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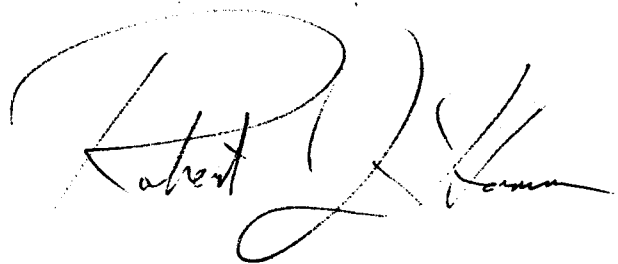
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PRELIMINARY REPORT ON ARCHAEOLOGICAL AND HISTORICAL
RESEARCH AT FORT ELIZABETH (PHASE I), WAIMEA,
KONA, KAUAI ISLAND

by

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IN PARTIAL FULFILLMENT OF
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DIVISION OF STATE PARKS, OUTDOOR RECREATION AND HISTORIC SITES
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE OF HAWAII

By
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LAWA'I

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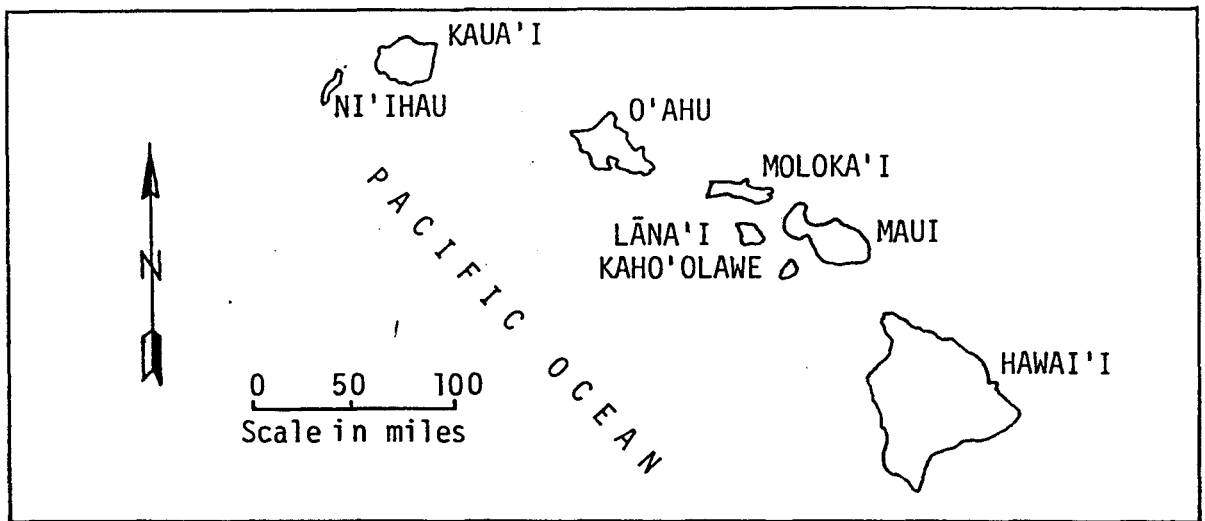


