

OCCASIONAL PAPERS

of Bernice P. Bishop Museum • HONOLULU, HAWAII

VOLUME XXIV/AUGUST, 1980/NUMBER 17*

HAWAII'S FIRST CHART? A RECENT REDISCOVERY

LEE S. MOTTELER
B. P. Bishop Museum

AT SUNRISE on January 18, 1778, James Ward, a midshipman aboard HMS *Resolution*, commanded by Captain James Cook, sighted an island through the haze and gave the call that heralded the European discovery of the Hawaiian Islands.¹ The ship's master, William Bligh, would have noted this sighting in the ship's log, which it was his duty to keep. He also, in the following days, would probably have undertaken surveys for the accurate charting of these hitherto unknown islands, singularly positioned in the middle of the North Pacific Ocean. Bligh's log would be fascinating indeed to those seeking information on the first European contact with Hawai'i.

This privilege is sadly denied us, because the Bligh log, if it indeed existed as substantiated below, has never come to light. It can be imagined, with what we know of the Bligh personality, that he may have secreted the document and kept it from public view to protect his abiding self-interest. As the acclaimed Cook biographer John C. Beaglehole (1967, Vol. 3, pt. 1, p. clxxvi) observes:

We have nothing from Bligh, the master of the *Resolution*, either log or journal, and it would be curious if he had put nothing on paper. As master he was responsible for the ship's log, and might have contented himself with that, but neither do we have a ship's log. There was one, for [Lt. James] King refers to it in the statement preliminary to his own log . . . and we can perhaps see copies of it in logs attributable to others.

* Volume XXIV of the Occasional Papers is published in honor of Edwin H. Bryan, Jr., whose service to Bishop Museum began in 1919. He was for many years Curator of Collections, and at present is Manager of the Museum's Pacific Scientific Information Center. A Symposium, at which several of the papers in this volume were read, was held at the Museum on April 13, 1968, honoring Mr. Bryan on the occasion of his 70th birthday.

¹This island proved to be O'ahu, out of reach to windward and not visited until the following year; Kaua'i was seen soon after and was the island first visited (Beaglehole, 1967).

The absence of any full account by Bligh from Captain Cook's third voyage forces us to look elsewhere for his contributions and his impressions. In doing so we are rewarded by his letters and the marginal notes—often scathing—added to his copy of the third voyage atlas, which, besides informing us of important facts, illustrate well the Bligh character and temperament. This was the man, we recall, who later commanded the ill-fated *Bounty*, whose crew responded with mutiny to his conduct of that voyage. Following is an excerpt of a letter from Bligh to James Burney, dated 26 July 1791 (Beaglehole, 1967, Vol. 3, pt. 2, p. 1565):

I wish also . . . to declare, that the Sandwich Islands published wth Cook[']s Voyage are entirely my survey . . . Unfortunately by way of describing Mountains & making flourishes [Lt. Henry] Roberts has mortified me by his copy of the Sandwich Islds; for in my Plan which he copied from; the situations of the remarkable Mountains were accurately determined & shown, but in the present they are lost. (Dixson Library MS.)

Beaglehole adds, "It is a pity that only the engraved chart of this group has survived." The engraved chart of Hawai'i (Cook's *Sandwich Islands*, Fig. 1), there can be little doubt, was based on Bligh's surveys, which are no longer available to compare with Roberts's rendering, so we may never know how much merit there is in Bligh's remarks. How much better it would be if we could make our own judgment based on the manuscript, rather than being forced into a judgment of the man based on what appears to be another example of his self-righteous indignation. There is, of course, abundant proof of Bligh's excellence as a surveyor and draftsman in his other works, and Beaglehole's assessment of the loss seems quite an understatement to the student of early Hawaiian cartography.

However, owing to a recent development, which is the subject of this paper, Beaglehole's statement is not entirely accurate. A manuscript chart (Fig. 2) of a portion of the Hawaiian Islands has been lately rediscovered, and perhaps fully appreciated for the first time. Lacking any original chart work of Bligh's, we must immediately recognize it as the earliest cartographic representation of Hawai'i. Clearly also, it stands as the only Cook manuscript to depict one or more of the Islands in their entirety (several exist showing Kealakekua Bay, island of Hawai'i).**

In this paper, the rediscovered chart will be referred to as the "manuscript chart" to distinguish it from the Roberts chart based on Bligh's surveys, referred to herein as the "engraved chart."

**See Addendum at end of this paper.

Perhaps before pursuing the story of this chart, it should be mentioned that Cook's primacy as the first European to visit Hawai'i is still questioned in some circles. Since this notion throws doubt on the basic assumption of this paper, a discussion and interpretation seem appropriate here.

THE SPANISH MYTH

Controversy persists regarding the European discovery of the Hawaiian Islands prior to Cook, chiefly by the Spanish. Dahlgren (1916) consulted the Spanish archives to investigate the numerous navigators to whom various writers have assigned this claim. After his extensive research, he concluded there is no evidence to support the thesis that Hawai'i was ever visited, or even seen, by the Spaniards. Stokes (1939) reviewed the material presented by Dahlgren, adding some new data and his own analytical observations, ending with a most convincing argument refuting the theories, as had Dahlgren. But the enduring myth, which links romance with "castles in Spain" (Stokes, 1939, p. 40, footnote), refuses to die.

