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THE RUSSIAN FORTS ON KAUAI,
HAWAIIAN ISLANDS:
A BRIEF SYNTHESIS

by
William K. Kikuchi
and
Delores L. Kikuchi

PREFACE

This report was written in partial fulfillment of Contract Number 11755 between the author and the State of Hawaii, Department of Land and Natural Resources, Division of State Parks. The contract originally called for the archaeological survey of and test excavations at Fort Elizabeth at Waimea, Kauai. Due to unforeseen circumstances it was impossible to carry out such survey and excavations at the specified time, that is, July 1 through August 31, 1969. Because, however, such a large corpus of historical data had already been gathered, it was decided that such data should be organized into a report to be used in future programs, thus avoiding later duplication. The following report is by no means a complete gathering of historical data on the Russian forts on Kauai, as certainly there is much more research on the subject yet to be done.

The report consists of excerpts from various sources, arranged in chronological order according to the date given in the sources. If no such date could be found, the excerpts were dated according to the writing or publishing date of their sources. For convenience the footnotes have been inserted directly after each entry. A Manual of Style (Chicago Manual of Style) was used as a guideline in the preparation of the report.

The authors would like to extend their thanks to the following persons for their aid and advice: our crew, Akihiko Sinoto and Neil Oshima; Mr. and Mrs. Shigekazu Nishi of Numila, and Mr. Philip Palama Sr. of Kalaheo, Kauai; Miss Catherine Stauder of the Kauai Museum; and Mr. George Niitani of the Department of Land and Natural Resources, Lihue.

Further expressions of gratitude go to Drs. Kenneth P. Emory and Yoshihiko Sinoto of the Bernice P. Bishop Museum and to Mr. Francis Ching Jr. and Miss Jane Silverman of the Division of State Parks. Finally we would like to thank the project's contractee, Mr. Joseph M. Souza Jr., Director of the Division of State Parks, Department of Land and Natural Resources, Honolulu, for his help and cooperation.

A BRIEF HISTORY

A Russian-American Company ship the Bering (formerly named the Atahualpa) was wrecked at Waimea, Kauai, in 1815. The cargo of the ship was taken ashore and stored by King Kaumualii. Dr. Anton Schäffer was sent from Sitka by Governor Baranov to retrieve the cargo of the Bering and arrived at Waimea on the Russian ship Otkrytie on May 16, 1816. The Doctor soon came to an agreement with Kaumualii on the restoration of the cargo and entered into several other wide-reaching agreements in which Kaumualii pledged his allegiance to Emperor Alexander I of Russia and ceded large tracts of land to the Russian-American Company. Reinforced by a contingent of Aleutian hunters from the West Coast of America, the Russians founded trading posts and constructed forts at both Waimea and Hanalei. Their stay was short, as English and American traders intrigued with Kamehameha I and persuaded the Russians to depart ignominiously in a leaking ship after a minor fracas in June, 1817.

From that time until 1824 the fort was maintained by the king and his men. After the death of Kaumualii in May, 1824, Kahalaia, nephew of the high chief Kalanimoku, was appointed Governor of Kauai and the Kingdom was left to Liholiho. It was Kaumualii's wish that the existing possession and division of property be maintained after his death. This caused dissatisfaction among those who desired a redistribution of land; an insurrection occurred, headed by George Kaumualii, son of the deceased king. On August 8, 1824, fighting opened with an attack on Fort Elizabeth in Waimea. Kalanimoku obtained aid from the windward chiefs and easily put down the rebellion. After pacification of Kauai, Kaikioewa, an old chief of high rank, was appointed Governor.

The fort at Waimea was manned as late as 1860 and was dismantled in 1864. Since then it has remained unused. Fort Elizabeth and the land on which it stands are jointly owned by the State of Hawaii and the Robinson family of Kauai. On August 6, 1969, the fort and 7.6 acres of land were donated to the State of Hawaii through the Foundation for History and the Humanities. Future plans are to restore the site as one of Kauai's major historical attractions.

RUSSIAN PORTS

The Russian Forts in Hawaii were generally designed by Schäffer from a set of architectural ideas prevalent in Europe on the "correct," "accepted," and "proven" forms of fortifications. (Oman 1924: 544-545). Fort plans were based on the current concept of warfare in Europe; alterations were influenced by experience with such defenses in the Colonies in the Americas. The Russian concept of permanent fortifications was based on an active defense, frequent counterattacks, and an inner defense to which the soldiers could fall back (Curtiss 1965: 146).

Wherever the Russians intended to establish an outpost or fort, the sites preferred were near a body of water or at the junction or mouth of rivers. (Caywood 1967: 46). The establishment of structures at specific geographical sites is obviously of prime communicative as well as prime military importance.

Caywood (Caywood 1967: 47) and Woodward (Woodward 1952: 189) both claim that Russian posts were usually built alike, that is, their plans were similar. These posts had a complement of bronze or iron small-caliber artillery pieces. The structures within the confines of the posts were generally houses for the commanding officers, barracks for the laborers and troops, storehouses for furs and goods, a trading store, blacksmith shop, kitchen, and a Russian bathhouse.

The inventory of artillery used by the Russian Army under Nicholas I (1825-1855) may be similar to the inventory of artillery used under Alexander I. In any event, the lists of arms in Fort Eliza-

both on Kauai (see pp. 25-26) are too general to compare with lists of the particular artillery pieces known to be used by the Czarist Army about the same time. However, in general, the artillery items used at the time came under two classifications, heavy artillery with a range of 1200 yards (3600 feet) and light artillery with a range of 900 yards (2700 feet). The heavy artillery consisted of 18 pound howitzers with 6 inch bores and 12 pound cannons of 4.8 inch caliber. The light artillery, which were primarily horse drawn, were 2 pound howitzers and 6 pound cannons with 3.76 inch bores. Round, shell, and grape shot were used primarily for short range firing (Curtiss 1965: 148). In the case of the Russian forts on Kauai, the artillery used would more likely have come from naval rather than from army supplies. None of the guns and cannons have thus far been attributed to the forts on Kauai; therefore, one can only speculate on the actual military inventory.

WAIMEA AND SURROUNDING AREA1816

May 17

"The bottom of the harbor is of sand mixed with clay, reaching to a depth of about twenty sazhen [140 feet]. This port has no wharf for rowboats and presents difficulties in obtaining water and fuel." (Richard A. Pierce, Russia's Hawaiian Adventure, 1815-1817, Journal kept by Lieutenant Podushkin, March 9-June 2, 1816 [Berkeley & Los Angeles: University of California Press, 1965], p. 68)

May 19
[20?]
June 1

"According to my conditions with the king we prepared all documents in detail, a contract between him and the Russian-American Company by which he should give the Company the cargo of the ship Bering or pay for it in money, confirm a monopoly trade in sandalwood on Kauai, and permit the establishment of a Russian factory on Kauai. King Kaumualii also cedes to the Russian-American Company a province on Kauai for a plantation, freeing it from all taxes in perpetuity." (Pierce, Hawaiian Adventure, Schäffer Journal, p. 174)

May 21

"... Lieutenant Podushkin dressed him [Kaumualii] in his uniform with epaulets, hat, and cutlass. In this solemn dress he went ashore with the flag, and accompanied by all the people went to his house and raised the flag there, while a salute was fired from the ship." (Pierce, Hawaiian Adventure, Report, Filip Osipov to Main Office, about September, 1818, Reviewing Operations in the Islands, p. 126)

"The king himself took the flag from the ship to the shore, and it was raised there on a mast... After the contracts were concluded with the Russian-American Company, they constructed, as a sign of gratitude, a new 'morea' or temple and made sacrifices of various kinds-fruits, and, if reports are correct, two men." (Pierce, Hawaiian Adventure, Report, Timofei Tarakanov, et al., to Main Office, July 7, 1817, on Events up to Departure of Schäffer, p. 102)

"In parting, the king asked for the flag of the Russian-American Company with the two-headed eagle in the center. Mr. Scheffer gave it to him and the king raised it above his dwelling." (Pierce, Hawaiian Adventure, Memorandum, V. N. Berkh, on the Sandwich Islands, Written About August, 1817, p. 121)

"He [Schäffer] went ashore and to the Company house and ordered me to unload the schooner. He obtained a storehouse from the king." (Pierce, Hawaiian Adventure, Report, Timofei Tarakanov to Lieutenant-Captain Hagemeister, at Sitka, February 12, 1818, Reviewing Departure of Il'mena from California, and Proceedings on Oahu and Kauai, p. 98)

"The King ... granted to the Company some land at Waimea, where he himself had a residence. Sheffer gave orders to have this land cultivated. On it were planted cabbage, potatoes, turnips, carrots, beans, peas, and other garden vegetables, as well as corn, mustard, pineapple, watermelon, grapes, cotton, wheat, etc. Everything planted came up well except the wheat. Why the wheat crop failed is not known; perhaps the soil there is not fit for wheat cultivation, or possibly the seed was not good.

"The cultivation of so many plants, many of them unknown to him, pleased the king greatly, and he granted to the Company two more lots of land; situated on both sides of a small river which flows into the harbor of Waimea. On these new lots the crop was just as good as on the first ones. The new successes pleased the king even more and he granted to the Company a large piece of land on the same island, nine versts in length and fifteen versts in width [5.94 miles x 9.9 miles]. That was between the port of Waimea and the province of Hanapepe, along the seashore where one could gather a great deal of salt." (Pierce, Hawaiian Adventure, Report, Filip Osipov to Main Office, about September, 1818, Reviewing Operations in the Islands, p. 127)

- May 25/6 "I selected a place in the Waimea valley for building houses for the factory [Russian word for factory translates 'trading post'] and for setting out gardens. The king gave us a stone building for a store. I placed the promyshlennik [hunter] Aleksei Odnoriadkin in charge, over several Russians and six Aleuts." (Pierce, Hawaiian Adventure, Schaffer Journal, p. 176)
- June 24 "Taboo. The Russian flags flew over Kauai just as on Russian holidays. The king assigned three houses on the shore as dwellings for our Russians. I lived and slept at the king's until the factory was built." (Ibid., p. 177)
- June 30 "I moved to the house built for me and began to plant." (Ibid., p. 178)
- July 1 "... he [Kaumualii] will also give aid for constructing a Russian fort on every island. These forts are to be placed in charge of Russian commanders, as has been done in the case of the fort in the port of Honolulu on the island Oahu." (Pierce, Hawaiian Adventure, Secret Treaty Between King Kaumualii and Schaffer, July 1, 1816, p. 72)

- July 8 "The king visited me with all of his court and raised the Russian flag. I drank to the health of the king and had a seven-gun salute given when he left." (Pierce, Hawaiian Adventure, Schäffer Journal, p. 178)
- July 16 "Early in the morning a ship was seen on the south side of the island. The king ordered the Russian flag raised, and I did the same in front of the factory." (Ibid.)
- Oct. 1 "As an evidence of my friendship, I am making to Dr. von Sheffer for the Company's factory a present of two strips of land, one in this harbor on the right bank of the river Waimea, which is called Guramaia, for a building and vegetable gardens, and another strip on the left bank of the Waimea, with twenty peasants, at the place called Vaikari." (Pierce, Hawaiian Adventure, Declaration of Friendship and Deed of land, Chief Kamahalolani to Schäffer, October 1, 1816, p. 79)
- Oct. 1 "To His Honor, Doctor, Collegiate Assessor, Commissioner of the Russian-American Company, as a token of friendship and appreciation of various presents received from him, I am granting him a strip of land, called Gamalea, on the river Mattaveri in the gubernia of Waimea, together with thirteen peasants and everything else pertaining to it.
"He received the whole Bat [7] Mainauri at a distance of 8 versts [5.28 miles] from Waimea." (Pierce, Hawaiian Adventure, Grant of Land by Princess Naoa of Kauai to Schäffer, October 1, 1816, p. 80)
- Oct. 1 "To His Honor, Commissioner of the Russian-American Company, Doctor, Collegiate Assessor Egor von Sheffer as a token of regard, friendship and gratitude for many gifts received from him, I am granting a strip of land called Tuiloa on the river Don in the province Hanapepe on the island Kauai, together with eleven peasants. The boundary line goes from the river Don and as far as the sea." (Pierce, Hawaiian Adventure, Grant of Land by Chief Ovana Platov to Schäffer, October 1, 1816, p. 80)
- Oct. 10,11 "I received for the Company from Chief Kamahalolani a village on the right bank of the river Waimea, with twenty families."
"...I received from the king's sister Tairinoa a village on the left bank of the river Waimea with eleven families." (Pierce, Hawaiian Adventure, Schäffer Journal, p. 185)

- Oct. 14 "I spent two days in Hanapepe, where I received for the Company from the chief Obana Platov a village with eleven families. It lies in the province of Hanapepe on the right bank of the river Don and is called Tuiloa Platov." (Ibid.)
- Nov. 30 "I set out for Hanapepe, inspected the estate of Platov on the river Don, and found it extremely rich in taro fields. I ordered the dry land planted into cotton, tobacco, maize, and also transplanted here sufficient orange, lemon, and olive trees. I delivered there a number of brood sows and assigned two old Aleuts as watchmen." (Ibid., p. 187)
- Dec. 2 "... it was the schooner 'Traveller' with Mr. Wilcocks, the American consul in Canton /!/ aboard. Mr. Wilcocks was informed on the island of Oahu of my presence on Kauai, came immediately to the factory, and he and his friend Gaal moved into my apartment. He was not well and asked me for medicaments." (Ibid., pp. 187-88)
- Dec. 11 & 12 "A hurricane blew so strongly that it leveled many houses and trees, and the river Waimea rose seven feet above its normal level." (Ibid., p. 192)
- Dec. 17 "I planted four hundred grape vines in the garden of the factory at Waimea." (Ibid.)
- Dec. 22 ^{Timofei} "King Kaumualii gave, Tarakanov a village with thirteen families, on the left bank of the river Don, in the province of Hanapepe." (Ibid.)
- Dec. 23 "Taboo. The wives of all the chiefs visited me today. The Queen's sister Tairinoa, who previously gave me the Company land, today transferred also the valley of Mainauri, while Queen Monolau, whom I cured of illness, presented me with land in the Georg (Kainakhil') Valley of Hanapepe province. I gave her a piece of silk material." (Ibid.)
- 1817
- Jan. 1 "Upon my arrival on this island I planted in the garden of the Russian-American Company factory ten square sazhen [70 square feet] of land in cotton. That was at the end of December, 1816 /?/, and in the first picking of this January I obtained 272 pounds of fine and best quality cotton fiber cleaned of seeds. The second picking will be in June of this year, when just as much or even more is to be expected, and so one can assume an annual yield of ten pounds of clean fiber per square sazhen. The main work lies in the transplanting, for the land must be well cleaned beforehand." (Ibid. p. 194)

Jan. 1 Long discussion of the planting of cotton, maize, tobacco, grapes and the potential crops in taro, sandalwood, salt, sugar cane, oil nuts, etc. and what they would mean to Russian trade at Canton. (Ibid., pp. 194-197)

May 8 "I gave them my hand as usual, they replied by pressing it, and I returned along the road leading to the factory." (Ibid., p. 200)

1818 "I have learned from the toon /chief/ Hanalei, who together with his wife and servants, is to travel on the ship to the island Kauai, that from his possessions in Hanalei, ... 2,400 logs of sandalwood were shipped for Dr. Sheffer on board the Il'mena, by order of the king. According to him, this wood was left on Kauai. ... When he started on the Il'mena to discover the islands, which were already known, Sheffer ordered that this wood be unloaded from the brig and taken to the shore, which was done in two barks and one small boat, and deposited in the storehouse where the property of the Company was kept. When this storehouse collapsed, other property was taken elsewhere but the wood remained in a corner of the collapsed building." (Pierce, Hawaiian Adventure, Instructions, Hagemeister to Podushkin, February 9, 1818, p. 151)

"During their stay on the Sandwich Islands the Russians lived in small houses built on several lots on the land given to them by the king, Kaumualii. The islanders live in similar houses." (Pierce, Hawaiian Adventure, Report, Filip Osipov to Main Office, about September, 1818, Reviewing Operations in the Islands, pp. 130-131)

"In one place only, near the harbor of Waimea, did the Russians start to build a two-story house; but this house remained unfinished." (Ibid., p. 131)

1819 A list of expenditures made by Dr. Schäffer for the benefit of the Russian-American Company:

"... for the location for a factory along the river Waimea, as well as for a certain amount of food supplies to be delivered annually.

