their forests as a complex and ever-unfolding document." Another study of urban space in Los Angeles used Geographic Information Systems (GIS) to process 215 mental maps and how they created feared spaces in LA. This study revealed that non-white, non-Asian populations and neighborhoods were most feared. Way-finding is inseparable from the mental picture of a landscape and the emotional associations therein. So mental maps navigate more than just physical space—they navigate self-perception, social moors, and nostalgic structures. They distort certain characteristics to make other ones more clear. They take a kick at a veritable slew of geographic speaker cones.

| Modern-Day Lower Saxony, Germany.

| The Kingdom of Hanover.

| 1818-1828.

Distortion is inherent in maps, mental and otherwise. Traditional cartography only asks for one thing, and it's an ostensibly simple request: it

tries to accurately represent the elliptical Earth on a flat surface. Unfortunately for cartographers, in 1818, a man named Carl Gauss showed how the "perfect map" was a fundamental impossibility. During a ten-year long geodetic survey of the Kingdom of Hanover, Gauss was able to prove his groundbreaking Theorem Egregium. It showed that curved surfaces cannot be transposed on to a plane, and therefore, maps of the earth will inevitably suffer distortion.

Although there was not yet a theorem to describe the phenomenon, geographers and cartographers had been adjusting for Earth's geodetic impossibilities centuries before Gauss saddled his way through Northwestern Germany. Map projections—purposeful distortions of a map based on the desired representation—are how mapmakers have compensated for the impossibility of a perfect map. In 1566, Gerard Mercator developed what is one of the most commonly seen maps of the world, and simultaneously one of the most egregious misrepresentations of landscapes in history—the Mercator projection.

A map designed for seafaring navigation, its main purpose was to depict rhumb lines as straight. Rhumb lines are abstract lines that hit every meridian at the same angle, like a spiral that maintains a constant bearing and shrinks the closer you get to the North Pole. For early sailors, rhumb lines were useful because they gave a constant bearing towards compass north. By making rhumb lines straight on the Mercator projection, sailors were able to chart a route by simply laying down a ruler from point A to B. Voila, captain—you've got your bearing! However, this convenience sacrificed the proportions of different landscapes. Land masses at both high and low latitudes were extremely exaggerated, so consequently, Greenland and Australia are made out to look as large as Africa.

Some people are still surprised when they hear that Africa is actually fourteen times bigger than it is often represented, and Claudia Jean Cregg, Chief of Staff in NBC's *The West Wing*, is one of them. In Season 2, Episode 16, the fictional Organization of Cartographers for Social Equality (OCSE)

meets with Mrs. Cregg to argue against the Mercator projection. The OCSE calmly explains that the Mercator projection has "fostered European imperialist attitudes for centuries and created an ethnic bias against the third world." Simply put, they don't want it to be taught in public schools anymore. To drive home their point, the OCSE engages in a thorough presentation that compares the heavily distorted Mercator projection to the more spatially accurate Gall-Peters Projection. Mrs. Cregg and her associate are blown away by the realization that they have been seriously misled by Mercator for all these years. The OCSE goes on to say that people tend to give top-and-bottom attitudes to the Northern and Southern Hemispheres, which devalues many third-world countries.

"But wait—where else could you put the Northern Hemisphere but on the top?" asks Cregg.

And to her surprise, the OCSE representative says, "On the bottom."

They then turn the Gall-Peters projection upside down, rotating the entire map 180° so that the Northern and Southern Hemispheres are inverted. Now reading the map is like trying to play a game of Risk from the top of the board. It is distortion at its best.

Cregg is in disbelief. "Yeah," she says, "But you can't do that."

"Why not?"

"'Cause it's freaking me out."

Cregg's comment is meant to be somewhat comedic, and it is. As an audience, we laugh at her discomfort. But the comment is also rife with desperation, and the sense of her clinging to the familiar for fear of something new. The bombshell of geographic knowledge that she just received has her in a little vertigo. Is nothing sacred, she might wonder? Is nothing set in stone? At one point, her associate Josh Lyman asks, "You're telling me that Germany isn't where we think it is?"

With a wry smile on his face, the spokesman of the OCSE simply says back, "*Nothing* is where you think it is."