It is not my intention in this paper to consider the details of the several voyages most frequently mentioned as alternative candidates to Cook's discovery, since this information is adequately covered in the two sources referred to. My purpose requires only that I establish with reasonable certainty the lack of any truly authentic, recognizable chart of Hawai'i predating the Cook era. In fact, this has already been done, to the satisfaction of all but the most skeptical. The many early maps purported to include the Hawaiian Islands (given a variety of names) are general maps of quite small scale, typically badly distorted longitudinally, and with details that are contradicted in contemporary written accounts or that have since been satisfactorily explained. No large-scale chart of any Hawaiian island or harbor predating Cook has ever been seen; all supposition has been based on charts which contain gross misrepresentations of the Pacific. For the purposes of this paper, that would seem to be enough. But in addition to unreliable or nonexistent cartography, we enlist logic conditioned by a sense of history to explain why it is unlikely that Cook was preceded, at least by other Europeans:

—There is no confirmation that articles of Hawaiian material culture, such as the feather helmet, were the result of outside influence rather than internal developments. Similar circumstances occur elsewhere in Polynesia (Stokes, 1939).

- The Spanish for two and a half centuries adhered to the prescribed royal sailing instructions in their voyages between Acapulco and Manila. These carried their galleons far enough south (usually 13° north latitude) on the outbound leg to preclude the sighting of Hawai‘i. The route was consistently fast and safe (for that time), and there was no compelling reason to alter it for purposes of seeking new lands. One of the advantages seen for the southern route was its lack of navigational hazards. On the return voyage, a much longer and more arduous passage, it was necessary to sail far to the north of Hawai‘i for favorable winds and currents; and although intervening land would have been welcome indeed, it would have been difficult at best to approach from the west. Such voyages never afforded the luxury of exploration, for without the certainty of a landfall any delay could mean not reaching the North American coast.
- If we accept the incredible suggestion that the Spaniards, having discovered Hawai‘i, managed to hide it from the world, then we must recognize it as one of history’s best-kept secrets. Perhaps some see a parallel in the secrecy which shrouded the discovery of Torres Strait, the passage between New Guinea and Australia. First navigated by Luis Vaez de Torres in 1609, it did not appear generally on maps until rediscovered among Spanish manuscripts by British geographer Dalrymple (1770 and Chart, 1767) in time for Cook’s first voyage, after which it was renamed Endeavour Straits and so appeared on charts for many years. The fact that Dalrymple’s research uncovered this supposed “secret” among the Spanish writings suggests that, had there been prior knowledge of such a potentially invaluable group of islands as the Hawaiian Islands, some record of it would surely have turned up in those same sources he consulted.
- Cook himself, from firsthand observation, doubted that the Hawaiians had been previously visited by Europeans, who would certainly have made use of the ideal situation of the islands. This would have been particularly expected of the Spaniards (Lloyd, 1949). The evidence simply refuted it, and Cook’s men were competent observers. The natives were familiar only with iron, some of which was in use for tools or weapons, and which was, of course, highly esteemed. Captain Clerke (typescript, Bishop Museum) describes a native’s response to a question about the origin of the iron, initially interpreted to mean that it had come from “Tai,” an island indicated to be southeast of Kaua‘i. Later discussions revealed that iron had drifted to shore fixed in wood, probably the

remnants of European shipwrecks. We can now surmise that instead of an island, the native was merely indicating the sea, which he also named (use of the "T" in Kaua'i speech at that time made it "Tai" as opposed to the more familiar "Kai"). Although various shipwreck theories still have many proponents, there is yet no evidence that wreckage brought anything more culturally significant than iron.

—Those who still believe in pre-Cook "discovery" of Hawai'i by other than Polynesians may have to content themselves with the possibility that survivors of vessels drifting from Japan or the Orient may have reached the islands, as has occurred in historic times (Stokes, 1939).

THE CHART REDISCOVERED AND IDENTIFIED

When the late Catherine Stauder of Kaua'i Museum was researching manuscripts at the Bishop Museum Library in 1977, she came across a photocopy of an extremely interesting chart. She recognized that it depicted Kaua'i and Ni'ihau, and thought that it might be the earliest chart of those islands. She was correct.²

But what was the origin of the chart? Who was the draftsman? The answers were not readily apparent, and finding them involved analysis of cartographic technique, data and symbols employed on the chart, and a review of details recorded in the official accounts of Cook's third voyage. The search held an exciting promise only rarely encountered these days, and to savor the experience meant that it should be done methodically. This was an unusual and enjoyable chain of events.

For once, Beaglehole and his great biography could not provide the answer; the chart is not among those reproduced in his portfolio (Skelton, ed., 1955), nor is it mentioned in his introduction. Clues were gleaned from both places, however. The portfolio made possible the comparison of cartographic style with our mystery chart, and the resulting similarities seemed to be confirmed by Beaglehole's pertinent notes. But the best clues were provided by a close examination of the chart itself (Fig. 2).

Perhaps the most obvious clue was the ship's track shown approaching Kaua'i from the southeast, as had Cook's ship. The track was not quite the same as that of the *Resolution*, however, judging from the engraved chart

²Catherine Stauder [1914-1980] deserves the credit for bringing this landmark chart to public attention and out of obscurity.

