

Mineral Apocalypse / Transparent Earth

Essay for Rick Silva, *Western Fronts*

Geoff Manaugh, August 2019

In a study published in 2018 by the Royal Society, physicists at Hungary's Eötvös Loránd University suggested that Viking mariners might have successfully navigated the North Atlantic nearly 1,000 years ago using "sunstones," hand-held crystals whose internal geometry can reveal the position of the sun even when it is occulted by heavy cloud cover. Viking explorers could thus have sailed from Europe to Greenland—and much further beyond—with near-100% accuracy, using the sun as a directional guide. They could see where they were going, in other words, by looking into rocks.

Another 2018 study, produced by a team at Stockholm University, speculated that rocks buried deep underground might carry evidence of interactions with dark matter. If true, this would turn subterranean minerals into *de facto* cosmic ray detectors: collisions with particles from space would leave visible scars etched across those rocks' internal planes.

Invisible celestial particles and traces of the northern sun: these are just some of the things we can see when we peer deep into geology. Minerals, it turns out, can be windows, the Earth's interior a medium through which to read signs of the world above.

In his 2019 installation, *Western Fronts*, artist Rick Silva puts an economic and moral emphasis on this very point. For his new work, Silva uses digital windows slashed through the surface of the Earth to reveal the ground's subterranean structure: a rocky interior that glistens and flickers, shining with a dark, scintillating light. Silva peels the landscape away, its surface features and topography all but ignored, to concentrate instead on the mineral content hiding within. Beneath our world's rough surface, we might say, there is geometry.

In the context of *Western Fronts*, this becomes a political statement as much as it is a technical or artistic one, something Silva makes clear through the locations he chose for the work's central imagery. *Western Fronts* uses drone videos filmed in Bears Ears, Grand Staircase-Escalante, Cascade Siskiyou, and Gold Butte—western U.S. landscapes that all lost their status as National Monuments under the Trump

Administration. Silva's incision through the surface, to focus instead on the glimmering minerals arrayed beneath the ground, acts as a critique of the economic logic behind this shortsighted scrapping of federal protections. These lands are now open for exploratory drilling and mining development, meaning that Trump and his extraction firm donors see the Earth rather like how it is portrayed in Silva's videos: great deposits of mineral wealth shining just beneath the surface. Silva himself refers to this as an emerging "near-future dystopia of computer-vision aided resource extraction," or how speculators see western land.

Extraction firms, hedge funds, and energy speculators look through the Earth—past its archaeological sites, its fragile vegetation, its exotic and endangered ecosystems, its moments of aesthetic grandeur so attractive to human visitors—to see nothing but what they can take from it. Is this profound—in the literal sense of that word, coming from the Latin *profundus*, or deep—or is it mind-numbingly banal, mistaking one's ability to monetize rocks with an economic necessity for doing so?

Western Fronts reveals what the Earth looks like when seen through the profit-fixated eyes of prospectors, who set themselves upon these lands with the raw goal of dismantling them, stripping our world of whatever value can be found within. They do not do this out of an aesthetic appreciation of geology, let alone from some sublime philosophical quest to plumb the underside of things; it is merely an appraisal, a taking of stock.

Nevertheless, there is an uncanny crystalline life revealed by Silva's installation, a dark vibrancy in these glistening, organo-mineral forms. Beneath our feet, Silva suggests, an alien interior lurks, with its own formal rules, operating outside human timescales. That interior is both alluring and eerie, structured by an inhuman mineral logic. Indeed, the Earth is so profoundly unearthly in Silva's videos that it seems hard to believe we ever treated it as mundane.

In 2010, the Defense Advanced Research Projects Agency—or DARPA—announced a new initiative called the "Transparent Earth." While DARPA's program came with intriguing scientific implications—including the possibility of visualizing magma chambers, fault lines, and other underground features in real time, to a depth of at least three miles—its primary goal was a military one. After all, a truly *transparent Earth* would allow U.S. war-planners to detect subterranean structures around the world, such as tunnel networks, missile silos, and bunkers.

Silva's own transparent Earth takes this metaphor in a more interesting and poetic direction, allowing us to consider what it means to peel away the surface of the world and look within at a buried realm otherwise resistant to familiarity. The true, etymological meaning of the word *apocalypse* is of interest here, as it means an uncovering, a revealing. A revelation. *Western Fronts* exists in a provocative interpretive space, allowing visitors to peer deep into rocks through the eyes of speculators, but to look away before this apocalyptic unveiling becomes morally compromising. *Western Fronts* suggests that we can share the extractors' fantasy of terrestrial transparency, a true fascination with the deep, but that we can do so without destroying the very thing that captivates us.