



Regions of Fire

Consider a mountain range 1,500 miles long, 500–600 miles wide, the summits rising 15,000 feet at its northwestern extremity and 30,000 feet at its southeastern end. More than 30 million years ago, through a vent in the earth's surface magma and molten rock poured quietly to the surface, hardened, and piled up layer upon layer to form those immense mountains, the highest, unsurpassed on earth.¹

When space turned around, the earth heated
When space turned over, the sky reversed
When the sun appeared standing in shadows
To cause light to make bright the moon,
When the Pleiades are small eyes in the night,

From the source in the slime was the earth formed
From the source in the dark was darkness formed
From the source in the night was night formed
From the depths of the darkness, darkness so deep
Darkness of day, darkness of night
Of night alone.²

So begins the epic song of genesis, the Hawaiian hymn of creation that celebrated the birth of the mountain range whose peaks, jutting up in the midst of Pacific waters, became a haven for life. In the night of the ocean's cold and silent depths, paired rocks, male and female, reproduced themselves during that chaotic and fecund period to form the Hawaiian Ridge, followed in succession by the births

of Kumulipo (“source-darkness”), male, and Po‘ele (“night-blackness”), female, tenuous polyps that gave rise to branching coral, grubs and worms, starfish, sea cucumbers, sea urchins, oysters and mussels, and seaweed and land plants swaying in liquid currents of water and air. The long night was pregnant with motion, with creativity.

Filling, filling full
 Filling, filling out
 Filling, filling up
 Until the earth is a brace holding firm the sky
 When space lifts through time in the night of Kumulipo
 It is yet night.³

Even as the Hawaiian Ridge imposed itself upon the sea, the ocean wore upon the peaks as rainfall, waves, and currents that gnawed at the land’s solidity. The mountain’s mass engaged the ocean’s kinetic energy. Thus locked in perpetual embrace are solid and liquid, stability and change. And their borders, their distinctions, dissolve in the mix, like molten streams of lava that become, upon cooling, fixed and solid. Land and sea together with their paired populations conspire in those acts of creation and correspondences: the “*coralline seaweed* living in the sea” and the “*bird’s nest fern* living on land”; the “*fragrant red seaweed* living in the sea” and the “*succulent mint* living on land”; the “*manauea* seaweed living in the sea” and the “*manauea* taro living on land.”⁴

It is a night gliding through the passage
 Of an opening; a stream of water is the food of plants
 It is the god who enters; not as a human does he enter
 Male for the narrow waters
 Female for the broad waters⁵

About 15–20 million years ago, ringing the summits and in places shielded from lava flows, grew corals, colonies of plankton-eating animals and their single-celled algal symbionts.⁶ The polyps of stony coral species secreted the calcareous

cups or hard exoskeleton, which formed the Islands' fringing reefs. For the colony to survive and thrive, sufficient sunlight had to reach the algae within them for photosynthesis to occur. The Indo-West Pacific area, stretching from Indonesia to Okinawa, was the birthplace of those corals, along with most of the Hawaiian marine biota. From that region, millions of microscopic plankton (from the Greek *planktos*, "wandering"), mainly as larvae, began drift voyages that lasted for months. Because of the speed of the ocean currents, the distances traveled, and the limited lifespans of larvae, many of the species that made it to the islands of Hawai'i were remigrants from other Pacific islands, such as Wake, Kalama (Johnston), the Line Islands, and the Hawaiian Ridge both at and below sea level. Some coral larvae, for instance, can survive 45–212 days, and molluscan larvae 200–300 days. Estimates of drift time to Hawai'i from Kalama range from 30 to 50 days, and from Wake 187 days,⁷ suggesting the need for island hopping for many of Hawai'i's marine taxa.

From coral anchors grew more complex algae—seaweeds—carried as plankton near the water's surface for the sunlight necessary for photosynthesis. Hawaiian waters are finicky, proving too warm for certain species of seaweeds, notably kelps, and other cold-water marine biota, and too cool for others, which are stunted in Hawai'i as compared with their growths in warmer parts of the Pacific. The basal trophic seaweeds supported herbivores, including mollusks like snails, clams, and octopuses, and vertebrates like the small inshore fishes upon which the larger pelagic fishes fed. Seaweeds, thereby, filled the ecological niche occupied by their terrestrial green plant counterparts as food for herbivores, which are, in turn, consumed by carnivorous predators in the water and on the land.

The likely sequence of migration from the Indo-West Pacific area and settlement in Hawai'i involved corals, then marine algae, then mollusks and fishes, although these movements were also simultaneous and recurrent once the foundations had been laid. Larvae of small tropical fishes, sustained by feeding upon tinier plankton en route, survived for several months. Other larvae, hitching rides on ocean debris, whales, turtles, and large fishes, arrived and made homes in Hawaiian waters over the course of millions of years. That ability of larvae to travel, along with the constant flows and exchanges facilitated by the movements of the ocean and its populations, produced greater continuities and less speciation among ma-

rine life in the Pacific than the endemism more characteristic of the Hawaiian Islands' terrestrial biota. Life on the land, accordingly, proved more disruptive than life in the sea. That fact of relative oceanic homogeneity is particularly remarkable because of Hawai'i's near isolation from other havens of sea life, a feature that would ordinarily favor endemism, and because terrestrial forms had much less time for speciation than marine forms.⁸

The conceit of the Kumulipo, the Hawaiian creation song, is that although recounting life's formation in its entirety the poem's core is about humans and the stages of human growth—the gestation, birth, and maturation of a child. Thus, in Chant One, the fecund wash of sea creatures conjures images of an infant world, and the sliding and twisting of sea and land plants suggest the halting gestures of a newborn baby. The fishes that appear in Chant Two, including an elegant child born in the shape of a brilliantly colored fish, the wrasse (*hilu*), allude to babyhood and the first solid food fed to children that influenced their futures.

Born a child of the gentle wrasse that swims
Is the *hilu* whose tail fin marks
The renown of Pō-uliuli⁹

The *hilu* fish, among the most beautiful in Hawaiian waters, ensured the good looks of the child, and the red-eyed *kole* fish gave the child a rosy skin color. The oceans that circled the Islands were the playground for active children, like the brightly colored *opule* fish (“the sea is thick with them”) that surfaced for gulps of air and quickly turned to dive and disappear under the sea. The landed counterparts of the ocean's depths were the verdant, secluded valleys, home of the gods and the children of chiefs, where they could be reared away from commoners to preserve their high rank and the taboo (*kapu*) that precluded contact with them.¹⁰ Born swimming were the sea creatures, including the porpoise, shark, goatfish, crab, octopus, stingray, bonito and albacore, mackerel, mullet, *ono*, *moi*, *weke*, and *ulua*.

Black as night the opaque sea,
Coral sea in the dark cliffs of Paliuli,

Land that slid away from them,
 Dark shore passing into night—
 It is yet night.¹¹

In the Kumulipo—this pairing of sea and land, parent and offspring—light dawns at the birth of gods and humans, whose genealogies constitute the final eight sections of this creation song. That closing affirmed the connections of present with past and of self with society, and it pointed to a future of recurrence and design. As was pointed out by ethnographer Martha W. Beckwith, who was born in New England but grew up in Hawai‘i, the poem was composed for and dedicated to the birth of a child, firstborn son and heir to a powerful chief on the island of Hawai‘i. The cosmos and its origin simply offer analogies to the phases of human development from conception to birth. And as a birth chant and genealogy, the focus is around the celebrated child and the processes of reproduction and the cycles of life.¹² The hymn, in particular, was the name song (*mele inoa*) for Lono-ika-makahiki or Ka-‘Ī-i-mamao, ancestral figure of the agricultural year and as such progenitor and sustainer of life.¹³

By contrast, the Islands’ history long predated the arrival of humans, and its tale of continuities and changes was told in the ocean’s washes, the earth’s engagements with the sea and then the air, and the life that traveled on those liquid currents to colonize the Hawaiian Ridge. Seaborne traffic was longstanding and continuous, as is underscored by the 285 species of inshore fishes common to Hawai‘i and Kalama of the latter’s 300 total species, although separated by some 500 miles of open sea. At the same time, oceanic discontinuity formed a part of the story in that migrants were not uniformly successful in traversing distances or adapting to new environments. Thus, although there are about 2,500 species of bony fishes in the Philippines, in the Indo-West Pacific triangle of origin and dispersal there are some 940 in adjacent Micronesia but only about 530 in the distant Hawaiian Islands.¹⁴ Apparently, only the hardy and lucky survived the diaspora.