"To Chief Kamahalolani for land on the right bank of the river Waimea, with twenty families.

"To the sister of King Kaumualii, Tairikhoa, for land on the left bank of the river Waimea, with fourteen families, as well as for the uninhabited valley of Mainauri.

"To the Taiun [chief] Ubanna Platov for the land Tuiloa in Hanapepe with eleven families." (Pierce, Hawaiian Adventure, Statement of Accounts, Schaffer to Main Office, April 22, 1819, p. 137)

1820

"... Upon his departure from Oahu, Mr. Smith had had instructions to find out what King Kaumualii had done with the Company's property. ... The latter /Kaumualii/ answered that though these goods had been given to him as a gift by Dr. Sheffer, he, the king, was willing either to return them or pay for them. The list of things follows: 8 pieces of rough woolen cloth, 4 pieces of blue cloth, 50 hatchets, 10 flagons of gun powder, 1 schooner, 2 cast-iron cannons, 1 large brass one, and one small one." (Pierce, Hawaiian Adventure, Letter, Acting Chief Manager S.I. Ianovskii to Main Office, April 20, 1820, Enclosing Extracts from Journal of K.T. Khlebnikov Concerning Voyage of brig Brutus to Hawaiian Islands, p. 156)

Sept. 1

"On the first of September we removed to our new house which the natives have generously built. It stands... 50 rods [825 feet] from the residence of the king and nearby the sea. It is built in native style by setting posts into the ground which are covered by small sticks and thatched with straw. It is 50' x 22' - has two rooms, with a space of 8' between them. There is a porch in front, the whole length of the house. This we use for our school room and meeting house where we have public worship every Sabbath." (Samuel Whitney to Samuel Ruggles, 14 October 1820, Missionary Letters, Hawaiian Mission Children's Society Library, Honolulu, p. 105)

"... in want of a convenient place to cook. They wished for an oven and as there happened to be bricks enough left on board the Thaddeus to build one we got them ashore and with a little Hatchet for a trowel I undertook to build one. The king generously sent a number of his men to assist me in building large stones for the foundation - to make mortar &c..." (Daniel Chamberlain, 10 November 1820, Missionary Letters, Hawaiian Mission Children's Society Library, Honolulu)

Nov. 10

"... Het our new oven today and baked some bread made of sweet potatoes and flour. Also baked some apple pies." (Ibid.)

- 1821 Trip around Kauai, from Waimea northward to the mountains. Found no inhabitants in the uplands. The island was not well watered, except in the deep, narrow valleys. (Hiram Bingham, A Residence of Twenty-one Years in the Sandwich Islands, 3rd ed. [Canandaigua, New York: H.D. Goodwin, 1855] p. 140)
- June 25 Nine o'clock in the morning; fire in the mountains, 7 miles distant; wind from the Northeast; village in danger; dry grass, thickly spread from the mountains to the village.
 "At two o'clock all the people were sent to quench the fire which had come with such rapidity, that it was then within a few rods of some of the buildings. Tamoree and part of his family immediately left the village from fear the fire would get to his powder magazine which contains about four thousand kegs of powder. The fire however was extinguished and we again mercifully delivered."
 (Samuel Whitney, Journal of Samuel Whitney, 12 August 1823 to 1824, American Board of Commissioners for Foreign Missions ms, Hawaiian Mission Children's Society Library, Honolulu)
- June 29 "Finished a well which I have been engaged in digging about two weeks. This is the first one ever dug on the Island. The King in his usual jocose manner has several times told me I should not find water; but I succeeded without any difficulty after digging twenty feet. The well is at our garden half a mile distant." (Ibid.)
- July 9 "Early in the afternoon, Kalakua and attendants landed from the Tartar, just in front of the missionhouse, which then stood directly between the fort and the sea." (Bingham, Twenty-one Years, p. 135)
- Whitneys move to a new house, 54' x 25', with a board floor
 "The mission house is commodious, having a good floor, doors, glass windows, five bed-rooms and large rooms which are not only convenient for the two families, but answer for a school room, dining hall, and place for public worship. It stands at the place of landing, near the water's edge, and but a few rods east of the mouth of the Wimaah river. One side it is enclosed by the king's dwelling house and by a semicircular wall 10 feet high; and on the other, by the ceaseless waves of the Pacific. In front is a small battery; and back of the wall, which encloses nearly an acre of ground, stands the fort, on the high bank of the river, covering the village." (Quote Hiram Bingham, The Friend, October 1925, p. 225)

Sept. "The fort, the vessels in the roads, the village of a hundred habitations, including the mission-house ... we entered the mouth of the Waimea river..." (Bingham, Twenty-one Years, p. 144)

Sept. 5 "First annual examination of the mission school, taught by Mr. and Mrs. Whitney and Mr. and Mrs. Ruggles." (Ibid., p. 145)

1822

Jan. 3 "Attended a counsel of chiefs. They agreed to send part of their number into the mountains to cut sandle wood and to furnish men enough to guard at this place, to be stationed at the fort. These measures of defense are taken for a protection against lawless rable in the absence of Tamoree." (Whitney, Journal of Samuel Whitney)

Jan. 8 "... high wind from southward shakes our straw cottage so much as to excite some alarm." (Ibid.)

Jan. 18 "For several days past we had a strong south wind which has blown the salt spray from the sea so as to kill nearly everything of the vegetable kind in the yard front of our house. Some castor oil trees and a butiful [sic] grape vine growing up by the side of my window for a shade ... are wilted and dying." (Ibid.)

Nov. 11 Mr. Whitney's new house was located on the eastern bank of the Waimea River, about 80 rods [1320 feet] from its mouth. The mission journal of November 30, 1822, reports that Mr. Chamberlain helped build it.
"Brother Whitney is building him a stone house about $\frac{1}{2}$ a mile up the river in this village on a beautiful flat about 6 rods from the river. The place is surrounded with beautiful shades of tootooe trees, which renders it pleasant. The house is 26 by 36 feet, with a back part 12 by 15 for cooking and washing; there is a cellar under it, except the back part. The stones of the cellar wall are all laid in clay mortar. I never saw but few cellars in America that exceed it, it is the only cellar on the island, except the one that Brother R. [Ruggles] is digging at his house at Hanapepe. The walls of the house are 20 inches thick, laid in clay mortar, mixed with a kind of grass which makes it very strong. I have supervised the work and placed almost all the stones myself." (David Chamberlain to American Board of Commissioners for Foreign Missions, The Friend, October 1925, p. 228)

1824

May 2 or 3 "... and by eleven o'clock the next morning, reached Waimea roadstead. Captain Swain, Mrs. B., and myself, stepped into a boat suspended on the davits near the quarter rail, and when comfortably seated, with our two children, were quietly 'lowered' till the boat rested on the water; then, rowing near the shore, took advantage of a good roller or wave, and ran in upon the beach in safety, about one hundred rods [1650 feet] west of the fort, where, at almost all seasons, a whaleboat canoe can successfully land. We walked to the bank of the river, some eighty rods [1320 feet] from its mouth, and crossed to its eastern bank in a canoe, which Mr. Whitney had provided for us, who, with his family, gave us a cordial welcome. His humble cottage and chapel were located on a narrow glebe, between the river's brink and a steep cliff, quite near. Before his door, or between his dwelling and the river, were several fine kou trees, affording a dense and cool shade, agreeable and ornamental. In the rear, a grove of cocōnut trees, of unusual freshness and beauty, extended along under the cliff. The beautiful river, formed of the limpid waters of two rapid streams, descending from the mountains in the north, here, for a mile, is broad, deep, and silent, and passed within a few rods of the missionary premises. It glides almost imperceptibly along, while the sportive fish leap out from its smooth surface, or play incautious around the native angler's hook, till it meets the sandbank, thrown up at its mouth, by the never ceasing action of the sea." (Bingham, Twenty-one Years, p. 217)

"This valley contains about four hundred habitations, including those on the sea-shore. The numerous patches of the nutritious arum, and the huts or cottages of the people, were beautifully interspersed with the bread-fruit, the cocoanut, and the furniture kou, the medicinal Palma Chrisiti, the oleaginous candle-nut, the luscious banana, and sugarcane. On each side of the valley, the country rises, with easy ascent, towards the interior, forming, at length, precipitous walls to the valley, or river-bed, which overlook the tops of the highest cocoanut trees, growing at their feet." (Ibid.)

July 6

"About noon anchored one of the king Brigs, bringing the remainder of the Chiefs, together with Kahalaia a windward Chief, who is to act as Governor; he has taken quiet possession of the fort. Soon after landing he said to us 'I shall encourage learning and will soon build a new and large church near by the fort such as one as they have lately built at Oahu.'" (Whitney, Whitney Journal)

"Kahalaia soon repaired to Kauai, and entered on the duties of his office. Early inquiring for the house of public worship, and learning that it was on the river bank, a quarter of a mile above the fort, he proposed to build one much nearer. Whether this was to make a show of respect for religion, or to avoid what he might consider the danger of attending public worship, at that time, so far from the guns of the fort, or because he thought the public good would be promoted by having the village church nearer the fort and landing, was not obvious." (Bingham, Twenty-one Years, p. 228)

"But darkness thickened over the island. Incendiary attempts to burn the church near the mission house were reported to us." (Ibid., p. 231)

"... [Kalanimoku] then inquired for a comfortable place to rest himself, and was conducted by Kapule to the cool shade of the large Kou trees, near the bank and mouth of the river, over against the fort ... Kahalaia crossed the river from the fort, and respectfully welcomed his honored uncle." (Ibid., p. 232)

Aug.

"Enclosed in this packet I send you a drawing of this missionary establishment together with a part of Waimea drawn by Brother Bingham. The first house on the left is a school house the next our Church the next our dwelling house. The greater part of the village is behind the fort. ... A description of this place you will find in the journal of Brother Bingham, which he has kept in his late visit... The drawing mentioned has been sent without my knowledge to Brother Stewart at Maui it cannot go now but will soon." (Samuel Whitney to Nephew, August 1824, Hawaiian Mission Children's Society Library, Honolulu)

1843

Gilman is staying with Mr. Whitney:
"From the yard I strolled up through the vally. I was shown a singular aquaduct or the remains. It is so ancient that tradition alone makes known. That the people had long tried to make it and were unable, their King being endowed with supernatural powers commenced the work at night and it was done at morn -- a rock, an object of adoration was pointed out..." (Gorham Gilman /Makaikai/, Rustications on Kauai and Niihau in the Summer of 1843, ms, Hawaiian Mission Children's Society Library, Honolulu)

1885

Secret Caves of Waimea

Hakiakamahu Cave

"This cave was used for holding personal property but not for the bones of chiefs ... All the properties in this cave was burned up after Humehume's battle. Nothing was left..."

"When Kaumualii was ruler, my grandfather had charge of the pistols. Four large gourd calabashes were filled with them... My grandfather kept them up to the time that Humehume made war. These things were all set on fire, my grandfather and uncles burned them up. Kiilau was my grandfather's name." (#15 Lahainaluna Student Composition, 22 August 1885, Hms Misc. 43, Bishop Museum, Honolulu)

FORT ELIZABETH

1816

- Sept. 12 "I measured out the plan for a fortress in Waimea, and several hundred people were assigned to work." (Pierce, Hawaiian Adventure, Schäffer Journal, p. 183)
- Sept. 24 "Winship, Smith and Gyzelaar came ashore, intending to haul down the Russian flag which the king had raised. However, the king was firm and ordered a guard of ten men, with fixed bayonets and ten cartridges, placed beneath it, so that the Russian flag would not be dishonored by the American seamen." (Ibid.)
- Oct. 8 "I returned to Waimea. On my arrival the king ordered the Russian flag raised and a seven-gun salute, and visited me in the factory before I had time to visit him." (Ibid., p. 184)
- Oct. 11 "Today after dinner the king and I looked over the fortress construction. He even put his own wives to work dragging stones for the construction. ... The King asked me whether a declaration of war against old Kamehameha should be sent to the island of Oahu. I dissuaded him from this, saying that I would not go nor would I send anyone there to demand or to take satisfaction for the offense borne by Russia on the island of Oahu until I was sufficiently fortified." (Ibid., p. 185)
- Nov. 18 "This morning at sunrise, when the king left Taboo, he ordered the Russian flag raised and gave a seven-gun salute from the shore and the same from his schooner and visited me in the factory. I answered him with honors (honeurs) and together we visited Fort Elizabeth, the construction of which is well along..." (Ibid., p. 187)
- Nov. 20 "The king assured me today that 24,000 pieces of sandalwood lie ready, and since Fort Elizabeth is finished he wanted to order cutting for us continued." (Ibid.)
- Nov. 25 "I now have almost ready here one fortress of stone and two fortifications of earth, with palisades." (Pierce, Hawaiian Adventure, Letter, Schäffer to Baranov, November 25, 1816, p. 82)
- Dec. 9 "Today I noticed three hundred women among the workers at Fort Elizabeth." (Pierce, Hawaiian Adventure, Schäffer Journal, p. 191)

"[Part of] the construction timber from the ship Kad'iak was used for the construction of Fort Elizabeth on Kauai; part of it was used for the construction of houses for the factory which belonged to the Russian-American Company. There were no other goods on the Kad'iak besides the lumber." (Pierce, Hawaiian Adventure, Statement of Accounts, Schäffer to Main Office, April 22, 1819, p. 135)

"The Company" itself may determine the cost of construction of the fortified place on Kauai and of the materials used. For my part, I suggest for this purpose 100,000 silver rubles." (Ibid., p. 137)

"(1816) From the ship Albatross were received agricultural implements destined for California. They [the implements] were given to the workers on plantations and fortress construction." (Ibid., p. 136)

1817
March 12

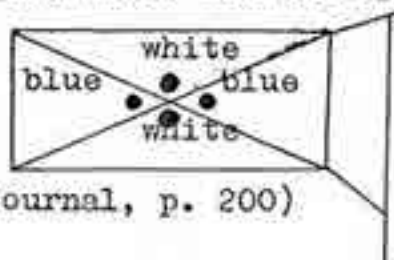
"The Russian flag over the Waimea fort was hauled down by Capt. Adams, March 12, 1817, and the Hawaiian flag hoisted in its place." (W.D. Alexander, "The Proceedings of the Russians on Kauai, 1814-1816," Papers of the Hawaiian Historical Society 6 (1894), p. 6)

"... [Kaumualii] not only refused to expel the Russians, but he did not even let Adams lower the Russian flag. The latter had to leave without any success..." (Pierce, Hawaiian Adventure, Report, Philip Osipov to Main Office, about September, 1818, Reviewing Operations in the Islands, p. 129)

May 8

"Several Indians told me that I would not see the king any more, that I was to be escorted to our ship immediately, and that all other Russians should leave Kauai. I replied that I would not leave the island until I received orders from Russia, and that I would not be forced into it merely because I was alone and unarmed. But without any ceremony they put me in a miserable boat and sent me to the ship Myrtle-Kad'iak, not even allowing me to return to my dwelling to take my few belongings.

