



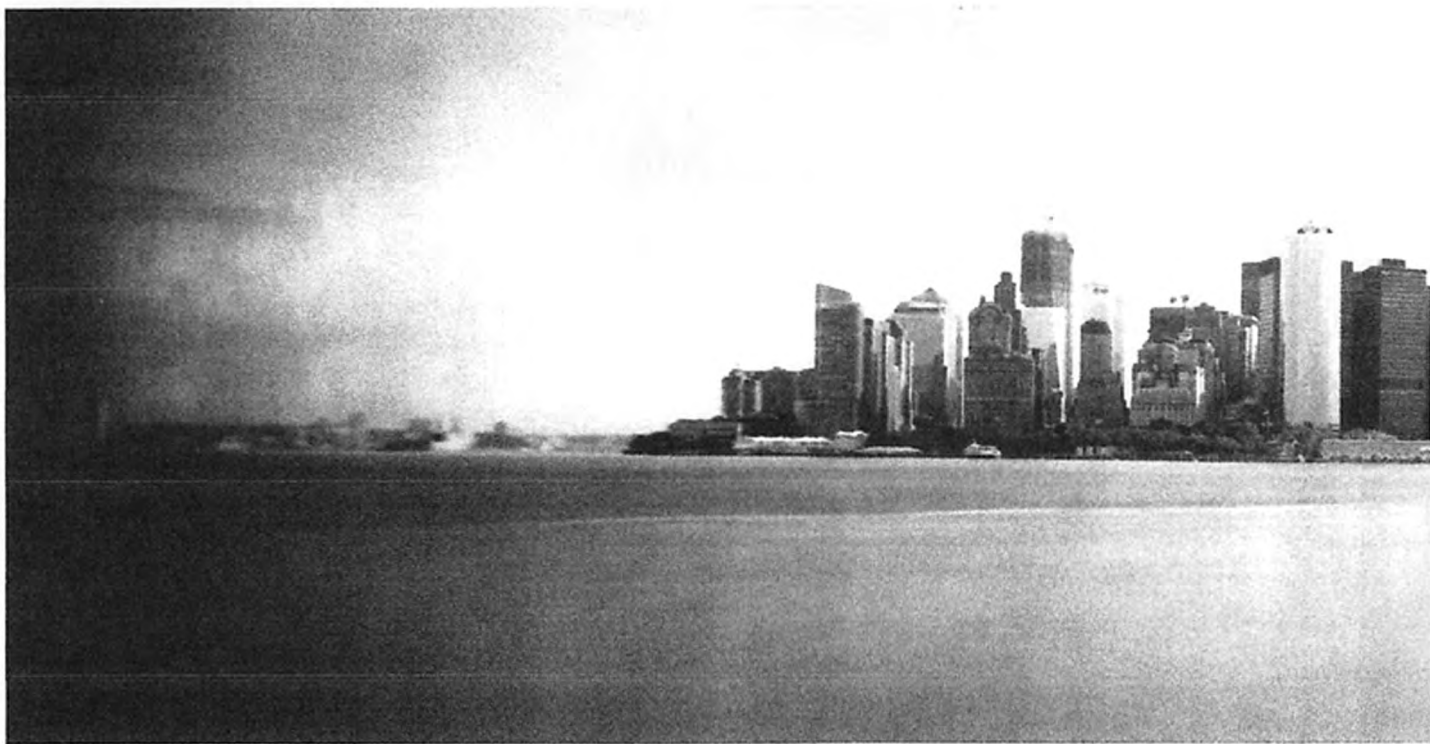


POKE A HOLE through the blank outer wall of a lighttight container and the world will come pouring in, projected (albeit inverted and flipped round, left to right) onto the darkened interior's facing wall.

Poke a hole in the flank of a pristine, glacier-fed mountain valley lake (a hole, that is, in the form of an aqueduct, a 270-mile-long gravity-pitched siphon straw) and watch the one valley empty out as its far counterpart fills up.