Attenuation among the seaborne traffic paralleled the filtering experienced by the Islands’ flora and fauna. Although there are some one hundred palm genera on the islands of the southwest Pacific, there is only one native palm genus in Hawai‘i.

Among animals the break is even more marked. There are no native amphibians or nonmarine reptiles and only two native species of bats. Buoyant seeds, branches, and objects of human manufacture, with occasional passengers, floated on ocean currents, other lifeforms took flight on the wings of migratory birds and bats, and some butterflies and dragonflies flew from other Pacific islands and the continental rim of Asia and America. Invertebrates and other organisms were borne from the Asian continent to the Hawaiian Archipelago on winds whipped by storms and the jet stream with gusts of more than 100 miles per hour. Like its marine biota, Hawai'i's terrestrial plants and animals originated mainly in Southeast Asia and the southwest Pacific region.¹⁵

ISLANDS AND CONTINENTS

“Oceanic islands,” a well-known professor of geology began, “are small, young, isolated, simple, and subjected to a limited range of environmental factors.” Accordingly scientists, famously Charles Darwin in the Galápagos Islands, have found them to be ideal research laboratories because of their finite variables and controlled conditions. By contrast, this geologist continued, “consider the continents. They are aggregates of every type of rock produced for billions of years, and most of their history is obscure. . . . The whole is obscured by every type of soil and by plants. Across the continents migrate animals and plants in constant flux. One can have little reason to hope that nature has conducted many controlled experiments on the continents.”¹⁶ Those scientific sentiments—those attributions of simplicity and complexity, stasis and movement, to islands and continents—are neither unique nor confined to that branch of human knowledge. Unlike some Pacific islands, which appear solitary, moored in the apparent monotony of a vast and vacant sea, geology flourishes in a teeming and fecund pond of Western intellectual life from which emerges a common sense about continents and islands.

Yet even geology points to the abundance of islands, which are, geologically speaking, mostly the tips of volcanoes that rise above the water's surface, along with the more than two thousand identified seamounts, which are mainly subma-

—islands.
[FIGURE]
 [Place Figure
 1, isolated
 peaks in a
 vast sea,
 about here.]



FIGURE 1. Isolated peak in a vast sea, seemingly. Yann Arthus-Bertrand. Courtesy of Corbis Corporation.

rine volcanoes hidden from sea-level view. In the Pacific where they predominate, approximately ten thousand volcanoes rise more than a kilometer from the ocean floor, and one hundred thousand more reach less than a kilometer. In fact, volcanoes are a prominent feature of the Pacific Basin sea floor, and their extrusions have been far more intense in volume and scale than their continental counterparts, perhaps as much as one hundred times greater.¹⁷ Further, rather than their isolation, Pacific volcanoes, both above (islands) and below (seamounts) the water's surface, tend to group into collections throughout and in certain parts of the basin.¹⁸ Fault lines along which volcanism occurs have determined that pattern and distribution.

Volcanism is associated with some of the oldest known rocks on earth, and its structural conditions have and continue to modify the planet's surfaces both above and beneath the seas, pushing up mountain ranges and tearing apart great rifts that

—distribution.
[MAP] [Place
Map 1, moun-
tain ranges
shape the land-
scape beneath
the ocean's sur-
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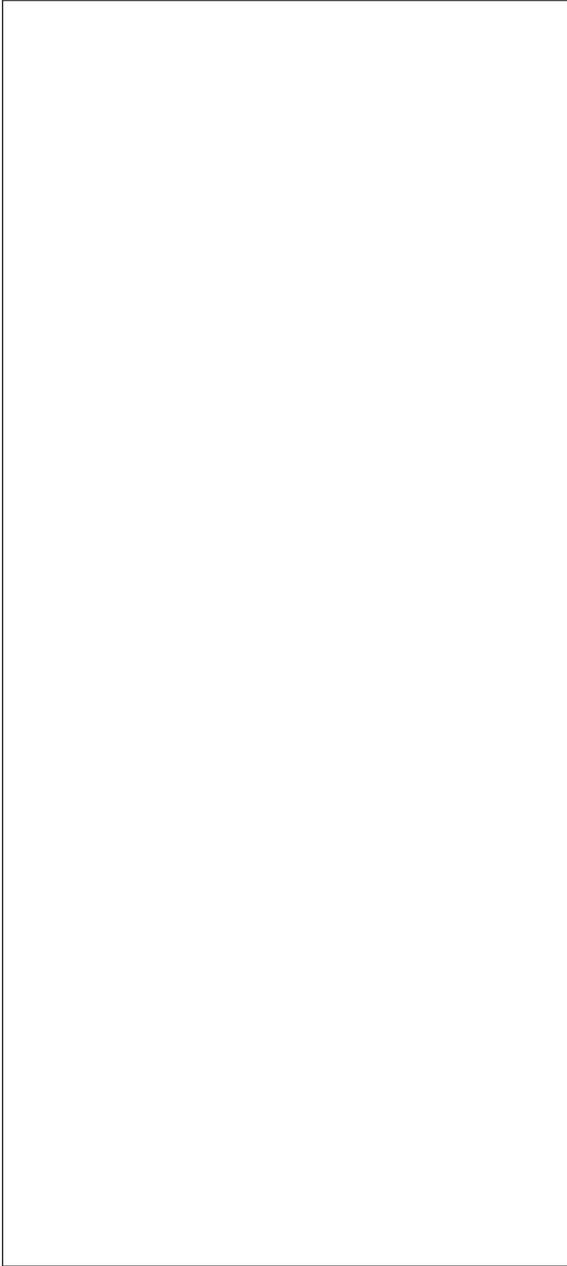
MAP 1. Numerous peaks and vast mountain ranges shape the landscape beneath the ocean's surface.

might extend for thousands of miles along the earth's crust. A spectacular example is the "ring of fire" that encircles the Pacific Basin, stretching from New Zealand northward to Melanesia, the Philippines, Japan, Kamchatka, the Aleutian Islands, and Alaska and southward along the Americas' west coast down to Chile. About three-fourths of the earth's active volcanoes lie within the Pacific ring and its outliers, and the study of volcanoes, earthquakes, and the ocean floor during the 1960s led to the new science of plate tectonics.¹⁹

