

The Ecocentrics



Marisha Farnsworth

Marisha Farnsworth is an artist whose large-scale public space interventions explore future ecosystems, infrastructural utopias, and the social and ecological implications of materiality in the built environment. Her work has been exhibited at the Yerba Buena Center for the Arts, the Venice Biennale, and is in the collection of the Nevada Museum of Art. Marisha currently teaches at the University of California, Santa Cruz.

COHABIT I

The oldest parts of the community were already given over to compost, some in orderly piles, others in heaps resembling the original architecture. Some residents continued to inhabit a few old rooms that stood alone in a detritus field. As the structure was abandoned at one end and recreated at the other, the mycelial mat edged east, away from the sea.

When it was time to feed the fungus, the city awoke. Workers in clean suits moved shredded agricultural waste from the sterilization ovens to vats where it was cooled and mixed with live mycelia. From there, the inoculated substrate was hauled in carts through the zippered door that separated the Cohabit from the worksite. The shape of the future structure was already visible, traced in bioplastic formwork appended to the Cohabit: a shell of hallways and vaults supported by networks of old steel scaffolding and stacks of wood blocks. All along the raised platforms, people in clean suits packed damp substrate into the forms, by degrees obscuring the white light radiating through the ceiling. The odor of raw mushrooms and wet cellulose permeated the worksite and, in places, moisture precipitated from the edges of the panels and spread across the ground.

Those who weren't cultivating the Cohabit were preparing food in the communal halls, where thick mycelial walls insulated the interior from the construction din and the brisk coastal breeze. The piebald ochres of dead mycelium pressed against the hard shell of the interior, a clear plastic molded with shelves and hooks now filled with dried *Ganoderma lucidum* and *Pleurotus ostreatus* fermenting with *Lactobacillus plantarum*. Here and there along the walls, where panels had not been fastened together properly, desiccated biomass and shriveled mushrooms had pushed their way through the seams before all growth had been halted.



Outside, a growing mountain of construction debris mixed with household waste, food scraps, and bodies was layered in large compost piles. At the bottom of these new topographic features, lay former dwellings, polymers, synthetic hydrocarbons, and synthetic rock—relics from the Age of Garbage, when humans created persistent materials. From these piles, recent rain had caused mushrooms to fruit, releasing clouds of spores. Children played on the hillocks, and some gathered mushrooms alongside the pigeons, towhees, and chickens who scratched at the humus.

COHABIT II

Even where not consumed by fire, the trees were mostly dead. It had started with the oaks, then the pines, and finally the redwoods. Insects and fungi that flourished in warmer temperatures were responsible for the tree mortality rate and the tall rotting snags that dominated the hillsides. Uncontrollable fires had burned much of California's forests, leaving few places untouched. The seemingly endless fire season had caused most residents to flee to the cities long ago and, when services had been cut, the remaining stragglers reluctantly retreated. No one lived in forested areas anymore, except those who lived there by necessity.

The people at Talmalamne Forest Cohabit tended to the forest, lighting prescribed fires in the remaining old groves and monitoring the condition of the ecosystem. They also selectively harvested dead trees for their own needs. The forest settlement was austere—constructed entirely of acetylated dead pine trees. Because of frequent fires, people kept few possessions, and what they had they were willing to sacrifice. The jagged roofs of the A-frame structures were

already blackened and charred from a fire that had grown out of hand a few years before.

In some areas where fires had burned too hot, the surface of the soil had been sterilized. Here, the humans attempted to inoculate the soil with microbes, fungi, and seedlings—a seemingly futile task when a single human could only cover a quarter of a kilometer per day. It was the other animals who persevered: an earful of waxwings expelled clouds of seeds as they moved across the blackened landscape; a single nutcracker tirelessly buried tens of thousands of pine seeds among the dead trees. After a time, shrubs and grasses that were able to withstand the droughts and the increasing temperatures recolonized, but the forest would not return without care. The humans painstakingly delivered water by hand through the forest and, where saplings successfully took root, cool microclimates and microbiota began to establish.

In the few forested places spared by wildfire, small fires had been lit intentionally. This prescribed fire zone was demarcated by new vegetation; everywhere along the charred ground, the forest had begun to regenerate. Fire activated the seeds of ceanothus and coffeeberry that had lain dormant in the soil and melted the resin of the serotinous cones of the lodgepole pines. Ash carbonated the soil and fertilized the roots of the young saplings with nitrogen, calcium, and potassium, their green stems prismatic in the dim winter light. The rains were rare but, when they came, the subterranean buds of the buckeye emerged, drawing stored nutrients from a mat of roots; the manzanita, chamise, scrub oak, and wildflowers joined in the orgy of germination.

COHABIT III

The Ecocentrics had been developing the grotto at the geyser for generations—no one knew exactly for how long. Each year, they arrived to rearrange or set new dams and sluices that directed the flow of the sulfurous water. The mineral forms slowly accreted in marbled orange and green as the bacterial communities spread, layer over layer. Recognizing that it was these cyanobacteria that had oxygenated the Earth and that the greatest concentration of life on the planet was bacteria buried deep within the rocks, the Ecocentrics came to commune with bacteria as they surfaced, and to appease them, in fear of the cataclysmic eruption that could wipe out most of the remaining life forms on the planet.

Over time, a series of gnarled spires had materialized out of the water, marking cavernous spaces of refuge in the otherwise flat desert landscape. Warm water dripped along stalactites, sheeted over slimy floors, cascaded over the nodular parapets of the travertine walls that grew ever more massive year by year. The spring vents were fickle, appearing here, moving there, suddenly ceasing to flow, so that planning was nearly impossible. Half-built domes spread erratically across the surface of the lagoon like the ruin of some incomprehensible structure. Bursts of boiling water ejected as much as one ton of stone per day and attendants scrambled to reconfigure the scaffolding to avoid platforms collapsing under their own weight. Every now and then, an attendant was caught off guard by these sudden eruptions and was badly burned or killed.

But mostly there was celebration and revelry for the reemergence of the water after its many-thousands-of-years journey through the faults into Earth's lower crust. Naked bodies of every

color floated lazily in the steaming waters or lay on the banks, caked in drying mud or clustered in the shadow of the grotto, feet trailing in waters charged with calcium, magnesium, and carbon dioxide. After traveling through ancient ocean beds 150-million-years-old, the hot water had inherited the chemical signature of the oceanic crust and now formed a tiny sea in the desert. Corals appeared to grow on its shore, as grasses became encrusted in calcium carbonate, forming polyp-like fractals.

Within the structures, strange objects had been affixed to the walls, some so covered in calcareous excrescence that their original forms could not be determined; others were revealed, the changing course of the hot waters having moved elsewhere long ago. These artifacts were made of materials not seen any longer—polymers and hydrocarbons of all kinds that were formed together in specific, but now incomprehensible, shapes. These objects had been repurposed as shelves, seats, vessels, decoration—a museum encased in dendritic crystalline clusters. The anthropogenic forms marked a thin, odd layer on top of the hundreds of meters of calcium carbonate laid down during the Holocene and Pleistocene. On top of this layer, a new morphology was emerging, formed by a collaboration between humans, minerals, and microbes.