

DOUBLE SUNSETS

by Jaimey Hamilton Faris



Matson Piers Honolulu Harbor, credits to Jaimey and Jason Faris

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Sometimes I go to Sand Island Beach and watch the double sunsets. Driving past a warren of industrial parks, I follow the access road all the way to the end, where I can see the Matson container ships enter Honolulu Harbor; Diamond Head is in the background. Looking leeward, I can see much of the west side of Oahu. If my timing is right I can also see two shining lights sitting on the horizon as the sky turns orange, pink and purple. A double sunset, sometimes even a triple.

Hawai'i is known for its amazing landscape of active volcanoes, clear skies for viewing stars deep into the galaxy, and double rainbow formations, made when the sun refracts through the mists that form on the mountain ridges of each island in the chain. But the double and triple sunsets are completely different—completely human engineered. They are massive lights mounted on top of the monumental oil tankers moving toward two of the three main harbors on Oahu. At Barbers Point, they anchor about a mile or so off shore and send the oil through 840-foot tubes to a refinery at Campbell Industrial Park. At Honolulu Harbor, they anchor off Sand Island to offload at the Chevron refinery. When the “suns” are this close they glare in my eyes.

60 to 100 oil tankers (about 400 million barrels) come into port each year to deliver 90% of Oahu's energy. I learned about these regular, almost weekly events from photographer Alison Beste, who has made a project of taking long exposures of the tankers. Using marine traffic apps, she learned when and where

the tankers would be. The Chevron employees who have seen her photographs are surprised she hasn't gotten in trouble for pointing her camera for so long at the tankers, an indication of the highly militarized aura around these ships, especially in Hawai'i. Beste took the photos to heighten the ambiguities and relationships between the fading energy of the sunset and the oil, extracted, contained, and newly arrived to be processed and used. I appreciate the double take that the double sunset requires of me. To contemplate the manifest absurdity of having to ship so much energy to islands awash in daily sunlight and atop a volcanic thermal vent. How did it happen that we have overlooked very elegant sun, moon, tide, and volcanic energy systems for petroleum-extracting-satellite-tracking-fiber-optic-cable-logistics-container-shipping systems?

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To relish Hawai'i's paradise now means to be at the center of a Pacific shipping "hub," where not only 90% of energy, but 90% of goods are imported. It means one can relax on the Lāna'i of a hotel at Waikiki wearing a kukui nut lei assembled in China and sold in bulk through Alibaba to a shop in the International Market Place, while drinking a Mai Tai made with pineapple juice grown and canned in Paraguay and rum made from sugar cane on the Virgin Islands. The fact the petroleum, kukui nuts, molasses and pineapple are shipped in along with the tourists is ironic. This is especially so considering that sugar cane, introduced to Hawai'i by the Polynesians in the 11th century, and pineapple, introduced as a cash crop by the missionary class in the late 18th century, were Hawai'i's main export products until the mid 20th century. These convoluted material histories are narrated to tourists in often-slippery confluences of customary Hawaiian culture and the "pioneer" days of colonization and agriculture. An additional layer of irony is that Hawai'i's cash-crop system is now mostly defunct (inviting in Monsanto to use the old plantations for GMO experiments), yet tourist development has grown exponentially in the last 70 years. This creates a very unsustainable relationship between the current population of the islands, around 1.4 million, its 8.5 million annual visitors, and its lack of energy and food infrastructure. Visitors expect kukui, sugar, and pineapple, even though Hawai'i's hotels and restaurants now often get them

cheaper and more reliably from elsewhere.

In this respect Hawai'i is not exceptional at all. 90% of the goods all consumers buy, whether they live in Hawai'i, New York, or Amsterdam, are shipped on containers. Local or regional food or goods are often processed and assembled, if not grown or made far from their associated locale. Ocean and oil have become the primary liquid mediums through which container logic sustains Hawai'i's position in a global commodity chain.