Figure 1
STATE OF HAWAII

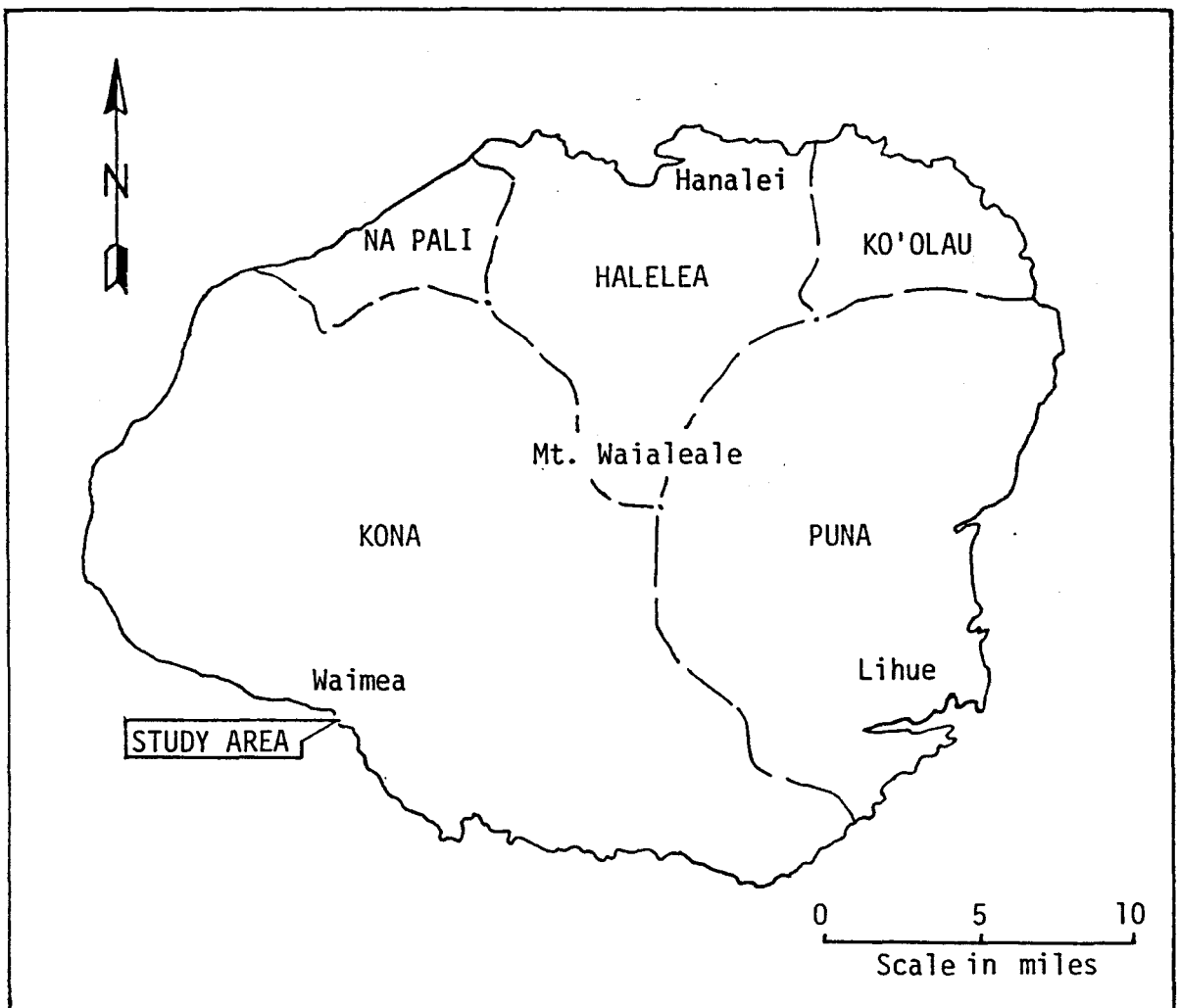


Figure 2
KAUAI ISLAND - GENERAL LOCATION MAP

INTRODUCTION

Background Information

At the end of February 1975, the Department of Land and Natural Resources, Division of State Parks, State of Hawaii, entered into a contract with Archaeological Research Center Hawaii, Inc. to begin preliminary archaeological and historic work on Fort Elizabeth near the town of Waimea, Kaua'i. This contract was the second in series of agreements designed to begin the necessary interpretation, stabilization, and restoration of the Fort. Shortly after the contract was awarded, it became evident that the necessary Environmental Impact Statement clearance would not be forthcoming until July 1975. This, coupled with the fact that only 16 weeks were contracted with Archaeological Research Center Hawaii, Inc., the State of Hawaii and the Center mutually agreed to extend the contract for an additional three months. The necessary Environmental Impact Statement clearance was not granted until the end of July 1975. At this time, work was begun on the clearing of the *koa haole* (*Leucaena glauca*) on and adjacent to the Fort walls. No work could proceed on the test trenching of the proposed parking lot area and Area "A" (Figure 3), because the State's backhoe was not available until the week of August 25, 1975. Backhoe trenching began during the last full week in August and continued until the week of September 15, 1975. Because time did not permit us to complete the necessary profiles and drawings, permission was granted to extend the contract period until