Scrape out the silver from the emptied valley's mountain margins, transport it all the way back cross-country to another lakeside town, where, pulverized, it can be salted into emulsions to form the basis for reels and reels of film stock that can then be transported back cross-country, only this time to that emptied valley's now-bustling metropolitan counterpart, where the reels can come to undergird an entire industry of dream weavers, who, in their own turn, will now begin streaming back to that original emptied valley, using it as the blasted backdrop onto which they project their own epic fantasies, capturing such Western sagas onto the film stock spooled at the back of little dark boxes with pinhole apertures, from out of which, presently, will emerge full-fledged movies, projected out through the pinhole apertures of other slightly bigger black boxes onto otherwise empty white screens, to the rapt delight of drop-jawed audiences all around the world (the flickering screen image entering through the pinholes of their eyes into the darkened recesses of their myriad respective imaginations).

And all of it, all of it constituting the ever-compounding vision of the good folks in the Optics Division of the Metabolic Studio in Los Angeles, that same bustling metropolis built on siphoned water and processed silver.



9/11/11, Manhattan, 2011. Gelatin silver print.

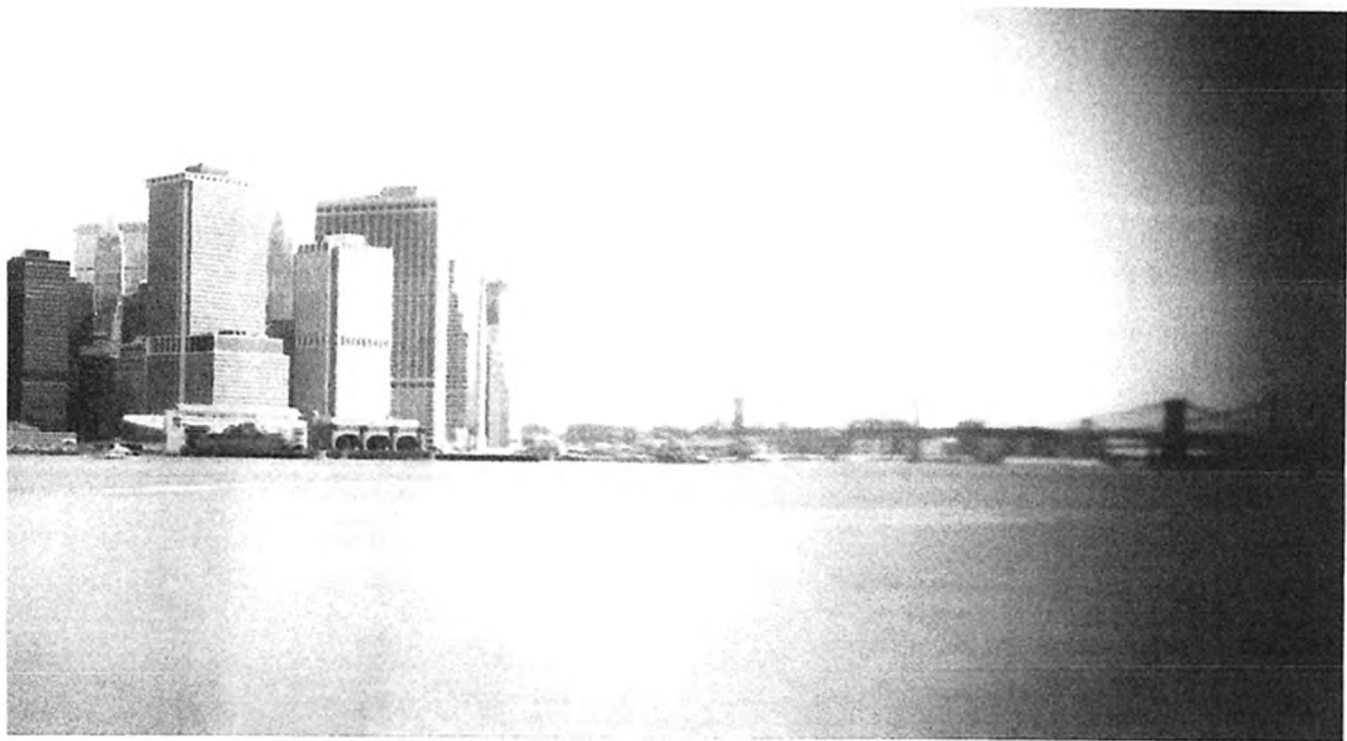
BUT TO BEGIN WITH, THERE WAS LAUREN BON, dreamy child of the Intermountain West (and where has she gone off to this time?). Lauren spent her first seven years in New Mexico, the wide-skied vistas of the high desert basin between the eastern edge of the High Sierra and the western foothills of the Rockies, her heart's true home. By the time she was eight years old, having relocated to Los Angeles, Lauren was always off escaping on her red Stingray bike with high bars and streamers, usually two and a half hours due east, to the parched downtown industrial wasteland abutting the concrete-girdled, dust-choked Los Angeles River, "the Beach" as she chose to think of it. By sixteen she was escaping even further, this time to Israel, though there she quickly fell in with a troupe of contemporary dancers with whom she was soon touring Europe.