"When I arrived on the deck of the ship, I heard cannon shots on shore and saw a piratical flag raised: the flag had white and blue panels with four spheres:"



(Ibid., Schäffer Journal, p. 200)

1818

"We lay in the harbour until the 17th of March, 1818, without anything particular occurring, until that day, when we received orders from Tameameah to proceed to the island of Atooai (Kauai) for a cargo of sandal-wood. Teymotoo, or Cox, with several other chiefs, came on board. We made sail, and on the following day came too in Whymea Roads. One mile from the village, the English ensign was displayed on a very fine fort, in which there were dungeons, and had actually gone so far as to confine some white men and natives. ... The fort does great credit to the engineer; it is situated on a high point at the entrance of the river, and protects the whole town. The king, chiefs, and about 150 warriors live within it, and keep a regular guard; they have a number of white men for the purpose of working the guns, etc." (Peter Corney, Voyages in the Northern Pacific [Honolulu: Thos. G. Thrum, 1896], pp. 88-89)

August

"The man [Argentine mutineer Griffiths from the Santa Rosa] had taken up his abode on Kauai, where, at the request of Bouchard, [Captain Hypolite Bouchard of the Argentine frigate Argentina] he had been arrested and confined in the Waimea fort by the Chief of Kauai, Kaumualii. He had been condemned to be executed the ensuing morning by the unanimous judgement of a court-martial which had been convened on board of the frigate.

"On the morning for which the execution was fixed the prison was found open and the prisoner had fled, presumably with the connivance of Kaumualii, who desired to save the man to whom he had given an asylum.

"Bouchard greatly exasperated, demanded of Kaumualii the recapture and delivery of the culprit, and threatened that unless the demand was complied with within six hours he should bombard the village, and the fort. The reply of the Chief was that 'for every shot from the vessel she would answer with twenty-four from his battery, that for such purpose were the cannon in his fort.'

"When Kaumualii found however that the vessels were made ready to carry out Captain Bouchard's threat, he assured the latter that at eight o'clock of the following morning, Griffiths would be delivered to him. This was done, and after a short delay granted to the prisoner to make his peace with his Maker, he was placed against the wall of the fort, shot and buried on the beach of Waimea, Kauai." (Paul Neumann, "Captain Hypolite Bouchard and his Treaty with Kamehameha I," Hawaiian Historical Society Annual Report (1897), pp. 22-28)

"As soon as they perceived the significance of such fortresses, they started to beg Sheffer to construct similar fortresses also at the harbor of Waimea, on the first lot of land which they ceded to the Company. They [the natives] declared that when this fortress was constructed they would move there. Sheffer prepared the plan and the king approved it. Then they started the fortress which is almost finished on the sea side but not finished from other sides. During the construction of the fortress the king tried to give every possible help to our promyshlenniki, offering his own men." (Pierce, Hawaiian Adventure, Report, Filip Osipov to Main Office, about September, 1818, Reviewing Operations in the Islands, pp. 128-29)

1820

"The magazine was completed, a flag-staff erected, and on the seaward wall several guns were mounted. At this stage of the work (in 1820)..." (G.W. Bates, Sandwich Island Notes [New York: Harper & Brothers, 1854], p. 238)

?

"... he concluded to stop and superintend the building of a fort at Waimea; the chief being desirous to secure his skill as an engineer, in erecting that work. ... The fort was not completed under the Doctor's direction, but so far finished that a number of guns were mounted on one side, the magazine built and a flag staff erected, on which the Russian colors were seen flying on public occasions." (Samuel Whitney, "Account of an Alleged Attempt on the Part of the Russians to take Possession of the Island of Kauai," Hawaiian Spectator, Vol. I, 1838, p. 50)

May 3

"Yesterday, Brother R [Ruggles] and myself left Woahoo in the Brig Thaddeus to accompany George Tamoree, to his father, King of Atooi. At 12 o'clock today, we anchored in Wymaah bay opposite the king's house. ... A salute of twenty one guns was fired from [the] brig [Thaddeus] and answered by as many from the fort.

"To Hoomehoome, on the first day of his arrival, he [his father] gave two large chests of clothing; on the second day, the fort (built by Russian traders at the mouth of the Waimea River and now in possession of the King), on the third, the rich and fertile valley of Wymai, in which he and he has committed to him, as second in command, the principal concerns of the island..." (Ethel Damon, "The First Mission Settlement on Kauai," The Friend (September, 1825), pp. 205-206)

1821

July 22

Liholiho's visit

"On Kauai he was welcomed with great affection by Kaumualii and with the firing of guns and ringing of bells at the Hipo fort..." (Samuel M. Kamakau, Ruling Chiefs of Hawaii [Honolulu: The Kamehameha Schools Press, 1961], p. 252)

1824

"In 1824, she [Kapule] bore arms in the old stone fort against the insurgent warriors." (Bates, Sandwich Island Notes, pp. 237-38)

May 3

"On the east bank of the river, at its mouth, stand the fort and national banner." (Bingham, Twenty-one Years: 1847, p. 217)

"The day after his arrival [Kahalaia's] he examined the state of the fort, which mounted about fifty guns, larger and smaller, and furnished a guard with muskets, bayonets, and swords, and put them in motion on different parts of the walls. The next day, as his appointment and arrival there occurred during my stay at that island, I waited on him in his castle. He asked me to dine with him, and at table, showing his respect for Christianity, he required silence among his attendants, and requested me to implore a blessing and give thanks." (Ibid., p. 228)

July 5

"A discharge of cannon from several of the ships and the fort was heard early this morning and has been continued at intervals through the day in honor of American Independence..." (Elisha Loomis, Journal of E. Loomis, written May 17, 1824 to January 27, 1826, compiled by William D. Westervelt and Emil A. and Lili P. Berndt, Mimeographed, 1937)

August 8

"Some of both parties rushed to enter, amid balls and bayonets." (Bingham, Twenty-one Years, p. 234)

"Trowbridge, and the mortally wounded young native, who expired while we were there, were buried within the walls with funeral solemnity." (Ibid., p. 235)

"The mind of Kalanimoku seemed to be looking intently to see what Jehoval, the Christian's God would do with him. He does not appear to have taken any part in the contest, till he had called the missionaries to lead him in prayer, after which he left his sand bank, where he had slept, crossed the river, and took on himself the charge of the fort, and the business of restoring order." (Ibid., p. 235)

"He [Kahala-i'a] took possession of the arms at Fort Hipo and he and his companions began to drink and enjoy the common pleasures of that time... Perhaps this was because they knew how Kahala-i'a had come to Kauai as governor and was living with his followers at Papa'ena'ena in Waimea... On Saturday night they seized their digging sticks and attacked the fort, which they found manned by the men of Hawaii with guns... Several others were killed, some leaped down the cliff of Hipo and had their bones broken, others escaped by sea. The next day, Sunday, the dead bodies were turned over to the pigs." (Kamakau, Ruling Chiefs of Hawaii, pp. 266-267)

1825

Jan. 1(?) "In the verandah of Kaahumanu's framed house, the governess and Hinau, captain of the fort, conversed with the captive about the rebellion." (Bingham, Twenty-one Years, p. 244)

Boki's visit to Kauai:

"He [Kalai-wohi] had been put in charge of the fort Hipo and lived on the other side at La'auakala. He was now summoned to Papa'ena'ena and Boki said, 'I want you to return with me to Oahu.' 'It is for him (indicating the chief) to give his consent to our going,' answered Kalai-wohi. Ka-iki-o-'ewa said to Boki, 'We will remain with our nephew and you return alone to Oahu.' After two days Boki proposed an inspection of the fort. The place had been well stocked with cannon and muskets and Ka-umu-ali'i's men knew how to change the angles and range of the cannon, but after the capture of the fort by the men of Hawaii the arms had been removed to Oahu, Maui and even to Hawaii. In this examination Boki found that the [restock of] muskets had been taken away outside the fort and knew that Kalai-wohi was guilty, and Ka-iki-o-'ewa finally consented to Kalai-wohi's removal to Oahu." (Kamakau, Ruling Chiefs of Hawaii, p. 274)

1827

"Near the mouth of the river is a strong fort, in excellent repair, mounting twenty-two guns. It was erected several years since, and is well adapted for defence." (William Ellis, Journal of William Ellis [1827; reprint ed., Honolulu: Advertiser Publishing Co., 1963], p. 13)

1840

"At Waimea, the fort built by the Russians, under their absurd trademaster, Dr. Schoof, is still in existence. His ambition would have made him the proprietor of the whole island, although his only business was to take possession of the remains of the wreck of a ship belonging to the Russian Company, that had been lost in the bay. Several Russian vessels were afterwards sent there, which Schoof took charge of, by displacing their masters. It is said he made presents to Kamehameha I., and received in return a grant of land from him; some accounts say, the whole island! It is quite certain, however, that Kamehameha's fears were excited by the reports that were circulated from time to time, that the Russians, through Dr. Schoof's operations, intended to get such a foothold as to subvert his authority, and keep possession of the island. With his usual promptness, he, in consequence, ordered the governor, Kaumualii, at once to send them all away. This was effected without any disturbance, and all the Russians embarked in a brig, in which they proceeded to Halealea, to join other Russian vessels that were lying there, and all departed together. As any intention of taking forcible possession, or colonizing the island, was shortly afterwards denied, in the most positive manner, by the Russians, it is probably that the whole was the work of a vain and ambitious man, who had suddenly found himself elevated above his own sphere. That he either wanted the inclination or the courage to carry out his conceptions, if he had any, is manifest, from his immediate acquiescence to the order of the chief to quit the island. He is now known at the islands under the appellation of the Russian Doctor, although by birth a German. The Russian Stone Fort, as it is now called, is garrisoned by a guard of natives." (Charles Wilkes, Narratives of the U.S. Exploring Expedition, vol. 4 [Philadelphia: Lea & Blanchard, 1845], p. 60)

1837-42

"On the east bank of the river is the stone fort now almost in ruins, which was built by the Russians in 1815, for Kaumualii. It still mounts a considerable number of small guns, and is of sufficient strength to resist any attacks from the islanders, should they be inclined again to rebel." (James J. Jarves, Scenes and Scenery in the Sandwich Islands, and a trip through Central America being observed from my note-book during the years 1837-1842 [Boston: James Munroe and Co., 1844], p. 129)

1843

"The fort was sufficiently completed to mount a number of guns on one side; a magazine was built, and a flag-staff erected, on which the Russian colors were occasionally displayed." (James J. Jarves, History of the Hawaiian or Sandwich Islands [Boston: Tappan and Dennet, 1843], p. 202)

"As neither of us had ever visited the Fort, we turned aside to look at it. It is an irregular wall of dirt, or adobies -- mounted by some twenty guns of every kind size and description, hardly any of them fit for discharging. the interior space is filled with houses toombs etc. while a few decrepid old men and women were its only guardians. Half a dosen Paihan shot thrown into it would completely demolish it..." (Gilman, Rustications on Kauai and Niihau in the Summer of 1843)

1845

"Kaumualii was the last King of Kauai; it was he who built the so-called Russian fort in 1815, the remains of which are now standing at the mouth of the Waimea River. The fort was a simple stone wall enclosure and mounted thirty guns.

"The king with a force of 150 natives occupied the fort maintaining a regular guard among whom were several white men who understood the working of the guns. As late as 1845 it still had a number of small guns and in comparatively recent years curious swords with pistols in the handles have been unearthed in plowing in the neighborhood." (John A. Palmer, "The Island of Kauai," Mid Pacific Magazine 1, vol. 6, July 1913, p. 37)

1848

PROPERTY OF THE FORT OF WAIMEA, IN KAUAI:

49 Cannon,
29 Breech-loading guns;
60 guns with iron clamps;
4 brass guns;
494 cannon balls;
790 balls for breech-loaders;
85 leather belts;
6 powder pepeiao. (horns)
12 kegs powder;
69 swords;
1 box bayonets;
6 sand boxes;
1 drum.

These were on hand in the year 1848.

67 packages powder for cannons;
25 soldiers in the Fort.

(Paul Kanoa, Report on the Property of the Fort of Waimea, In Kauai, nd., Translated by E.H. Hart, In State Archives, Interior Department, Honolulu)

1848

Russian Fort, munitions inventory, Property of the Fort Waimea, Kauai

43 large cannons
23 breech loaders
474 cannon balls
730 balls for breech loaders
103 iron bound guns
21 iron bound guns in hands of soldiers
47 guns
18 guns in the hands of soldiers
70 guns
213 bayonets
33 bayonets in the hands of soldiers
21 swords
8 swords in the hands of soldiers
67 bayonets
3 cases of shots for guns
5 large kegs powder
10 small kegs powder
21 round kegs powder
80 powder belts
21 powder belts in hands of soldiers
6 ears powder
1 case ramrods
2 brass boxes
21 wooden ramrods
6 sand boxes
2 bells
2 boxes cotton wicking
1 bugle
1 drum
1 iron bar
1 spy glass

(Paul Kanoa, Report to the Minister of War,
1 April 1848, In State Archives, Interior Department, Honolulu)

1850

Feb. 5

"I took a ramble up towards a fort through a deep rocky gorge or ravine at the bottom of which a small stream or creek winds its way in to the bay near the fort." (Albert Lyman, Journal of a Voyage to California, and life in the gold diggings, and also of a voyage from California to the Sandwich Islands [Hartford: E.T. Pease, 1852], p. 167)

1850's

"Then to the boys of the fifties, there was the fort up on the hill, if one could get ferried across the river. It was no longer used, but the older boys kept the small ones in fear and trembling with tales of guards and dungeons within, then boldly burst open the heavy door and took the empty fortress by storm. It had long been disused, but one of the Wilcox boys from Waioli Mission never forgot his shiver of terror until the door was actually open and the interior proved to be quite deserted, save for old cannon and muskets and strange swords with pistols attached to their hilts." (Ethel Damon, Koamalu: A Story of Pioneers on Kauai and of What They Built in that Garden Island [Honolulu: Privately Printed, 1931], pp. 288-289)

1853

"On the east bank, at the mouth of the Waimea River, stand the remains of a fort built by an agent of the Russian colony at Sitka. The walls are composed of large masses of basaltic rock, mingled with lava stones that have been insecurely put together. ...

