

WALTHER M. BARNARD

Earliest Ascents Of Mauna Loa Volcano, Hawai‘i

THE FIRST KNOWN successful ascent to the summit area of Mauna Loa Volcano on the Island of Hawai‘i was in February 1794 by an exploring party under the direction of the Scottish botanist Archibald Menzies, who accompanied the Vancouver expedition to the Hawaiian Islands. During the 19th century, however, and as late as 1909, this feat was credited to two other individuals—to the Reverend Joseph Goodrich, who may not actually have made an ascent, and to David Douglas, whose “incredible account” generated controversy and doubt as to its authenticity.

Why was Menzies’ ascent in 1794 generally unknown during the 19th century? Did Goodrich make an ascent in the 1820s as alleged? Why was doubt attached to Douglas’s 1834 ascent? As the bicentennial anniversary of Menzies’ feat approaches, it is appropriate to examine the mysteries and controversies surrounding the ascents (real or alleged) of the colossus of the Pacific by these and other early explorers.

Prior to Menzies’ successful ascent, other attempts had been made. The first account of a foreigner attempting to climb Mauna Loa dates from the first visit of Captain James Cook to Kealakekua Bay in 1779. Here the English found a benign climate,

Walther M. Barnard, Professor of Geology and Chair of the Department of Geosciences, State University of New York College at Fredonia, recently published Mauna Loa—A Source Book, Historical Eruptions and Exploration, vol. 1, From 1778 Through 1907.

The Hawaiian Journal of History, vol. 25 (1991)

friendly Natives, and ample supplies. Beyond the rocky shoreline and strip of beach rose the tall forests and snow-capped Mauna Loa, which attracted the interest of John Ledyard, Corporal of Marines aboard the *Resolution*. The account of Ledyard's attempt to climb Mauna Loa is in his *A Journal of Captain Cook's Last Voyage to the Pacific*,¹ published a year before the official admiralty publication authored by Cook and Lieutenant James King.² To supplement his own recollection and notes (if indeed he had any), Ledyard literally and liberally copied from the account of John Rickman,³ a lieutenant on the *Discovery*, which accompanied Cook's ship.

With Robert Anderson (gunner of the *Resolution*), the botanist David Nelson, Simeon Woodruff (the American gunner's mate of the *Discovery*), and some Native attendants, Ledyard set off for the top of Mauna Loa in the afternoon of January 26th. They passed through the dry lowlands, the gently ascending breadfruit forests, and onto the steeper slopes covered with ferns. Here, at the skirt of the forest, they spent the night in the shelter of the hut of an elderly man, his wife, and daughter. The next morning they entered the forest and, using a compass, kept a direct course for the peak. Before sunset, they had climbed 15 miles, according to Ledyard's overestimation. The second night they slept beneath the trunk of a fallen tree. Next day, after travelling another estimated five miles, the route became steeper, rougher, and blocked by impenetrable thickets. The group abandoned their goal and returned to the improvised shelter of the fallen tree. The following evening, January 29th, they reached Kealakekua Bay. Ledyard estimated that they had "penetrated about 24 miles and we suppose within 11 of the peak."⁴ The summit is actually only 20 miles east of Kealakekua Bay.

Rickman also left notes on this attempted ascent of Mauna Loa in his *Journal of Captain Cook's Last Voyage to the Pacific Ocean*.⁵ His brief comments do not even mention Ledyard by name.

The English expedition of 1791-1795, under the command of Captain George Vancouver, made three visits to the Hawaiian Islands—in March 1792, February-March 1793, and January-March 1794.⁶ Aboard as naturalist was the distinguished botanist

Archibald Menzies, who had earlier visited Hawai'i in 1787 as surgeon aboard the *Prince of Wales*.

Prior to his undertaking the first known successful ascent of Mauna Loa, Menzies made two unsuccessful attempts to ascend from the western side. His narrative of his first attempted ascent was first published in Thrum's *Hawaiian Annual* for 1908 as an extract from his journal preserved in the manuscript department of the British Museum. The account is also given in a 1920 edition by W. F. Wilson,⁷ which includes an introduction and footnotes.

In his first attempt, which commenced on February 25, 1793, Menzies was accompanied by John Stewart, also of the Vancouver expedition, and John Smith, an Englishman who resided on the island, in addition to Hawaiian attendants. After traversing a distance, which Menzies overestimated at 16 miles from the bay, the party's way, like that of Ledyard's, was blocked by impenetrable underwood and ferns. Abandoning their mission, they started the return trip on the morning of the 28th and arrived back on board the *Discovery* in the forenoon of March 1st.