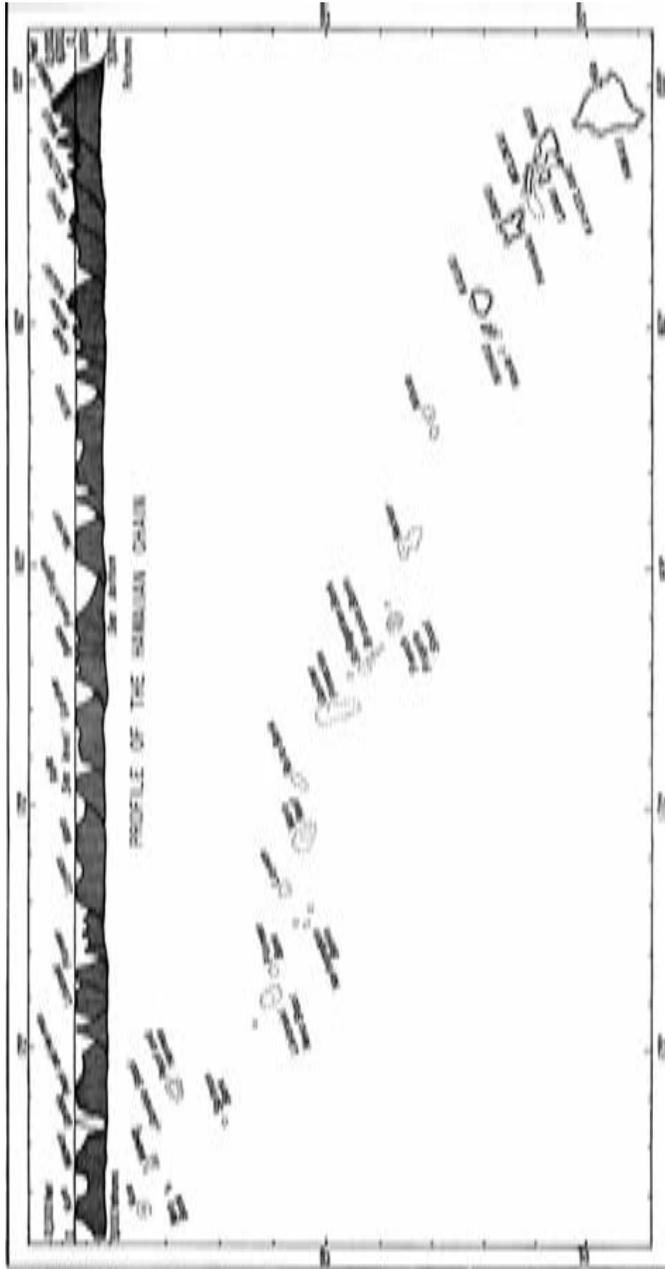
The unstable ground where volcanoes and earthquakes predominate, the theory of plate tectonics hypothesizes, marks the edges of plates that constitute the earth's oceanic and continental mantle. Magma ascends to the surface from the collisions and cracks of plate edges as volcanic eruptions, earthquakes result from the sliding caused by plate movements along fault lines, and the plates, though rigid, are in constant motion across the globe's surface, like islands floating on a molten sea. Viewed from that perspective, continents are not marked by the water's edge but form continuous landmasses, albeit of different densities, with vast portions of the ocean's floor, and plates that might begin mid-ocean demarcate the planet's mantle.²⁰ The Eurasian plate extends from Japan westward across Asia and Europe to the mid-Atlantic ridge, Africa sits on a plate with sides in the Atlantic and Indian oceans, and the Australian-Indian plate unites the Indian subcontinent with the Australian continent. A map of the globe from the projections of plate tectonics, accordingly, presents a picture at odds with the familiar contours of land and sea, continents and islands.

Volcanoes that erupt along the plate margins deposit magma that enables plate expansion, and where two plates meet, due in part to that spreading, one's edge slides beneath the other's in a process called subduction. Volcanism and subduction are related in that the former requires the latter to be at roughly the same rate, because the earth cannot accommodate only growth. In that way, volcanoes are a key to the main processes affecting the earth's mantle, the generation and destruction of its plates. The study of volcanoes in Hawai'i prompted a break from continental geology, which dominated the science and postulated a thin, flexible shell that contracted through heat loss, accounting for folding as demonstrated in mountains such as the Appalachians and Andes.²¹ Instead, the vast volcanic sea bottoms

islands.
[MAP] [Place
Map 2,
An/other view
of the earth's
landmasses and
their distinc-
tions, about
here.]



MAP 2. One view of the earth's landmasses and their distinctions. Redrawn from a U.S. Geological Survey map.



MAP 3. Profile and aerial views of the Hawaiian Ridge. E. H. Bryan Jr. Courtesy of Bishop Museum.

suggested a thick mantle, bordered by fracture lines and edges that settled, scraped, and collided against each other, producing earthquakes, volcanic eruptions, and massive buckling and uplifts. The Hawaiian hot spot in the middle of the Pacific plate, which accounted for the mountains called the Hawaiian Ridge, indicated the speed and direction of that plate's movement.²²

Although only eight islands—Ni'ihau, Kaua'i, O'ahu, Moloka'i, Lana'i, Maui, Kaho'olawe, and Hawai'i—make up more than 99 percent of the Hawaiian chain's emergent land area, they represent a mere fraction of the archipelago's entirety when seen from the ocean's bottom.

Scientists believe that the Hawaiian hot spot began at least 75–80 million years ago near the Aleutian Trench off Alaska, moved southward creating the Emperor Seamount Chain, and turned toward the east to form the Hawaiian Ridge. The oldest of the Hawaiian chain and its northwest extremity, Kure, is about 30 million years old, and its youngest, the Big Island of Hawai'i, is still in formation. Indicative of that work in progress, to the Big Island's southeast is Lō'ihi, a submarine volcano that will eventually form another peak on the island. Hawaiians accordingly call the northwest islands, banks, and reefs the “*kupuna* [ancestor] islands,” indicating origins, genealogy, and kinship.

The fates of islands and continents, the sea and the land, are more related than the customary view at sea or shore level. Beneath the waters that cover most of the earth's surface await connections to be made by discerning eyes. After all, as the founding director of the Hawaiian Volcano Observatory declared, “Continental life came out of the sea, and original life comes continually from the earth core.”²³

CREATION SONG

To Hawaiians, poetry (*mele*), a complex, integrated system of rhythm, melody, and movement, is inseparable from life and its intricacies.²⁴ Like life, poetry consists of a time pattern and structure and relies upon the engagement and imagination of its community of listeners. It forms relationships, shares secrets, and is passed from one generation to the next, intact and altered. It is old and new, constant and mod-

—bottom.
[MAP] [Place
Map 3, Profile
and aerial
views of the
Hawaiian
Ridge, about
here.]

ulated. Words are poetry's brushstrokes, painting exquisite imageries which, with their multiple meanings, conceal as well as reveal their beauties. *Haku mele* ("to weave a song") refers to the sorting out, selection, and stitching of bird feathers of varying quality and color, which oscillates depending upon the light and perspective, for the cloaks (*ahu ʻula*) and standards (*kāhili*) of chiefs. The work requires great skill, artistry, and discipline.²⁵

Some poetry traces descent and, with it, memberships and privileges, placing individuals within lineages and with ancestors, the environment, and all things in the universe. These *mele* are *koʻihonua*—genealogical poems that are, at core, creation songs. As such, they are origin stories, explaining the beginnings of the sky and land, gods and humans, and plants and animals along with their relationships both lateral and vertical, as peers and as superiors-inferiors.²⁶ The Kumulipo is perhaps the best known of those historical epics. Composed long before the arrival of Europeans to the Islands, the Kumulipo is perhaps the oldest genealogy and provides an opening to a truly Hawaiian concept of origins. "In the conception and birth of the chief is the analogy of the conception and birth of the universe," explains Hawaiian scholar Rubellite Kawena Johnson. "As man is born into the universe, so is the universe reborn in him; he is the intelligent survivor of cosmic creation in the highest form of organic life on earth."²⁷

Queen Liliʻuokalani, Hawaiʻi's last reigning monarch, claimed the Kumulipo as her family's genealogy, connecting her back to the first light, the first spark of life in the cosmos. After having been imprisoned in her own land by foreigners who had deposed her, the queen translated into English and published the epic poem in 1897. Eight years earlier, her brother and predecessor, King Kalākaua, had published it in the Hawaiian language.²⁸ Like the family it traces, the Kumulipo is an aggregation of name chants composed and revised by "masters of song" over time to incorporate those joining the lineage and to enhance the prestige and secure the power of the persons being celebrated.²⁹

Recitation of a completed chant requires careful and skillful utterance because a wrong breath taken, a hesitation, a mistake, might bode ill for the individual or family being praised. Samuel Manaiakalani Kamakau, a nineteenth-century Hawai-

ian scholar, described the exacting performance in which “the voice took a tone almost on one note (*kamakua*), and each word was enunciated distinctly. There was a vibration (*kuolo*) in the chanting together with a guttural sound (*kaohi*) in the throat and a gurgling (*alala*) in the voice box. The voice was to be brought out with strength (*haanou*) and so held in control (*kohi*) that every word was clear.”³⁰ The hush occasioned by the recitation of the Kumulipo must have matched the silence that marked the birth of the universe.

Lili‘uokalani’s translation of creation’s song into the tongue of her usurpers was fitting because her removal by English-speaking foreigners marked genealogy’s end, at least of the ruling chiefs. There would no longer be high chiefs for whom *mele inoa* (praise songs) could be composed and sung. Instead, in 1820, with the coming of Christian missionaries from New England, *‘oli* (religious songs) were suppressed and *himeni* (hymns) were encouraged. Other kinds of music, called “Hawaiian,” played mainly on imported instruments, would take hold in the Islands and make their way back to their originating sources, the continents marked as America, Europe, Africa, and Asia and other islands in other seas. The deposed queen would herself become an accomplished composer of music that blended native with alien elements. And despite the monarchy’s end, Hawaiians continued to praise past chiefs in *mele inoa* and voice origin poems such as the Kumulipo, to provide themselves with a clear sense of history, identity, and community. Like the poetic process, the death of the old gave way to the birth of the new.