A year later, back in the United States, she found herself dividing her time between apprenticing backstage with the Martha Graham Dance Company in New York (in particular, helping build sets with Isamu Noguchi) and studying architecture at Princeton University, after which she resumed her nomadic ways back and forth between Europe (studying at the Architectural Association in London while continuing to pursue contemporary dance) and the United States (getting a masters in architecture from MIT, a place she found marvelously vivifying) and then Europe again, where she became

increasingly engaged, politically and artistically. In 2001, now with two small children in tow, Lauren returned to Los Angeles and, in the wake of 9/11, decided to stay.

But how to make a home in Los Angeles after the profuse splendors of London? Lauren made her way back to her downtown Beach and presently followed the thread of its river up and out of town, back to its source in the Owens Valley. "Devastated," was how she recalled the valley. "And in fact completely drained and ravaged, the dried up lakebed a toxic expanse of exotic chemicals—a veritable periodic table of them that over thousands of years had silted down from the mountains towering all around and settled deep under all that water, but now the water was gone and had been for almost a hundred years, such that the fine particulate carcinogens lifted high into the sky in periodic dust storms, drifting off as far as China and bringing down the occasional training jet fighter. Devastated, yes—but *magnificent!* The colors, and the vastness, and *that light!* It was all so incredibly beautiful, and strangely I felt completely at home." Now here was something worth trading London for.

Having found her home again in the Intermountain West, Lauren began a series of works designed to reconnect Los Angeles with its history and the source of its water. Her childhood Beach, she discovered, was the historic floodplain



of the Los Angeles River (now confined in a cement channel), and the breadbasket of the Tongva and Gabrielino Indians. In the nineteenth century, this site became a train yard and major depot for silver and other mining exports from the Owens Valley, leaving in its wake a legacy of industrial waste and soil contamination. Here, in 2005 and 2006, Lauren created *Not a Cornfield*, a project designed to remediate the toxic brownfield through community action and the natural metabolic processes of corn, in the process founding the think tank and creative laboratory that would become the Metabolic Studio. In 2007 she began *AgH<sub>2</sub>O*, a project limning the relationship of Los Angeles to silver and water—both mined out of the Owens Valley. And what better medium to accomplish this than film, which, after all, consists of nothing other than images captured on silver grains, developed in watery baths, and projected onto silver screens? “Filmmaking,” said Lauren, “and the development of Los Angeles are deeply intertwined.” All of these ideas kept leading back to the Owens Valley, which Lauren was increasingly coming to think of as the mirror obverse, the negative counterpart, of this vast metropolis down south.

Somewhere in there, Lauren met Rich Nielsen, an abstract painter and printmaker who’d himself been hankering for greater social involvement, and on their first serious date, she took him up to show him the Owens Valley—“110 degrees,” he recalled, “horseflies the size of helicopters”—and in par-

ticular the dilapidated ruins of an abandoned Pittsburg Plate Glass (PPG) trona-milling industrial complex, overtopped by three towering silos, which she was beginning to conceive of as the headquarters for her efforts to heal the valley, artistically, spiritually, and—to an extent—even physically. She had him at horseflies, and the two were soon inseparable.

Inspired by the natural resonance of the empty steel silos of PPG, Lauren began thinking of the generative possibilities of sound. The Sonic Division of the Metabolic Studio began to explore the distinctive acoustic qualities of the silos (“its unique natural resonances, the silence up there being of the place’s very essence, this incredibly *layered* silence”).