Menzies' second unsuccessful attempt to climb Mauna Loa was in January 1794, when Vancouver was again at Kealakekua Bay. Parties were organized under Menzies' direction to explore the interior. They first ascended Hualalai, which they found to be a volcano over 8,000 feet high. On the 21st, they descended the southeast side of Hualalai and crossed onto the high plateau between it and Mauna Loa. Seeing that the lower edge of the snow on the latter mountain did not appear to be far off, and as the ascent seemed smooth and easy, Menzies proposed to make an attempt to reach it, although the accompanying chief and the Hawaiians were very much against it. Menzies was resolved to try: he selected the chief and about 20 able Natives to accompany him and his shipboard companions and sent the rest down to the "plantations" (cultivated fields) with orders for some of them to return and meet him with a supply of provisions. That same day, the 22nd, their progress was halted by dense growth of shrubby wood and ferns and by rough ground. They were back at Kealakekua Bay on January 25th. Menzies' edited account is given in Wilson, who erroneously subtitled the events from January 22nd

as "FIRST ATTEMPT TO CLIMB MAUNA LOA" after having earlier presented the account of the actual first attempt.⁸

Although thwarted twice in his attempts to ascend Mauna Loa, Menzies successfully accomplished his goal in February 1794. His narrative of the first successful ascent is given in C. H. Hitchcock,⁹ who obtained a copy through the English geologist Henry Woodward in London, and in Wilson.¹⁰

On February 5th, Menzies consulted with Kamehameha I on the means and best route to gain the summit and was assured that the most likely way was to ascend from the south side of the island. The king would provide guides, attendants, and supplies; more would be provided along the way. Menzies' party set out the next day in the King's double canoes and reached the small village of Pateence (Pakini) near the island's south point on the afternoon of the 9th. Here they stayed the night and on the following day continued their journey overland to the northeast, reaching Keeoraka (Kioloku) by evening. For the next day and a half they continued northeastward. Tepapala (Kapapala) was reached on the afternoon of the 12th. From here, on the 13th, they began the ascent up the southeast slope of Mauna Loa. Towards evening on the 14th, they reached the upper edge of the forest above Kapapala, at about 6,500 feet elevation. The temperature was 28° F next morning, and the grass was whitened by hoar frost. The bare-footed Hawaiians and Chief Rookea reluctantly set out with Menzies in a direct line up the mountainside, but in the mid forenoon, at Menzies' suggestion, most of the party returned back to encamp at the edge of the forest to await Menzies, his guides, and a few stout Native volunteers, who continued up the rugged, steep slope. This latter party spent the night at the lower edge of snow, where Menzies, using a barometer to measure air pressure, determined the elevation to be 11,575 feet. Their common bed was a flat rock around which they raised a small parapet of chunks of lava to break the wind. Next morning, the 16th, the temperature was 26° F and the air was "excessively keen and piercing." After a scanty breakfast, more Natives were sent down to the encampment at the edge of the forest, while the rest continued upward and soon found themselves on the nearly flat summit area. About 11:00 in the morning, they arrived at the summit caldera,

Mokuaweoweo. Leaving one of the party, "Padre" Howell, and the Hawaiians on the south side, Menzies, his two companions (Third Lieutenant Joseph Baker and Midshipman George McKenzie of the *Discovery*), and a servant who carried the barometer made their way to the highest point on the western rim of the caldera. Menzies' initial determination of elevation, 13,634 feet, when corrected for temperature, was equivalent to 13,564 feet (compared to today's accepted value of 13,677± feet). The party did not have any instruments to ascertain whether Mauna Loa or Mauna Kea was the higher, but Menzies correctly judged that the latter was, inasmuch as its summit was more whitened over with snow. They returned to the south side of the caldera to find that Howell and all but two of the Natives had deserted them. After drinking the liquor of three coconuts and eating some kernels which were carefully divided among themselves, they "set out on our return to the encampment where we were so fortunate as to arrive safe at ten at night, after the most persevering and hazardous struggle that can possibly be conceived."¹¹

The following information is provided by Wilson:

As was customary on exploring voyages of the nature headed by Vancouver, many of the officers and crew kept private journals or logs, and thus on the return of the ships to England, Captain Vancouver, following the practice pursued by Captain Cook, on similar occasions, demanded the surrender to him of all journals kept by the members of his expedition. Amongst others, Menzies had kept a journal throughout the voyage, but according to a letter written by him to Sir Joseph Banks, dated 14th September, 1795, on file at the library of the Royal Botanic Gardens, Kew, he declined to deliver up his journal to Vancouver, for he wrote: 'Though Captain Vancouver made a formal demand of my journals, etc., before I left the ship, I did not think myself authorized to deliver them . . . till I should hear from you or the Secretary of the Home Department, when I shall be ready to deliver up everything I have written, drawn or collected during the whole voyage.' This journal of Menzies has now found its way to the British Museum, where it is catalogued as Addl. M.S. 32641.¹²

From the date of Archibald Menzies' ascent on February 16th, 1794, Mauna Loa was not scaled until forty years had elapsed,

when Menzies' Scottish fellow-countryman, David Douglas, reached the top on January 29th, 1834. Douglas mentions that even after this long interval of forty years, Menzies was still held in remembrance by the natives, who described him as the red-faced man, who cut off the limbs of men and gathered grass (see David Douglas, *Botanist, at Hawaii*, p. 62).¹³

For unclear reasons, Menzies' feat apparently was forgotten, except, perhaps, by the Hawaiians. Perhaps it was related to the (intentional?) omission of reference to Menzies' ascent by George Vancouver in his own narrative of the expedition¹⁴ because Menzies refused to deliver up his journals upon formal demand at the end of the expedition, or to the fact that Menzies' own manuscript account was not readily accessible.