"But widely different was that half-finished fortress at the time of my visit from its condition at the time the Russian agent was expelled. Then it was impregnable to the fiery assaults of the rebel forces, and the engines of death sent their echoes far over the bay and up the peaceful river. But now every gun was dismounted; the powder magazine was used as a native dwelling; while the interior of the old ruin was cultivated for the purpose of raising sweet potatoes (*Convolvulus batatus*). Some half dozen shoeless and stockingless - and almost everything else-less soldiers, without arms and ammunition, were lounging over the useless guns, or stretched on their backs upon the hard stones, and under a tropical sun, with mouths wide open, and fast asleep. I knew not which looked the most desolate, the ruin itself, or its ruined defenders, ycleped soldiers." (Bates, Sandwich Island Notes, pp. 238-239)

"This fort was built in the form of an irregular octagon, from 350 to 400 feet in width, with stone walls from 15 to 30 feet in thickness, and about twenty feet high on the leeward side, and provided with a parapet. The enclosure contains between 2½ and 3 acres. The magazine is protected by a substantial bombproof casemate. It was occupied by a small garrison as late as 1853." (Alexander, "The Proceedings of the Russians on Kauai," p. 5)

1862

"I asked William when he went home to ask Mr. Knudsen for some of the Waimea fort muskets and a sword for our company. On Wednesday evening the Excell. brought for us eight muskets, seven bayonets and one sword. I expect that the eighth bayonet was lost coming around or landing as it was dark when she got in. The guns are flint locks, but we can get them changed to percussion locks by and by. The bayonets and parts of the guns are stained with the blood of Hawaiian heroes; loyalists or rebels, I dont know which." (Sanford Dole to Albert S. Wilcox, 11 November 1862, Mabel Wilcox Collection, Lihue, Kauai)

1863

"This is the evening for drilling. I don't know as I have ever told you about our company. It has been in existence about seven months, numbers about fifteen, most of whom are natives, and as they know but little English it is pretty hard work drilling them. Your absent brother has the honor to be the captain of this valiant band. The privates are armed with flint lock muskets, which were used with effect in the Kauai rebellion as may be seen by the blood stains with which the bayonets are covered. You can find an account of that rebellion in Bingham's History of these Islands. The battle field where the last decisive battle was fought, is about seven miles from here. Of the muskets some were old American pieces, and have probably seen service in the revolutionary war while others are English tower muskets, and may have been used by the English against our forefathers in the same way, nobody knows." (Sanford Dole to Sister Mary, 4 June 1863, Hawaiian Mission Children's Society Library, Honolulu)

1864

"The Waimea fort was dismantled in 1864 by order of the Government. There were 38 guns, some of them very large and heavy. These were shipped to California and sold there. Two of the guns are still at the bottom of Waimea Bay, as the boat in which they were being conveyed to a schooner capsized, and they were lost. **** The fort contained one room, excavated in the ground, and roofed with enormous, heavy Lehua trees, with a thick layer of earth over the logs. This room was perfectly bomb-proof. In 1854 and until 1860, a captain lived at the fort, who had a few soldiers under him. On the King's birthday and on other occasions a salute was fired. But soon these men died off, and the fort was left tenantless." (Alexander, "Proceedings of the Russians on Kauai," p. 18)

1885

"In the time of Kaumualii that [Kikiaola] was another place in which to store guns. I have seen the guns in there. After Kaumualii's death all of the guns were taken to Honolulu, including those in the secret caves and those at the fort. All of the contents of the secret caves were removed."
(#15 Lahainaluna Student Composition, 22 August 1885, Hms Misc. 43, Bishop Museum, Honolulu)

1939

"... The fort at Waimea is still well preserved, with strong walls of piled rocks from ten to twenty feet high and from fifteen to thirty feet thick."
(Klaus Mehnert, The Russians in Hawaii, 1804-1819, UH Occasional Papers #38, vol. 18, #6 [Honolulu: University of Hawaii, 1939], p. 29)

HANALEI, FORT ALEXANDER, FORT BARCLAY
AND SURROUNDING AREA

1816

"... Kaumualii maintained uninterrupted friendly relations with Sheffer, and repeatedly told him that the other Sandwich Island king, Kamehameha, had two war ships, and that he, Kaumualii, would like to have at least one. This desire finally became so strong that he incessantly urged Sheffer to buy a ship, promising in exchange a whole province, Hanalei, with all its inhabitants and everything that was there. ... Receiving the ship, the king gave Sheffer the above-mentioned province of Hanalei. This province is situated on the coast on the northern part of the island. It is mountainous all along the shore, but there is plenty of sandalwood and mahogany, as well as 'miru' [?] and 'tutui' [candlenut]. The Hanalei river flows through the brush-covered valley of this province into a harbor of the same name. The harbor is so large that it can hold a hundred ships, which could be anchored there in complete safety.

"Having paid for the ship, the king did not fail to express his gratitude to Sheffer and Taranov, who arrived on the 'Il'mena.' He gave each of them an allotment of land as well as some men to cultivate it." (Pierce, Hawaiian Adventure, Report, Filip Osipov to Main Office, about September, 1818, Reviewing Operations in the Islands, p. 128)

"The king also gave the Company the whole province of Hanalei, together with its port, and he allowed the Company to maintain a factory in Kauai." (Pierce, Hawaiian Adventure, Affidavit, Charles Fox Bennick, June 16, 1817, Attesting to Agreements Concluded by King Kaumualii, p. 100)

Aug. 25 "I reminded the king of his promises and demanded the promised province for the Company, telling him that I liked the harbor of Hanalei best, and he assured me of it." (Pierce, Hawaiian Adventure, Schäffer Journal, p. 183)

Sept. 30 "I went to the harbor of Hanalei, which the king had given the Company, and to which he had asked me to attach my name, and to give Russian names to several of the persons living there." (Ibid., pp. 183-84)

Oct. 1 "I arrived at Schäffer Valley (Schäfferthal) at Hanalei." (Ibid., p. 184)

Oct. 2, 3, 4, and 5 "I established the borders of the province and looked over the harbor, rivers, countryside, etc., etc. I ordered a fortress placed on three hillocks, designated the spot for it, and set about preparing for its construction." (Ibid.)

"Sheffer accepted the province of Hanalei and started to build two fortresses there, one on the right side of the river Hanalei at the mouth of the harbor and another on the same side of the river but much higher, at the harbor itself. Both fortresses were built of earth; however, both remained unfinished. The work was being done by the promyshlenniki with the aid of the inhabitants of the province, without any aid from the king." (Pierce, Hawaiian Adventure, Report, Filip Osipov to Main Office, about September, 1818, Reviewing Operations in the Islands, p. 128)

"The vessels were ordered to the bay of Hanalei, on the north side of the island, where they remained during the winter. On a cliff, commanding them, the doctor built a slight fort, and had a few cannons mounted.

"Kaumualii being anxious to secure his services, in superintending the building of a stone fort at Waimea, gave him the fertile valley of Hanalei, and other valuable tracts." (Jarves, History of the Hawaiian or Sandwich Islands, pp. 201-202)

"On the night after Kalanimoku's arrival at Honolulu, the 'Myrtle' and 'Ilmen' both sailed for Kauai, and remained some time at Hanalei, where a fortification was thrown up, and a few cannon mounted." (Alexander, "The Proceedings of the Russians on Kauai," p. 5)

"This brig and a Russian ship the Myrtle, Capt. Young, which had been sent on by the Governor to be placed under the Doctor's direction, were both anchored for a season at Hanalei on the north side of Kauai, where, by the Doctor's order, a slight breastwork had been thrown up, and a few cannon mounted." (Whitney, "Account of an Alleged Attempt on the part of the Russians to take Possession of the Island of Kauai," p. 50)

Oct. 6 Schäffer renamed the harbor, the valley, rivers, and several people:
 "The main fort received the name Alexander; to the main chief, Kallavatti, I gave the old name of the valley of Hanalei... I appointed the chief Hanalei captain of the valley and Petr Kicherev the manager." (Pierce, Hawaiian Adventure, Schäffer Journal, p. 184)

- Oct. 19 "I planted a small garden around the house."
(Ibid., p. 186)
- Nov. 1 "The garden was dug and fenced, and today I planted maize, sugarcane, bananas, bread fruit, trees, papaya..., etc. Platov himself worked all morning transplanting cabbage. Women and children are busy gathering oil nuts (Olnüsse). In the Russian provinces one can collect a large shipload of them each year." (Ibid.)
- Nov. 15 "Until now I have worked energetically on Forts Alexander and Barclay. Platov had supplied us and our ships with pigs for a long time, and works daily with his Indians on construction of the fortifications." (Ibid.)
- Nov. 25 "I now have almost ready here one fortress of stone and two fortifications of earth, with palisades."
(Pierce, Hawaiian Adventure, Letter, Schäffer to Baranov, November 25, 1816, p. 82)

1817

- April 1 "I visited the fortifications, and found Forts Alexander and Barclay both nearly finished."
(Pierce, Hawaiian Adventure, Schäffer Journal, p. 198)
- May "On shore I raised the Russian flag. I asked the garrison at Fort Alexander and they all agreed to hold out here until the arrival of help from you."
(Pierce, Hawaiian Adventure, Letter, Schäffer to Baranov, About End of May, 1817, Reporting Expulsion, p. 92)
- June 17 "They have ordered us to leave Hanalei... I took possession of the whole island of Kauai... ordered the Russian flag raised on Fort Alexander, fired three cannon shots, and declared myself chief of Hanalei Valley... I had a volley fired from the six-pounders and ordered the Russians to retire..."
(Pierce, Hawaiian Adventure, Schäffer Journal, p. 202)

1819

"On the island of Kauai, to King Kaumualii for permanent ownership of sandalwood [groves], for provisions, and for the harbor Hanalei, with 450 families..." (Pierce, Hawaiian Adventure, Statement of Accounts, Schäffer to Main Office, April 22, 1819, p. 137)

1821 Bingham went to Hanalei and found the river 60-80 yards [180-240 feet] wide. (Bingham, Twenty-one Years, p. 143)

1843 "After dineing one day with the late English Consul Mr. Charlton, I walked out with a gentleman to see the ruins of an old embankment thrown up by the Russians in the winter of ---- to protect some of their vessels which were then wintering in the bay of Hanalei. It stands on a pleasant commanding situation overlooking the bay. Its form must have been nearer round then any other forms, and measured about 350 feet the longest way and 250 the width. Its walls were made up of Earth, and a few guns mounted, but the walls have fallen and a slight ridge is all that remains." (Gilman, Rustications on Kauai and Niihau in the Summer of 1843)

1847

April 3 "About 10 A.M. we started on horseback with Messrs. Johnson & Wilcox to visit the remains of the 'Russian Fort' on the point at the N. side of the harbor - not more than 2 miles distant in a straight line from the Mission station - but making a ride of 4 or 5 miles, by way of the common route.

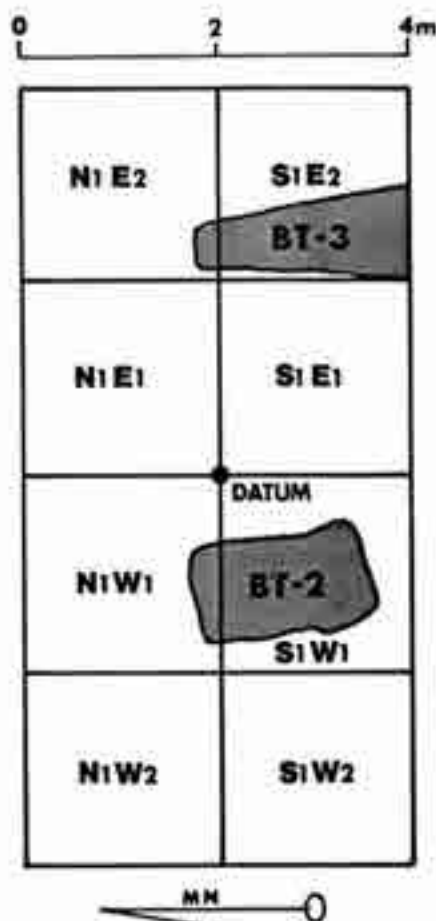
"We ascended from Hanalei valley by the same path by which we reached it, & proceeding towards the harbor, called at Mr. Kellitt's - the pilot of the port. He kindly volunteered to accompany us to the fort, which we reached after a circuitous route of some two miles. The remains of the fort are simply a breastwork of earth - now not more than three or four feet high, of an irregular oval or oblong form, and encircling perhaps an acre and a half. Some loose stones near the center mark the place of the magazine. It is on a point or bluff some 200 feet above the water, and commands the entrance to the harbor, which is about two miles in width.

"This fort is the work of the ambitious Dr. Schoot, familiarly known as the Russian Doctor. There is no evidence that the Russian Government or the Governor of Sitka ever had any design upon the island. It was probably the private project of a shortsighted, ambitious man, clothed with a 'little brief authority.' The fort is nearly due North from the Misson houses, which are in plain sight." (Chester Smith Lyman, The Hawaiian Journals of Chester Smith Lyman, May 15, 1846 to June 3, 1847, ms, Hawaiian Mission Children's Society Library, Honolulu, pp. 172-173)

1939

"... the fort near Hanalei is a low oval enclosure, today entirely overgrown with grass and bushes and apparently never finished, although stratigically well located, protected to the north and west by a cliff falling abruptly to the ocean, to the south by a ravine, and thus accessible only from the east..." (Mehnert, The Russians in Hawaii, 1804-1819, p. 29),

Fig. 21. EXCAVATION GRID IN SITE
50-KA-05-1001, AREA B.



Summary of Work

Initially, the faces of BT-2 and BT-3 were straightened vertically and the loose fill was removed. The spoil pile from the trenches was screened for artifacts and a sample of midden. While the exact provenience of this collection is unknown, it can at least be assigned to stratum II or III, which most probably are not widely separated in time. Examination of the backhoe-trench profiles revealed a probable stone wall in BT-2. Excavation of adjacent squares was planned to determine whether or not there was, in fact, a wall and, if so, how far and in what direction it extended.

Near the end of the work period, it was realized that controlled excavation of the squares could not be completed. Enough of a continuous, horizontal surface had been excavated, nevertheless, to provide important information on the depth and nature of the cultural deposit--more data than could have been collected by excavation of small test pits scattered over a larger area. Stratigraphic profiles were then drawn of the important faces of BT-2 and BT-3 and the excavation area was filled. Sheets of plastic were laid over the pits before backfilling, in the expectation that excavation might be continued at some future date.

Physical Stratigraphy

The geologic section at the excavation site is made up of five major units or strata. Three are natural deposits and two are cultural in origin. Gross characteristics of the strata are described here, using the full section exposed in BT-2; the profile of BT-3 differs only in the absence of one cultural stratum (III). A detailed description of each backhoe-trench profile is presented in Appendix A.

The basal stratum (V) exposed in BT-2 (Fig. 22) is a homogeneous, red, sandy loam of undetermined thickness. Resting disconformably* on the upper surface of the basal stratum is a poorly sorted, medium-to-coarse, white beach sand (stratum IV). It contains a variety of marine shells and branch coral, but they are relatively scarce. Stratum III is a cultural deposit of waterworn pebbles ('ili'ili) and midden; it is described in more detail below, in the discussion of Cultural Stratigraphy. Stratum II, midden in a sandy matrix, lies disconformably on stratum III; the midden contains a variety of elements pointing to human habitation--fire-cracked rock, bone, shell, and artifacts. Vertical variation is evident on the E face of BT-3 (Fig. 23). The facies* has been labelled stratum IIa and is distinguished on the basis of color difference--it is brownish-yellow as opposed to the very dark, grayish-brown sand of the rest of stratum II. Resting disconformably on the midden deposit is stratum I, a red, sandy loam not too unlike stratum V of BT-2. This is the overburden referred to earlier and the soil is highly suited for sugarcane production. Two small isolated pockets of mixed soil are present on either side of a probable rock wall in stratum II. They are provisionally labeled Ia, since the soil is primarily stratum I. It is inferred to have been derived from above and mixed with stratum II in the construction of the possible wall.

Cultural Stratigraphy

Cultural features are apparent in the N and W profiles of BT-2. Stratum III, a concentration of waterworn pebbles and midden of 25-cm maximum thickness, is tentatively labeled a house floor. It truncates on the W face close to a vertical configuration of stones suggesting a second feature--a man-made wall (Figs. 22 and 24). This end point would appear to have been one side of the dwelling. A poi-pounder fragment was found *in situ* (Figs. 22 and 25) among the probable wall stones. The contact between the pebble floor and stratum IV is sharp and abrupt, indicating deposition of the pebbles directly on the sterile beach deposit.