This strange soundtrack fit with the increasingly cinematic way Lauren was thinking about the Owens Valley, and so it came to pass that in May 2010, she convened a three-day “Shoot Out,” in which locals from the Owens Valley and Los Angeles came together with visiting artists from around the United States and Europe to shoot their own Western (because what else would it be, the Valley having been a favorite site location for the likes of Will Rogers and John Wayne?). Inside the gaping vault of the acoustic silo, channeling Samuel Beckett-inspired “ghosts” under the supervision of the visiting German Beckett dramatist Walter Asmus, the Metabolic Studio captured the proceedings with primitive handmade pinhole





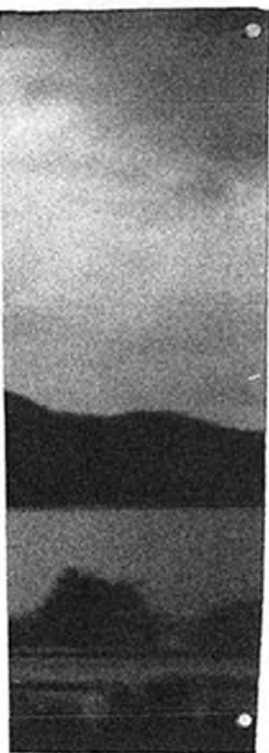
*Hudson River School 2, 2011. Gelatin silver print.*

cameras, developing the resultant film (under the tutelage of Robert Schaller, a Stan Brackhage acolyte out of Colorado) in an experimental chemical formula made from coffee grounds and the naturally occurring trona salts. This was the event into which wandered Tristan Duke, a young experimental photographer, holographer, and Japanese tea ceremony practitioner out of Naropa University, also in Colorado. Tristan, Lauren, and Rich recognized a shared vision, and within a few months, Tristan would relocate to Los Angeles. Together the three would establish the Optics Division of the Metabolic Studio.



TO HEAR THEM TELL IT, industrial-scale shipping containers were going for dirt cheap down at the Los Angeles harbor: you could get a nice big one for under one thousand dollars ("China exports all sorts of stuff to the US," Rich explained, "and we don't ship much back, so the things just pile up there at the port"). So they'd bought one and had it sitting in the garage there at the Metabolic Studio, with the intention of converting it into a portable kitchen. At the same time, in the lingering wake of their Shoot Out adventures, Rich and Tristan couldn't help savoring the container's camera-like potential (having had to be watertight, the thing was naturally lighttight as well, a dark room, a camera obscura just waiting to be plumbed). So at one point, Rich and Tristan climbed in, closed the door, and began drilling a hole through the container's flank, at

which point, "Whoa!" exclaimed Tristan, and Rich concurred, "Ohhh." For, as Tristan explained, "Suddenly we were seeing the headlights of a car that was moving outside through the garage, projected upside down on the container's far wall. And we were both like, we gotta' get this thing outside." So fast forward, they dragged the thing outside, orienting the flank with the hole toward the onetime cornfield. "Then," recalled Rich, "we went and grabbed Lauren and brought her into it, and she was immediately like, 'Oh yeah.' For she could see that there was this fantastic potential inside that space." Tristan explained, "You could make out this amazing image, especially as your eyes adjusted, even though it was still relatively faint, owing to the smallness of the hole." In the days that followed, Tristan found his way to an optometrist, who was able to provide him with a three-inch-diameter focusing lens, which, when properly slotted, allowed them to widen the pinhole considerably, brightening the projection and sharpening the resultant image. The effect was uncanny—indeed, every bit as mesmerizing as it had been for those in the fifteenth and sixteenth centuries who had reveled in cameras obscura, and perhaps for people long before that ("For what else is Plato's cave," Lauren wondered, "than a site for such projections?") and perhaps (as she also surmised) all the way back to Neanderthal families, huddled in their nighttime caves and marveling at the shadows projected onto the far walls by lightning storms crackling in the distance. It wasn't just the eerie



presence of the image, though; it was its somehow heightened felicity, for as David Hockney had noted a few years earlier in his book *Secret Knowledge*, a treatise much on the minds of the Metabolic folk during those days, such projections also somehow harmonize the colors, such that the cast images take on the resolved quality of paintings. And they move!