In October 1819, the first company of missionaries to the Sandwich Islands sailed from Boston and arrived at their destination in April 1820. The second company sailed from New Haven in November 1822 and arrived in April 1823. With these reinforcements, the Honolulu missionaries deliberated the distribution of the new teachers. Some left for Lahaina, Maui, and others for Kailua on Hawai'i. In the "deputation" that left Honolulu in June 1823 for the Big Island were William Ellis of the London Missionary Society (then visiting the Hawaiian Islands), Asa Thurston of the pioneer or first company, Artemas Bishop, Joseph Goodrich, and Charles S. Stewart; the latter three were of the second company. The missionaries were accompanied by "Mr. Harwood, an ingenious mechanic, whom curiosity, and a desire to assist them, had induced to join their party."¹⁵ They made a ten-week tour of Hawai'i, during which they preached in the villages, collected curiosities, and visited Kilauea Volcano.¹⁶ At that time, Goodrich and his companions did not climb Mauna Loa. While in the Kilauea area, however, they viewed some of Mauna Loa's craters through a telescope. The account of the tour is described by Ellis in his *Journal*,¹⁷ *Narrative*,¹⁸ and *Polynesian Researches*.¹⁹

Thrum's *Hawaiian Annual* for 1909 lists under Notable Events, "1824—The first known ascent to the summit crater of Mauna

Loa by the Rev. Jos. Goodrich.”²⁰ Thomas Thrum, editor of the *Annual*, should have been aware in 1907 that Menzies made the first successful ascent because it is the *Annual* for 1908, published in 1907, that includes the extract from Menzies’ journal describing the initial attempted ascent. The *Annual* for 1911²¹ corrected the error, insofar as Goodrich’s ascent was not the first.

But did Goodrich make an ascent in 1824, in the year following his tour of Hawai‘i? It seems improbable, judging from the contents of a letter written by Goodrich to Professor Benjamin Silliman at New Haven, dated Waiakea, (Hawaii), April 20th, 1825.²² While at Yale College, Goodrich had studied mineralogy and geology in addition to being prepared for the mission. After describing the volcanic nature of the Islands, Goodrich immediately followed his reference to the “four high mountains in the Island,” including Mauna Loa, with a description of his two trips to the summit of Mauna Kea and a description of Kilauea, to which he had already made four visits. No further mention is made of Mauna Loa.

A footnote in Jared Sparks’ *Life of John Ledyard* asserts:

This mountain [Mauna Loa] was never ascended to the top, till very recently. Mr Goodrich, one of the American Missionaries on the island, was the first person, who persevered in reaching the summit. He ascended on a side of the mountain nearly opposite to that, where Ledyard made the attempt.²³

This and Thrum’s 1824 date, however, contradict Goodrich’s own testimony. Indeed, as late as 1832, Goodrich claims he had not climbed Mauna Loa: in another letter, dated November 17, 1832, he described the Mauna Loa eruption of June 1832 and, apparently without the knowledge of Menzies’ ascent, stated:

As that mountain [Mauna Loa], as far as I can learn, has never been ascended by any person,²⁴ I contemplate attempting the ascent, while making a tour of the island in January next. Should I succeed, and discover any thing worth notice, you may expect to hear from me by the next opportunity. . . .²⁵

To the writer's knowledge, nothing further was heard of an attempted ascent. Goodrich left with his family for the United States from Honolulu on January 26, 1836 and was released from the service of the American Board of Commissioners for Foreign Missions on October 11th of that year.²⁶

Without giving the actual year, other sources state that Goodrich made the ascent prior to that of Douglas in 1834. The April 1838 issue of the *Hawaiian Spectator* noted:

Mr. Goodrich was the first to accomplish it [to ascend Mauna Loa,] and to discover the enormous crater, on the very summit of the mountain. His visit, however, was too hurried to allow him to make any particular observations. . . .²⁷

M. I. Löwenstern, who ascended Mauna Loa in 1839, erroneously asserted that Goodrich "ascended it the first, and discovered the Crater on the Top."²⁸ Henry Whitney's *Hawaiian Guide Book* also asserted that "The American missionary Goodrich made the ascent of Mauna Loa previously [to that of Douglas], but did not see the crater in action."²⁹

It is questionable whether or not Goodrich actually did ascend Mauna Loa. If he did, it was presumably between January 1833 and January 1834, when Douglas made his ascent, or as late as December 1835. It would appear reasonable to expect that if he had made the ascent, Goodrich would have followed through on his promise to report his observations to the editor of the *American Journal of Science*; nonetheless, the 1838 issue of the *Hawaiian Spectator* specifically states that Goodrich's visit was too hurried to allow him to make any particular observations.