*The two geologic terms used here are defined as follows:

"disconformably" refers to two strata that developed at different times and under different conditions but that are parallel or roughly parallel in position; the surface that separates them is called an unconformity of which a disconformity is one type

"facies" refers to vertical variation in a stratum, which may be recognized on the basis of slight differences in soil color, texture, or sorting

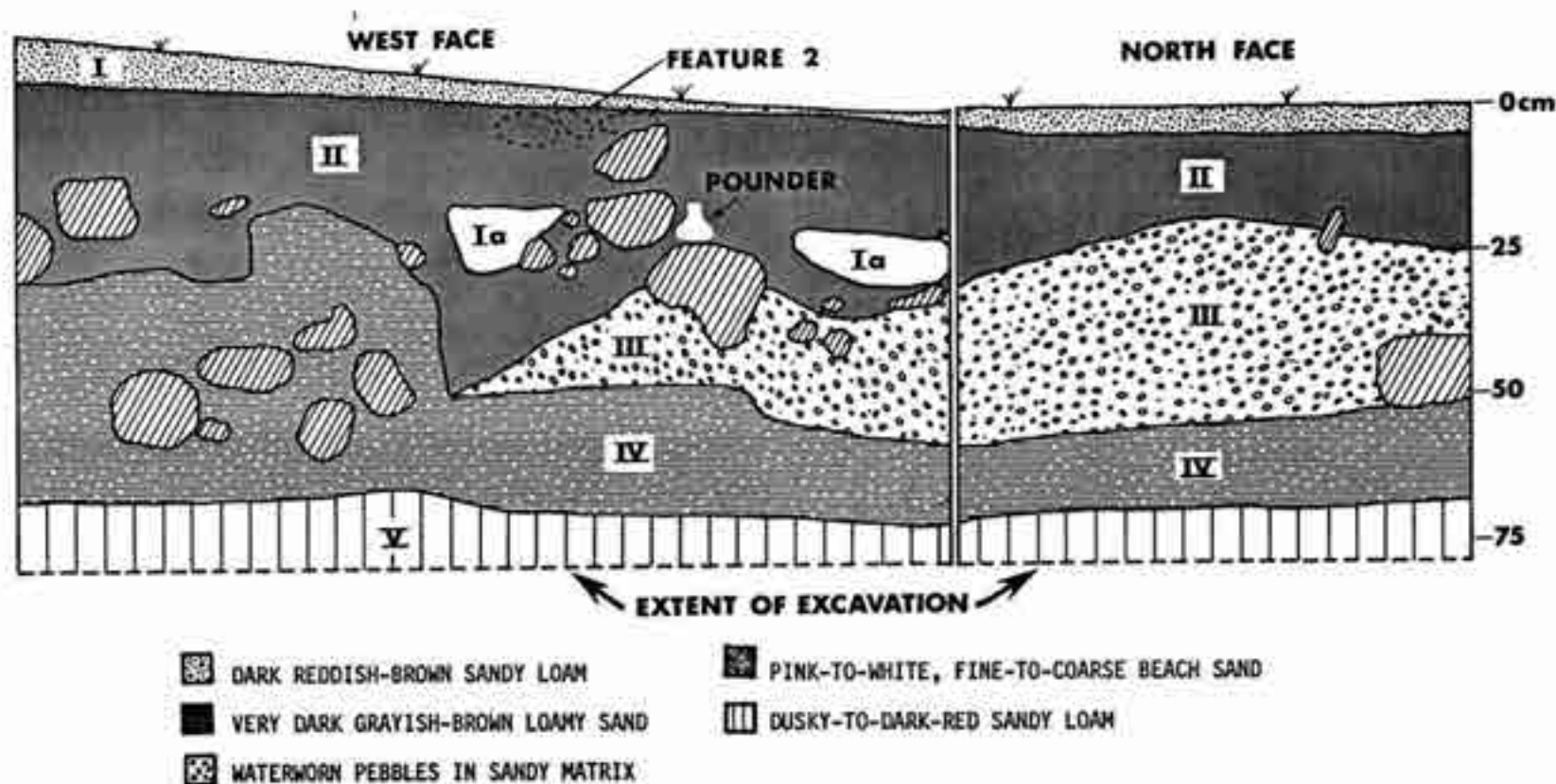
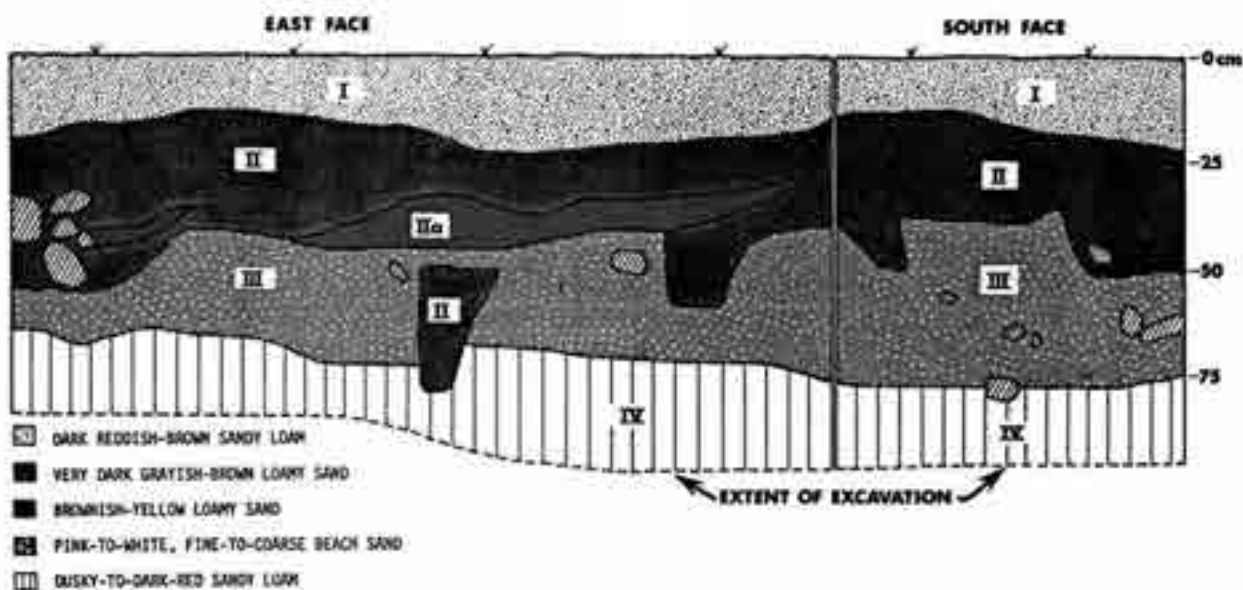
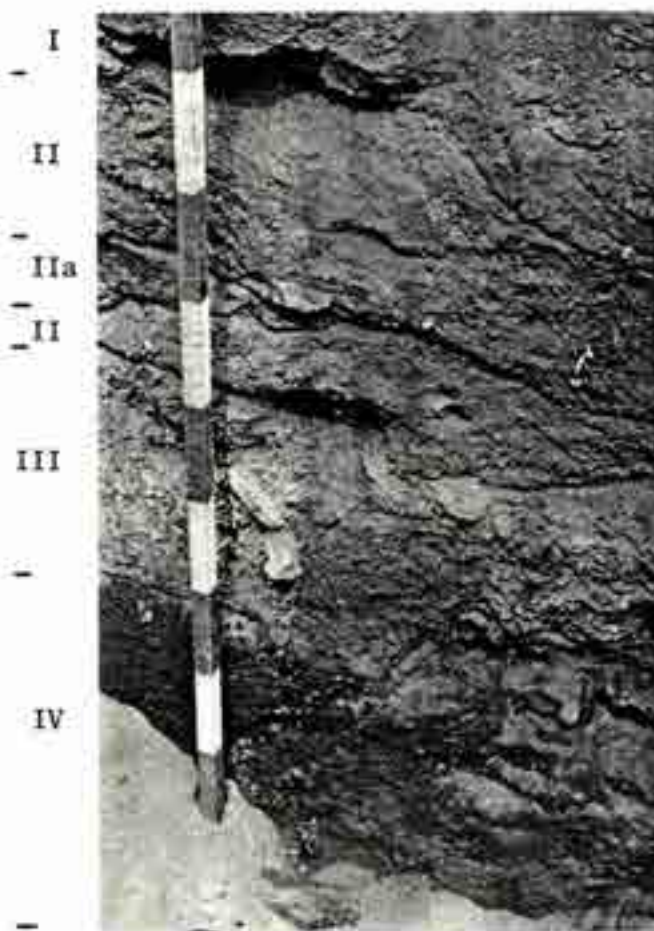


Fig. 22. STRATIGRAPHIC SECTION OF W AND N FACES OF BT-2, SITE 50-KA-05-1001.



a. Stratigraphic section of E and S faces



b. Photograph of E face

Fig. 23. BT-3 STRATIGRAPHY,
SITE 50-KA-05-1001.

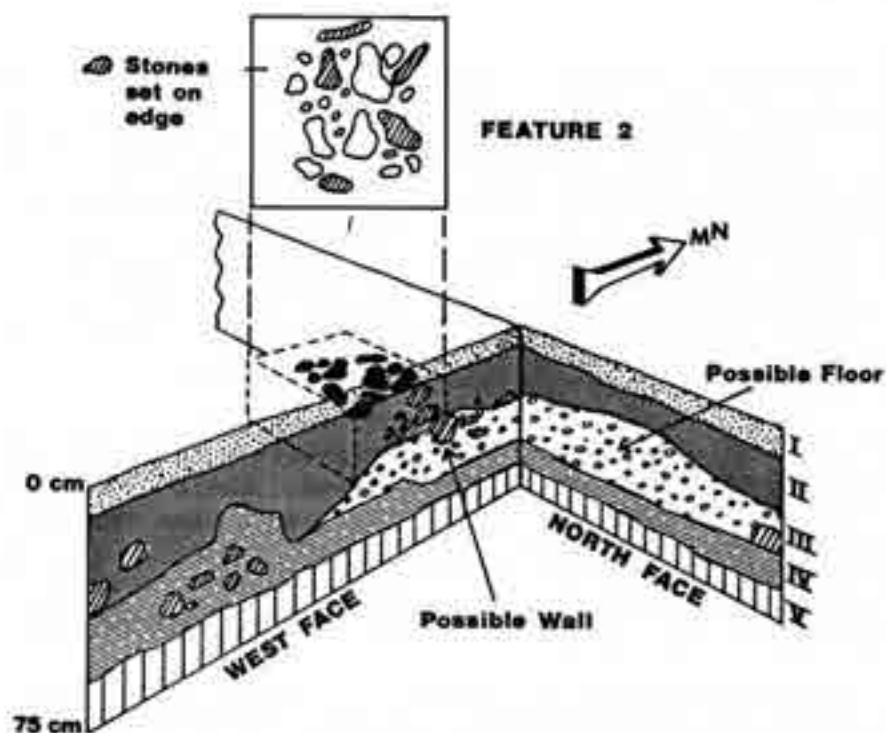


Fig. 24. BLOCK DIAGRAM OF NW CORNER OF BT-2, SITE 50-KA-05-1001, SHOWING STRATIGRAPHIC SEQUENCE OF CULTURAL FEATURES EXPOSED.



Fig. 25. POI POUNDER IN SITU ON W FACE OF BT-2, SITE 50-KA-05-1001.

Superimposed on the possible house wall is feature 2, uncovered in the excavation of square S1W2, stratum II. It is a roughly circular arrangement of stones 1 meter in diameter. The outer stones, defining the perimeter, were set with the sides in an upright position. Excavation was stopped before we were able to determine whether or not the pebble floor extended beneath feature 2. Charcoal specks, sea-urchin spines, and bone in the center of the feature suggest a possible cooking oven (*imu*), or at least the residue of a cleaned oven. Full interpretation of the feature will depend on the completion of its excavation, which was impossible during this project because of lack of time.

Adjacent to feature 2 in square S1W2 at the same level (30-35 cm) was a concentration of stones and several fragments of bone labeled feature 1. Some of the stones were fire-cracked. Their distribution and proximity to feature 2 suggest a possible association--they may be discarded cooking stones from the possible oven (feature 2). In any event, the two configurations of stone clearly represent a living surface--probably the last occupation of the aforementioned house.

In sum, there are two discrete cultural deposits, indicating a multi-component site. The temporal relationship and differences, if any, in the artifact assemblages of the components cannot be established at this time. More meaningful interpretation is dependent on larger-scale excavations.

CULTURAL MATERIALS

The entire collection of artifacts from the site has been classified into 13 broad categories (Table 4), both functional and descriptive. Finer distinctions of form are noted in the descriptions following. The categories are not arranged in any hierarchical scheme, but they are ordered so that similar categories follow one another.

Table 4. Numerical Frequency of Artifact Categories in Site 50-KA-05-1001.

Category	No.	Category	No.
1. adzes	4	8. gaming stones	1
2. abrading stones	5	9. ornaments	5
3. poi pounders	3	10. worked stone, bone and shell	14
4. fishhooks	9	11. nails	2
5. fishhook files	17	12. hammered metal wire	2
6. bone picks	3	13. glass bottles, fragments, stopper	3
7. bone awls	1		
		Total Artifacts	69

Information about each category includes a category name and brief description which is intended to be accurate but succinct. The number of specimens, the materials from which they were made, and a summary of metric dimensions are presented. Finally, comments are added where necessary. The provenience of artifacts recovered in the screening of backhoe-trench spoil piles is simply noted as BT-2 or BT-3.

Category 1: Adzes (4)

- a. Description: partial blade and bevel; quadrangular; sides, front, and back highly polished; most of bevel surface rough; bevel angle, 65 deg
Material: basalt
Dimensions: 60 x 42 x 32 mm
Provenience: surface, area B
- b. Description: thin, irregular-shaped fragment; quadrangular cross section; tapered toward edge; surfaces polished; straight sides
Material: basalt
Dimensions: 51 x 31 x 10 mm
Provenience: surface, area B
- c. Description: split cone shell; triangular shape; sides and end ground flat; broad, semicircular blade with 43-45-deg angle (Fig. 26a).
Material: *Conus* sp. shell
Dimensions: length 46 mm, blade width 22 mm
Provenience: W face of BT-3, stratum II, 20-cm depth
- d. Description: split cone shell; roughly triangular shape; sides and end ground flat; broad, semicircular blade with 33-deg angle (Fig. 26b).
Material: *Conus* sp. shell
Dimensions: length 45 mm, blade width 21 mm
Provenience: BT-3

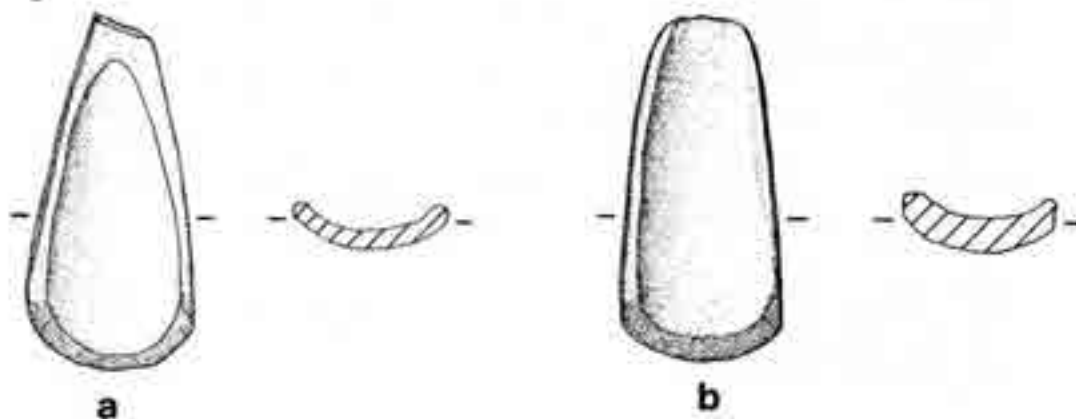


Fig. 26. *CONUS*-SHELL ADZES FROM W FACE OF BT-3, SITE 50-KA-05-1001 (actual size).