In fact, Lili‘uokalani’s family, the Kalākauas, as master composers of *mele* and *‘oli* established themselves as sovereigns of the existing order, and by assimilating European forms of music and blending the old with the new they affirmed their standing as peers among Europeans. Lili‘uokalani’s translation of the Kumulipo substantiated her claim to sovereignty insofar as its genealogy proved her descent from and kinship with Hawai‘i’s very creation. Her usurpers, fraudulent “natives,” could not legitimately claim a similar estate, having no creation song that tied them to the gods and ancestors, the land and the sea.³¹ Devoid of rhythm, beauty, and imagination, in this instance of dominion, they were silent and without song.

As songs, religious prayers, praise poems to gods and chiefs, and genealogies and



FIGURE 2. Louis Choris, *Male Dancers of the Sandwich Islands* (1822). Courtesy of Bishop Museum.

historical narratives animated the past for the present; poetry, as movement, was the hula, which as a poetic form (*mele hula*) highlighted words and their nuances and shades of meanings. Before the arrival of whites, experts taught students in hula schools (*halau hula*), which were often subsidized by chiefs for whom *mele inoa* with hidden designs (*kaona*) were composed and performed. Once conceived, the *mele hula* was an offspring of the school's patron and lineage, and each song/dance and its melodic contour, choreography, and instrumentation bore the traits of that family. The aesthetic and intellectual challenges of those distinctions heightened creativity among artists and interest among their audiences. After European contact, dance translated Hawaiian literature for undiscerning linguistic and cultural tourists, and it thus came to resemble simple pantomime rather than the complex poetic expression it was. The kingdom's end and decline in use of the Hawaiian lan-

guage hastened the transformation of the *mele hula* and, with it, the power of words in the poetics of dance.³²

PELE AND HI‘IAKA

A patron of the hula is Hi‘iaka, the younger and much beloved sister of Pele, goddess of volcanoes.³³ Prayer chants (*mele pule*) named for Hi‘iaka were designed to honor her. As a young girl, Hi‘iaka first learned to dance watching her close friend Hōpoe perform the hula by the sea at Nanahuki in the Puna district of Hawai‘i. For Hōpoe, Hi‘iaka planted the groves of lehua trees with their red and white blossoms, which lent *hōpoe* its meaning as “fully developed” or “well-rounded,” as a lehua flower. Hi‘iaka performed the hula when Pele asked her sisters to entertain her with dance. All of them declined except Hi‘iaka, who had gathered lehua flowers for wreaths for her sisters. “Yes, I have a song,” Hi‘iaka responded to Pele’s request, and sang a simple chant, that of a young girl:

Puna is dancing in the breeze
 The hala groves at Kea‘au dance
 Ha‘ena and Hopoe dance
 The woman dances
 (She) dances at the sea of Nanahuki
 Dancing is delightfully pleasing
 At the sea of Nanahuki

The imagery of wind blowing over the grasslands of Puna suggests movement, and waves beating against the sea cliffs rhythmically conjure the sound of an *ipu* (gourd drum). Swaying, swirling, and swinging like a pendulum, all referenced in the chant, the line of dancers forms a string of islands.³⁴ Delighted with the performance, Pele urged Hi‘iaka for more, which prompted:

The voice of Puna resounds
 The voice of the sea is carried.

—dance.
 [FIGURE]
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 2, *Male
 Dancers of the
 Sandwich Is-
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While the lehua blossoms are being scattered.
 Look towards the sea of Hopoe
 The dancing woman is below, towards Nanahuki
 Dancing is delightfully pleasing
 At the sea of Nanahuki.³⁵

“The hula associated with these deified sisters [Pele and Hi‘iaka],” a Pele family member and *kumu hula* (hula teacher) wrote, is “pure original movement and pure sound.”³⁶

The Pele story is probably indigenous to Hawai‘i and is one of the most elaborate throughout Polynesia.³⁷ The account includes a biography of the goddess—her genealogy and birth, migration with family members to Hawai‘i, search for a suitable home for them in the Islands, and torrid love affairs and epic contests with rivals. Associated with Pele are the worship of volcano deities, the development of the hula, and various geological formations throughout the Islands. In fact, Pele’s most common chant name is Pele-honua-mea, or “Pele of the sacred earth.”³⁸ Whether as a body form in the fire of lava or a spirit in its red glow, Pele is associated with both creation and destruction in the formation of land and the fire that consumed and buried forests and all that stood in her way.

“According to Hawaiian myth,” the principal recorder of the Pele story notes, “Pele, the volcanic fire-queen and the chief architect of the Hawaiian group was a foreigner, born in the mystical land of Kuai-he-lani, a land not rooted and anchored to one spot, but that floated free.” That ocean, like land, was covered with lushness, “a vision to warm the imagination,” and connoted Java, the Asiatic cradle of the Polynesian peoples.³⁹ With the aid of her brother, a skilled navigator, Pele and her companions sailed from “my kindred beloved” to “an unknown land below the horizon” and made landfall at the northwest extremity of the Hawaiian chain and then at Ni‘ihau. Like the moving hot spots explained by plate tectonics, Pele’s workings began on the oldest and continued on the newest of the Hawaiian chain, where she dwells today. Her search for a suitable home took the expedition from island to island, where she left her mark. These were craters—like Lē‘ahi (Diamond Head) on O‘ahu and Haleakalā on Maui—which Pele excavated with a di-

vining rod and digging stick to find land that would shelter the group and be impervious to water.⁴⁰ Transformed into a goddess on Maui after a fierce battle with her older sister and implacable enemy, the ocean, Pele moved on to Hawai‘i, where in the caldron at Kīlauea she settled to become “the Woman who dwells in the pit.”⁴¹

Pele and her family members were a mixed group of spirit and human, powerful and vulnerable. Once a human, Pele became a deity but retained a measure of humanity. Her sister, Hi‘iaka, likewise, was human and yet exercised the powers of the heavens (sun, moon, stars, wind, rain, thunder, lightning) from the spiritual power (*mana*) given to her by Pele. The sisters possessed human-like desires and hunger, loves and hatreds, but wielded nonhuman-like powers that violated the limits imposed by time and space. “Pele, on her human side at least,” the compiler of her story explained, “was dependent for support and physical comfort upon the fruits of the earth and the climatic conditions that made up her environment.” Yet in the account, Pele straddles “that border line which separates the human from the superhuman, but for the most part occupy the region to the other side of that line, the region into which if men and women of this work-a-day world pass they find themselves uncertain whether the beings with whom they converse are bodied like themselves or made up of some insubstantial essence and liable to dissolve and vanish at the touch.”⁴²

Such a blurring of demarcations was unexceptional to Hawaiians. *Kūpuna*, thus, meant both “ancestor” and “grandparent,” indicating the smooth transition from the living to the dead. Upon death, *kūpuna* become *‘aumākua*, spiritual bodies and natural forms of the sky, ocean, and earth such as birds and fishes, wind and rain.⁴³ Pele and Hi‘iaka were female *‘aumākua* of families, and their male counterparts like Ku and Lono were similarly associated with volcanism—clouds and rain (Lono) and lightning and thunder (Ku). Family members called out to their *‘aumākua* for guidance and help, and these calls were in the form of *mele*. Most Pele chants come from the Pele-Hi‘iaka cycle, “the fountain-head of Hawaiian myth” and “the matrix from which the unwritten literature of Hawaii drew its life-blood.”⁴⁴

The delicious taste left by the Pele-Hi‘iaka account involves a great romance and love story but also a contest of wills and a sweet and unexpected surprise ending. The story begins when Pele attends a hula performance in the form of a beau-

tiful woman and wins the devotion of Lohi'au, a young chief on the island of Kaua'i. From her home on Hawai'i, Pele entrusts her devoted and innocent sister, Hi'iaka, with the task of going to Kaua'i and bringing Lohi'au to her. With her women companions, Hi'iaka braves evil spirits, monsters, and nature's obstacles to learn, upon her arrival on Kaua'i, that Lohi'au has committed suicide over Pele's sudden disappearance after their night of love making. Using her powers, Hi'iaka restores Lohi'au to life, and together they journey back to Hawai'i where an impatient Pele has assumed the worse, that Hi'iaka has betrayed her trust. Acting on impulse, Pele reduces Hi'iaka's beloved lehua forests to ashes and turns her dear friend Hōpoe to stone. Having been faithful to her sister, Hi'iaka defies her by embracing Lohi'au in full view of Pele, who promptly engulfs the young lovers in flames. Lohi'au is consumed but Hi'iaka, with a divine body, escapes to restore Lohi'au to life once again and wrap him in her embrace.