The story of oil and containerization in Hawai'i is as important as the story of the pineapple and sugar plantation system. After the position of the Hawaiian Islands was reported to the Royal Society of

London in 1780, sandalwood trade was initiated, putting pressure on traditional Hawaiian social and food systems when commoners were instructed to harvest the forest rather than

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cultivate the fishponds. By 1824, whaling ships were visiting the islands as they scoured the Pacific for sperm whales. This was the first oil rush. By the mid-1800s the Native Hawaiian population had shrunk from an estimated 200,000-300,000 to less than 24,000 due to major epidemics of small pox, influenza, and scarlet fever introduced by the traders, whalers, and missionaries. In the course of a few decades, American investors worked to privatize much of the land (The Great Māhele in 1848, The Alien Land Ownership Act, and the Kuleana Act in 1950). By 1890, 75% of all land in Hawai'i was owned by foreign businessmen, much of it turning into sugar cane and pineapple plantations. Three years later, Hawaiian Monarchy was overthrown and the U.S. annexed the kingdom. Laborers from Japan, China and Portugal, and later the Philippines and Korea, were brought in to work the plantations. By the turn of the 20th century, *Paradise of the Pacific*, Honolulu's first tourist magazine, regularly ran promotional images of Hawai'i as the center of a star with spokes emanating toward every major port to the east and the west, the "crossroads of the Pacific."

It was at the turn of the century that Matson Navigation Company was formed. The first ship was a three-masted schooner used to service the Spreckels and Haiku sugar operations. Over the course of the next few decades, William



Photo by Alison
Beste, *Oil Tanker*
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Matson expanded his enterprise considerably by becoming a major stock-holder in oil, sugar, rail, and shipping, cultivating the link between California gold and oil and Hawai'i's plantation system. This was the oil rush proper.

Matson helped develop railroad systems on both shores to ease the coming and going of goods. By 1901, he converted one of his ships, *The Enterprise*, to a coal-burning steamer. Seeing the profit in providing oil to the sugar mills, he began converting many of his ships to tankers and purchased storage tanks near the harbors. For the Coalinga Oil Transportation Co., he helped build 112 miles of pipeline through the hills of California to the port of Monterey, CA. In Hawai'i, he fought to keep his competitors at Standard Oil and Union Oil at bay but making sure he had good relations with the Dillinghams, who owned the docks and sheds on the Honolulu waterfront as well as the railroads. His Californian oil introduced the industrialized production of pineapple and sugar that could employ thousands of workers in planting and processing. Sugar (refined, unrefined, molasses) and pineapple (fresh and canned) charged back the other way.

By mid-century, Matson's research team sought to develop more streamlined transportation for the sugar. They rented time on IBM's mainframe computer in order to run logistical scenarios that computed the ideal frequency of ships, cargo bulk, number of workers, and cost of storing the sugar. As a result Matson implemented a system of multi-modal containerization that rivaled Malcolm McLean's U.S. eastern seaboard operation. Matson built 24-foot containers, which eventually became regularized into the now-global standard 20 feet (TEU). Containers did not have to be emptied at port; they could simply be transferred off the boat and directly onto the rails or trailer trucks, portending a worldwide transformation in the shipping industry.

As I sit at the end of Sand Island Access road waiting for the double sunset, I can see Matson boats filled with thousands of containers entering the port on a weekly basis. Hawai'i imports 12.7 million tons of cargo a year. Its largest import items besides oil (which is number one), are large manufacturing

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equipment and cars, coal, semiconductors, and metals. Its largest exports are scrap metal, and trash. Dole still ships some pineapple, and there are other local Hawai'i businesses shipping things to the continental US and beyond. Yet, many containers go back across the Pacific empty. The biggest ships in Matson's fleet now carry almost 3,000 TEUs. When they lose a few containers at sea, which happens more often than one would think, it is factored into the cost of shipping. This "efficiency" is supported by 5 million data centers and transfer stations, which compute GPS tracking information via the huge fiber optic cables laid down on the ocean floor as well as that shipped in for use throughout Oahu's urban grid. The containers themselves are heavy, lumbering blocks that need huge port cranes, ships, trains, distribution centers, factories, and big box stores. Yet most of this infrastructure is hidden in plain sight, and so it cultivates a perception that global consumption is seamless in its automation. This is only true if one calculates value and efficiency based on the price of oil and the cost of global labor as recorded by the stock market and logistics analyzers, not based on the value of the environment and working conditions for global citizens.