Category 2: Abrading stones (5)

- a. Description: fragmentary discoidal stone; edge appears pecked;
upper surface smooth; slightly concave
Material: basalt
Dimensions: 67 x 40 x 17 mm
Provenience: BT-2
- b. Description: pentagonal-shaped dike stone; one surface
slightly concave and polished
Material: basalt
Dimensions: 72 x 65 x 43 mm
Provenience: BT-2
- c. Description: thin slab of pahoehoe lava; broken; rectangular;
one surface polished
Material: basalt
Dimensions: 113 x 92 x 31 mm
Provenience: BT-2
Comments: common type of portable abrader in Hawaii
- d. Description: two smooth surfaces on short piece of coral;
quadrangular cross section
Material: *Porites* sp. coral
Dimensions: 40 x 22 x 17 mm
Provenience: area A, surface
- e. Description: flat, smooth surface on irregular piece of coral
Material: *Porites* sp. coral
Dimensions: 39 x 23 x 20 mm
Provenience: BT-2

Category 3: Poi pounders (3) (Fig. 27)

- a. Description: bottom and small segment of neck; bottom and sides
smoothed, but pitted
Material: altered basalt
Dimensions: base diameter, 91 mm; height, 75 mm; thickness of
neck indeterminable
Provenience: W face of BT-2, stratum II, 20-cm depth
Comments: see Figs. 22 and 25
- b. Description: top and small segment of neck; top and sides
pitted--apparently never completely polished over entire
surface
Material: basalt
Dimensions: base diameter, 52 mm; height, 35 mm; thickness of
neck indeterminable
Provenience: BT-2
- c. Description: upper section of neck
Material: lithified coral sandstone
Dimensions: bottom diameter 51 mm; top diameter 40 mm; height
42 mm
Provenience: BT-2
Comments: unusual material for a pounder

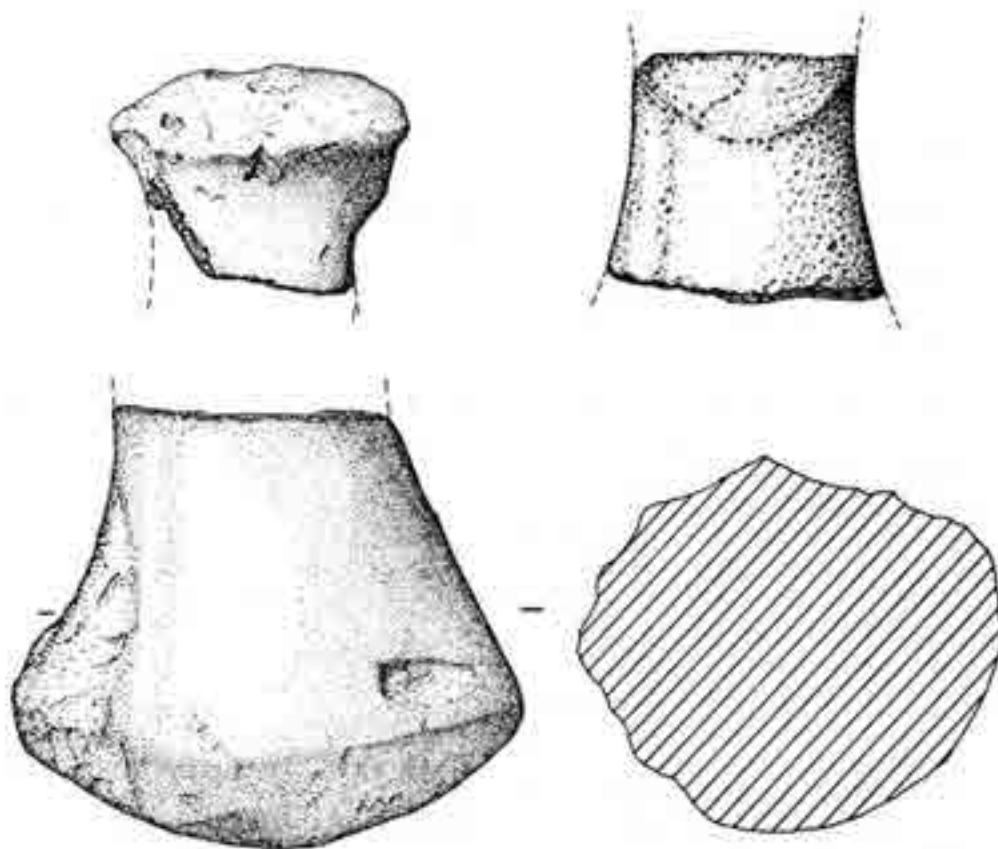


Fig. 27. POI POUNDERS FROM BT-2, SITE 50-KA-05-1001 (75% actual size).

Category 4: Fishhooks (9) (Fig. 28); head-type descriptions follow Sinoto (1968:59)

- a. Description: one-piece jabbing hook with inner shank and point barb; shank and point straight; head type HT4 (Fig. 28g)
Material: bone
Dimensions: point length, 18 mm; shank length, 32 mm; width, 10 mm
Provenience: BT-2
- b. Description: broken, one-piece jabbing hook with inner shank barb; shank straight; head type HT2a (Fig. 28h)
Material: bone
Dimensions: shank length, 31 mm
Provenience: BT-3
- c. Description: broken, one-piece jabbing hook; shank straight; point angled; head and point tip missing (Fig. 28a)
Material: pearl shell
Dimensions: projected shank length, 18 mm; width, 7 mm
Provenience: BT-2
- d. Description: broken, one-piece jabbing hook; point missing; shank straight; head type HT2a (Fig. 28d)
Material: pearl shell
Dimensions: shank length, 18 mm
Provenience: BT-3

Category 4 - continued

- e. Description: broken, one-piece jabbing hook; shank slightly curved; head type HT4 (Fig. 28c)
Material: pearl shell
Dimensions: indeterminable
Provenience: BT-3
- f. Description: broken, one-piece jabbing hook; straight shank; head type HT4 (Fig. 28b)
Material: pearl shell
Dimensions: indeterminable
Provenience: N1W1, surface
- g. Description: broken, one-piece jabbing hook; head and point tip missing (Fig. 28e)
Material: pearl shell
Dimensions: indeterminable
Provenience: BT-3
- h. Description: incomplete bonito point; hole for lashing not completely drilled; lipped (Fig. 28i)
Material: bone
Dimensions: length, 29 mm
Provenience: S1W2, stratum II, 15-20 cm
Comments: projection at proximal end and curvature of point are unusual for Hawaiian bonito points
- i. Description: possible hook shank; incomplete (Fig. 28f)
Material: bone
Dimensions: indeterminable
Provenience: BT-2

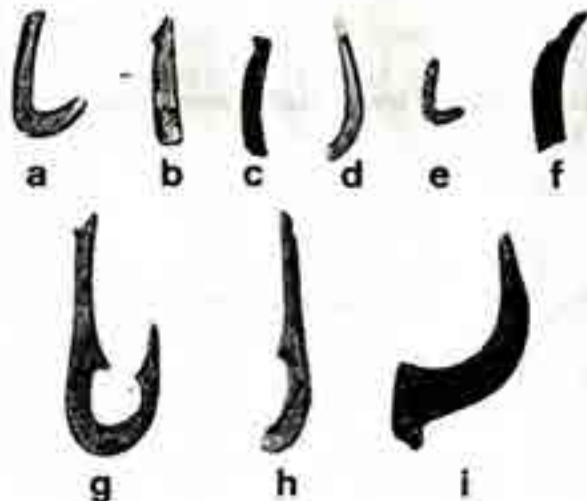


Fig. 28. FISHHOOKS FROM BT-2
AND BT-3, SITE 50-KA-05-1001.
(actual size).

Category 5: Fishhook files and abraders (16) (Fig. 29)

a. Sea-urchin-spine files

Description: pointed and square-ended, bevelled working points; ends both thick and thin

Number: 6

Dimensions: average not calculated since most are incomplete (Fig. 29g-j)

Provenience: stratum II

Comments: cross section and kind of point vary according to specific use

b. *Porites* sp. coral files

Description: incomplete sections; round to flat-elliptical in cross section; tapered to narrow working end (Fig. 29d-f)

Number: 5

Dimensions: indeterminable

Provenience: stratum II

c. Stone files

Description: incomplete pieces; oval to elliptical in cross section; two show faceted, pointed, working ends (Fig. 29a-c)

Number: 3

Material: basalt

Dimensions: indeterminable

Provenience: surface and stratum II

d. Coral abraders

Description: *Porites* sp. coral pieces ground flat; quadrangular cross section

Number: 2

Dimensions: 39 x 22 x 17 mm; 39 x 23 x 16 mm

Provenience: BT-2; area A, surface

Category 6: Bone picks (Fig. 30b-c)

Description: cut bird bone, tapered to point, tip broken; good-sized petrel or shearwater (probably *Pterodroma* or *Puffinus* spp.)

Number: 3

Dimensions: two nearly complete specimens 55 mm long

Provenience: SlW2, 18 cm; BT-3

Comments: described in literature as *pipipi* (pickers)--for taking meat out of shell

Category 7: Bone awl (Fig. 30a)

Description: splinter of mammal bone ground and polished to point on one end

Dimensions: 45 cm long

Provenience: SlE1, stratum I, 15-20 cm

Fig. 29. FISHHOOK FILES FROM
STRATUM II OF BT-2 AND BT-3,
SITE 50-KA-05-1001 (actual
size).

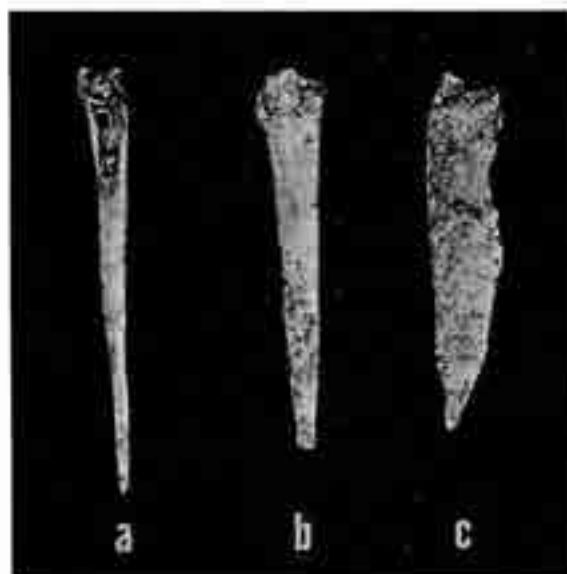
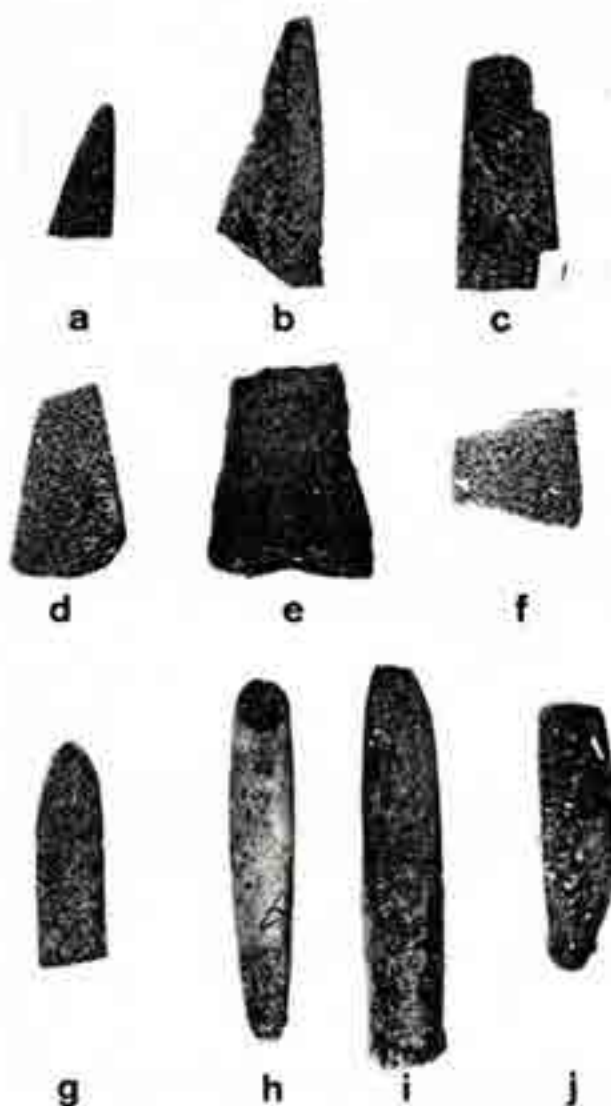


Fig. 30. BONE PICKS AND AWL FROM SQUARES
S1W2 and S1E1 and BT-3 FILL, SITE
50-KA-05-1001 (actual size).

Category 8: Game stone ('ulu maika)

Description: partial discoidal stone; pecked
Material: coralline
Dimensions: estimated diameter, 61 mm; thickness, 35 mm
Provenience: area B, surface

Category 9: Ornaments (5) (Fig. 31)

- a. Description: dog-tooth pendants; 2- and 3-mm-diameter holes drilled through root of canine tooth (Fig. 31a, b)
Number: 2
Material: dog canine tooth
Dimensions: 36 and 34 mm long
Provenience: area C, surface
- b. Description: cut and ground dog canine tooth; V-shaped cuts made into root opposite each other, apparently for lashing (Fig. 31c)
Material: dog canine tooth
Dimensions: 31 mm long
Provenience: BT-2
Comments: unusual piece; tentatively classified as ornament
- c. Description: cone shell with 9-mm-diameter hole cut into one side (Fig. 31d)
Material: *Conus* sp.
Dimensions: 21 mm long
Provenience: area B, surface
- d. Description: circular glass bead; straight sided, 4-mm diameter hole through center; flat ends (Fig. 31g)
Material: glass
Dimensions: 18-mm diameter; 14-mm thickness
Provenience: SIW1, 0-10 cm, stratum I
Comments: regular hole and depth suggest it is historic; probably Chinese

Category 10: Worked stone, bone, and shell (This is a residual category of items defying accurate functional classification, except for the adz flakes.)

Stone

- a. Description: polished adz flakes from sharpening
Number: 7
Material: basalt
Dimensions: range 18-42 mm long, 3-7 mm thick
Provenience: stratum II
- b. Description: thin piece of ground slate
Number: 1
Material: slate
Dimensions: 40 x 30 x 4 mm
Provenience: area B, surface

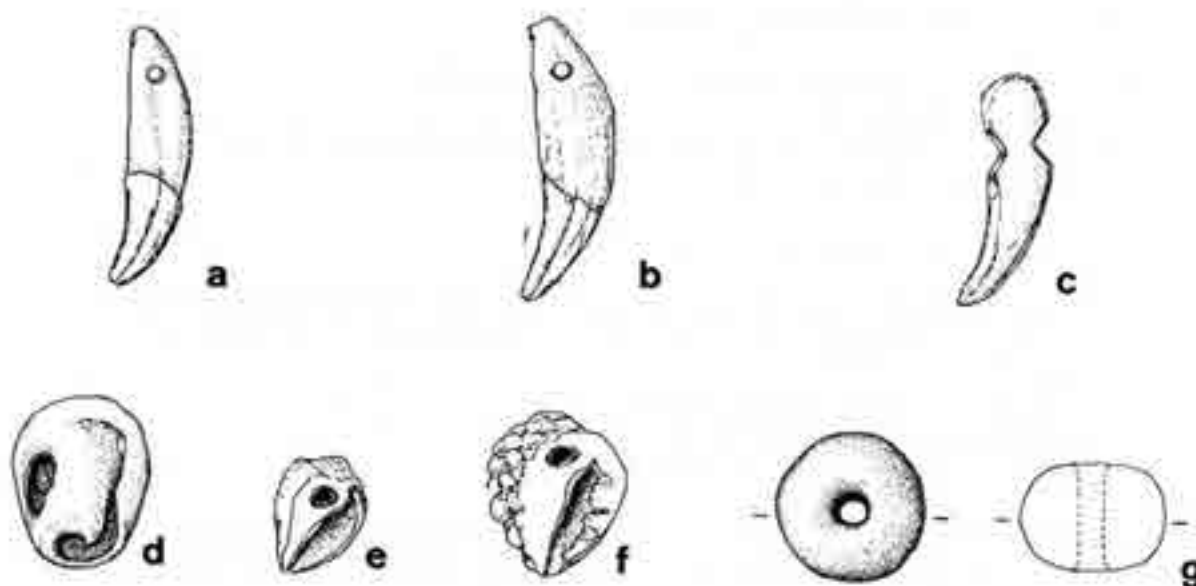


Fig. 31. ORNAMENTS FROM SITE 50-KA-05-1001 (actual size).