For a while, the Liminal Camera, as they took to calling the modified shipping container (*liminal*, from the Latin word for threshold, as in subliminal, meaning “under the threshold”), persisted as a meditative space. Friends would be invited over, and Tristan would serve tea in a nearby studio space before bringing people into the camera. People sat, took it all in, speculated. “In a sense,” Tristan explained, “the camera experience itself partook of the aesthetics of the tea ceremony, the place became a sort of tea room, in that it was a hosted place in which people were encouraged to slow down, connect and reflect.” One time a visiting scholar from a Jesuit college told them how in the early days of his vocation, Saint Francis would go outside the city and stand on his head so as to see the world as it was, the heavens made manifest as fundament, as bedrock, with all the spires and turrets, the works of man, revealed for the fragile, tentative, barely hanging stalactites they merely were. Someone else quoted William Blake: “If the doors of perception were cleansed, everything would appear to man as it is: infinite.”

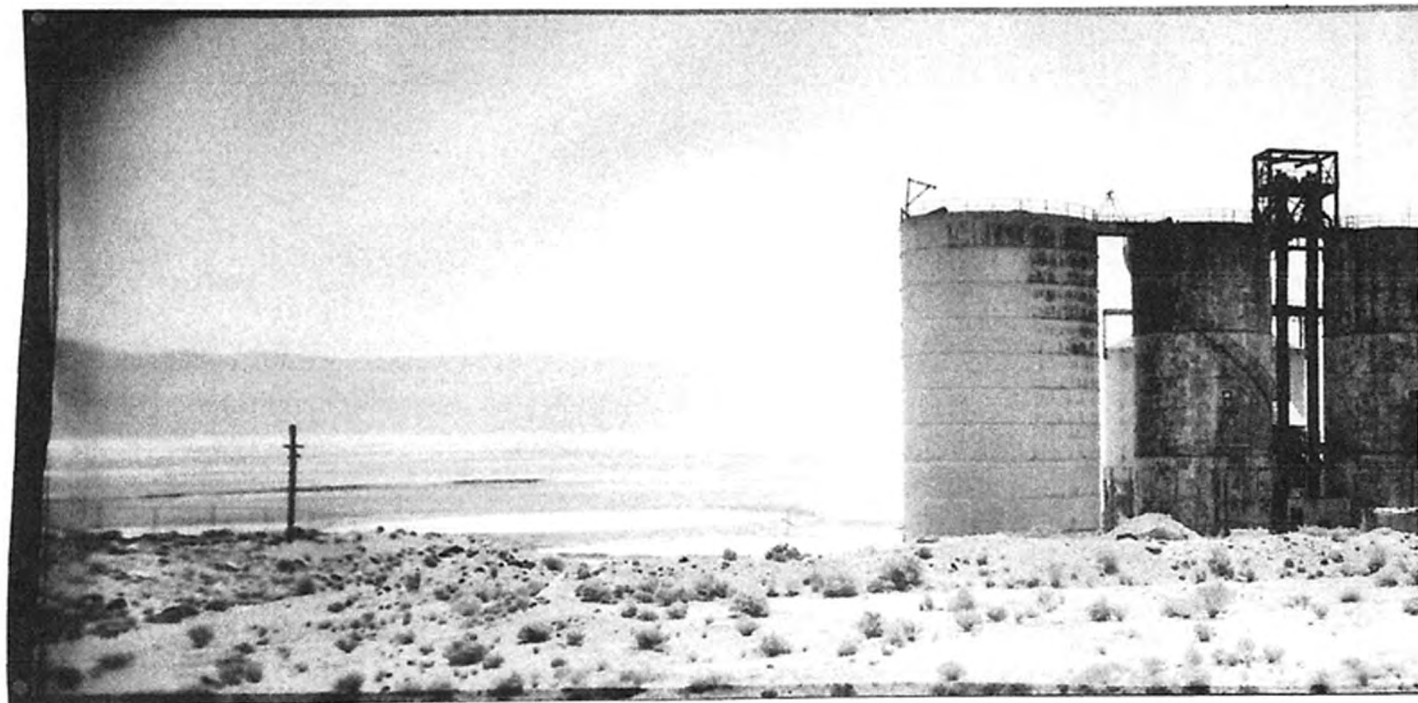
Rich and Tristan continued tinkering with the thing. They installed solar panels on its roof, to power lighting and air-conditioning inside. They experimented with photographic papers (at first small sheets, and then wider and wider swaths) and calibrated exposures, with the subsequently developed picture preserving a negative of the image cast. (“Editing,” as that other great mystic, Jean-Luc Godard, noted, “is turning chance into destiny.”) They contrived a system whereby a secondary far wall, on rails, on the inside of the camera could be moved closer or farther, toward or away from the lens, so as to enable the projected image’s focus to be sharpened yet further. And presently they said, “We’ve got to get this thing up to the Valley!”