It is also possible the misconception originated from the probability that on one of his climbs to the summit of Mauna Kea, Goodrich viewed from there the environs of Mokuaweoweo on Mauna Loa and stated to the effect that he looked into the crater; this was then misinterpreted by others as suggesting that Goodrich viewed Mokuaweoweo directly from the summit of Mauna Loa. Similarly, Hitchcock twice referred to looking into Mokuaweoweo from the summit of Mauna Kea; he stated that "James Jackson Jarves climbed to the summit of Mauna Kea in 1840.

. . . He looked into Mokuaweoweo and reported that there were no signs of activity, not even ascending vapors.”³⁰ In notes made by him in 1886 when he made the ascent of Mauna Kea, Hitchcock stated:

Reached the summit later in the day. Counted twenty-three volcanic cones, mainly of lapilli, from the summit. The party somewhat affected by mountain sickness. Saw enormous lava bombs near the summit, made of solid olivine and white basalt. Can see into the crater of Mokuaweoweo. Returned to Puakala.³¹

(Strictly speaking, one may observe the upper caldera walls, but not the floor, from the summit of Mauna Kea.) Similarly, in mid-November 1880, W. B. Oleson stated “On Thursday morning at about 1 o’clock we began the ascent of Mauna Kea. Before daylight we had some magnificent views of Mokuaweoweo and the subsidiary crater on the eastern slope. . . .”³²

Four decades passed between the first successful ascent of Mauna Loa by Archibald Menzies and the ascent by David Douglas (also spelled Douglass), another Scottish botanist, in January 1834. Douglas’s own account of his exploration of Mauna Loa is reproduced in the 1914 edition of the *Journal* kept by David Douglas.³³

In January 1834, Douglas, fired with a passion to collect plant specimens on the island’s volcanoes, arrived at Hilo. There he hired John Honoli’i, a Hawaiian who had been trained as a missionary in Connecticut and who had returned to Hawai’i with the first company of missionaries aboard the *Thaddeus*, as his interpreter and guide. Porters were also engaged to carry baggage.

Douglas was impatient; he wasted no time and often took little heed of danger. Although it was the worst time of the year for mountain climbing because of heavy rains, swollen creeks, and muddy trails, Douglas set off on January 7th for the snow-capped summit of Mauna Kea and returned with a varied collection of ferns, mosses, lichens, other plants, and seeds. On the 22nd, he started for Kilauea, where he encamped at the north edge of the

caldera and gazed “with wonder and amazement on this terrific sight” of the active crater.

His next goal was the summit of Mauna Loa. After making preparations and hiring guides at Kapapala, he set off on January 28th with his party of 13. The ascent was strenuous and again slowed by heavy rains, mud, and rough lava. Near the summit area on the next day, Douglas and the four men who accompanied him that far encountered deep snow. Only Douglas and his “trusty man” Calipio reached the edge of Mokuaweoweo and walked to the highest point on the eastern side of the caldera, which Douglas apparently (and mistakenly) believed to be the actual summit. He took several barometric and temperature readings. He also made some very inaccurate measurements and estimates of the caldera’s dimensions which subsequently have been attributed to his probable deteriorated state of health. While on Mauna Loa, Douglas experienced hunger, severe thirst, intense cold, fatigue, and was seized with violent pain and inflammation of the eyes. Most of the afternoon of the 29th was devoted to making observations in the vicinity of the caldera. Their descent on the 29th and 30th was “even more fatiguing, dangerous, and distressing than the ascent had proved.”³⁴

Having climbed the two highest mountains in the Pacific in the course of three weeks, Douglas was exhausted, but immediately he started to classify his specimens. In early April, he arrived in Honolulu and later, in July, boarded a ship going to England, which he never reached. The vessel carrying him paused near the northern tip of the island of Hawai‘i, and the impatient botanist decided to walk to Hilo instead of waiting for the ship to continue. His body was found in a pit *en route*, close to the inland trail from Waimea to Laupahoehoe, into which a wild bull had also fallen. Whether Douglas was first murdered and then thrown into the pit, as was suspected by some, or killed by wounds inflicted by the bull falling upon him, remains a mystery. An extended account of Douglas’s death and the mystery which still surrounds it was recently authored by Jean Greenwell.³⁵

A misconception subsequently arose: Menzies’ feat was forgotten, and the first ascent of Mauna Loa was attributed to Douglas. In his account of volcanic eruptions on Hawai‘i, published in 1850,

James Dwight Dana, who himself had visited Kilauea in 1840-1841 as a member of the U.S. Exploring Expedition from 1836 to 1842 under the direction of Lieutenant Charles Wilkes, specifically attributed the first ascent to David Douglas (see Roberta A. Sprague, "Measuring the Mountain," which follows this account):