In that reunion, the storyteller concludes, "two human streams of characters so different, in defiance of powerful influences that had long held them apart, were, at length, turned into one channel—that of the man, not wholly earthly, but leavened with the possibility of vast spiritual attainment . . . ; that of the woman, self-reliant, resourceful, yet acutely in need of affection; human and practical, yet feeling after the divine." And as metaphor, the story revealed that "the old order," the state in which the will of Pele had ruled almost supreme, had passed away, and in its place was the order of the younger, that of humans who were fast peopling the land that was once Pele's alone "in the making." In this love story, thus, "a new spirit has leavened the whole mass, a spirit of dissent from the supreme selfishness of the Vulcan goddess, and the foremost dissident of them all is the obedient little sister who was first in her devotion to Pele, the warm-hearted girl whom we still love to call Hi'iaka-i-ka-poli-o-Pele [Hi'iaka in the bosom of Pele]."⁴⁵

Impressive, indeed, were Pele and her family of volcanic deities who lived high above the sea to keep the sacred fires burning, who shook the earth and caused the land to quake, who darkened the skies with smoke and clouds from which rumbled thunder and flashed lightning, and who exploded in eruptions and poured forth in fountains and rivers of fire, stone, and molten rock that cascaded into the ocean, causing it to boil and steam. But they were also knowable to the Hawaiians,

some of whom held them to be their ancestors, who, like them, migrated from lands to the south and became indigenous to the islands they made and called Hawai'i. A version of Pele's migration remembers Hi'iaka making the long voyage as a fertilized egg carried by her older sister wrapped in her skirt as it incubated and, upon arrival, hatching in Hawai'i.⁴⁶ Unlike the immigrant Pele and like the colorful, tropical reef fishes who drifted the Pacific as larvae, thus, the gentle spirit of the hula was, by birth, Hawaiian.

FIRE AND BRIMSTONE

To some foreigners, Pele and her family were superstitions to be exposed and purged. One of the first non-Hawaiians to write about Pele's manifestations was William Ellis, an English missionary who visited the Islands in 1822 and 1823. The hula, Ellis lamented, attracted large audiences. "The beach was crowded with spectators," he wrote, "and the exhibition kept up with great spirit." To the rhythms of drums, two nine-year-old children, a boy and girl, danced "in honor of some ancient of Hawaii," dressed "in the dancing costume of the country, with garlands of flowers on their heads, wreaths around their necks, bracelets on their wrists, and buskins on their ankles." Ignorant that Pele and her clan were the principal patrons of the hula and that the dance linked the people with their ancestors, Ellis and his company proposed substitution of "religious truths" for the "mirth" occasioned by the hula and without apology preached to the multitude at the next hula performance. In his sermon, Ellis, quoting from scripture, urged the people to "turn from these vanities unto the living God, which made heaven and earth, and the sea, and all things that are therein."⁴⁷

Ellis's account of his visit to Pele's domain appears crafted to illustrate the chaos and turbulence that accompanied "idolatry." Barren lava beds, he recorded, greeted the expedition as it headed for the caldron.

We . . . traveled about a mile across a rugged bed of lava, which had evidently been ejected from a volcano more recently than the vast tracts of the same substance by

which it was surrounded. It also appeared to have been torn to pieces, and tossed up in the most confused manner, by some violent convulsion of the earth, at the time it was in a semifluid state. . . . in many places, it seemed as if the surface of the lava had become hard, while a few inches underneath it had remained semifluid, and in that state had been broken up, and left in its present confused and irregular form.⁴⁸

To Hawaiians, the missionary speculated, a volcanic eruption must have presented a “spectacle awfully sublime and terrific,” and “with what consternation and horror must it have filled the affrighted inhabitants of the surrounding villages, as they beheld its irresistible and devastating course, impressed as they were with the belief, that Pele, the goddess whom they had offended, had left her lightning, earthquake, and liquid fire, the instruments of her power abode in the volcano, and was in person visiting them with thunder, and vengeance.”⁴⁹ In fact, Hawaiians spoke with and prayed to Pele and gave her their respect and devotion, as was practiced by the people at Ka‘ū as late as the 1890s, who prayed on the beach in the early morning before dawn “The Coming of Pele” to celebrate the start of the new day:

From Kahiki came the woman Pele,
from the land of Polapola,
from the rising reddish mist of Kāne,
from clouds blazing in the sky, horizon clouds.

Restless desire for Hawai‘i seized the woman Pele.
Ready-carved was the canoe, Honua-i-Ākea,
your own canoe, O Ka-moho-ali‘i,
for sailing to distant lands.
Well-lashed and equipped, the canoe of high gods,
your canoe, Sacred-hewer-of-the-land,
Stood ready to sail with the ocean current.

The prayer continues the account of Pele’s voyage in the company of “royal companions” and “gods” and concludes:

—form.
[FIGURE]
[Place Figure
3, “The Sacri-
fice to the
Goddess Pele,”
about here.]

Jets of lava gushed from Kahiki.
 Pele hurled her lightning,
 vomit of flame, outpouring of lava was the woman's farewell.⁵⁰

Between descriptions of volcanic devastation, Ellis inserted scenes of battles waged among “supporters of idolatry,” women warriors, the abolition of the priesthood and “idolatry,” Captain Cook's death, human sacrifices, war and warfare, and funerals and mourning. When a chief died, Ellis charged, “the whole neighbourhood exhibited a scene of confusion, wickedness, and cruelty, seldom witnessed even in the most barbarous society. The people ran to and fro without their clothes, appearing and acting more like demons than human beings; every vice was practised, and almost every species of crime perpetrated. Houses were burnt, property plundered, even murder sometimes committed, and the gratification of every base and savage feeling sought without restraint.”⁵¹ In missionary hands, in fact, the volcano becomes a site of contest, both literal and metaphorical, between Christianity and truth, idolatry and superstition.⁵²

In response to his guide's fear that the missionaries might offend Pele and cause her to erupt, Ellis assured him that “we did not apprehend any danger from the gods; that we knew there were none; and should certainly visit the volcano.” With that confidence, the band proceeded toward Kīlauea, which, in the distance, issued columns of “smoke and vapour.” Nearing the crater, Ellis and his companions endured dense smoke and heat from “subterranean fires” that “nearly scorched” their legs, hands, and faces. Kīlauea, Ellis described, was “a vast plain . . . fifteen or sixteen miles in circumference, and sunk from 200 to 400 feet below its original level. The surface of this plain was uneven, and strewed over with large stones and volcanic rocks, and in the centre of it was the great crater.” Descending the steep rim of the crater, Ellis stood transfixed peering into the volcano's depths. The view, he wrote, was “sublime and even appalling. . . . ‘We stopped and trembled.’ Astonishment and awe for some moments rendered us mute, and, like statues, we stood fixed to the spot, with our eyes riveted on the abyss below.”⁵³

Before the group “yawned an immense gulf, in the form of a crescent, about two miles in length, from north-east to south-west, nearly a mile in width, and

—below.
 [FIGURE]
 [Place Figure 4,
 William Ellis
 engraving of
 Kīlauea, about
 here.]