Excuse me, Mrs. Cregg? There's your answer.

| The Vast Pacific Ocean.

| A Polynesian Canoe.

| 1947.

Despite what Mrs. Cregg and Josh Lyman might think, navigational techniques do not rely solely on rhumb lines. In the waters of the Pacific, Polynesian canoeists would lay back in their vessels to read a map in the sky that brings them toward land. It's noted in the 56th Annual Report of the Hawaiian Historical Society that "at night they observe the stars" to chart a path. If clouds obscured the night, these canoeists would instead put their ear to the floor of the canoe, appearing to listen. You could call it listening, but technically it wasn't. Gavin Pretor-Pinney explains in his book *The Wave Watcher's Companion* that the sailors are detecting the "shadow of calm" behind an island, the patch of water where the ocean's current is weakened due to the island's presence. Imagine a windbreaker on a tennis court, the perforated canvas sheet that offers a section of reprieve on blustery day: it's just like the shadow of calm. Canoeists feel the gentle rocking of the boat, and based on this can discern where they need to go towards land. During cycles of bird migration, a skilled navigator could also speculate towards land based on flight patterns, and the same can be done for whales. For many years, it puzzled European navigators: how could people with such simple, rudimentary canoes and little equipment accurately travel from one speck to another in the huge Polynesian Triangle? If only those Europeans knew that not all maps are made of paper.

This unique method of way-finding gives insight to the Polynesian culture in the same way that distorted rock music reflected an earnest frustration with the status quo, whatever it may have been at the moment. Dave Davies used

distortion to provide an underrepresented working-class with a relatable voice; his music became a map that took people towards a shared identity. He shows that the places maps take you are not always physical, especially in the musical realm. The idea of music "taking you places" is something that Deborah Blair, a professor at Oakland University, also felt compelled to examine. In 2008, she conducted a study with young schoolchildren where she examined what she calls their "felt pathways," or lived experiences, in music. The students would create "musical maps," which were what Blair calls the "visible articulation of their musical understanding." Students' musical maps are composed of varying, unique geometries—ascending and descending squares, angling lines, wandering zigzags and arrows. Each shape or symbol represented a different aspect of the music, and the culmination of these figures was the student's translation of "rhythmic movement into drawings of shapes or figures."

Mapping these various songs, whether it's "Amazing Grace" or Mussourgsky's "Ballet of the Unhatched Chicks," was a foray into the most conceptual realms of music. It wasn't what Robert Dunn calls "metrical," or traditional musical notation, but rather "figural"—a generalized, intuitive representation of the music. For these students, the musical experience is had at a deeply individual level, and the individual experience is shared through these maps. Most beautiful about this experiment was how students could follow the map by tracing its shapes and symbols, and how their "felt pathways" of music were made physical. It leads them to a better sense of self and helps uncover the "notion of a center" that G. Malcolm Lewis says is "pivotal" to sacred geography. This unusual crossroads of geography and music leads us to the same conclusion about plotting space and plotting music. It's not about mapping something out to perfect spatial accuracy—in cases of distortion, of course, it never was.

Distortion is rebellious and unruly and there will always be people who shake their heads at it. At the same time, the map towards discovering oneself is often characterized by distortion. If the world was a multicolored bead beneath a microscope, these people adjusted the settings of

magnification ever so slightly; some colors became blurrier, and some became more vibrant. As they tinkered with this microscope—whether it was Steve Mishenko, Dave Davies, Link Wray, a few Micronesian canoeists, Gerard Mercator, or the kids in Dr. Blair's music class—they found an accurate representation, not of *the* world, but of *their* world. They all "damage" something, if you can call it that, to seek out a new perspective.

So when my family was huddled around the dining room table to look at Steve Mishenko's map of Johnsonburg, PA, we were looking at more than a tool of navigation. We were looking at one man's memory of his place in the world; what he found important, what he found insignificant, and how he set himself within that system. From *The West Wing* to The Kingdom of Hanover, from Johnsonburg to North London, from the waters of Polynesia to classrooms in Oakland University, humans have an urge to distort that will not settle. It is in chance music and ink-drawn maps and it drives us ever forward. I think, if nothing else, that's something we can trust in.

| Somewhere, Anyplace.

| Everyone, Anyone.

| Now

|

|

|

| You