

Trinity of Gypsum
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The fascination of a collection lies just as much in what it reveals as
in what it conceals of the secret urge that led to its creation.

Italo Calvino, *Collection of Sand*
1972

I

280 million years ago: all of Earth's continents were a single mass and present-day Southern New Mexico was under the Hueco Seaway. Navigating those ancient waves: dimetrodons, 13-foot-long carnivorous reptiles with massive, scaly sails rising warlike from their spines. Settling beneath the waves to the seabed, having dissolved and flowed from all over the western tropics of Pangaea: millions of tons of a mineral called gypsum. After earthquakes, after ice ages, after new rivers and new mountains: the waves are gone and the dimetrodons exist only as fossilized tracks in Doña Ana but still we have the sea, or its gypsum bed anyway: 300 square miles of shimmering blankness called White Sands. That name is hopelessly inaccurate. The White Sands are neither sand nor white. These strange dunes exist because they are made of gypsum, a mineral that changes states easily, dissolving in water, crystallizing when the water evaporates. The dunes are formed of granular crystals and those crystals are, technically, without color. Clear. But there is wind in SNM. The crystals collide as they are blown along and they collect so many scratches. These imperfections are what reflect the sunlight and give the dunes the appearance of being white. Think of it: 300 square miles of wounded crystals. Visitors travel from all across the globe to experience what they call the "beautiful desolation" of the dunes at White Sands. Yet gypsum has long been the material of civilization. For centuries these crystals were used as flooring in the region's homes because, unlike sand, they do not absorb heat. And even now gypsum is often home for humans: its the primary component of drywall used in construction the world over. As plaster of Paris gypsum has been for millennia the stuff of sculpture. And as crystals, gypsum is portal for all sorts of seance spirits. Why, then, does the White Sands seem so desolate?

II

The name they call the healer translates roughly to “singer”. The singer enters the home of the afflicted. There is chanting and dancing. On buckskin or directly on the ground, the singer creates an image. Many images, all interconnected. Working from the center out, the singer trickles handfuls of colorful pulverized materials with precise flicks of the wrist, quick swoops of the arm—sandstone and gypsum, flower petals and oak root, coal and even feathers. The image grows, often for days, as the singer circumambulates. Animals appear, people appear, gods and whole histories of cosmologies appear until the images cover most of the small home’s floor. The afflicted is placed at the center of the painting. The painting diagnoses and heals the affliction caused, usually, by “improper contact” with ghosts, witches or other supernatural forces. The trickled mural of pulverized earthstuff is one part of a chanting ceremony whose goal is to bring evil under control. Where did such power come from? “Rainboy in the Land-beyond-the-sky was instructed for the Hail Chant...Scavenger was taught by Eagle after defeating the Rock People...Monster Slayer created the sands from the body of the monster Traveling Rock in the Shooting Chant...”. Once the ceremony is complete, these designs learned from the spirits and replicated on the home’s floor are quickly destroyed. Such power was never meant to be owned. The Navajo spirits know humans never do well with power. Plus, in New Mexico there is such violent wind. The sand must blow along. But then: the invention of Elmer’s glue. Well, first Manifest Destiny and untold extermination and concentration of Navajo on a reservation in New Mexico, but Elmer’s glue completes the process. Now, using a clear and quick drying adhesive, these fleeting portals to the sacred can be “permatized” and sold as art to the conquering Whites. There it is on the wall of your hotel lobby, complete with stick figure gods made of fist-trickled gypsum—wounded crystals—stuck in school glue. You can almost see through to the Land-beyond-the-sky. Almost. The singers, not wanting to upset the gods, build deliberate imperfections into their commercial drypaintings. If you are not battling for control over evil, the portal will not deign to open for you.

*The quote in section II of this essay, as well as all the summarized information about the Navajo healing ceremony, is from Nancy Jean Parezo’s *Navajo Sandpaintings: From Religious Act to Commercialized Art*.

III

Her hair is glamorous, as always. It swoops and waves unaccountably, the tinge of red strands amidst the brown just plain glow. Her lips glow yet redder. Though her face is tilted down and she is mostly in profile, her eyes are raised and the one eye in full view stares almost directly at us, through the camera and right off the page of the magazine. Unsettling. The movie star Merle Oberon has, in this photograph from October of 1946, some seriously sinister qualities. Poor Merle. Maybe it is only her jewelry. She wears a brooch and a hair clip and earrings, all created by Mark Koven, six-time winner of the Diamonds International jewelry design award. The government has paid the designer untold sums to outfit Merle in these jewels because she is the Queen of the Night in Paradise, a festival thrown by the Navy in order to raise 113 million dollars for its War Fund. What is that old saying? Why not kill how many birds with how many jewels? As the military raises money they will simultaneously, with this movie star's fancy brooch, disperse some propaganda. "Miss Oberon is the first to wear the substance as jewelry," the press release says, "...helping to refute claims of the Japanese that it is radioactive long after an atomic explosion." The brooch: "...a jeweler's conception in miniature of an actual atomic explosion, mushrooming skyward atop a pillar of cloud leaving glassy green devastation behind." The substance in Merle's jewels is atomite, aka trinitite, or Alamogordo glass. When that first atomic bomb exploded at Trinity Site in 1945 it left behind a residue, a greenish speckled substance. Sort of like turquoise, Merle said. How lovely. The sand of New Mexico had risen with the blast and inside that fiery mushroom cloud it liquified and went to plasma and even gas. Droplets of the sand aggregated and fused with what was near and then rained back down into literal puddles of fallout. It cooled and shimmered like glass. Most of the trinitite is green because it is just boring old arkosic sand rearranged with steel from the shot tower, plus a touch of radioactivity. But the rarest trinitite is red, just a shade rustier than the red on New Mexico's flag. This substance, the scientists hypothesize, gets its red glow from copper fused with gypsum: the copper wire that coursed through the bomb like electric veins all mixed up with the wounded crystals that course the whole history of New Mexico like spirit dust. And what singer's fist trickled these pulverized minerals into this forsaken portal? To the Night of Paradise festival, Queen Merle wore the green trinitite in her hair, on her ears, mushrooming on her chest. Perhaps, with her hair and lips, the red trinitite would have been too perfect. Art, after all, needs imperfections lest we upset some gods.