They rented a flatbed truck (“Easy: Ryder”), mounted the Liminal Camera, tooled around the local streets a few times (“Sitting inside the moving camera was even more incredible,” Tristan recalled. “We are so used to seeing illusions of moving images on screens, in the form of film or video which are made up of single frames, still images which flash by at 30 frames per second to give an illusion of motion. But this was a frameless moving picture—a continuous live image, with no film grain or pixels.”), and then they headed north.

The camera’s first visit to the Owens Valley occurred on June 14, 2011, when in commemoration of Flag Day, they raised an eighty-foot American flag atop a mammoth Bronto crane in the middle of the dried-out lakebed. Lauren envisioned this action as a reclamation of the national symbol, though she also noted, slyly, that inside the camera, where the image was being projected onto photographic paper, the flag was registering as upside down, “the universal signal of distress.”

On that same trip, Tristan, Rich, and Lauren decided to see what would happen if they drilled a hole in the side of one of the PPG silos. As far as Lauren was concerned, the silos had already been standing there, overlooking the drying lakebed, as silent sentries, vigilant witnesses, for much of the past century. But what if they could render such vigilance overt? “In a sense,” Tristan noted, “back in the days when PPG had been going full tilt, the silos—46 feet in diameter, 90 feet tall—were filled with the dust of the lakebed, serving as a kind of material hourglass, taking in layer upon layer of sediment, eons worth, and piling it high, upside down, before draining it out again for processing and eventual transfer. But now that they too were empty, what if we produced an optical hourglass, filling the silo again but this time with an image of the lakebed?”

“So we decided to drill a hole through the half inch steel of the silo wall,” Rich recalled. “We donned our goggles and started to drill. We knew something would happen, but we didn’t really know the extent to which it would bring the



PPG, 2011. Gelatin silver print.

entire valley inside the silo, so when the metal dropped out, there was this fantastic moment when the lakebed flooded in. The hole was perfectly placed so the horizon line was about six feet off of the ground, right at eye level, with the entire valley suddenly upside-down inside the silo."

"The effect was even more amazing than we had imagined," related Tristan. "Because the image is projecting into the massive interior curvature of the silo, you have a 180-degree vista, the dried-out lakebed, the mountains in the distance, the evaporative ponds closer to the foreground, the sky—all of it projected into this 360-degree cylinder, the far sides of the image wrapping clear around to the lens itself so that you are literally surrounded by image."