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In the center of the Pacific hub, where we are thousands of miles from other cities, yet intensely connected to them, it is increasingly obvious to me that we work for the global economy, not the other way around. I've met Matson crews at La Mariana's tiki bar the night their ship comes in. In the middle of their 90 day itineraries, they have 2 nights at port while their ship is being off-loaded and re-loaded so they can return to Long Beach for another 2 days at port before another 6 days at sea. They are in fairly good spirits on shore because they can drink and commune. Relative to other global shippers, Matson crews have it good. Because of the Jones Act, in place since 1920, Matson (along with Pasha, the other major US owned and operated shipper) has a monopoly in Hawai'i's ports. The crew's jobs are fairly protected from global competition. Many other ships flowing to and for the world's ports, especially those that fly under "flags of convenience" (nations with little to no labor regulation), operate with skeleton crews paid as little as \$1.20

an hour working 70–85 hours a week; sometimes they are not allowed off the ship at port, and many do not see families for years at a time.

As I contemplate all of this, I walk just down the road to visit the *Hōkūle'a*, now dry-docked at the Marine Education and Training Center also on Sand Island. Through the canoe's rigging, I can see the Matson cranes. This storied double-hulled canoe built by the Polynesian Voyaging Society in the mid-seventies proved the feasibility that Tahitians could navigate 2,500 miles with chickens, pigs, seedlings of coconuts, bamboo, taro, kukui trees, and sweet potatoes. The canoe is named after the star *Hōkūle'a*

(Arcturus). At its zenith, the star marks the latitude (19° 27' N) of Hōnaunau on the southwestern coast of the island of Hawai'i. Collecting knowledge about Hawaiian navigation referenced with other Polynesian navigation systems, Nainoa Thompson, one of the leading spokesmen for the Polynesian Voyaging Society, developed his understanding of ancient wayfinding in which the sky is divided into 32 "houses of the stars." With the *Hoku pa'a*, the "immovable star" (Polaris) as a guide, the voyagers traveled north tracking its rise in the sky. Other star houses, like *Hōkūle'a* were associated with islands residing at the latitude of the star's zenith. In Polynesian navigation, there are no cardinal points or maps with god's eye perspectives. The horizon and mast are used as markers to track winds, currents, ripples and interference patterns in the water, as well as the stars.

The *Hōkūle'a* just recently returned from a five year *Mālama Honua* ("to care for island earth") Worldwide Voyage, along with its sister canoe the *Hikianalia*. Canoeing across all of the major bodies of water in the world, the Polynesian Voyaging Society sought to mark the resurgence of Hawaiian culture, strengthen connections across the Pacific, and create a worldwide sustainability initiative that educates future generations of caretakers and wayfinders. It is a handsome vessel, but I leave it resting on its trailer and drive down to the beach to see if *Hoku pa'a* is visible yet.