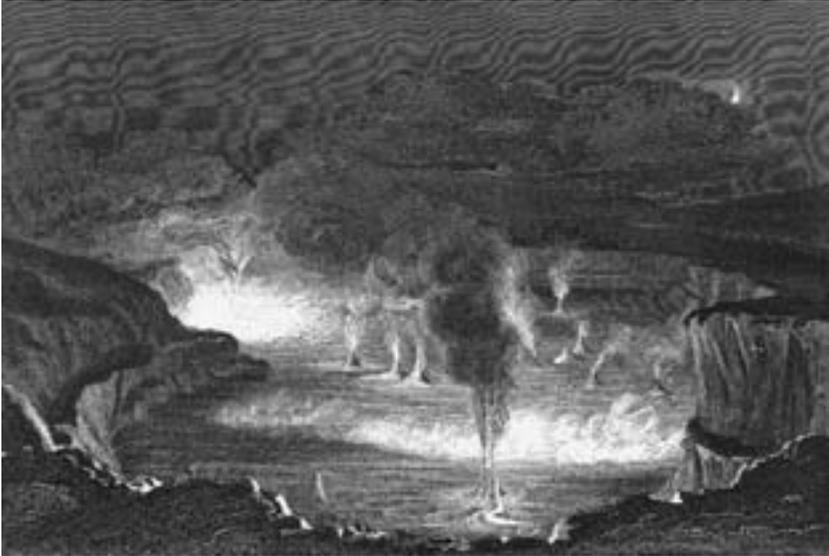


FIGURE 4. Engraving of Kilauea as sketched by William Ellis in 1823, *Polynesian Researches*, volume 4 (1829). Courtesy of Bishop Museum.

apparently 800 feet deep.” Within, lava filled the bottom, creating “one vast flood of burning matter, in a state of terrific ebullition, rolling to and fro its ‘fiery surge’ and flaming billows.” Islands dotted “the burning lake,” and Ellis counted twenty-two spouts, which “vomited from their ignited mouths streams of lava, which rolled in blazing torrents down their black indented sides into the boiling mass below.” Besides the churning lava on the crater’s surface, “dense columns of vapour and smoke” rose to impressive heights, and the whole presented “an immense volcanic panorama, the effect of which was greatly augmented by the constant roaring of the vast furnaces below.”⁵⁴

To Christian eyes, the “immense volcanic panorama” presented a “spectacle” that was hard not to recognize. “After the first feelings of astonishment had subsided,” Ellis testified, “we remained a considerable time contemplating a scene, which it is impossible to describe, and which filled us with wonder and admiration

at the almost overwhelming manifestation it affords of the power of that dread Being who created the world, and who has declared that by fire he will one day destroy it.”⁵⁵ Yet unexpectedly, near those “regions of fire” and scenes of hell and death everlasting, Ellis and his companions found pools of sweet, fresh water that had formed from the steam from Pele’s vents, steam that never touches a cliff, the face of Kā-moho-ali‘i, Pele’s eldest brother, and that was condensed by the cool breezes that descended the slopes from the snow of Poli‘ahu, Pele’s rival, whose white mantle capped the summits of Mauna Kea and Mauna Loa. And ringing those pools grew “flags, rushes, and tall grass” that “flourished luxuriantly.”⁵⁶ Amid death and barrenness, from a Christian worldview, leapt life abundant.

VOLCANO SCHOOL

The U.S. South Seas Exploring Expedition led by Charles Wilkes visited Pele in 1840–41.⁵⁷ The expedition’s purposes, as outlined by the secretary of the navy, were to advance “the great interests of commerce and navigation” and to “extend the bounds of science and promote the acquisition of knowledge.”⁵⁸ Its distinguished scientists, among them Charles Pickering and James B. Dana, and less notable artists accordingly recorded and classified natural phenomena and exotic specimens and presented those renderings as objective and realistic. On this expedition was Titian Ramsay Peale, naturalist and scientific illustrator, member of Stephen H. Long’s 1819–20 trans-Mississippi expedition, and son of one of the most influential portraitists of the early republic, Charles Willson Peale. Like his son, the elder Peale held an Enlightenment faith “that the encyclopedic cataloging of descriptive phenomena would yield knowledge and mastery,” according to a biographer.⁵⁹ His self-portrait, *The Artist in His Museum* (1822), was his masterwork and by which he is best known, and it sums up his central tenet and life’s work.

Like Ellis, the expedition’s members, both scientists and artists, nevertheless saw through lenses colored by their beliefs, as when Charles Wilkes conjured up the originating evil in the Garden of Eden and mankind’s fall by likening the lava on Kīlauea’s floor to “hideous fiery serpents with black, vitreous scales.”⁶⁰ Titian

—work.
 [FIGURE]
 [Place Figure 5,
 Charles Wilson
 Peale’s *The
 Artist in His
 Museum*, about
 here.]



FIGURE 5. Charles Willson Peale, *The Artist in His Museum* (1822). Lifting the veil, the artist reveals life as studies captured on canvas and in museum cases. Courtesy of Pennsylvania Academy of the Fine Arts, Philadelphia. Gift of Mrs. Sarah Harrison (The Joseph Harrison Jr. Collection).

Ramsay Peale rendered a Romantic portrait of the caldera, which bore the hallmarks of a “volcano school” of painting and its culture-bound associations with creation and primal energy, procreative powers, female genitals and the womb, consuming and transforming fire, original sin and hell, the subterranean world.⁶¹ Embedded thus within a scientific expedition were Romanticist sentiments that rebelled against the ideas of objectivity, order, and explanation—and volcanoes, for Romantic pens and brushes, were a fertile and irresistible symbol of elemental chaos that defied description or control even as they inscribed representations that masqueraded as science.

Victorian traveler Isabella Bird, daughter of a Presbyterian vicar, was one of the first foreign women to visit and describe for her homebound, curious readers Hawai‘i’s natural wonders—the “Palm Groves, Coral Reefs, and Volcanoes.” Like others who would follow her, Bird traveled to the Islands to regain her health and benefit from the climate, open air, and exercise, “exploring the interior, ascending the highest mountains, visiting the active volcanoes and remote regions which are known to few even of the residents, living among the natives, and otherwise seeing Hawaiian life in all its phases.”⁶² Those acts of recovery, of self and self’s others, constituted the core of Victorian travel writing and scientific observation. An author, plumbing Bird’s unpublished letters, reported that the rebel who sickened with “terror and disgust” at the “tyrannies of our aggravated [Victorian] conventionalities” saw in the volcano the face of her “fire and brimstone” clergyman father.⁶³

Despite her revulsion of confining precepts, Bird drew generously from stock treatments of Pele’s fires. Genesis-like, she described her arrival near the caldron’s edge:

The scene started out from the darkness with the suddenness of a revelation. We felt the pungency of sulphurous fumes in the still night air. A sound as of the sea broke on our ears, rising and falling as if breaking on the shore, but the ocean was thirty miles away. The heavens became redder and brighter, and when we reached the crater-house at eight, clouds of red vapour mixed with flame were curling ceaselessly out of a vast, invisible pit of blackness, and Kilauea was in all its fiery glory. We had reached the largest active volcano in the world, the “place of everlasting burnings.”⁶⁴

—science.
 [FIGURE][Place Figure 6, Titiian Ramsay Peale’s *Kilauea by Night*, about here.] [FIGURE][Place Figure 7, Lydgate’s “Survey of Kilauea,” about here.]



FIGURE 6. Titian Ramsay Peale, *Kilauea by Night* (1842). Positioned in the foreground, in this rendition of the “consuming fire,” are voluptuous Hawaiian women draped in classical Greek-like garments. Courtesy of Bishop Museum.



FIGURE 7. Anxiety producing, perhaps, from a man's perspective, a gaping orifice and wound—life and death, ejecting and consuming, Paradise gained and lost. J. M. Lydgate, “Survey of Kilauea,” 1874. Courtesy of Bishop Museum.

Peering into the “invisible pit of blackness,” words failed her:

I think we all screamed, I know we all wept, but we were speechless. . . . The words of common speech are quite useless. It is unimaginable, indescribable, a sight to remember for ever. . . . Here was the real “bottomless pit”—the “fire which is not quenched”—“the place of hell”—“the lake which burneth with fire and brimstone”—the “everlasting burnings”—the fiery sea whose waves are never weary . . . there were groanings, rumblings, and detonations, rushings, hissings, and splashing, and the crashing sound of breakers on the coast, but it was the surging of fiery waves upon a fiery shore.