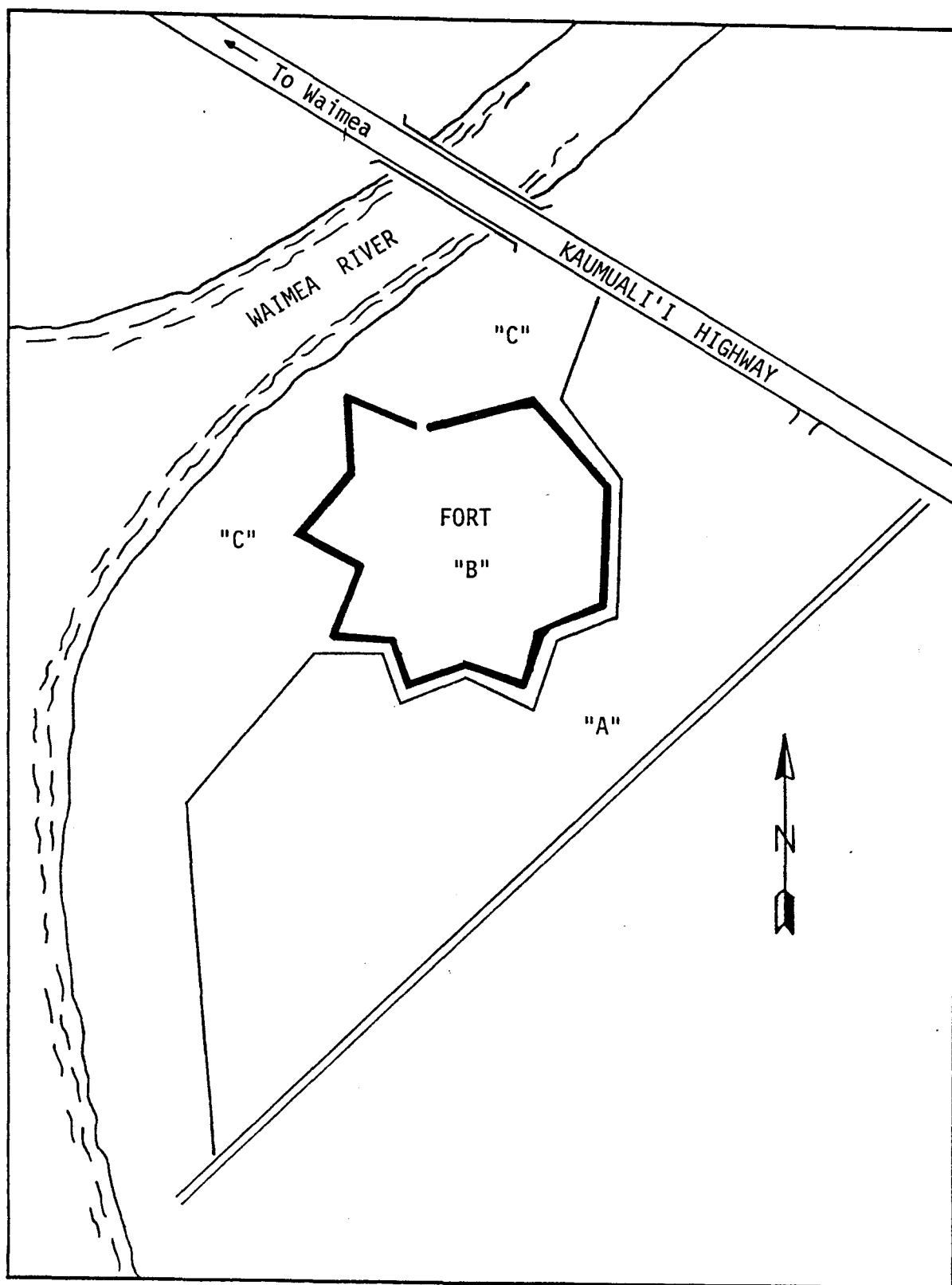


Figure 3

FORT ELIZABETH SHOWING AREAS "A", "B", AND "C".

September 29, 1975, in order that the results of the backhoe trenching could be included in the final report for Phase I work. It should be pointed out that although the contract was extended some 3-1/2 months, no fee adjustments were made by the contractor, this, despite the fact that historical and other research continued throughout the duration of this project.