CURRENT*	MS. CHART	CLERKE	EDGAR	ENGRAVED CHART	COOK	SAMWELL
Kaua'i	A'tou-i	A'tou'i A'tow'i	Atou:i	Atooi	Atoui Abootaberry	Atowai
Waimea	Buta-bara Road	Booter- berry	Boo:ta:berry Road	Wymoa	Ohimea Wymoa	Bootaberry O-waimea
Ni'ihau	O'nee-how	O'nee-how	O Neehow Oneehow	Oneehow	Enceehewou	Neehaw Nehaw
Lehua	Oree-how	Orre-houa	—	Oreehoua	Oree'houa	Oro-houa
Ka'ula	Ou-tow-ra	Ou'towra Ta'oo'ra	Ou:tou:ra	Tahoorā	Otaoora	Ta-ura
O'ahu	Wou-a-hoo	Wou'a'hoo	Wou:a:hoo	Woahoo	Wouahoo	Oahoo

*Source: Pukui, Elbert, and Mookini, 1974.

previously mentioned. The possibility that the track represented the route of HMS *Discovery*, the *Resolution*'s companion vessel, immediately changed the direction of the inquiry. Copies of official accounts written aboard the *Discovery* were sought out and read. Initial reference was made to a typescript collection of Cook journals and logs copied from records on file in the Archives Division, State of Hawai'i (bound volume in Bishop Museum Library). Of particular interest were the accounts of the Commander, Captain Charles Clerke, and Thomas Edgar, Master.

In comparing place names, the spellings used in Clerke's log are more similar to those found on the chart than Edgar's, although there is not total agreement. These discrepancies made me curious as to the variations in orthography employed in other accounts of the voyage, and as published on the engraved chart. The names were, of course, written using the English phonetics of the time and varied according to the listener; but it has been said that the result was often a closer approximation of the sound of the name as originally pronounced than that achieved by the orthography standardized and adopted later by the missionaries (Beaglehole, 1967). Some of the many spellings and their sources are listed here in the accompanying table.

As can be seen, all accounts were initially in error concerning the name for Waimea, the site of Cook's first landing in Hawai'i. The attempt to find a similar spelling to the manuscript chart's *Buta-bara Road* produced the variants *Abootaberry* (Cook), *Bootaberry* (Edgar and Samwell) and *Booterberry* (Clerke). Obviously, none of these were an attempt to spell Waimea, so what was being named? Among the first to get the right name, apparently, was Cook, whose journal has both *Ohimea* and *Wymoa* (the latter name was used by Roberts on the engraved chart, although it was an

unfortunate choice). On the second visit in March, 1779, after Cook’s death, George Samwell, surgeon’s mate on the *Discovery*, correctly distinguished the two names, and gave the best rendering of all: “the Indians calling the Town & River off which we lye O-waimea and giving the Name of Boot a berry to a Mountain lower down & some way inland” (Samwell, 1779, p. 10).

The name *Bootaberry* has been identified with *Pu’u ka Pele* (Beaglehole, 1967), a peak on the edge of Waimea Canyon. The contention is that natives offered this name when the visitors asked what their village was called, probably from shipboard which might explain the misunderstanding (for if they were on land it would seem unlikely that their gestures would be taken to indicate a feature so far inland). *Pu’u ka Pele* was the site of houses and a *heiau* (Bennett, 1931), and a legend concerning the goddess Pele. It is conceivable that the Hawaiians may have assumed the foreigners had prior knowledge of it.

Thus the chart spelling of *Buta-bara Road* had still not been encountered in the accounts so far reviewed. It took a comparison of entries on anchorages with those noted on the chart to establish that it was indeed drawn aboard the *Discovery*. In his entry of January 30, 1778, Clerke notes: “PM At 1 came too [*sic*] with the small Bower in good sandy Bottom in 33 Fathom Water . . .”

On the chart (Fig. 2), an anchorage is denoted off the southwest coast of Ni’ihau, with an adjoining sounding of 33 fathoms. Nearby is added the word *Sand*, designating the composition of the bottom at that location. There was now no doubt that the ship’s track and anchorages portrayed on the chart are those of the *Discovery*, and this is the only graphic record we have of her route in Hawaiian waters.**

The chart shows that the ship’s track is discontinuous, being broken between Kaua’i and Ni’ihau. There is a running account in Clerke’s log explaining what happened:

23d [Jan. 1778]: At 7 the Resolution, having anchor’d [*sic*] too near a reef of Rocks, weighed, to shift her Birth [*sic*] clear of them, but the Wind baffling her, she fell to Leeward of any birth at all, and was under the necessity of standing away to sea.

24th: An officer came on board from Capt. Cook with an Order to me, that in case the Resolution cou’d not get up to an anchoring place this Evening, to take the first opportunity of getting under way, and joining her.

25th: . . . after towing and taking a great deal of trouble till 8, I was obliged to come too [*sic*] again in a much worse Birth than it I had left, to prevent being driven into foul ground to the Westward . . . working to windward with the Resolution to regain the anchoring Birth

**See Addendum at end of this paper.

- 26th: We have been exerting our utmost to recover the old anchoring Birth, but have made very poor progress
- 27th: Still working to Windward or at least endeavouring to work to windward to regain A'toui, but I fear our trouble will stand us in very little stead, for we seem to be quite out of luck. The Winds are very unsteady and they baffle us; then here is a confounded current setting to the Westward, which altogether bid very fair to drive us from that good Isle altogether.
- 28th: We are still working for A'tou'i At Sunrise we were out of sight of land entirely We have now almost work'd ourselves out of countenance we can but just see the looming of our old Isle; however we shall tumble in among some of the Leeward ones again there's no fear.
- 29th: At Sunset the Body of O'neehow NNW.

By noting the *Resolution's* erratic track on this passage, as recorded on the Bligh/Roberts engraved chart (Fig. 1: dashed line), Clerke's exasperation in attempting to follow his commander can be fully appreciated.

The final questions now are: Which officer aboard the *Discovery* was responsible for our mystery chart? Whose log contained it? The log of Charles Clerke provided the best clues, and his place names seemed closest to those appearing on the chart. As has already been stated, however, surveying and charting were primarily the responsibility of the ship's master, and although the commander of a vessel sometimes contributed (notably, Captain Cook himself), Clerke is not so credited (Beaglehole, 1967). Thus, despite some rather serious disagreements in the spelling of place names, it was the log of Thomas Edgar which I sought.

