



GUIDING CONCEPTS

Destruction & The Presence of Absence

The Burning Man event is concluded each year by three acts of destruction:

- The burning of the Temple
- The burning of the Man
- The dispersal of the City

The absence of familiar surroundings, details and distractions in a place like the Black Rock Desert deprives us of the context with which we normally orient ourselves in reality. It can heighten our awareness of what is left behind, giving a stronger sense of the underlying, barely perceptible presence that exists throughout and imbues the world around us. These ritualistic acts of destruction serve as moving moments of surreal, spiritual intensity that reveal this presence while simultaneously signifying the unimportance of material place. The temple, effigy and city have a psychological impact but are only impermanent structures, not to be deified.

“One can then enter the temple and simmer soulfully in its divine gravity without idolizing its structure. This is not just a matter of heady “spirituality” or theological rumination; it’s about being awake and openhearted amidst all wild and unpredictable possibilities that life unfurls in each moment.”

- Temples on Fire - Sam Berrin Shonkoff
Playa Dust: Collected Stories from

PROGRAM SYNOPSIS

The proposal provides a place for mental contemplation and destruction through biomass incineration. This takes precedent from the ritualistic destruction iconic to Burning Man, preserving and reshaping a tradition amidst growing emission concerns being addressed in the organization’s 2030 roadmap.

“Burning altars” designed for individual use are utilized in place of a single burning chamber in order to reduce the auxiliary fuel load and effect intimacy of a solitary ritual. These altars are integrated into pillars, arrayed in a grid throughout the space. Light apertures are cut above each module where it visibly separates itself from the ceiling, allowing for a source of diffused light for each altar.

The heat produced by burning waste, invasive plant species, or other scrap material produces steam which, in turn, generates energy to sustain extended site use and the creative work of visitors to Fly Ranch.

Participants will enter the structure through a low arched opening via broad stairs, with a merged ramp for accessibility, leading up to the main, occupied room. This semi-enclosed space forms an expansive, horizontal plane, leading to an open view of the playa. This space reinforces the “presence” of the desert through manipulation of the interior microclimate in juxtaposition to the hot, arid climate of the flat. Wind is channeled through the wide, horizontal opening over a shallow pool of water covering the surface of the floor. This creates a natural evaporative cooling effect dropping the interior temperature and raising its humidity.

This plane of water is constantly and gradually replenished via atmospheric water harvesting and precipitation collection, both integrated into the exterior shell of the structure. The vessel is defined by an organic, parametrically layered shell, placing emphasis on the visually registered systems within. The vessel emits steam during the day and light during the night.

BURNING MODULES

The burning modules each include a grate and removeable tray for collection of left-over bottom ash which may be repurposed for use in applications such as aggregate and ceramics. Auxiliary burners are required to reach the necessary temperature of combustion needed to destroy toxic byproducts and pollutants in the flue gas. Furthermore, metal organic framework (MOF) cartridges are used for carbon capture, an application of the technology that is enhanced at higher temperatures. A closed water loop is fed through the top of each module allowing water to be converted to steam before it is directed to the turbine below.

INPUTS

Biomass Waste
1.8 kg/day/person
9.8 kg/week/person

Auxiliary Biofuel/Biogas

Relative Humidity

Aug. 2019: 29 %

Dec. 2019: 80 %

Precipitation

Hualapal Flat: 30.4 cm/year

Wind

SE: 9.3 km/h

NE: 11.6 km/h

Note: Estimated amounts are based on 2017 statistics on municipal solid waste provided by EPA.gov and EIA.gov.

Power Generation
0.9 KWh/day/person
6.5 KWh/week/person
(x 80,000 person, 1 week event) = 519.3 MWh

Carbon Emission
1.4 kg/day/person
9.8 kg/week/person

Bottom Ash
54.4 g/day/person
390.1 g/week/person

Water Vapor / Light

Excess Heat
2.8 KWh/day/person
19.6 KWh/week/person

MOF Water Adsorption
0.7 L/day/kg of MOF
4.9 L/week/kg of MOF
(x cycles/day)

Precipitation Collection
(x Floor Area 642 sq. m)
= 195,074 L/year

Microclimate Manipulation
Decreased Temperature
Increased Humidity

Generated Power
(stored in lithium ion battery bank for sustainable and creative applications)

MOF Carbon Capture
(repurposed - greenhouse growth)

Bottom Ash Collection
(repurposed - aggregate, ceramics, etc.)

Visually Registered Impact
Day - Steam
Night - Light

Grate & Bottom Ash Collection

Closed Water Loop

Auxiliary Burners

MOF Carbon Capture

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