General Contract Requirements

The archaeological and historical work required under Phase I of the interpretation, stabilization, and restoration of Fort Elizabeth, required that a preliminary archaeological and historical investigation be made, along with test excavations to determine the limit of human occupation outside of the Fort in the area of the proposed parking lot and Area "A" (which was formerly in sugarcane). Also, a clearing program to rid the Fort walls and interior of troublesome vegetation was to begin. Before and after photographs, along with an accurate photographic record, was to be made throughout the duration of fieldwork. In addition, a report on archaeological research was to be made along with a proposal outlining future archaeological and historical work at the Fort. A Visitor Control Plan, and information concerning a Visitor Orientation Center, as well as preliminary marketing research, rounded out the Scope of Work.

Location

Fort Elizabeth is located on the bluff on the east bank of the Waimea River near its mouth. It is adjacent to the town of Waimea, which

is situated in the district of Kona on the island of Kaua'i. The primary purpose of the initial contract is to begin the task that would eventually cumulate in the interpretation, stabilization, and restoration of the Fort. To this end, we addressed ourselves to the Scope of Work as outlined in our contract, all of which were accomplished and are presented below.

PART I. PRELIMINARY HISTORICAL REPORT

PRELIMINARY HISTORICAL REPORT

INTRODUCTION

The commentary of Dr. N. N. Bolkhovitinov (1973:55), translated from Russian by I. Vorobyoff, is a succinct introduction to any study of the Schäffer incident on Kauai:

The history of Russian America is rich with striking events, courageous voyages, grandiose projects, and rather modest practical results. One of the oddest and most exotic episodes in the history of the Russian-American Company (RAC) was the Hawaiian adventure of Dr. Schäffer.

Pre-Russian Background

On 17 October 1813 the American fur trading vessel *Atahualpa* arrived from the Northwest coast at the island of Hawaii. There Captain John Suter learned that war between the U.S. and Great Britain had been declared on 18 June 1812 and that an armed schooner *Tamaahmaah* awaited at Honolulu to carry the cargoes of American traders to China. On 19 October 1813 the *Atahualpa* arrived at Honolulu where an inspection revealed she was defective in a number of places. Since repairs could not be made at Honolulu and since the war situation made it impossible to engage in fur trading, the vessel was sold to the Americans William Henry Davis, Nathan or Jonathan Winship, Lemuel Porter and James Bennett for \$4,500.

Sometime after this, the Americans sold the *Atahualpa* to A. A. Baranov, Manager of the Russian-American Company at Sitka, who

renamed it the *Bering*. Early in October of 1814, the *Bering* arrived at the island of Kauai under the command of James Bennett. She had come from the North Pacific where she had taken on seal skins. The *Bering* then left for Honolulu where she went on the reef; however, assisted by two ships, she got off without injury. On 25 December 1814, she was again off Waimea, Kauai, where she took on supplies. Off Niihau on 1 January 1815, a leak was discovered; so the *Bering* returned to Honolulu. After repairs were made, the ship took to sea, arriving off Waimea on 30 January (Log of the *Atahualpa*). Bennett went ashore at 8 a.m., and by 11 a.m. a squall set in, making it impossible for him to return to his ship. At 2 a.m. the next morning, the ship broke adrift in 4-1/2 fathoms and close to a reef, and an hour later she struck the beach. In the morning, the natives, instead of helping, unloaded cargo and supplies, and placed them in Kaumualii's storehouse. Bennett vigorously protested this action but to no avail (Golder n.d.). Forced to remain on Kauai until rescued, Bennett's crew lived in a house on the shore and watched the natives attempt to salvage the *Bering* without success.

The *Albatross* under Captain William Smith, rescued the stranded crew on 11 April 1815, and Bennett arrived at Sitka on 25 May 1815 (Log of the *Atahualpa*), where he reported the loss of the vessel to Baranov. Bennett recommended force be used to recover this property.

The Schäffer Episode

Whoever Baranov chose to negotiate for the return of the ship and cargo would need tact. But Baranov had only one man to send. In

Sitka at that time, was Georg Anton Schäffer, a German doctor who had been attached to the *Suvorov*, a Russian round-the-world vessel.

Schäffer's orders were to sail to Hawaii and to represent himself as a naturalist until he gained Kamehameha's confidence; when two supporting Russian vessels would arrive, he was to secure Kamehameha's assistance in recovering the *Bering's* cargo. If the cargo could not be recovered, payment was to be demanded in sandalwood. Schäffer was further ordered to establish trading relations and to secure a monopoly of the sandalwood trade similar to that then enjoyed by the Americans Davis and Winship (Pierce 1965:6).