The Archives Division, State of Hawai'i, has on file a negative photostatic copy of the portions of Edgar's log which pertain to Hawai'i (Edgar, 1778). I turned over its pages with anticipation, recalling how much this chart resembled in cartographic technique those of Edgar reproduced in the portfolio accompanying Beaglehole's *Journals*. Suddenly the chart appeared, just opposite Edgar's "Remarks at Buta-bara Road, Jan. 20, 1778," and one could understand how it might be overlooked. Edgar's log is among the more obscure accounts of the voyage, and the significance of this chart would certainly not be immediately obvious to someone viewing it in so inferior a reproduction for the first time. Since I was searching for it, and had already seen a much better copy, recognizing it was not difficult.

With the origin of the chart established as the Edgar log, it can be stated with authority that the typescript consulted in the Bishop Museum Library is from another source—possibly the journal of Thomas Edgar. Here Edgar may have changed the spelling of some place names (for example, *Buta-bara* to *Boo:ta:berry*) to agree more nearly with other accounts, the wording of which Beaglehole suggests he probably copied in part.

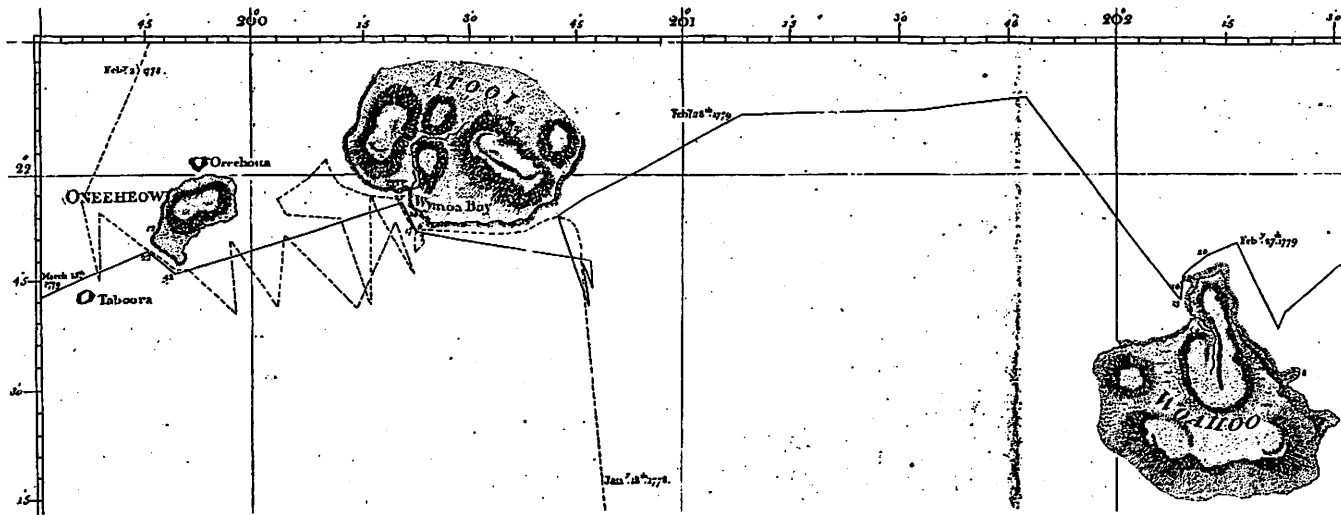


Figure 1.—A portion of the engraved chart of Cook's *Sandwich Islands*, showing only the islands included on the manuscript chart (see Fig. 2). Often referred to as Hawai'i's earliest, the engraved chart was published in the official account of the third voyage (Cook and King, 1784). It is credited to Lieutenant Henry Roberts, who probably used William Bligh's original surveys, now lost (Beaglehole, 1967). Bishop Museum Library collection.