Category 10 - continued

Stone

- c. Description: small fragment of polished stone; bevelled side; probable oval cross section
 Number: 1
 Material: stone
 Dimensions: 10 x 10 x 4 mm
 Provenience: BT-2
 Comments: possible fishhook-file fragment

Bone

- Description: cut and burned piece of shaft of mammal long bone; facet cut on one end, was probably continuous (a ring) before breaking
 Number: 1
 Material: bone
 Dimensions: 21 x 14 x 2 mm
 Provenience: BT-3

Shell

- a. Description: ground shell; aperture side and tubercles ground flat (Fig. 31e, f)
 Number: 2
 Material: shell (*Drupa* and *Conus* spp.)
 Dimensions: 15 and 20 mm long
 Provenience: SlW1, 15-20 cm, stratum II (*Conus* sp.); BT-3 (*Drupa* sp.)
 Comments: use unknown

Category 10 - continued

Shell

- b. Description: cut shell
Number: 2
Material: pearl shell
Dimensions: 28 x 22 x 3 mm; 15 x 14 x 1 mm
Provenience: areas A and B, surface

Category 11: Nails (2)

- a. Description: bent, broad-headed, sheathing nail
Material: copper
Dimensions: 30 mm long; head 15 mm wide
Provenience: S1E2, 0-10 cm, stratum I
- b. Description: corroded, flat-headed nail
Material: iron
Dimensions: 23 mm long; head 7 mm wide
Provenience: S1W1, 10-15 cm

Category 12: Hammered metal wire

Description: hammered metal wire; bent; tapered to point on each end
Number: 2
Material: iron
Dimensions: each approximately 89 mm long, 4 mm thick
Provenience: BT-2, BT-3
Comments: curvature and dimensions suggest attempt to fashion fishhooks

Category 13: Glass bottle tops and stopper (Fig. 32)

- a. Description: broken bottle tops; short necks; slight flare at top
Number: 2
Dimensions: inside diameters of necks, 12 and 14 mm
Provenience: area C, surface
Comments: tentatively dated between 1850 and 1910; probably medicine bottles
- b. Description: glass stopper; flat top; sides beaded
Number: 1
Dimensions: 36 mm long; top 24 mm in diameter
Provenience: area A, surface
Comments: probably stopper for perfume bottle

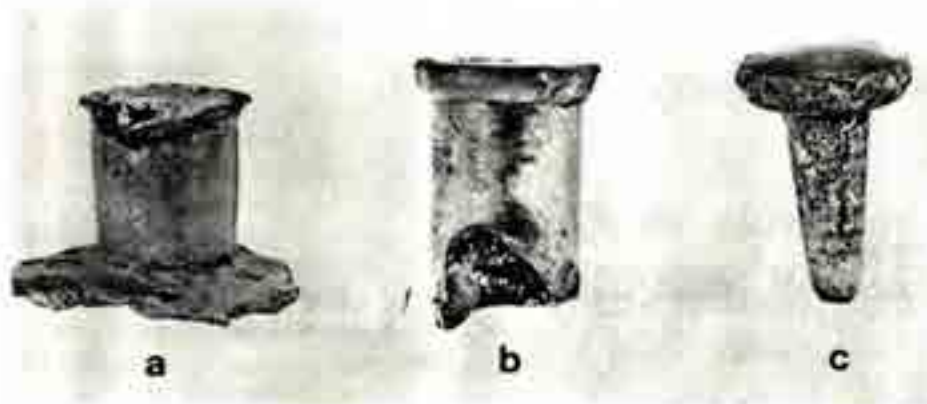


Fig. 32. BOTTLE TOPS AND STOPPER FROM SITE 50-KA-05-1001 (actual size).

The artifact assemblage from site 50-KA-05-1001, although not large, includes a sufficiently broad range of functional categories to indicate a habitation site as opposed to some other site type. This conclusion is easily derived independently from both stratigraphic interpretation and midden analysis. The numbers of artifacts in individual categories are not great enough to determine the full range of typological variation, but there is fair diversity in fishhook forms in the few examples recovered. Distribution analysis was not undertaken since precise provenience was lacking for most artifacts.

The predominance of pearl-shell fishhooks is consistent with Sinoto's (1967:356) findings at the K1 and K3 sites (see Fig. 1) on Kauai. The sample is too small to make further statements on the percent frequency of barbs on bone and shell hooks.

Dating

No absolute dates are available for the site. Insufficient charcoal was present to permit establishing a radiocarbon date. Hydration-rind dating of the one piece of volcanic glass recovered in the excavation yielded a date of 3400 years B.P., which measures the antiquity of the flow rather than the site as a cultural entity (Maury Morgenstein, Hawaii Institute of Geophysics, personal communication). Paucity of temporally diagnostic artifacts makes it difficult to establish even a relative date for the site.

Absence of historic artifacts below 10 cm suggests that the site pre-dates the construction of Fort Elizabeth in 1816. On the basis of fishhook typology and acceptance of Sinoto's (1968) sequence for the Hawaiian Islands, the site appears to be late prehistoric. This assumption requires that the sequence developed on the Island of Hawaii be valid also for Kauai. Other artifacts recovered in the excavation are presently useless as time-horizon markers.

Midden Analysis

Quantitative samples of midden were not collected in view of the nature of excavation dictated by a short field period. Analysis is therefore semiquantitative (presence-absence only); nevertheless, the

sample yields important environmental data (Appendix B) and information critical to interpretation of the site. Horizontal and vertical distribution of midden material is presented in Table 5, and midden found in BT-2 and BT-3 is listed in Table 6.

Most of the marine invertebrates found in the site live in the littoral or supralittoral environment. The invertebrate fauna is predominantly univalves, the most common of which were the pitchy sea snail (*Nerita picea*) and cowry (*Cypraea caputserpentis*). The striate mussel (*Brachydontes cerebristriatus*), a bivalve, was the most common shell in the site. All of these species occur in shallow-water, rocky areas. One brackish-water species, *Meritina vespertina*, occurred in fair abundance; it is no longer reported at the mouth of the Waimea River (probably because of silting) but is said to occur still in the cleaner water upstream. The black limpet (*Helcioniscus exeratus*), locally called 'opihi, is still collected in the immediate site area but did not occur in any great frequency in the midden. Echinoderms are represented by two varieties of sea urchin.

The vertebrate fauna includes mammal, bird, fish, and amphibian. The presence of the Polynesian dog, pig, chicken, and rat supports the thesis of a habitation site. Wild birds are limited to an unidentified, medium-sized duck, Hawaiian stilt, and large shearwater. The one amphibian, a burrowing toad, is a recent introduction. Paucity of all bone indicates few individuals.

On the basis of limited excavation and random sampling of midden, bone and shell appear to be relatively sparse in this site compared with many other Hawaiian coastal sites. In the small area excavated, midden was dispersed and did not occur in discrete lenses.

CULTURAL-HISTORICAL INTERPRETATION

All data considered, the site is interpreted as a multiple-component, late-prehistoric, habitation site. A primarily marine-subsistence base is suggested by artifact types and midden. More meaningful interpretation will depend on further, extensive, controlled excavations and rigorous analysis of greater amounts of field data.

Table 5. Midden Material, Site 50-KA-05-1001.

Material	Presence of Midden Material in Given Locations and Depths (cm)																	
	S1W1						S1W2						S1E1					
	0 -10	10 -15	15 -20	20 -25	25 -30		0 -15	15 -20	20 -25	25 -30	30 -35	35 -40	0 -10	10 -15	15 -20	20 -25	25 -30	30 -35
SHELL																		
Gastropoda (Univalves)																		
<i>Conus catus</i> Hwass	+						+				+		+			+		+
<i>Conus ceylanensis</i> Sowerby		+	+															
<i>Conus imperialis</i> Linnaeus							+	+										
<i>Conus quercinus</i> Hwass	+						+			+								
<i>Conus textile</i> Linnaeus	+	+																
<i>Conus</i> spp.	+	+	+				+	+	+				+	+		+	+	
<i>Nassarius graphiterus</i> Beck		+																
<i>Columbella zebra</i> Gray				+												+		
<i>Morula tuberculata</i> Blainville							+	+			+		+	+	+	+		+
<i>Dryas ricinus</i> Linnaeus	+	+						+	+						+		+	
<i>Nassa sertum</i> Bruguière		+																
<i>Cymatium pileare</i> Linnaeus					+			+						+				
<i>Cymatium</i> sp.		+																
<i>Tritonalia tritonis</i> (Linnaeus)					+													
<i>Cassaria vibex</i> (var. <i>hawaiiensis</i>) Dall	+																	
<i>Cypraea caputserpentis</i> Linnaeus	+	+	+		+		+	+	+			+	+	+	+	+		
<i>Cypraea sulcidentata</i> Gray		+								+								
<i>Strombus maculatus</i> Nuttall	+	+					+	+	+	+		+	+			+	+	
<i>Clava obeliscus</i> Bruguière		+						+										
<i>Littorina pintado</i> Wood	+																	+
<i>Nipponix pilosus</i> <i>imbricatus</i> Gould	+						+	+					+	+		+		
<i>Helcioniscus exaratus</i> Sowerby	+	+					+			+		+	+					
<i>Trochus intextus</i> Kiener							+	+			+	+	+					+
<i>Nerita picea</i> Recluz	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+
<i>Nerita polita</i> Linnaeus										+		+						
<i>Neritina vespertina</i> Nuttall				+	+	+	+	+			+		+			+		
<i>Nelampus castaneus</i> (Muhlfield)					+			+										

Table 6. Midden Material in Fill from Backhoe Trenches
at Site 50-KA-05-1001

Material	BT-2	BT-3
SHELL		
Gastropoda (Univalves)		
<i>Terebra strigillata</i> Linnaeus	+	+
<i>Conus catus</i> Hwass	+	+
<i>Conus imperialis</i> Linnaeus	+	
<i>Conus</i> spp.	+	+
<i>Columbella zebra</i> Gray	+	+
<i>Morula tuberculata</i> Blainville	+	
<i>Drupa ricinus</i> Linnaeus	+	+
<i>Nassa vertum</i> Bruguière	+	
<i>Cymatium pileare</i> Linnaeus	+	+
<i>Cymatium tuberosum</i> Lamarck	+	
<i>Cymatium</i> sp.	+	
<i>Cantharus vibex</i> (var. <i>hawaiiensis</i>) Dall	+	
<i>Cypraea caputserpentis</i> Linnaeus	+	+
<i>Cypraea isabella</i> Linnaeus	+	
<i>Cypraea reticulata</i> Martyn	+	
<i>Strombus maculatus</i> Nuttall	+	+
<i>Clava obeliscus</i> Bruguière	+	+
<i>Littorina pintado</i> Wood	+	
<i>Hippodix pilosus imbricatus</i> Gould	+	+
<i>Melcioniscus exaratus</i> Nuttall	+	+
<i>Trochus intertus</i> Kiener	+	
<i>Merita picea</i> Reclus	+	+
<i>Merita polita</i> Linnaeus	+	+
<i>Meritina vespertina</i> Nuttall		+
Worm shell	+	
Pelecypoda (Bivalves)		
<i>Isognomon (Melina) californicum</i> Conrad		+
<i>Spondylus hawaiiensis</i> Dall	+	
<i>Antigona reticulata</i> (Blainville)	+	
Echinoderms (Sea Urchins)		
<i>Echinometra oblongata</i> (Blainville)		+
<i>Heterocentrotus mammillatus</i> (Linnaeus)	+	+
BONE		
Mammal		
<i>Rattus exulans hawaiiensis</i> Stone	+	
<i>Canis familiaris familiaris</i> Linnaeus	+	+
<i>Sus scrofa scrofa</i> Linnaeus		+
Unidentified	+	+
Bird		
Medium-sized duck	+	
<i>Himantopus mexicanus</i> (P.L.S. Müller)	+	
Fish		
Isuridae	+	
Unidentified	+	+

SITE 50-KA-05-1002*

Site 50-KA-1002 is a right-angle stone alignment just above the high-tide mark and parallel to the shoreline. It is located approximately 27 meters W of area B of site 50-KA-05-1001. The long side is 13 meters and the short, 5 meters. Along most of its length it is a single-course wall of large basaltic stones, the long axes of which are placed end to end. In two places along the long side a second course exists.

This feature bears no obvious relationship to the fort or the open midden site, and for that reason has been given a separate designation. Its function is not readily apparent. Historic burials are reported along this section of the beach, however, and therein may lie some association.

SUMMARY AND RECOMMENDATIONS

Mapping and test excavations were undertaken during a three-week period at the early-19th-century Fort Elizabeth and a nearby pre-contact site at Waimea, Kauai. Information recovered in this preliminary investigation constitutes a data base for a more problem-oriented second phase of restoration.

The most important contribution of this first-phase work is the detailed map and corresponding descriptions of structural features associated with the fort. These, combined with rich historical data, provide for more sound interpretation of site usage during its short history than historic data alone. The next obvious step in the restoration is removal of rubble and extensive excavations of the wall and independent structures.

A trench through the wall on the S is required to test the hypothesis of construction stages. Following the removal of collapsed rubble, it should be possible to determine whether or not the wall on a given side was built from opposite directions, and if there were modifications of the wall as suggested in this paper. A greater artifact recovery is expected in the excavation of structures, which should permit more refined interpretations of use and age than presently possible. Features interpreted as burials merit further investigation, and disposition of remains, if present, demands serious thought by the State.

Excavations on the beachfront revealed a pre-contact site (50-KA-05-1001) that merits further investigation. This buried habitation site contains several features (including a possible house floor) and a relatively rich artifact assemblage. Few sites of this type have been excavated in the Hawaiian Islands. This one should be excavated more fully; a large horizontal surface should be opened to expose living floors and features in their entirety. This approach to excavation would provide maximum information for cultural-historical interpretation.

*The Bishop Museum site number is 50-KA-C2-16.

APPENDIX A. DESCRIPTION OF GEOLOGIC UNITS

Stratigraphic Section on South Wall of BT-1

<u>Geologic Unit</u>	<u>Description</u>
Stratum I	very dark grayish-brown (10 YR 3.5/2)* loamy sand; well-sorted; sand component is fine; includes O ₀ and A soil horizons; 6-8 cm thickness; clear to smooth boundary to:
II	dark grayish-brown (10 YR 4/2) loamy sand; contains few small waterworn pebbles and shell; 10± cm thickness; clear to smooth boundary to:
III	dark grayish-brown (10 YR 4/2) fine loamy sand; sand component is well-sorted, fine to medium, crushed coral; few shells and small waterworn pebbles (2-3 mm diameter); 20 cm thickness; clear to abrupt boundary to:
IV	dark-gray, fine sand (10 YR 4/1); contains fire-cracked rock, shells, waterworn pebbles and charcoal; 15± cm thickness; clear to abrupt boundary to:
V	dark grayish-brown (10 YR 4/2) fine loamy sand; sand component is well-sorted, fine to medium, crushed coral; few shells and small waterworn pebbles; thickness unknown

Stratigraphic Section on West Face of BT-2 (S1W1)

- I dark reddish-brown (2.5 YR 3/4) sandy loam; friable; granular to crumb; plastic, slightly sticky; sand component is fine, dark-colored particles; clear to abrupt boundary to:
- II very dark grayish-brown (10 YR 3/2) unconsolidated loamy sand; granular; nonplastic, nonsticky; clear to abrupt boundary to:
- III waterworn pebbles in a very dark grayish-brown (10 YR 3/2) unconsolidated, loamy sand matrix; interpreted as a possible house floor
- IV pink (5 YR 7/4) sand; color varies to white when dry; fine to coarse; coarse component of well-rounded basalt cobbles and coral; fine component of crushed shells and coral; clear to abrupt boundary to:
- V dusky-to-dark-red (wet 10 R 3.5/6) sandy loam; blocky; plastic, nonsticky

* Based on Munsell Color Chart

Stratigraphic Section on East Wall of BT-3

<u>Geologic Unit</u>	<u>Description</u>
Stratum I	dark-red (2.5 YR 3/6) sandy loam; compact; blocky; plastic, non-sticky; contains charcoal specks and minute shell fragments deposited during modern cultivation; clear to abrupt boundary to:
II	very dark, grayish-brown (10 YR 3/2.5) loamy sand; well-sorted; non-plastic, non-sticky; contains fine shell, coral and waterworn pebbles; one discontinuous facies--brownish-yellow (10 YR 6/7) sand; clear to abrupt boundary to:
III	pink (5 YR 7/4) sand; color varies to white when dry; medium to coarse; poorly sorted--less-than-1-mm to 13-cm-diameter size range; coarse component of well-rounded porous basalt and coral; fine component of crushed shell and coral; clear to abrupt boundary to:
IV	dusky-red to dark-red (10 R 3.5/6-wet) sandy loam; blocky; plastic, non-sticky