Schäffer was carried to Hawaii on the *Isabella* and arrived there in November 1815. Kamehameha was warned by American traders to watch this man, and by December he regarded the doctor as "a spy, whose real object was to ascertain his capability of defending himself against an attack" (Barnard 1829:219). Nevertheless, by early 1816, Schäffer had succeeded in establishing himself in Kamehameha's favor, and Barnard visited the doctor in a house Kamehameha had furnished him so that he could pursue his research (Ibid., p. 222).

Schäffer moved to Oahu to supervise property given him by Kamehameha, who at the same time assigned one of his storehouses to the Russian-American Company. In late April the American Captain Sam Hill called on Schäffer, identifying the doctor as a naturalist who was collecting plants and minerals for Emperor Alexander (Hill 1818). Early in May the Russian-American vessel *Otkrytie* arrived, followed shortly by another Company vessel, the *Il'mena* to remain at Honolulu and left

in the *Otkrytie* for Hawaii where he hoped to obtain Kamehameha's assistance in recovering the *Bering's* cargo. Kaumualii was not the independent ruler of Kauai, for several years earlier he had acknowledged Kamehameha's sovereignty. However, Kamehameha took no action; so Schäffer sailed for Kauai, arriving in Waimea Bay on May 16, Julian Calendar [Old Style]/May 28, Gregorian Calendar [New Style], 1816. Schäffer sent a messenger to shore, where he was well received by Kaumualii (Pierce 1965:174).

When Schäffer himself visited the king the following day, Kaumualii appeared confused and Schäffer blamed American interference for this. However, the doctor finally won the King's confidence. Several days later a contract between Kaumualii and the Russian-American Company was prepared: Kaumualii was to return the cargo of the *Bering* or pay for it in sandalwood, the Russian-American Company was to have a monopoly on the sandalwood, and a Company factory was to be erected on Kauai (Ibid.). This factory was a building in which local produce needed for the Russian colonies was received and processed (Khlebnikov 1973:91).

On June 2, accompanied by his family and court, Kaumualii visited the *Otkrytie*. He signed the agreement and then donned the uniform of a staff officer of His Imperial Majesty's fleet (Pierce 1965:175). Tarakanov, who was with Schäffer, reported that Kaumualii, himself, brought the Russian flag to shore and raised it on a mast (Ibid., p. 102). A 13-gun salute was fired from shore, returned by one of 21-guns from the *Otkrytie*. June 6 saw Schäffer selecting sites in Waimea Valley for

houses, a factory and gardens, and Kaumualii gave an existing stone building for a trading post (Ibid., p. 176).

Early in June Schäffer left in the *Otkrytie* for Oahu to inspect the installation there and to await the arrival of the *Kad'iak* on which he expected to return to Kauai. A severe storm damaged the *Otkrytie*, necessitating its return to Sitka for repairs. On the way, Schäffer was left on Niihau from which he returned to Kauai by *Baidarka* (Ibid., p. 177).

Schäffer arrived at Waimea on June 22, and Kaumualii ordered the Russian flag raised and a salute fired. Two days later, the King assigned three houses on shore for the accommodation of the Russian forces, and Schäffer was to live with the King until the factory was completed. Then Kaumualii informed Schäffer that he, Kaumualii, was the rightful owner of Maui, Oahu, Lanai, and Molokai; if the Russians would help him recover these islands, half of Oahu and all of the sandalwood would be given to the Russian interests. An armed force of two hundred Russians was wanted by the King on Kauai (Ibid., p. 177). On June 30, Schäffer moved into the house prepared for him; so it can be assumed that the factory was completed by that date (Ibid., p. 178).

Not having his own vessel at hand, Schäffer ordered on July 22 that the large cutter from the *Bering* be prepared to take him to Oahu as he was concerned that neither the *Il'mena* nor *Kad'iak* had come to support him. (Ibid.). At this time, Schäffer's force consisted of several Russians and the Aleuts left behind by the *Otkrytie*. Whitney (1838:49) reported that there were thirty Kodiak Indians, some of them women.