The first ascent to the summit of Mount Loa by a foreigner was made by Dr. Douglass. This author describes it as far surpassing Kilauea in sublimity and violent activity. Mr. Douglass's observations are, however, received with incredulity by the residents. The crater, if thus active, would, like Kilauea, have shown evidence of it in an illuminated cloud at night. But neither this nor any other proofs of its action were noticed at the time by the Hawaiians or by the whites residing among them. . . . A comparison of the statements in the following paragraph by Mr. Douglass, with the observations by the officers of the Vincennes, will show that this incredulity is probably not misplaced. The mountain (Mount Loa), with an elevation of 13,517 feet, is one of the most interesting in the world. The journey to the top took me seventeen days. On the summit is a volcano, nearly twenty four (?) miles in circumference, and at present in terrific activity. You must not confuse this with the one situated on the flanks of Mauna Roa, and spoken of by the missionaries and Lord George Anson Byron, and which I visited also. It is difficult to attempt describing such an immense place. The spectator is lost in terror and admiration at beholding an enormous sunken pit, (for it differs from all our notions of volcanoes as possessing cone-shaped summits with terminal openings,) five miles square of which is a lake of liquid fire, in a state of ebullition, sometimes tranquil, at other times rolling its blazing waves with furious agitation, and casting them upwards in columns from thirty to one hundred and seventy feet. This volcano is 1272 feet deep; I mean down to the surface of the fire; its chasms and caverns can never be measured.' Extracts from the Journal of Mr. Douglass, *Magazine of Zoology and Botany*, 1837, i, 582[-583].³⁶

Forty years later, in his *Characteristics of Volcanoes*, Dana offered the following:

Mr. Douglas' testimony with regard to the Hawaiian volcanoes has been doubted because of his incredible account of what he saw

at the summit crater in a letter to the eminent botanist, Dr. Hooker. But I find that injustice has been done him. His 'Journal' of his visit to the summit, evidently written by him at the time of his observations, represents the crater as having been long quiet. While at Honolulu, over three months later (May 3), he wrote Captain Sabine on his various physical investigations and barometric measurements, and gave him the same facts as to the summit crater that he has in his 'Journal', and partly in the same words. Only three days later (May 6) he wrote his letter to Dr. Hooker,—a reasonable letter in all parts, excepting its description of the terrific activity and immense size of the Mount Loa crater. His words indicate a mixing up and magnifying of what he had seen at the Kilauea and summit craters, which can be explained only on the ground of temporary hallucination. He may have dined that day with his friend the British consul. Mr. Douglas was an excellent Scotchman, and all the rest of his writings are beyond questioning.³⁷

Even at this late date, Dana still believed that Douglas was the first to ascend Mauna Loa.

Jules Remy, a French scientist who ascended Mauna Loa in 1853 with the Englishman Julius L. Brenchley, likewise attributed the first ascent to Douglas: "The honor of the first [ascent] (January 1834) goes to the Scotsman David Douglas. . . ."³⁹

In his monograph on Kilauea and Mauna Loa, published in 1909, Brigham repeated the error:

David Douglas, the Scotch botanist who lost his life in a cattle trap on Hawaii, and who made the first recorded ascent of Mauna Loa, was at Kilauea in January, 1834. . . .⁴⁰

In 1837 [1834], Douglas made the first ascent of Loa by a foreigner (if not by any human being), and unfortunately wrote a letter to Dr. Hooker of Kew, England, in which he gives a wild and impossible account of the condition of the crater. In his journal, and in a later letter to Captain Sabine he gave a sane account of the crater which was quiescent.⁴¹ He remarks that there was little in the upper part of the mountain to interest a naturalist. Mr. Douglas was all the time a botanist.⁴²

Harvey, Douglas's biographer, maintained that the proper explanation for Douglas' inaccuracies lie in the state of his health:

apparently he was so worn out physically and so unstrung mentally that he did not realize what he was saying:

Twice within a month he had climbed from sea level to altitudes exceeding 13,000 feet. Poorly clothed and accoutred, he had gone from the heat of a tropical climate to the cold rigors of inhospitable regions, his equipment consisting chiefly of heavy scientific instruments! With his usual determination he had driven himself at such a pace that his guides could not keep up with him. . . .

[O]n previous occasions he quickly recovered from hardships and sufferings. Not so, this time. He was terribly exhausted and unstrung. He was tormented with rheumatism. Even his mind was affected. . . .⁴³

Harvey offered another example of a letter in which Douglas became confused and gave distorted and inaccurate accounts of his recent experiences: in a letter to Mrs. Richard Charlton, the British consul's wife, written on February 7th, the day he returned from Mauna Loa and Kilauea, Douglas wrote:

As I have just about an hour ago arrived from Mauna Loa, the volcano, &c., and having enjoyed a bath and an excellent cup of tea, with a willing pleasure I sit down to tell you the story of a traveller. . . .