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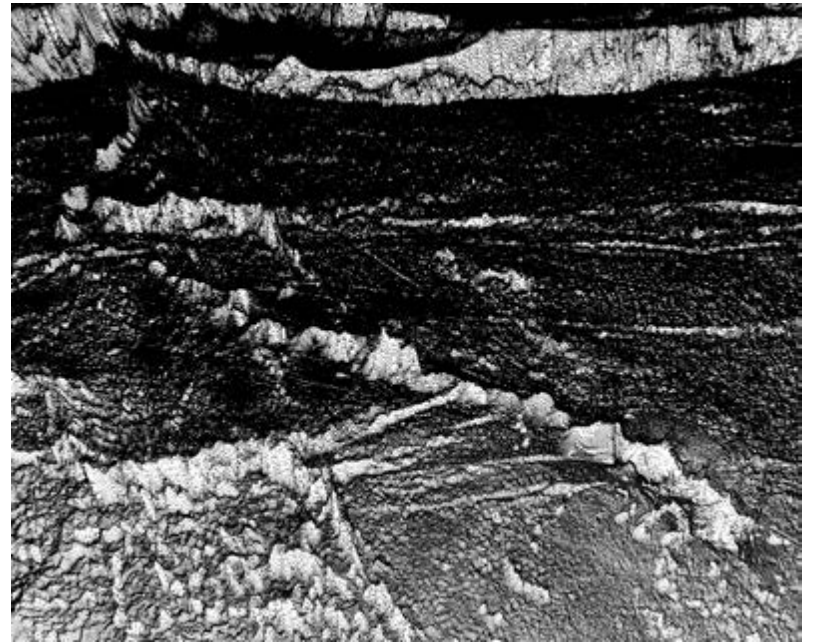
As I sit on the beach, I remember that I knew how to find the *Hōkūle'a* from architect and urbanist Sean Connelly, who is taking classes at the Marine Education and Training Center. Connelly's interest in Polynesian wayfinding has to do with his efforts and involvement in reviving the traditional *ahupua'a* land division and wetland systems on the islands. Canoe building methods involve integrated knowledge of weather, seasonal tracking, as well as lashing technology, useful both in seafaring and agriculture. Even if he never sails on the *Hikianalia* or *Hōkūle'a*, he is excited to be a part of reviving the embodied knowledge necessary to understand the complexity of ecosystems upon which the planet thrives. Having grown up in the *He'eia ahupua'a*, and now helping out his brother-in-law to rejuvenate the *lo'i* ponds, he is trying to figure out how contemporary systems of zoning and land development can shift toward more sustainable models, aspects of which resonate with the *ahupua'a* system. Refracted through contemporary discussions of local-global foodways through community, commoning, and guerrilla gardening, his interest lies in cultivating sustainable urbanized ecosystems. Connelly also uses GPS tracking, but to map annual patterns of currents, rainfall, and ocean temperature. Balancing his data points with wayfinding practices, he is beginning to build a picture of microclimates and conditions as they interlock with each other—a "global *ahupua'a*."

Connelly's wayfaring and agricultural knowledge, along with the artist collective *Eating in Public*, the Hawai'i SEED initiative, and other agriculture groups, mark the emergence of what I am calling a new archipelagic in Hawai'i. Archipelagic is thinking in a different kind of time and space. Perhaps it is related to Island time. But it is not just a slower pace for driving, working or communicating, it a perceptual adjustment to the pace of an island's emergence and transformation, a perceptual adjustment toward growing cycles, rainfall, mineral accumulation, and wind patterns. Archipelagic is paying attention to what and how the earth grows and then stewarding those aspects. This can help recalibrate human value systems. In this respect, archipelagic is a shift of perception away from Hawai'i as part of a commodity chain, to remembering Hawai'i as the longest volcanic archipelagic chain. This chain

runs from the Meiji Seamount, near the Aleutian Islands, to the bend near Daikakuji Seamount, all the way down to the current hotspot, which continues to build land on the island of Hawai'i and a rising seamount off its coast named Lō'ihi. All along the northern Pacific's seafloor, the Hawaiian archipelago records the slow movement of the oceanic plate that is largely imperceptible to human time. Island time is earth's time as it pushes outward and subducts back into the core. Islands are geological "rhizomes," endless growing points emerging from the liquid magma.

Within this archipelagic, the lumbering containers I see passing by now begin to look small and transitory. And as I look again toward the double sunset, I realize that it may be arriving, but will soon be leaving the horizon of earth and ocean history. I am humbled by that knowledge, and so I head back across the sand, knowing my footprints will be erased from the shore at the next high tide.

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Sean Connelly, Map
of the Hawai'ian
Archipelago