Stratigraphic Section on South Wall of BT-4

- I dark-yellowish-brown (10 YR 3.5/4) loamy sand; upper 2-3 cm is the O₀ and A soil horizon; slightly plastic, non-sticky; 5-cm thickness; clear to smooth boundary to:
- II light-brownish-gray (10 YR 6/2.5) sand; fine to medium; well-rounded; lateral variation in sorting; lenses of stratum I occur near upper boundary; 40-cm thickness; clear to abrupt boundary to:
- III dark-reddish-brown to dark-red (2.5 YR 3/5) loam; blocky; plastic, slightly sticky; minute sand particles, plant fragments and charcoal near upper boundary; thickness unknown

Stratigraphic Section on South Wall of BT-5

- I dark-reddish-brown (2.5 YR 3/4) loam; blocky; plow zone; contains angular and well-rounded stones 1-6 mm in diameter; 20-28-cm thickness; clear to abrupt boundary to:
- II dark-reddish-brown to dark-red (2.5 YR 3/5) loam; blocky; plastic, slightly sticky; thickness unknown

Stratigraphic Section on North Wall of BT-6

- I dark-reddish-brown (2.5 YR 3/4) loam; blocky; plow zone; contains angular and well-rounded stones 1-6 mm in diameter; 8-10-cm thickness; clear to abrupt boundary to:
- II dark-reddish-brown to dark-red (2.5 YR 3/5) loam; blocky; plastic, slightly sticky; thickness unknown

Appendix B. MIDDEN MATERIAL FROM SITE 50-KA-05-1001

Scientific Name	Common Name	Hawaiian Name	Remarks
SHELL			
Gastropoda (Univalves)			
<i>Terebra strigillata</i> Linnaeus	Painted Auger Shell	pūpū-lolea	On reef
<i>Conus catus</i> Hwass	Cat Cone	pūpū'alā	
<i>Conus ceylanensis</i> Sowerby	Ceylon Cone	pūpū'alā	On reef
<i>Conus imperialis</i> Linnaeus	Imperial Cone	pūpū'alā	On reef
<i>Conus quercinus</i> Hwass	Oak Cone	pūpū'alā	Outer reef
<i>Conus textile</i> Linnaeus	Cloth of Gold Cone	pūpū'alā	On reef
<i>Nassarius graphiterus</i> Beck	Painted Basket Shell		On sand-covered reef
<i>Columbella zebra</i> Gray	Zebra Dove Shell		Near shore, under stones, in seaweed
<i>Morula tuberculata</i> Blainville	Tuberculate Morula	pūpū-makai-'awa	Rocky areas in shallow water
<i>Drupa ricinus</i> Linnaeus	Castor Bean Drupe	pūpū-'awa	Rocky areas in shallow water; clings to rocks in strong surf
<i>Nassa sortum</i> Bruguière	Garland Nassa	'a-unauna	Rocky areas in shallow water
<i>Cynatium pileare</i> Linnaeus	Hairy Triton	pūpū-'olē	Shallow water
<i>Cynatium tuberosum</i> Lamarck	Knobby Triton	pūpū-'olē	From shoreline to moderate depths
<i>Tritonalia tritonis</i> (Linnaeus)	Triton's Trumpet	pū	Shallow bays and off-shore water
<i>Casmaria vibex</i> (var. hawaiiensis) Dall	White Helmet Shell		Sandy bottoms in shallow water
<i>Cypraea caputserpentis</i> Linnaeus	Snakehead Cowry	leho-kupa	Holes in rocks and stones near shore
<i>Cypraea isabella</i> Linnaeus	Isabella Cowry	pūleho	On the reef under stones near shore
<i>Cypraea reticulata</i> Martyn	Reticulated Cowry	leho	Rocky shores exposed to dash of waves and outer edges of reef where surf is strong
<i>Cypraea sulcidentata</i> Gray	Grooved-tooth Cowry	(leho)	On reef
<i>Strombus maculatus</i> Nuttall	Spotted Strombus	pūpū-mānāiki	From shallow water to depths of a few fathoms
<i>Clava obeliscus</i> Bruguière	Obelisk Shell	(pūpū)-maka-aha	From water's edge to moderate depths
<i>Littorina pintado</i> Wood	Dotted Periwinkle	pīpīpī-'ākōlea	On rocks in reef zone; often with Neritidae
<i>Hipponix pilosus imbricatus</i> Gould	Hairy Hoof Shell		Shallow water, on smooth surface of stones
<i>Helcioniscus exeratus</i> Nuttall	Black Limpet	'opihī	Heavy surf; clings to rocky shores
<i>Trochus intextus</i> Kiener	Top Shell	hā'upu	Among seaweed in the littoral zone
<i>Nerita picea</i> Recluz	Pitchy Sea Snail	pīpīpī	Clings to rocks in surf zone
<i>Nerita polita</i> Linnaeus	Polished Nerite	kupē'e	On rocks in surf zone, often high out of water
<i>Neritina vespertina</i> Nuttall	Winged Nerite	hīhī-wai	Found near mouths of rivers; prefer fresh or brackish water
<i>Melampus castaneus</i> (Muhlifeld)	Chestnut Ear Shell	'aea	Under stones at water's edge

Pelecypoda (Bivalves)			
<i>Brachydontes</i>			
<i>cerebristriatus</i> Conrad	Striate Mussel	<i>nahaweie-li'ili'i</i>	Attached to reef rocks in shallow water
<i>Isognomon</i> (Melina)			
<i>californicum</i> Conrad	Pouch Shell	<i>pāpau</i>	Under surface of stones in shallow water
<i>Antigona reticulata</i>			
Linnaeus	Reticulate Venus		Sand dweller
Echinoderm (Sea Urchins)			
<i>Echinometra oblongata</i>			
(Blainville)			
<i>Heterocentrotus mamillatus</i> (Linnaeus)	Slate Pencil Urchin		Outer border of reef
BONE			
Mammal			
<i>Rattus exulans hawaiiensis</i> Stone	Polynesian Rat	<i>'iole</i>	
<i>Canis familiaris familiaris</i> Linnaeus	Domestic Dog	<i>'ilio</i>	Domestic species
<i>Sus scrofa scrofa</i> Linnaeus	Pig	<i>pua'a</i>	Domestic species
Amphibian			
<i>Bufonidae</i>	Burrowing Toad		Recent introduction
Bird			
<i>Gallus gallus</i> (Linnaeus)	Chicken	<i>moa</i>	Domestic species
<i>Himantopus mexicanus</i> (P.L.S. Müller)	Hawaiian Stilt	<i>aeo</i> or <i>kuku'uaeo</i>	Lagoon
<i>Procellariid</i>	Large Shearwater	<i>uas kani*</i> or <i>uas**</i>	Wedge-tailed shearwater near the sea Petrel nests in mountains
Medium-sized duck			
Fish			
<i>Isuridae</i>	Sharks	<i>manō</i>	Pelagic species
<i>Scarus</i> spp.	Parrotfish	<i>uhu</i>	Inshore, subsurge zone

* Wedge-tailed Shearwater

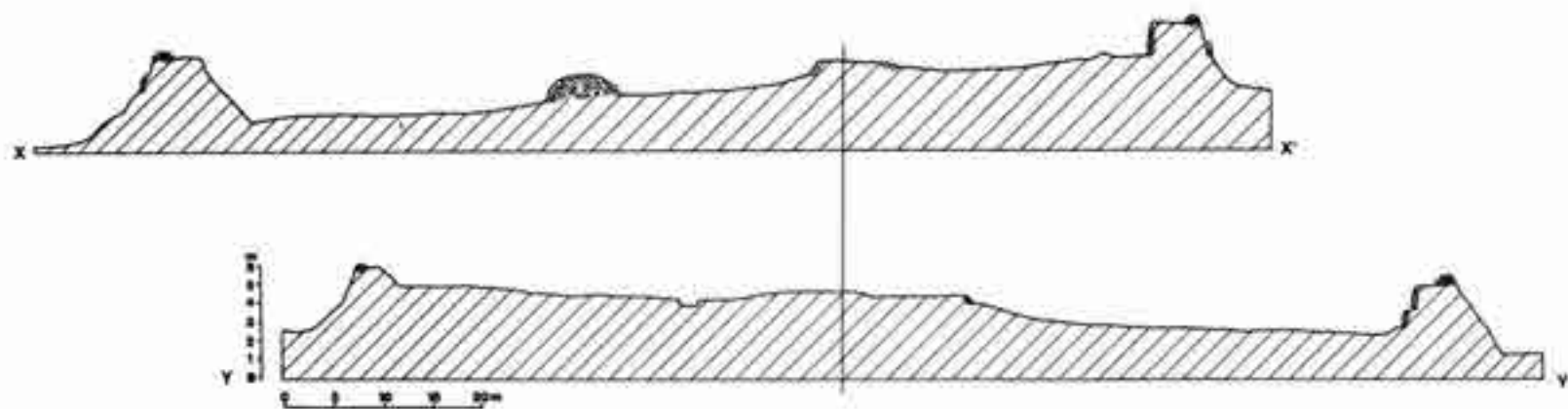
** Dark-rumped Petrel

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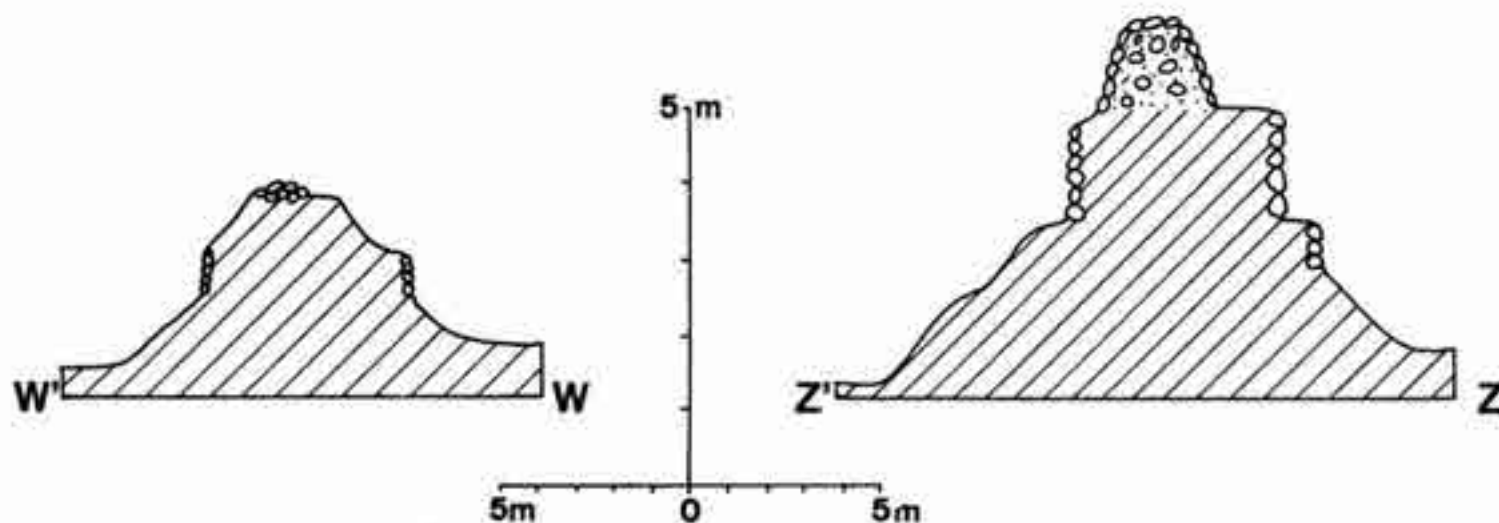
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b. Profiles of fort through planes X-X' and Y-Y'



c. Profiles of fort wall at two selected locations

Fig. 5. MAP OF FORT ELIZABETH AND RELATED FEATURES (continued from p. 63).

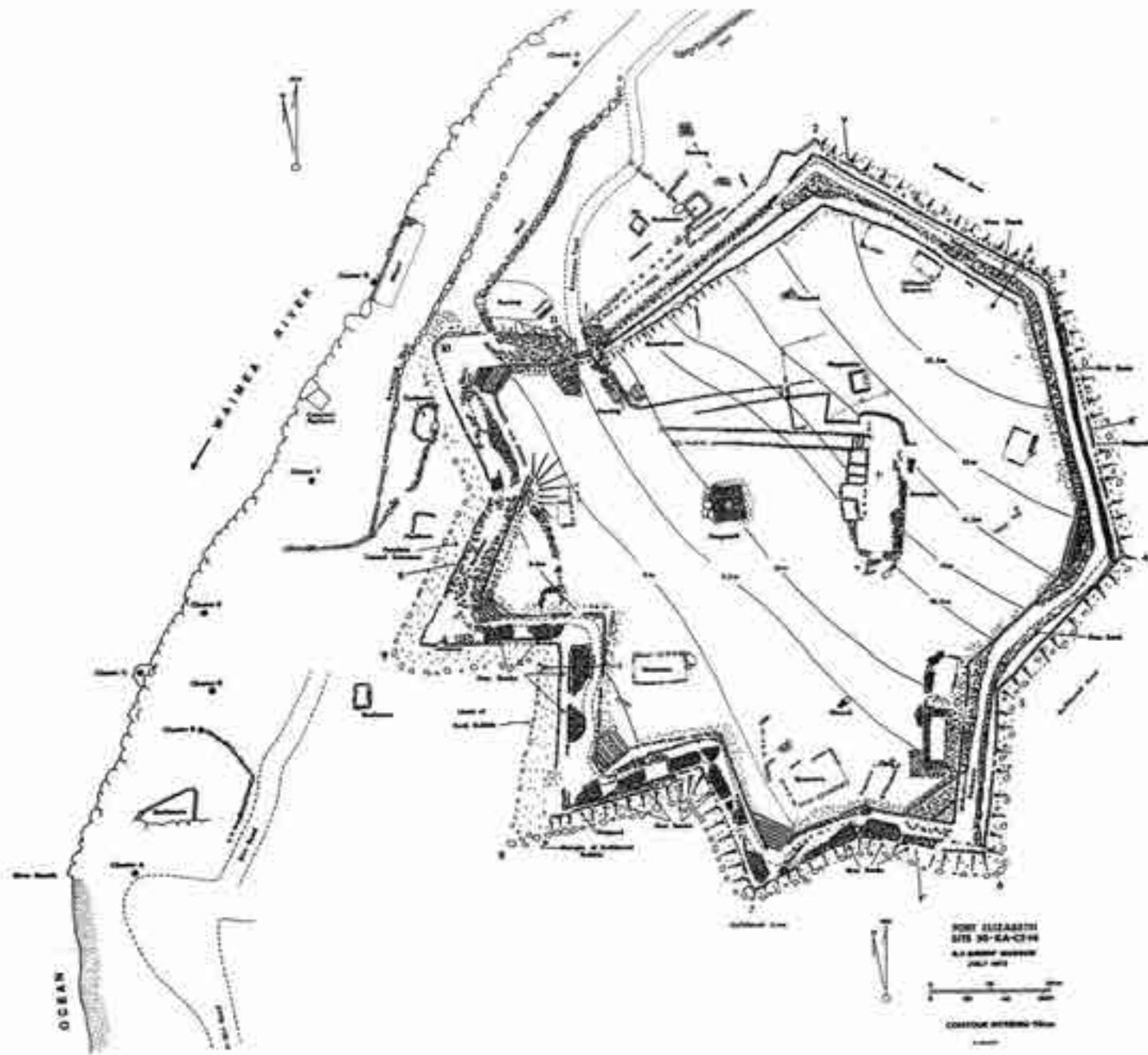


Fig. 5. MAP OF FORT ELIZABETH AND RELATED FEATURES
(parts b and c on p. 65).