A sight of the volcano fills the mind with awe—a vast basin in a state of igneous fusion, throwing out lava in a thousand forms, from tortuous masses like large cables to the finest filamentous thread. Some places in large sheets, some in terrible rolled masses, like the breaking up of a large river of ice—of all colors and forms, showing the mighty agency ever existing in its immense laboratory. The strongest man is unstrung; the most courageous heart is daunted, in approaching this place. How insignificant are the works of man in their greatest magnitude and perfection, compared with such a place. I have exhausted both body and mind, examining, measuring, and performing various experiments. . . .

I should give you a note on Mauna Kea, but the time will not permit. I shall tell you verbally. Suffice it to say that I reached the culminant point after immense labor, fatigue, anxiety, and some degree of danger. The cold was intense. You may pledge my name for saying that the Great Crater is on the very summit of Mauna Kea[!], at present in an active state. One day there, madam, is

worth one year of common existence. This is twenty-seven miles round, and 1274 feet deep. I rested from 12M. till 12 at night, on the mountain, when the wane moon presented herself in silvery brightness, reflecting a glare on the ragged lava like Gothic turrets. With thankfulness and joy, the beautiful constellation of Orion being my guide, I rose to descend to a climate more congenial to my nature, and the habitations of men, the land of flowers, and the melody of birds.⁴⁴

The first part of this letter refers to Kilauea, but the last, from the measurements and the description of his descent, clearly refers to Mauna Loa, although Mauna Kea is named.

On February 6, 1839, climbing from Kilauea, the scientist M. Isidor Löwenstern reached the eastern rim of Mokuaweoweo. He described his ascent in an unpublished two-page letter to the Royal Geographical Society.⁴⁵ This, along with an account of his earlier travels in Mexico, were referred to in a "List of unpublished Papers" in the *Journal of the Royal Geographical Society of London* (1841) as "XXIV.—Mr. J. Löwenstern on a Pyramid at Remedios, with a route from Mexico to Mazatlan, and ascent of Mowna Roa."⁴⁶ The narrative of the ascent was never published; the report that was published, "Journey from the City of Mexico to Mazatlan, with a Description of some Remarkable Ruins,"⁴⁷ contains no reference to an ascent of Mauna Loa or, indeed, to anything about Hawai'i.

In November 1988, the writer requested the assistance of the Secretary of the Royal Geographical Society in locating and obtaining a copy of Löwenstern's unpublished notes. Mrs. Christine Kelly, the Society's archivist, kindly forwarded a photocopy of Löwenstern's letter, which had been received by the Society on February 27, 1840.

In this letter, Löwenstern described the caldera's features and stated that the "circumference of the present nearly circular Crater on the Top of Mouna Roa, is to my opinion no more than 2 miles, having from 1/2 to 3/4 of a mile in Diameter."

T. L. Wright and T. J. Takahashi concluded that because Löwenstern described an inactive circular crater no more than

two miles in circumference from which the distance down to a black ledge was not more than 635 feet, he apparently did not reach the summit; they state, "This is a confusing description. Although the ascent was of Mauna Loa, the description sounds like Kilauea."⁴⁸

Wilkes's party surveyed Mokuaweoweo in January 1841, and Wilkes specifically stated that there was no black ledge, as occurred at Kilauea.⁴⁹ It is possible that Löwenstern confused the two calderas. Although undated, his account was written after, not during, the ascent, and a full year lapsed between the time of his ascent and the receipt of his letter by the Royal Geographical Society. Löwenstern's description of a circular caldera is consistent with that of the center of Mokuaweoweo caldera as it existed in 1840, and his "ledge" may have referred to the crescent-shaped benches that stood above the level of the central floor at that time.⁵⁰ The dimensions of the caldera and the distance from the summit point to the ledge, however, are admittedly underestimated and may be due to the fact that he apparently lacked instruments to measure; he was giving an "opinion" only.

Löwenstern, too, repeated the possibly erroneous assertion of an ascent by Goodrich: "I was the next after Mr Douglas to ascend this mountain, and the third after Mr Goodrich, who ascended it the first, and discovered the Crater on the Top."⁵¹

In the 60 years that elapsed following the first known unsuccessful attempt in 1779 to ascend Mauna Loa, only three parties claimed to have reached the summit area, and only Menzies and three of his party attained the actual summit on the western rim of the caldera. In the year following Löwenstern's ascent, the Mauna Loa summit area was occupied and mapped from late December 1840 to mid January 1841 by Lieutenant Charles Wilkes, U.S. Navy, and the United States Exploring Expedition.⁵²

NOTES

¹ John Ledyard, *A Journal of Captain Cook's Last Voyage to the Pacific Ocean, and in Quest of a North-West Passage . . . in the Years 1776, 1777, 1778, and 1779* (1783, rpt. Chicago: Quadrangle Books, 1963) 117-23.

