

## Offshoring Pathways

The horizon is the first representation of infinity. Seen from space, the endless line of the horizon bends into a full circle, the outline of the blue planet against the dark background of interstellar space. The shorelines separating ocean and land extend infinitely to the horizon. Seen from space, shorelines are closed, jagged lines, drawing the boundary of continents, islands and oceans within the full circle of the Earth disk.

The Flying P-liner Peking, currently moored at the South Street Seaport Museum in Lower Manhattan, carved its wake on the ocean surface from the ports of Northern Chile, south along the western shores of South America, to Cape Horn, then North along the eastern shores of South America, then across the Atlantic to Hamburg, Germany. And then back to Chile. It carved such wakes for approximately a half century, before the Panama canal was open, making the Cape Horn route impractical, before steam engine replaced wind-powered vessels, making sailing impractical, and before the discovery of the Haber process for the synthetic production of Chile Saltpeter ( $\text{NaNO}_3$ ), making mining in Atacama impractical. Before Zeitgeist drained energy from the saltpeter lines. Maritime routes leave evanescent wakes on the ocean surface; open-pit mines leave permanent lines on the Earth's face. Like for maritime routes, the extraction of minerals starts, and then ends, as Zeitgeist evolves into a new stage. Open-pit copper mines draw concentric circles. Seen from space, such concentric circles grow, embroidering the Earth's face. And then stop, as Zeitgeist transforms. The horizon line and the continental shorelines draw the cosmic and geological Zeitgeist; maritime routes and open-pit mines weave the texture of the human Zeitgeist.

Zeitgeist lines are representations of the geo-alchemical processes of the planet's face as energy redistributes across its body. The earth Zeitgeist is morphed by transformations of energy: wind, solar energy and fossil fuels, energy stored in the chemical bonds of matter, the human quest for more energy: food, fertilizers, gunpowder, machine construction, and where it is more practical to find it, striking or breaking the balance between wealth generation and preservation of the environment. The 1879-1883 War of the Pacific between Chile, Peru and Bolivia was fought over possessions of saltpeter deposits; less than a century later, the Atacama saltpeter industry left ghost mining towns dotting the barren and dry desert landscape. Geoglyphs of bygone flowing energy.

The crystal pool (black plexiglass) contains a solution of water, Chile saltpeter and alkanes, with positively and negatively electrified copper wires representing the maritime routes of the Flying P-liner Peking to and from Northern Chile. As the solution evaporates, the drawing (made of saltpeter crystals) slowly appears in the pool (it takes 5 to 7 days for the solution to evaporate completely). Copper slowly dissolves into the solution, coloring the ocean region with blue-green while the South American continent takes on the black color. The copper wires eventually

break, dissolved into the liquid saltpeter solution. The artwork is best appreciated on a time span of one week, when slow changes due to saltpeter evaporation and dissolving copper (not perceptible during a single visit) morph the crystal drawing into different configurations of its elements. The rich texture of the crystal drawing witnesses the grand and powerful energy configuration of the saltpeter zeitgeist: the ripples left on the Ocean surface by the Peking wake, the wind force over the ocean, the power of the sodium nitrate chemical bonds and the importance it had in the 19<sup>th</sup> century. Geoglyphs and oceanglyphs of the saltpeter zeitgeist.

**Michele Galletti**