Captain Gyzelaar in the *Lydia* arrived on August 15 from Oahu bringing Schäffer letters from the Russian force on that island. One letter was from the American Captain John Ebbets to Kaumualii recommending that the latter purchase the *Lydia*. Kaumualii told Schäffer he wanted the vessel and that Schäffer should purchase it for him. The King promised to supply sandalwood for the value of the ship. Gyzelaar took Schäffer to Oahu to consummate the sale.

Schäffer returned to Kauai on the *Avon*, arriving at Hanalei on August 28. This area so please Schäffer that he decided to demand of Kaumualii the province of Hanalei upon transfer of the *Lydia*. He also entered into preliminary arrangements with Captain Whittemore to purchase his ship the *Avon*, and the captain was to sail to Sitka for conclusion of the deal (Ibid., p. 182). But first the men returned to Waimea where the *Il'mena* and *Lydia* were in port (Ibid.). Schäffer gave Kaumualii the *Lydia* and demanded Hanalei for the Company. Kaumualii assured him the province was his (Ibid., p. 183). The *Avon* departed for Sitka bearing Schäffer's agreements with Kaumualii. Kaumualii proclaimed Kauai to be under Schäffer's command and everything on the Island to be Russian property (Ibid.).

It was on September 6 that Schäffer measured the plan for the fortress, Fort Elizabeth, and several hundred people were assigned to work. Six days later, Captain Gyzelaar took the *Lydia* to Oahu. He returned with the information that the Russian installation there had been destroyed by the natives, who had been incited by John Young and American captains. (Ibid.).

Captains Winship, Smith and Gyzelaar arrived in Waimea on the American vessel *O'Cain* on September 24 and stormed ashore, intent on tearing down the Russian flag flying near the king's house. Kaumualii prevented this action by placing guards with fixed bayonets about the flag pole. The following day the Americans wrote the king advising him to take down the flag (Ibid.).

Schäffer went to Hanalei on September 30 and renamed the valley Schöffertal or Schäffer Valley. When transfer arrangements were completed, Schäffer established the borders of the province and started constructing a fortification "placed on three hillocks" (Ibid., p. 184). This main fort he called Fort Alexander (Ibid.).

Returning to Waimea on October 8, Schäffer received the King at the factory. On that day and on the following days, high chiefs of Kauai gave lands to the Company (Ibid.). Kaumualii and Schäffer inspected construction work on Fort Elizabeth, where even Kaumualii's wives assisted carrying stones (Ibid., p. 185).

Four days later Schäffer left by foot for Hanalei, which he reached on October 19. There he planted a small garden around the Company house, and the people of Hanalei were ordered to assist in Schäffer's construction and planting efforts. Fifteen days after planting the garden, his diary stated: "Everything that I sowed and planted...grows successfully" (Ibid., p. 186).

Schäffer returned to Waimea, arriving on November 17. The following day he inspected Fort Elizabeth and found it "well along" (Ibid., p. 187). On November 20, he wrote (Ibid.): "since Fort

Elizabeth is finished," yet on December 9, he noted "three hundred women among the workers at Fort Elizabeth" (Ibid., p. 191). Four hundred grape vines were planted in the garden of the factory on December 17 (Ibid., p. 192).

In late March 1817, Schäffer sailed to Hanalei where he found Forts Alexander and Barclay nearly finished (Ibid., p. 198). Back in Waimea on April 9, he recorded that Captain Adams had tried to destroy the Russian flag on Kauai but had failed. Significantly this was the first time the Russian flag was not raised nor a salute fired when Schäffer returned to Waimea (Ibid., p. 199).

Schäffer returned from a visit to Hanapēpē and the following morning, May 8, called on Kaumualii, who was surrounded by his chiefs and "a thousand men" (Ibid., p. 200). Returning to his factory, Schäffer was seized by six American sailors and one of the King's men, put into a boat, and sent out to the Russian-American vessel *Kad'iak* anchored in the bay. All Russians were ordered off Kauai (Ibid.). Russian property was left on shore, and Schäffer's force left for Hanalei, where he took possession of the island of Kauai and ordered the Russian flag raised over Fort Alexander (Ibid., p. 202). Schäffer was ordered to leave Hanalei, and after the Hawaiians attacked, he decided to leave Kauai for Oahu. From there he left the Islands on the ship *Panther*, under Captain Lewis. The incomplete Fort Elizabeth (Ibid., p. 129), called Fort Hipo by the Hawaiians (Kamakau 1961:252), fell into Kaumualii's hands.