- ² James Cook and James King, *A Voyage to the Pacific Ocean . . . In the Years 1776, 1777, 1778, 1779, and 1780*, 3 vols. (London: W. and A. Strahan, 1784).
- ³ John Rickman, *Journal of Captain Cook's Last Voyage to the Pacific Ocean, on Discovery, Performed in the Years 1776, 1777, 1778, 1779* (1781, rpt. Ann Arbor: U Michigan Microfilms, 1966).
- ⁴ Ledyard, *A Journal* 123.
- ⁵ Rickman, *Journal* 306-7.
- ⁶ For a description of Vancouver's visits, see Cummins Speakman and Rhoda E. A. Hackler, "Vancouver in Hawai'i," *HJH* 23 (1989): 31-65.
- ⁷ Archibald Menzies, "An early ascent of Mauna Loa," *HAA* 1908: 99-112; Archibald Menzies, *Hawaii Nei 128 Years Ago*, ed. and intro. by William F. Wilson (Honolulu: [New Freedom], 1920) 73-86.
- ⁸ Menzies, *Hawaii Nei* 163-8.
- ⁹ C. H. Hitchcock, *Hawaii and its Volcanoes* (Honolulu: Hawaiian Gazette Co., 1909 and 1911) 63-79.
- ¹⁰ Hitchcock, *Hawaii* 79.
- ¹¹ Menzies, *Hawaii Nei* 175-99.
- ¹² Menzies, *Hawaii Nei* 5-6.
- ¹³ Menzies, *Hawaii Nei* 199. Menzies was appointed to act as naturalist on the expedition but also served as the ship's doctor when, in the course of the voyage, A. P. Cranstoun, surgeon of the *Discovery*, became ill.
- ¹⁴ George Vancouver, *Voyage of Discovery to the North Pacific Ocean and Round the World*, 3 vols. (1798, rpt. New York: Da Capo Press, 1967).
- ¹⁵ William Ellis, *Polynesian Researches, Hawaii* (1831, rpt. Rutland, Vt., Charles E. Tuttle, 1969) 55.
- ¹⁶ The date of the tour is given erroneously as 1821 in David Kalakaua, *The Legends and Myths of Hawaii* (1888, rpt. Rutland, Vt., Charles E. Tuttle, 1972) 23.
- ¹⁷ William Ellis, *A Journal of a Tour Around Hawaii, the Largest of the Sandwich Islands* (Boston: Crocker & Brewster, 1825).
- ¹⁸ William Ellis, *Narrative of a Tour Through Hawaii, or Owhyhee. . . .* (1826, rpt. HA, 1963).
- ¹⁹ Ellis, *Polynesian Researches*.
- ²⁰ *HAA* 1909:134.
- ²¹ *HAA* 1911:136.
- ²² Joseph Goodrich, "Notice of the volcanic character of the Island of Hawaii," *American Journal of Science* 11 (1826): 2-7.
- ²³ Jared Sparks, *The Life of John Ledyard, the American Traveller . . .* (Cambridge, Mass.: Hilliard and Brown, 1828) 100.
- ²⁴ Goodrich made the first recorded ascent of Mauna Kea on 26 Aug. 1823 and thereafter made several subsequent trips. Alison Kay, editor of *Pacific Science* and an associate editor of *HJH*, concurs with this and the following information. On 16 and 17 June 1825, Goodrich guided James Macrae, botanist from the H.M.S. *Blonde*, up Mauna Kea. Macrae had heard an account of Archi-

bald Menzies' "journey to Mouna Roah" only a few days earlier, on the evening of 13 June, from John Young. See James Macrae, *With Lord Byron at the Sandwich Islands in 1825; Being Extracts from the MS Diary of James Macrae, Scottish Botanist* (1922, rpt. Hilo, Hawaii: Petroglyph Press, 1972) 55. Curiously, while both Macrae and Young were knowledgeable about Menzies' ascent of Mauna Loa, Goodrich was not.

Goodrich may subsequently have learned otherwise through Douglas, who found that the Hawaiians remembered Menzies' ascents. See A. G. Harvey, *Douglas of the Fir* (Cambridge, Mass.: Harvard U P, 1947) 226. Upon his arrival in Hilo, Douglas was made welcome by Goodrich and used the homes of Goodrich and the Reverend David Lyman as his headquarters during his stay. Goodrich advised Douglas regarding the route to the summit of Mauna Kea, which he himself had climbed, assisted in the arrangements, and even made simultaneous barometric readings for Douglas when the latter was on Mauna Kea. See Harvey, *Douglas* 214-7.

²⁵ Joseph Goodrich, "Notices of some of the volcanoes and volcanic phenomena of Hawaii, (Owyhee,) and other islands in that group," *American Journal of Science* 25 (1834): 201.

²⁶ *Missionary Album* . . . (1937, rpt. Honolulu: HMCS, 1969) 103.