But what can I write!” she despaired. But write she did, and recapitulated the totality of the experience with this: “It was all confusion, commotion, force, terror, glory, majesty, mystery, and even beauty.”⁶⁵

An earlier and less reverent visitor to the volcano was Mark Twain, at the time a correspondent for the *Sacramento Union*. Perhaps Bird was referring to his entry dated June 7, 1866, in the Volcano House Register, which from 1865 on provided a record of tourists’ impressions, when she noted dismissively that its pages contained “an immense quantity of flippant rubbish, and would-be wit.”⁶⁶ Read against missionary accounts, like those by Ellis, Twain’s satire is revealed.⁶⁷ Traveling with his fictitious companion, “Mr. Brown,” Twain offered, upon arrival at Volcano House: “But I know there was a protecting Providence over us all, and I felt no fear.” Their visit to the crater was “a thrilling adventure” punctuated by drink, which gave out “in the careless hands of Brown,” who dropped and broke the gin bottle, and ended with a caricatured confession: “I mused and said ‘How the stupendous grandeur of this magnificently terrible and sublime manifestation of celestial power doth fill the poetic soul with grand thoughts and grander images, and how the overpowering solemnity . . .’”⁶⁸

The few Hawaiian reflections contained in the Volcano House Register resist the phantasmic and hackneyed language of the foreigners for whom words had failed. They often wrote in Hawaiian. “Aloha to you, Pele, the Chiefly Woman of the Pit,” bid Jesse Peliholani (Peleiholani) Makainai of Honolulu on November 22, 1895. “I looked at the bottom of the Pit this morning at nine; there was no fire

at this time—only the aa [a kind of lava flow] below was to be seen, and the steam. I give my full thanks for the beauty and comfort of this place, the Volcano House. Aloha.” And Wm. Puaoi on November 23, 1910, reported simply: “The eruption of The Woman was beautiful in the dark of night, and I saw the magical works of The Woman of the Pit and I saw Halemaumau and the top of Uwekahuna, so there was much seen. And so I give my deep aloha to the people who live here at this Hotel. The child of Kauai where the sun sinks into Lehua now goes home.”⁶⁹

By the end of the nineteenth century, Kīlauea was apparently the most commonly recognized image of Hawai‘i outside the Islands, a status achieved by the productions of writers and visual artists from Europe and the United States and their patrons who financed those representations.⁷⁰ A romance novel begun in the European mind perhaps as early as the Vesuvius eruption in A.D. 79 and its destruction of the Roman cities of Pompeii, Stabia, and Herculaneum, Hawai‘i’s volcanoes entered the genre with British missionary Ellis’s depictions and the 1825 visit of the H.M.S. *Blonde*, which carried the bodies of King Liholiho (Kamehameha II) and his queen, Kamamalu, both of whom had died in London of measles during a state visit. Accompanying his majesty’s body was his retainer, Naukane, and an English artist, Robert Dampier, whose rendition of Kīlauea, which graced the official 1826 narrative of the H.M.S. *Blonde* as frontispiece, was the first published picture of the volcano.⁷¹

Scores of artists followed, including Enoch Wood Perry, an American praised for his ability to take a lowly subject and invest it “with a poetry of feeling and delicacy of expression,” and Constance Fredericka Gordon Cumming, a Scottish travel writer and amateur artist whose *Fire Fountains* was published in 1883.⁷² Charles Furneaux of Massachusetts was one of the most influential of Hawai‘i’s volcano painters. William T. Brigham, Harvard geologist and later founding director of Hawai‘i’s Bernice Pauahi Bishop Museum, discovered Furneaux’s paintings at a Boston Art Club exhibition.⁷³ Expecting a major eruption, Brigham invited the artist to accompany him to the Islands to paint and record the phenomenon, “to preserve for scientific study . . . those appearances that the camera does not retain and which are so difficult to describe.” Together, Brigham and Furneaux climbed Mauna Loa in July 1880, and later that year when the mountain obliged with a

—volcano.
[FIGURE]
 [Place Figure 8,
 Dampier’s
 painting of Kī-
 lauea, about
 here.]

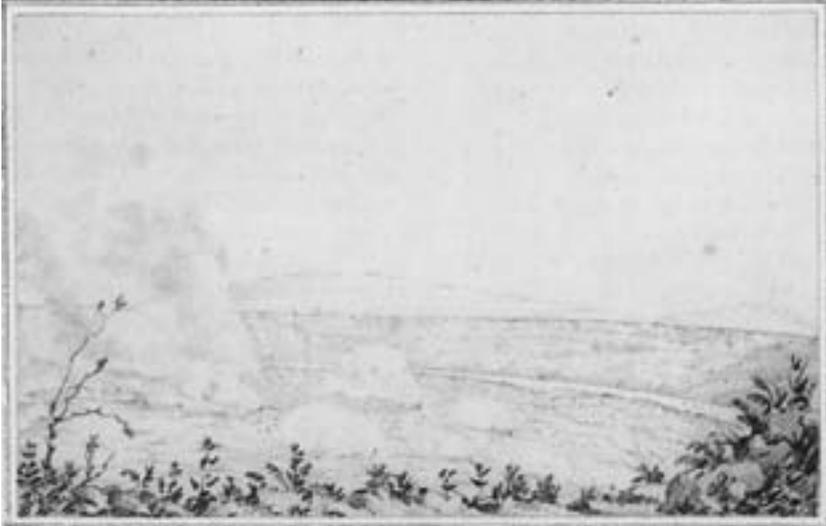


FIGURE 8. “The precipice from which we had a fine view of the crater itself,” wrote an apprehensive Robert Dampier, “was difficult & dangerous to descend: on all sides were yawning chasms & vast apertures seemingly of very great depth The sight was most extraordinary & appalling.” *To the Sandwich Islands on H.M.S. Blonde* (1826). Courtesy of University of Hawai‘i Press.

lava flow that threatened the town of Hilo, Furneaux documented the historic, two-year event with more than forty field sketches, many of which found a permanent home in Bishop Museum.⁷⁴

Brigham, the scientist, saw the volcano as more than a specimen for dissection, because science, he admitted, stood mute in its presence, “in this mighty laboratory where God seems to be showing us His most wonderful ways,” and where “man must confess without shame to his own ignorance and failure to comprehend.” Similarly, Realism could not capture the art of the volcano in its totality. “Many photographs were taken . . . but they fail to give an impression of the outflow at all satisfactory,” Brigham reported. “They might represent a dead lava bed as well.” Instead, he offered, “I feel that the three views made by Furneaux show more completely than any pictures I have seen, the beginning, course and end of



FIGURE 9. Charles Furneaux, *John Hall's House after July 21, 1881* (1881). “This John Hall,” the *Hawaiian Gazette* of August 3, 1881, reported, “is the only one as yet that has lost his home by the lava; but he is a man of much heathenism, believing in old traditions.” Furneaux, born in Boston, went to Hawai‘i to document the volcano’s flow more accurately than the camera, according to geologist William T. Brigham. Courtesy of Bishop Museum.

an Hawaiian lava flow: even without the color, as we have them here, they show better the sublimity of the scene.”⁷⁵

In Honolulu, away from his “laboratory,” Furneaux painted oil renderings of the volcano in color from notes scribbled on his black-and-white sketches. Critical acclaim greeted his exhibits, and the king who would foster a revival of Hawaiian arts, Kalākaua, commissioned the painter to record for posterity his newly built ‘Iolani Palace and 1883 coronation.⁷⁶ Gratitude was short lived, and a mere four years after having served his royal patron Furneaux joined white foreigners and the children of American missionaries born in the Islands in a “Hawaiian” League that sought, “by all necessary means,” to seize power by curbing the king’s prerogatives.⁷⁷ Captured by Furneaux, accordingly, in reality as well as in the imaginary, were science, art, politics, and an apparent will to exert mastery over his subjects.

—scene.
[FIGURE]
 [Place Figure 9, Furneaux’s *John Hall’s House*, about here.]