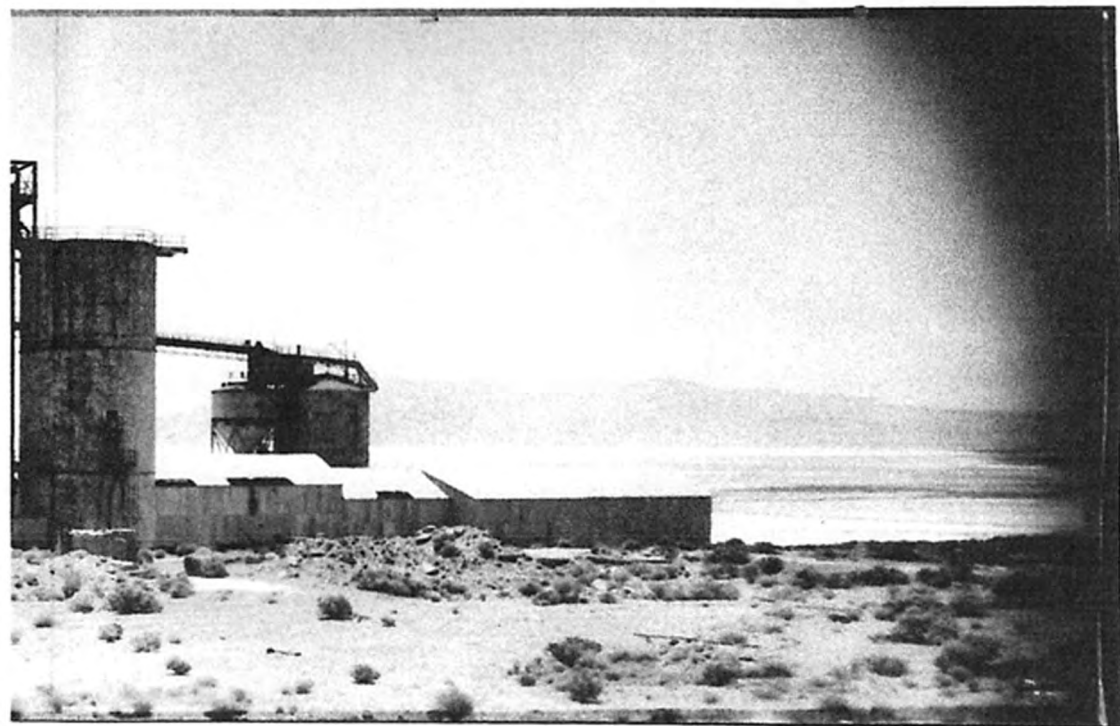
During the months that followed, the team drove the Liminal Camera all around the Owens Valley, recording ever more expansive vistas, and likewise worked within the Silo Camera, capturing images at all times of day. At one point, they even contrived another Shoot Out, this time with the silo taking the photographic measure of the flatbed-mounted camera along a ridge nearby, at the same instant that the Liminal Camera shot one right back. Ready, set, *draw!*

And meanwhile, Tristan and Rich explored the lakebed, the lurking mud ponds (for often a rich, dank, briny

goo persisted just below the salty crust), prospecting for naturally occurring chemical brews that could serve not just as developer but as fixer too, so that once they took the exposed photographic sheets outside in the middle of the night (the starlit dome serving as darkroom) and buried them in the gunk, the Owens Valley could really be said to be taking its own picture, from start to finish, all natural.

(Eons and eons and eons ago, in the far, far reaches of cosmological time, matter had become aggregate; and then eons further on, and only just here and there, and for all we know, only here, it had become organic; and then further eons on, cellular; and presently animate; and then, at greater and greater length, sentient; and then, still further, almost endless eons on, and really only just recently, and only here and there, somehow self-conscious—but this was something even newer than that, something heretofore unprecedented, this was matter taking a selfie!)

But the Liminal Camera aboard its flatbed truck was just itching to be on the road, and presently the Optics Division acceded. Tristan and Rich, meanwhile, outfitted the interior of the camera as its own darkroom developing lab, so that even on the road they were able to process the accumulating road shots the camera was taking almost as quickly as it was taking them. They took it cross-country, first to New York City



(to bear witness at the tenth anniversary of 9/11), and then to Washington, D.C. (for a Veterans Day action that recalled the Bonus Army Rebellion of the Great Depression).

The Optics Division made its way to Rochester, New York (that other city by a lake), by way of the Erie Canal, in 2013. Here, in the home of Kodak (now in the throes of bankruptcy), the Optics Division connected its investigation of silver and water to a larger story about film and photography, and Rochester (a city that used to import upwards of two tons a day of silver by the middle of the last century!) to the Owens Valley (where all that silver had been mined).

And then, in October 2014, the Optics Division was invited to bring the Liminal Camera to Chicago, longtime portal to the West (talk about thresholds!). Here the Liminal Camera feasted its cyclopean eye on sights, at first glance, as far removed from the Owens wastelands as might be imagined, but then again—for such is the way with these hourglass vantages—all of a piece: infrastructure carcasses, the wide skies, the mountain range of skyscrapers breasting the horizon, and finally, of course, (inside out and upside down), all that glorious water!

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