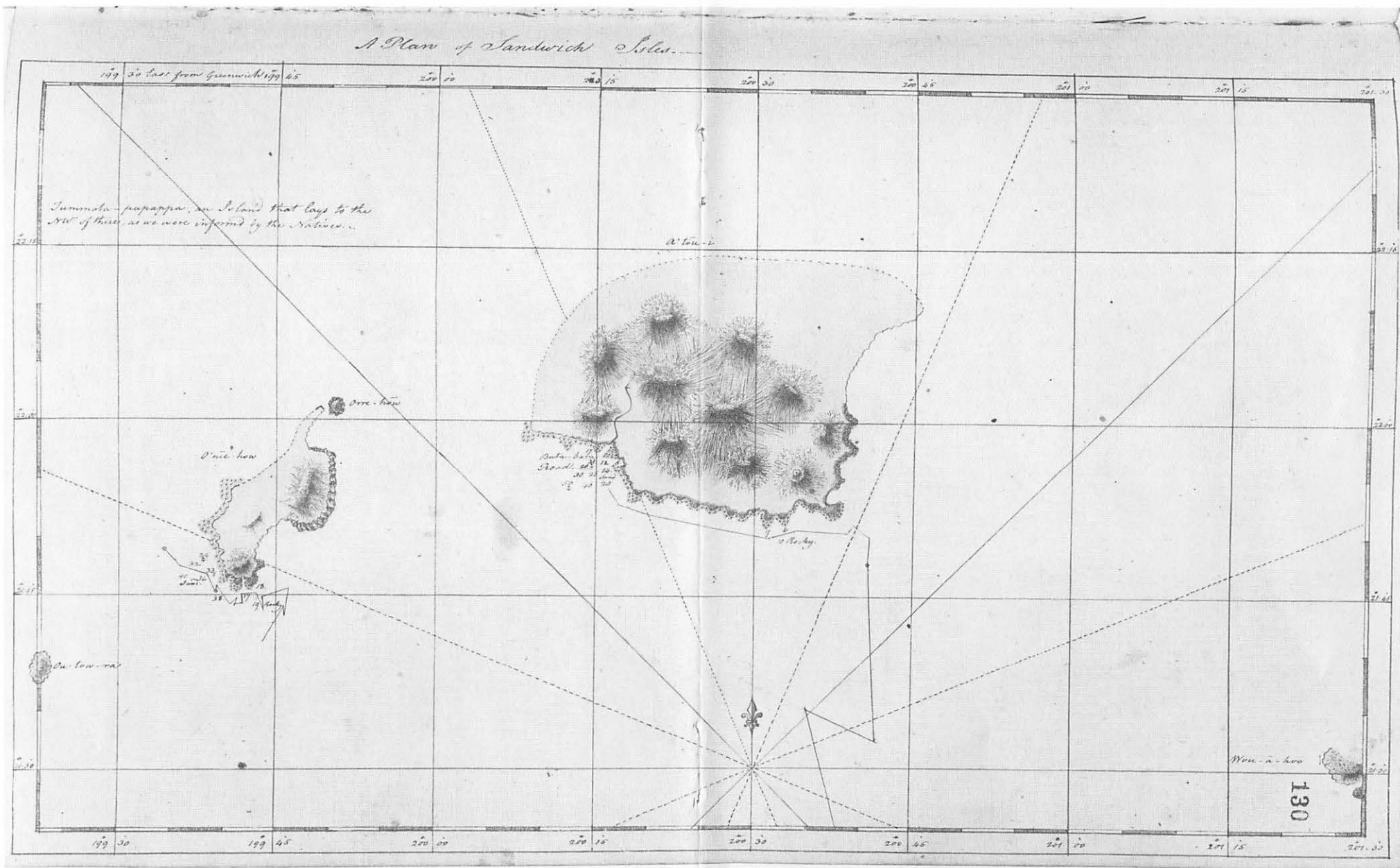


Figure 2.—Thomas Edgar's chart, drawn in 1778. The islands named are (from east to west): O'ahu (Wou-ā-hoo), Kaua'i (A'tōu-i), Lehua (Orre-hōw), Ni'ihau (O'nēe-how), Ka'ula

(Ou-tow-ra), and Moku Pāpapa (Tummata-papappa, not shown). Reproduced from Adm 55/21, Public Records Office, Kew, England (Crown copyright).

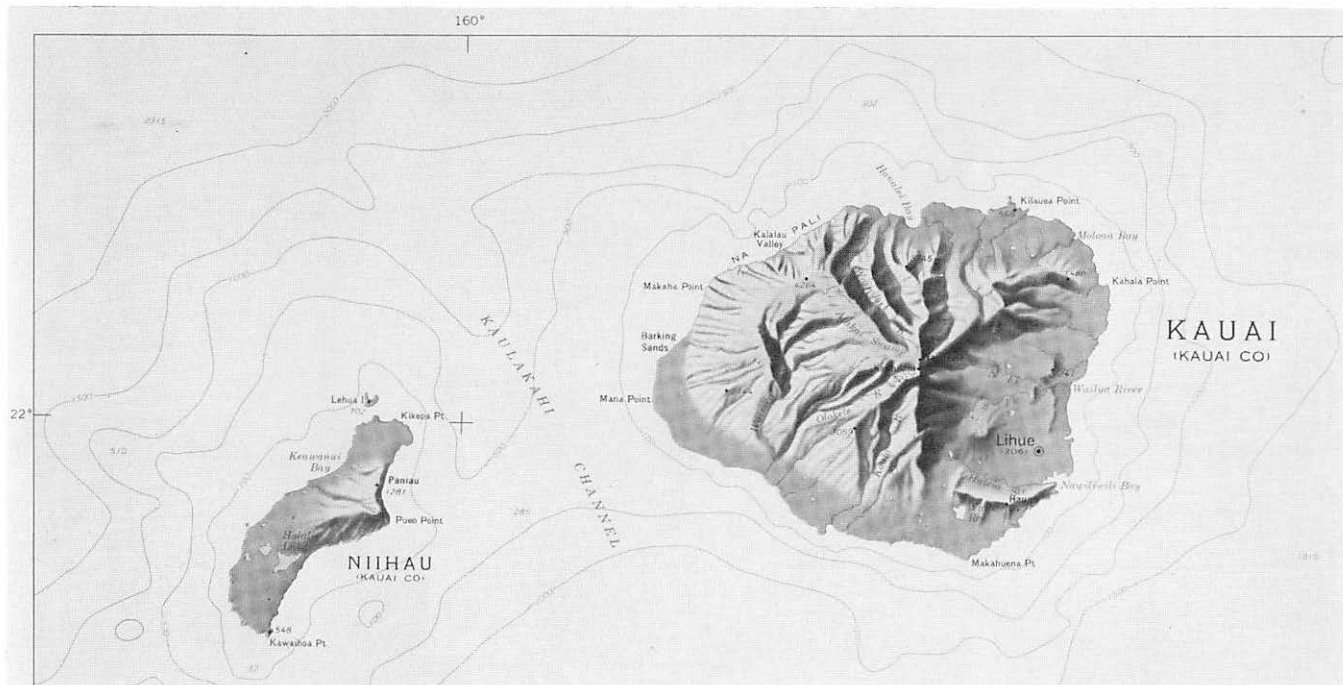


Figure 3.—A portion of the State of Hawai'i map (shaded relief ed.), 1972. Original scale 1:500,000. U.S. Department of the Interior, Geological Survey.