After suffering several strokes and left virtually helpless, Furneaux spent the last years of his life dependent upon Ah Hu, his Chinese American manservant, and his wife, Mary.⁷⁸

Befriended by Furneaux was French-born painter Jules Tavernier, who arrived in Honolulu in 1884. An illustrator in London and New York City, Tavernier headed for California to sketch American Indians and the American West. Debt ridden, he escaped arrest in San Francisco by fleeing to the Islands, where he soon supplanted Furneaux as the principal interpreter of the kingdom's chief tourist attraction.⁷⁹ Entranced by Tavernier's 1885 exhibit, a reviewer pronounced one of his paintings "not merely a picture" but "the lake itself, glowing, flashing and sluggishly rolling within massive walls of lava."⁸⁰ The copy, for this critic, had supplanted the original, and the volcano's essence was revealed not in "the lake itself" but in the "picture." Tavernier's output was directed, in part, to feed his appetite for alcohol, and he taught students in his Honolulu studio and inspired and tutored another of Hawai'i's volcano school painters, D. Howard Hitchcock, Island-born grandson of missionaries, who, "like a parasite," in his own words, followed Tavernier to Kilauea to watch him work.⁸¹

One of the most influential American painters of Pele's fire was muralist, stained glass innovator, writer, theoretician, and teacher John La Farge. Called by a critic "perhaps the most cultivated of all American artists," La Farge visited Hawai'i in the company of Henry Adams in 1890.⁸² Perhaps more memorable than his watercolors of Kilauea were his written accounts, which conveyed a mood that hung over the crater and its environs like dark, heavy clouds. "Besides the undefined terror and spookiness of the thing," he wrote of the volcano, "there is great boredom. There is nothing to take hold of, as it were—no center of fire and terror—only inconvenience and a faint fear of one thing—but what?" That inchoate yet palpable sense of fear in the volcano's presence was inspired by the otherworldliness of the place. As he worked, "as I looked and tried to match tints, I realized more and more the unearthly look that the black masses take under the light. A slight radiance from these surfaces of molten black glass gives a curious sheen, that far off in tones or mirage does anything that light reflected can do, and fills the eye with imaginary suggestions." The glitter, La Farge wrote, was "like that of the moon on



FIGURE 10. John La Farge (1835–1910), *Crater of Kilauea and the Lava Bed* (1890). The (ghostly) light off the lava beds, the artist felt, “fills the eye with imaginary suggestions.” Courtesy of Toledo Museum of Art. Gift of Edward Drummond Libbey, 1912.530.

a hard cold night, and the volcano crater I shall always think of as a piece of dead world.”⁸³

Scenes of Pele’s fires reflected Romanticism’s tinge, whether in the writings of British visitors like William Ellis or Isabella Bird or in the visual renderings by European and American painters. Romanticism’s primary concern was the individual’s response to nature, and the concept of the romantic sublime expressed an intensely felt relationship to the natural world. Since the mid-eighteenth century, favorite images for British artists and writers of the sublime were thundering waterfalls, tempestuous seas and violent storms, and destructive volcanoes to evoke an astonishing, powerful, and overwhelming sense of nature. Although the nineteenth-century American sublime grew from British roots, it flourished on a much grander scale because of America’s amazing wilderness, from the Hudson River Valley and Ni-

—world.
 [FIGURE]
 [Place Figure
 10, La Farge’s,
*Crater of Kī-
 lauea and the
 Lava Bed,*
 about here.]

agara Falls in the Northeast to the thickly wooded forests and rugged coastline of the Pacific Northwest. It is thus unsurprising that the British Ellis would describe his view of Kīlauea as “sublime and even appalling,” or that William T. Brigham, the American scientist, would refer to Charles Furneaux’s lava flow painting as showing better “the sublimity of the scene.” To Americans, the sublime—the ideas of pain or danger—held Romantic, religious, including Transcendentalist, and expansionist sentiments. The American West, thus, and the extracontinental U.S. empire constituted key sites for the sublime. And like the disciplining of unruly nature with brush and pen, the volcano school sought, as Romantics, to capture Pele’s essence and, as scientists, to harness her energies.

BOMBING PELE

The scientific study of Kīlauea commenced when, in 1911, Thomas A. Jaggar of the Massachusetts Institute of Technology and R. A. Daly of Harvard founded the Hawaiian Volcano Observatory. Enabled by a gift of the Whitney Fund for the study of earthquakes and related phenomena to protect human life and property, the Volcano Observatory depended, for its daily operations, upon the contributions of local business and professional men interested in the volcano. In constant need of financial support, the observatory’s ownership was passed from MIT to the federal government, to the U.S. Weather Bureau, the National Park Service, and the U.S. Geological Survey.⁸⁴

Science in the service of mankind suggested making war on Pele; as put by a 1939 summation of thirty years of volcanology in Hawai‘i, the study moved “from geological chemistry to defensive engineering.” Jaggar likened that turn to war: “Hawaii was the place where the war of the skyways broke out on December 7, 1941,” he recounted, “and where the war against volcanoes had been going on systematically since 1911. Both wars have much in common, demanding services of intelligence, scouting expeditions, mapping, photography and supply, while the main base is essentially a listening post with all the resources of science, invention and industry brought to bear on detection of the strategy of the enemy.”⁸⁵

With the precision of a military operation, the first plane took off from Hilo on December 27, 1935, at 8:45 A.M. and was followed by four others at twenty-minute intervals. “Each plane was loaded with two 600-pound demolition bombs, armed with 0.1 second delayed-action fuse, and two 300-pound practice bombs for sighting shots. The bombs were dropped from an altitude of 12,000 feet, approximately 3,500 feet above the target. Two photographic airplanes accompanied the bombers and carried cameras for still and moving pictures.” The mission, conceived by Jaggar and his observatory, was designed to divert Mauna Loa’s lava flow, which threatened the town of Hilo. At a press conference, Jaggar and Col. Delos C. Emmons of the U.S. Army’s air corps noted that “public opinion demanded that something be done to divert or stop this lava flow.” Further, as if to warrant his offensive action, Jaggar claimed, “Mauna Loa has definitely mobilized and declared war.” Pronounced by him a “victory over Nature,” the bombing offered “very valuable tactical training” and was “well worth the cost,” according to Emmons, who would later gain promotion to general and, after the Pearl Harbor disaster, responsibility for the defense of Hawai‘i.⁸⁶

Viewed from another perspective, surely not represented by the “public opinion” that was alleged to demand it, Pele’s bombing was an assault against and desecration of the sacred earth, the gods and ancestors, and the Hawaiians. It was an act of war that was longstanding, from the invasive landing of British captain James Cook’s expedition on the morning of January 18, 1778, to the occupied present. For Hawaiians, Pele was not “the enemy,” in Jaggar’s martial idiom, but a revered ancestral figure, as was believed by David Alapa‘i, who during the flow of 1919 stood in a cave under the surging lava while chanting his prayer to Pele to spare her beloved people:

Beautiful art thou O Pele of the Pit,
 You make such swishing sounds,
 You put your beauty on display,
 Glowing red before the face of the clouds.
 So you are gone to ‘Ālika,
 The land bedecked with *lehua* blossoms.

Be kindly in your behavior,
Be merciful to your beloved people.⁸⁷

A Hawaiian man, while loading up his truck with his possessions in December 1986 as lava destroyed part of the village of Kalapana, acknowledged: “I love my home; live here all my life, and my family for generations. But if Tūtū [grandparent, as in Tūtū Pele] like take it, it’s her land.”⁸⁸

Palikapu Dedman, a leader of the Pele Defense Fund during the 1980s, explained: “For us Hawaiians that is what this land is—our religion, and our history. You cannot separate the land from Hawaiian culture. The land shaped us to speak for it; we are what the land made us, we are its soul.”⁸⁹ Another Fund leader, Noa Emmett Aluli, added: “At its root, Aloha ‘Aina is the belief that the land is the religion and the culture. Native Hawaiians descend from a tradition and genealogy of nature deities . . . the sky, the earth, the stars, the moon, water, the sea, the natural phenomena such as rain and steam; and from native plants and animals. The native Hawaiian today, inheritors of these genes and mana [spiritual power], are the *kino lau* or alternate body forms of all our deities.”⁹⁰

“Hawaiians believe that all the land is alive,” wrote Hawaiian scholar Davianna Pomaka‘i McGregor, “especially the land which is hot, steams, and has magma under it. As long as there is steam coming out of the earth, Pele lives. The earth where the steam vents belongs to Pele and is sacred.” The volcano supplies spiritual power for Pele’s descendants, hula masters and dancers, and worshippers, and its various manifestations are sacred. “Come to see my display,” the crater beckons, “to see the movements that I do,” recited *kumu hula* master Pualani Kanaka‘ole Kanahale. “To view my inner parts and how I dance and how I move. But you are not welcome to take what is mine. Whatever hot here is mine. Whatever is hot here is sacred.”⁹¹ The land is alive and moves, and breathes, inhaling and exhaling in rhythm as fire and steam.