Since Area A is the focus of this phase of the Fort Elizabeth study, the historical section concludes with the exit of the Russian forces. The following is an appendix containing references and comments pertaining to the features within the focus.

APPENDIX

APPENDIX 1

Fort Elizabeth Features

We have no definitive contemporary descriptions of the Fort or its interior. If logs or journals of the American sea captains who called at Waimea during Schäffer's occupancy could be located, there is a possibility this deficiency might be obviated.

The following references are presented in chronological order, whenever possible.

Fort Walls

I measured out the plan for a fortress in Waimea, and several hundred people were assigned to work (Journal Kept by Doctor Schäffer, January 1815-March 1818 [Extracts] in Pierce 1965:183).

. . .the king and I looked over the fortress construction. He even put his own wives to work dragging stones for the construction (Ibid., October 11, 1816:185).

. . .together we visited Fort Elizabeth, the construction of which is well along (Ibid., November 18, 1816:187).

. . .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 (Statement of Accounts, Schäffer to Main Office, April 22, 1819, in Pierce 1965:135).

The houses were outside the Fort.

. . .since Fort Elizabeth is finished. . .(Journal Kept by Doctor Schäffer, November 20, 1816:187).

Today I noticed three hundred women among the workers at Fort Elizabeth (Ibid., December 9, 1816:191).

It seems strange there were hundreds working on the site on December 9 if the Fort were finished on November 20.

Sheffer prepared the plan and the king approved. 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 promyshlenniks, offering his own men (Report, Filip Osipov to Main Office, about September, 1818, Reviewing Operations in the Islands, in Pierce 1965:129).

On September 12, on land donated by Kaumualii, Schäffer began construction of a stronghold, built of lava blocks, to be called Fort Elizabeth . . . (Pierce 1965:13).

Three translations of an excerpt from Kiril Timofeevich Khlebnikov's *Zhizneopisanie Aleksandra Andreevicha Baranova, glavnago pravitel'ia Rossiiskikh kolonii v Amerike* (Biography of Alexander Andreevich Baranov) St. Petersburg, 1835, follow:

On the promontory an area 300 sazhen [sazhen = 7 feet] long and 15 wide was marked off with a mud and rock stockade as a fort. A small gun emplacement was built. (Bearne 1973:94).

At the Cape a fence built of rock and clay had been erected to serve as a wall for a fort or stockade 300 sazhen long, with a small battery surmounting the same . . . (Ricks 1970:52).

Since the above translations did not coincide closely, a xerox copy of the chapter in Russian dealing with Schäffer was secured. This copy was then sent to Igor Vorobyoff a translator for the U. S. Government. His translation follows:



Village of Waimea, Kauai. Page 217

Figure 4
ORIGINAL OF THIS VIEW OF WAIMEA DRAWN BY HIRAM
BINGHAM IN THE 1820'S.



Figure 5
FIGURE 4, CROPPED AND FORT SECTION ENLARGED.

In a protected area on the cape he also set up a small battery within a fort having a wall or enclosure of stone and clay, 300 sazhen in length (Vorobyoff 1975).

All agree the wall was 300 sazhen (2100 feet) long.

In March 1818, Peter Corney (1896:88-89) visited Waimea and wrote:

One mile from the village, the English ensign was displayed on a very fine fort, mounting about 30 guns; the natives came off in great numbers; they informed us that the Russians had built the fort, in which there were dungeons . . . The fort does great credit to the engineer . . . 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.

Samuel Hill visited Waimea in November 1818. The following information comes from his autobiography (Hill 1818):

This [the new fort] has also been lately built of stone & clay, of an irregular form with a high wall facing the sea & landing place, on the east side of the river with parapets and embrasures, & mounts 8 eighteen pounders & a number of lesser calibre but they have no men who are acquainted with the management of them; their colors are a red field with the English union or St. George Cross . . . those at Woahoo the English union with seven stripes red and white.

The embrasures are visible on Bingham's sketch of Waimea in the 1820s (Figure 4 and Figure 5).

No description of the Fort was included in the journals of the Whitneys or the Ruggleses. They noted only that cannon on the Fort returned salutes when they first arrived.

Interior Structures

The first mention of any structures within the walls comes from a publication in 1838 (Whitney 1838:50):

magazine; *The fort was not completed under the Doctor's*
flagstaff *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.