The original log of Thomas Edgar is now held by the Public Records Office in Kew, England, through whose kindness and cooperation we were able to obtain a photographic reproduction of the chart (Fig. 2), entitled "A Plan of Sandwich Isles." The original chart's dimensions of 23 × 40 centimeters (approx. 9 × 16 in.) have made it impractical to reproduce at full size in this paper.

THE *DISCOVERY'S* MASTER

Thomas Edgar, then, has the historic distinction of being the surveyor-cartographer of Hawai'i's first map, in the absence of any of Bligh's original charts of the Hawaiian Islands.** Edgar would have compiled his chart of Kaua'i and Ni'ihau between January 20 and February 2, 1778, when Cook's ships first visited those islands. By contrast, the first detailed chart of the group to appear in print was that of Roberts (Fig. 1, the engraved chart based on Bligh's surveys) published in the official account of the voyage (Cook and King, 1784). But what do we know of Edgar and his abilities? Here Beaglehole (1967, p. lxxxix) answers:

The *Discovery's* master, Thomas Edgar, is . . . a great journal-keeper and describer of harbours, a careful man with his charts; not very highly educated perhaps, but with considerable capacity; a little sentimental, to judge from his words on the Angels of Tahiti; one would conclude a worthy conscientious hard-working man.

To this glowing assessment of Hawaii's premier cartographer, Beaglehole adds his praise of Edgar's contribution to the third voyage (p. ccxvi):

. . . the most exact and comprehensive hydrographic record of the *Voyage* extant is the generously illustrated log of William [*sic*] Edgar, master of the *Discovery*, Adm 55/21,24 . . . The chartwork of Bligh, Edgar and Riou is unsurpassed in quality of execution by any of that, even from Cook's hand, done on the two previous voyages . . .

Discussing the finer details of Edgar's work, Beaglehole continues (p. ccxvii):

Edgar commands an effective style of drawing, at once relaxed and precise, which is seen at its best in his charts of Polynesian islands. Here expressive conventions are employed for reefs and other offshore detail; and land cover is delineated in a free "shorthand", with use of brushwork shading for relief, in the manner which Cook himself had twenty years earlier learnt from the military surveyor.

**See Addendum at end of this paper.

Beaglehole was obviously impressed by Edgar's log, which contains no fewer than 31 superb charts. Why he did not reproduce the landmark Sandwich Isles chart in his portfolio (Skelton, 1955) is an enigma. Fully ten of Edgar's charts are included among the 58 plates, and significantly, one of these is of Christmas Island, the discovery immediately preceding Hawai'i; another, reproduced from James Burney's journal, is of King George's Sound (Nootka Sound, Vancouver Island), Cook's next landing place after leaving Hawai'i. Beaglehole has omitted the most important chart of all, both in relation to the discovery and the significance of the chart itself.

It can be said that Cook thought of the Hawaiian Islands as his most important Pacific discovery, since many of the lands that he was the first to explore and survey had been seen or visited by earlier navigators. The relative importance of Hawai'i, the lack of the Bligh charts (or any other third-voyage charts of the Hawaiian Islands),** and Beaglehole's testimonial on Edgar's charting expertise, all combine to render incredible the fact that Beaglehole overlooked this unique chart and instead reproduced the familiar engraved chart. After all, he made a count of the number of charts in Edgar's log, so there can be little doubt that he saw it. One might argue that Beaglehole did not consider the chart, which shows only a portion of the group, to be representative enough for public recognition. But here we are reminded of Beaglehole's seemingly casual comment, which now takes on increasing significance: "It is a pity that only the engraved chart of this group has survived."

It becomes clear that, at least when Beaglehole wrote this statement, he believed there were no extant manuscript charts depicting the "group." Perhaps he was implying "all islands of this group," but this is nitpicking; so is the contention that the statement was necessarily meant only for Bligh, since it is quite straightforward and inclusive. The chart must stand on its own merits, and these Beaglehole must not have recognized. We must assume Beaglehole was unaware of the chart's great significance, but it is almost easier to accept that it was merely overlooked.

In later years, apparently, Edgar's fortune never again equaled that which he had enjoyed on Cook's third voyage (Beaglehole, 1967, p. lxxxix):

Promoted lieutenant in 1781, he remained a lieutenant in active service for many years, sinking—like innumerable such men—his disappointments in drink, harking back, for his juniors, to the heroic years.

**See Addendum at end of this paper.

Some additional information is given in the inscription on Edgar's tombstone, including a rhyme, the sentiment of which may suggest that Edgar wrote his own epitaph (Cartwright, 1925):

In Memory of Lieut. Thos. Edgar, of the Royal Navy, who departed this life Octr. 17th, 1801, aged 56 years. He came into the Navy at 10 years of age, was in that memorable Engagement with Adml. Hawk, and sail'd round the World in company with the unfortunate Captain Cook of the Resolution in his last voyage, when he was kill'd by the Indians at the Island of Owhie in the South Seas the 14th Feby., 1778 [*sic*: 1779].

Tom Edgar at last has sail'd out of this World.
His shroud is put on & his topsails are furl'd.
He lies snug in death's boat without any concern,
And is moor'd for a full due ahead & astern.
O'er the Compass of Life he has merrily run;
His voyage is completed, his reckoning is done.