²⁷ *Hawaiian Spectator* 1, no. 2 (April 1838): 98.

²⁸ M. I. Löwenstern, [Ascent of Mauna Loa in first week of February], 1839 ms, referred to in the *Journal of the Royal Geographical Society* 10 (1841): xvi, as "Mr. J. Löwenstern on a pyramid at Remedios, with a route from Mexico to Mazatlan, and ascent of Mowna Roa," but omitted from the report published in the *Journal* 11 (1841): 100-7. The manuscript is in the archives of the Royal Geographical Society, London.

²⁹ H. M. Whitney, *The Hawaiian Guide Book* . . . (1875, rpt. Rutland, Vt., Charles E. Tuttle, 1970) 93.

³⁰ Hitchcock, *Hawaii* 53.

³¹ Hitchcock, *Hawaii* 54.

³² W. B. Oleson, [On the Mauna Loa lava flow of 1880], *HG*, 1 Dec. 1880.

³³ David Douglas, *Journal Kept by David Douglas During His Travels in North America 1823-1827* (London: William Wesley & Son, 1914). The account has been published also in W. J. Hooker, "A brief memoir in the life of David Douglas," *Companion of the Botanical Magazine* 2 (1836): 158-77, and reprinted in the *Oregon Historical Society Quarterly* 6 (1905): 417-41.

³⁴ Douglas, *Journal* 306 and 316.

³⁵ Jean Greenwell, "Kaluakauka Revisited: The Death of David Douglas in Hawai'i," *HJH* 22 (1988): 147-69.

³⁶ James D. Dana, "On the volcanic eruptions of Hawaii," *American Journal of Science* 60, 2nd ser., vol. 10 (1850): 236-7.

³⁷ James D. Dana, *Characteristics of Volcanoes, with Contributions of Facts and Principles from the Hawaiian Islands* (New York: Dodd, Mead, 1890) 58-9.

- ³⁸ Dana, *Characteristics* 183.
- ³⁹ Mary C. (Molly) Summers, "The Ascent of Brenchl[e]y and Remy to Mauna Loa, Island of Hawai'i," *HJH* 22 (1988): 49.
- ⁴⁰ W. T. Brigham, *The Volcanoes of Kilauea and Mauna Loa on the Island of Hawaii* (Honolulu: BPBM, memoir 2, no. 4, 1909) 47.
- ⁴¹ Brigham, *The Volcanoes*, p. 63, included as a footnote Dana's comments of 1890, quoted in the text, and added, "The journal appeared in the *Companion of the Botanical Magazine*, ii, 79-182, in 1836. In the Journal of the Royal Geographical Society, 1834, iv, 333, is an important letter to captain Sabine, and in the Magazine of Zoology and Botany, 1837, i, 582, are extracts from his journal including the letter to Dr. Hooker."
- ⁴² Brigham, *The Volcanoes* 63.
- ⁴³ Harvey, *Douglas of the Fir* 228.
- ⁴⁴ Harvey, *Douglas* 229-30. A more complete version of this letter is printed in the *Hawaiian Spectator* 1, no. 2 (April 1838) 101-3.
- ⁴⁵ Löwenstern, [Ascent of Mauna Loa].
- ⁴⁶ *Journal of the Royal Geographical Society* 10 (1841): xvi.
- ⁴⁷ M. J[I]. Löwenstern, "Journey from the City of Mexico to Mazatlan, with a Description of some Remarkable Ruins," *Journal of the Royal Geographical Society* 11 (1841): 100-7.
- ⁴⁸ T. L. Wright and T. J. Takahashi, *Observations and Interpretation of Hawaiian Volcanism and Seismicity, 1779-1955, An Annotated Bibliography and Subject Index* (Honolulu: U of Hawaii P, 1989) 140.
- ⁴⁹ Charles Wilkes, *Narrative of the United States Exploring Expedition. During the Years 1838, 1839, 1840, 1841, 1842*, 5 vols. (Philadelphia: Lea and Blanchard, 1845) 4:159.
- ⁵⁰ G. A. Macdonald, A. T. Abbott, and F. L. Peterson, *Volcanoes in the Sea*, 2nd ed. (Honolulu: U of Hawaii P, 1983), state: "In 1840 the center of Mokuaweoweo caldera was a deep, nearly circular pit, the bottom of which was nearly 300 meters below the highest point of the western rim. At each end were crescent-shaped benches, called by Doctor Thomas Jaggar the North and South Lunate Platforms, that stood about 180 meters above the level of the central floor. . . . Throughout the later part of the century the central basin gradually filled up until finally, in 1914, lava flooded over the northern bench. In 1922 and 1940, lava from vents near the center of the caldera completed the burying of the old northern bench, and in the latter year flooded into North Bay. Not until 1949 did the southern bench finally lose its identity" (pp. 60-2).
- ⁵¹ Löwenstern meant that he himself was third to ascend and was the second after Goodrich.
- ⁵² Wilkes, *Narrative* 4.