“A PLAN OF SANDWICH ISLES”

Edgar's chart is interesting in many ways, beyond the obvious points already mentioned. One of its major assets is its comparatively large scale, and the detail that this makes possible. Although Edgar has not included a bar scale, the representative fraction can be determined by measuring the coordinates of latitude. The scale of the original is thus approximately 1:545,000, compared to a scale of about 1:1,500,000 on the engraved chart (Edgar's scale appears somewhat larger than it should be, because the apparent size of the islands was exaggerated from errors in observation).

Edgar's chart, then, boasts a scale nearly three times as large as the engraved chart, which has so long been assumed to be the only surviving group chart from the discovery period and thus also the most detailed. Of course, Edgar's plan is not of the entire group, so we must qualify our definition by saying that only Kaua'i and Ni'ihau (with the lesser isles shown) have the good fortune to be represented at three times the size they appear on the erstwhile “first” chart.

The larger scale employed by Edgar, and his use of the “expressive conventions” mentioned by Beaglehole, make possible detail that far surpasses the engraved chart. In particular, the southern coastline of Kaua'i is carefully delineated in Edgar's distinctive style, using an X-dot pattern for reefs and shoals. When closely compared with a modern map (see section of U.S. Geological Survey map, Fig. 3), the portion of Kaua'i from about Kekaha to Wailua is amazingly accurate. Although they are not precisely

placed and are unnamed, one can discern Hanapepe Bay and, to the east, the unmistakable outline of Nāwiliwili Harbor. On the engraved chart, such mere indentations of the coastline are lost totally.

The northern part of Kauaʻi is unfortunately distorted by an eastward elongation, but in this we can forgive Edgar, for the north coast of the island was not seen. The engraved chart, however, was prepared after Kauaʻi had been seen a second time, when it was viewed from the east and considerably northward on the return visit (February, 1779). Therefore, in this detail the engraved chart is more correct than Edgar's, although both use dotted lines in completing the northern circuit of the island to indicate that this part of the coast was not surveyed.

Interior detail, as might be expected, is a rudimentary approximation of the rugged terrain employed with varying degrees of success. With Kauaʻi, Edgar has given us what appears to be an island of eleven distinct peaks, instead of the familiar ridges and valleys, but the engraved chart is even less discriminating in its five raised features. At least on Edgar's manuscript, some of the hills are recognizable, although again unnamed: Hāʻupu, near Nāwiliwili; Nonou (or Nounou, "Sleeping Giant") at Wailua; and near the center of the island, one which could be Kawaikini or Waiʻaleʻale, the highest peaks on Kauaʻi.

With Niʻihau Edgar has attained the height of his skill as a surveyor and draftsman. If the best points of his and the engraved chart could be combined, we would have a nearly perfect facsimile of this island and its neighbor, Lehua (Orre-how), which is quite a tribute to the ability of the first men to chart it. Edgar's depiction of the cliffs along the east coast of Niʻihau is quite good, while his configuration of the southern half of the island is excellent. Again the north coast was seen only at a considerable distance, which explains the narrow neck of land extending toward Lehua, and the dashed coastline. This error and the position of Lehua, somewhat too far east on the Edgar chart, are improved on the engraved chart, although overall Edgar's is the superior delineation. The position of Kaʻula (Ou-tow-ra) southwest of Niʻihau is also more correct on Edgar.

The inclusion of Oʻahu (Wou-ā-hoo), the first of the Hawaiian Islands sighted by Cook, indicates that its name was obtained from the natives of Kauaʻi. It was only faintly seen and too far to windward to be approached, and consequently its distance from Kauaʻi was underestimated by about half a degree. This distance was corrected the following year when Oʻahu was briefly visited, as reflected on the engraved chart.

Finally, there is a note referring to an island not seen, written in the upper left-hand corner of the chart: "Tummata-papappa, an Island that lays to the

NW of these, as we were inform'd by the Natives” A similar mention is found in most of the accounts of the third voyage, and it presents an intriguing puzzle. Although it has been suggested to be a reference to Nihoa, this is an incorrect application of the name. Nihoa, nearest of the northwestern Hawaiian Islands, was known to the people of Kaua'i, who apparently visited it for its birds, but it was never called by this name. In today's orthography, *Tummata-papappa* becomes *Kumaka-pāpapa*, but as Samwell's phonetics are usually more reliable, his rendering of the name as *Modoopapappa* (*Moku pāpapa*) is probably the most accurate.

It is altogether possible that the Hawaiian informants were only describing an island, not naming it. If this is the case, the *moku* (“island”) described would be “low, flat, as a reef” which is the meaning of *pāpapa* (Pukui and Elbert, 1971, p. 293). Such a definition could hardly apply to either Nihoa or its farther neighbor, Necker Island, both of which rise abruptly to considerable heights. It seems quite probable that we have evidence here to support the thesis that Hawaiians visited or had knowledge of one of the low islands beyond Necker. (Curiously, the name *Moku Pāpapa* has been applied to distant Kure Atoll, the farthest west in the entire Hawaiian chain, but it is thought that this was in the post-discovery period; it can scarcely be credited that Hawaiians would have voyaged such a great distance when the resources sought were to be found much closer at hand.)

CONCLUSION

It is fortunate for Hawai'i that the Thomas Edgar chart exists and that it has now been brought out of obscurity. It is a feast for the eyes to anyone who has lamented the woeful lack of detailed cartography from Hawaii's discovery period. As a graphic record from the initial encounter of Europeans with these Islands, it holds a position unique among all our manuscripts. As a document that depicts superbly the configuration and features of Kaua'i and Ni'ihau as first recorded, it is unequalled.

It is to be hoped that other early documents, including cartographic records long since lost sight of, will be sought out and brought to light. Valuable manuscripts still occasionally turn up in unexpected places, and sometimes by accident; but the find is more significant if by design. The rediscovery of Edgar's chart has emphasized that, for Hawai'i at least, the rewards of such a search could be very great indeed.

ADDENDUM

Since this paper was written, another manuscript chart has been "rediscovered" which renders many of the statements and assumptions above misleading or erroneous. It appears in the journal of James Burney, First Lieutenant on HMS *Discovery*, and is contemporary with Thomas Edgar's chart (January/February, 1778). In fact, since the actual range of dates over which the two charts were drawn will probably never be known, both now qualify as Hawaii's earliest (together with any other first contact charts from Cook's third voyage discovered subsequently).

Burney's chart is another stupendous find, nearly equal to that of Edgar. It covers the same islands, but with the northern part of Kaua'i (Atoui) left incomplete. Burney compensates for this in his delineation of Kauai's southern coastline, which is so precise that it compares favorably with maps of today. The portion of the *Discovery's* track missing from Edgar's chart (from Kaua'i to Ni'ihau) is provided by Burney, completing the graphic record of her passage on this first visit. A much larger portion of western O'ahu (Wouahow) appears on Burney's chart than on Edgar's, complete with what must be the first attempt to depict the Wai'anae Range. The islands of Lehua and Ka'ula near Ni'ihau (Neehow) are shown but unnamed. Overall, Burney has left us another excellent cartographic record of Hawaii's discovery by Europeans, a record which will be the subject of continuing investigation.

LITERATURE CITED

BEAGLEHOLE, J.C.

1967. *The Journals of Captain James Cook on His Voyages of Discovery*. Cambridge: Univ. Press for Hakluyt Society. Vol. 3, *The Voyage of the Resolution and Discovery 1776-80*. Pts. One & Two. ccxxiv + 1647 pp.

BENNETT, W.C.

1931. *Archaeology of Kauai*. B.P. Bishop Mus. Bull. 80. 156 pp.

CARTWRIGHT, F. (contributor)

1925. "An Extract from 'Chambers Journal,' June 21, 1879, Touching on 'Civilization in Polynesia,' and an Epitaph Commemorating a Cook's Lieutenant." *Paradise of the Pacific* 38(2): 12-13.

CLERKE, C.

1778. Typescript copy of *Log and Proceedings, February 10, 1776 - May 17, 1778*. Kept by Charles Clerke, Commander of *Discovery*. 20 pp. (From negative photostatic copy, item 186 in Cook Collection, Archives Div., Dept. of Acctg. and Gen. Services, State of Hawai'i. Original: Adm 55/22 in Public Records Office, Kew, England.)

COOK, J., and J.R. KING

1784. *A Voyage to the Pacific Ocean . . . for Making Discoveries in the Northern Hemisphere Performed under the Direction of Captains Cook, Clerke and Gore . . . in the Years 1776, 1777, 1778, 1779 and 1780*. London: Nicol and Cadell. Vol. 3, Sandwich Islands chart (opp. p. 1).

DAHLGREN, E.W.

1916. *Were the Hawaiian Islands Visited by the Spaniards before their Discovery by Captain Cook in 1778?* A contribution to the geographical history of the North Pacific Ocean, especially of the relations between America and Asia in the Spanish period. Stockholm: Kungl. Svenska Vetenskaps-Akademiens Handlingar. Bd. 57 No. 4.

DALRYMPLE, A.

1767. *Chart of the South Pacific Ocean, Pointing out the Discoveries Made Therein Previous to 1764*. Publish'd according to Act of Parliament Octo' 1767. In *A Letter from Mr. Dalrymple to Dr. Hawkesworth . . .* London: Nourse, 1773.
1770. *An Historical Collection of the Several Voyages and Discoveries in the South Pacific Ocean*. Being chiefly a literal translation from the Spanish writers. London: printed for the author.

EDGAR, T.

1778. Photostatic copy of *A Log of the Proceedings of His Majesty's Sloop "Discovery," Charles Clerke, Esq., Commander - Commencing the 10th February, 1776, and ending August 4, 1778*. Kept by Thos. Edgar, Master. (Item 111 in Cook Collection, Archives Div., Dept. of Acctg. and Gen. Services, State of Hawai'i. Original: Adm 55/21 in Public Records Office, Kew, England.)

LLOYD, C. (ed.)

1949. *The Voyages of Captain James Cook Round the World*. London: Cresset Press.

PUKUI, M.K., and S.H. ELBERT

1971. *Hawaiian Dictionary*. Honolulu: Univ. Press Hawai'i.

PUKUI, M.K., S. H. ELBERT, and E. T. MOOKINI

1974. *Place Names of Hawaii*. Honolulu: Univ. Press Hawai'i.

SAMWELL, D.

1779. Typescript copy of *Some Account of a Voyage to South Seas In 1776-1777-1778 Written by David Samwell Surgeon of the Discovery* (10 February 1776 - 29 November 1779). 35 pp. (From handwritten copy, item 119 in Cook Collection, Archives Div., Dept. of Acctg. and Gen. Services, State of Hawai'i. Original: British Mus. Egerton Ms. 2591, London.)

SKELTON, R.A. (ed.)

1955. *Charts & Views Drawn by Cook and His Officers and Reproduced from the Original Manuscripts*. Cambridge: Univ. Press for Hakluyt Society. (Portfolio in: J.C. Beaglehole, *The Journals of Captain James Cook on His Voyages of Discovery*.) viii + Charts I - LVIII.

STOKES, J.F.G.

1939. "Hawaii's Discovery by Spaniards; Theories Traced and Refuted." *Pap. Hawaiian Historical Soc.* 20: 38-113.