The magazine was again mentioned by Whitney on 25 June 1821 (Whitney, S. n.d.). He wrote that there was a fire in the locality and Kaumualii and his family left the village from fear that the fire would get to his powder magazine, which contained about four thousand kegs of powder. Mercy Whitney (Whitney, Mercy n.d.) noted that the King's magazine of powder contained several hundred casks.

magazine; *August 8, 1824*
2 houses *. . . the new governor & his party (a part of the chiefs*
where arms *of Atooi joined the new governor) had plenty of arms*
were *& ammunition and strong fort to protect themselves,*
stored *feeling secure in their strength . . . George & his*
 party . . . arm themselves from their enemy's arm
 chests which were in a strong fort strictly garded (sic),
 accordingly they made their attempt on the 8th of August
 at an hour before day light. They entered the fort by
 surprise and got possession of two thirds of the fort,
 before they were discovered . . . he entered the maga-
 zine supplied his men with powder & broke open two houses
 where the arms were deposited and armd a part of his men
 . . . carried off a few casks of powder & about 100
 muskets . . . (Hunnewell n.d.). [Note: Am writing
 Houghton Library for permission to quote this reference.]

There are miscellaneous references from time to time about guns taken from the fort and shipped to Honolulu. One of these is in

Lahainaluna Student Composition #15 dated 22 August 1885

(Lahainaluna 1885):

- guns *After Kaumualii's death [1824] all of the guns were taken to Honolulu, including those in the secret caves and those at the fort.*
- graves
1822 *Mercy Whitney (n.d.) wrote about the funeral of George's child [Kaumualii's grandchild]: A regular procession of two & two followed the corpse. Going into the fort in which the grave was dug, seemed like entering a bury-ground, more so than anything I have witnessed since I left America.*
- guns
ca. 1827 *. . . the Fort . . . 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 &c. while a few decrepid old men and women were its only guardians. Half a dozen Paixhan shot thrown into it would completely demolish it . . . (Gilman 1843-1848).*
- guns
1844 *On the east bank of the river is the stone fort, now almost in ruins, which was built . . . It still mounts a considerable number of small guns (Jarves 1844:129).*
- fort walls
guns
magazine
1850s *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 . . . The magazine was completed, a flag-staff erected, and on the seaward wall several guns were mounted . . . But now every gun was dismounted; the powder magazine was used as a native dwelling; while the interior of the ruin was cultivated for the purpose of raising sweet potatoes . . . 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 . . . (Bates 1854:238-9).*
- walls;
parapet
magazine *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 2-1/2 and 3 acres. The magazine*

is protected by a substantial bombproof casement. It was occupied by a small garrison as late as 1853 (Alexander 1894:5).

magazine
cannon

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 . . . 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. The room was perfectly bomb-proof. In 1854 and until 1860, a captain lived in 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 (Ibid., p. 18).

The following letter was sent on 26 September 1862 from Valdemar

Knudsen to J. O. Dominis Esqre., Adj. General:

1862

Agreeably to your order of Aug. 26th honor to send you by inclosed a list of what material belonging to your Department was found in the fort of this place.

The muskets and small arms I have had carried over to Waimea village and they are now safe for rain. The guns I have left at the fort but shall haul them to the landing place for shipment at any time you may please to request. There is also a small pile of balls of all sizes still left at the fort. The guns are in good order, so are the muskets with the exception of 6.

The buildings in the fort were made of adobe. I have taken away the rafters &c which though are very old and not worth much . . . (Knudsen 1862:497).

War material at Waimea fort, Kauai Sept. 1862

60 muskets with flintlocks

216 bayonets

16 swords -- no scabbards

20 " without handles, rough

61 old cartridge boxes

6 heavy guns

12 18 lb. do.

26 4 and 6 pounders

24 little guns (Ibid. p. 498)

Eric A. Knudsen, son of Valdemar Knudsen, delivered the following address at the May 19, 1941 meeting of the Kauai Historical Society.

(Knudsen 1941:499-500):

cannon
muskets

Sometime later than September 26, 1862, Valdemar Knudsen was requested to have all the cannon and muskets sent to Honolulu. And in due course of time a schooner arrived at Waimea and the Captain notified Mr. Knudsen that they had come for the supplies in the Waimea Fort.

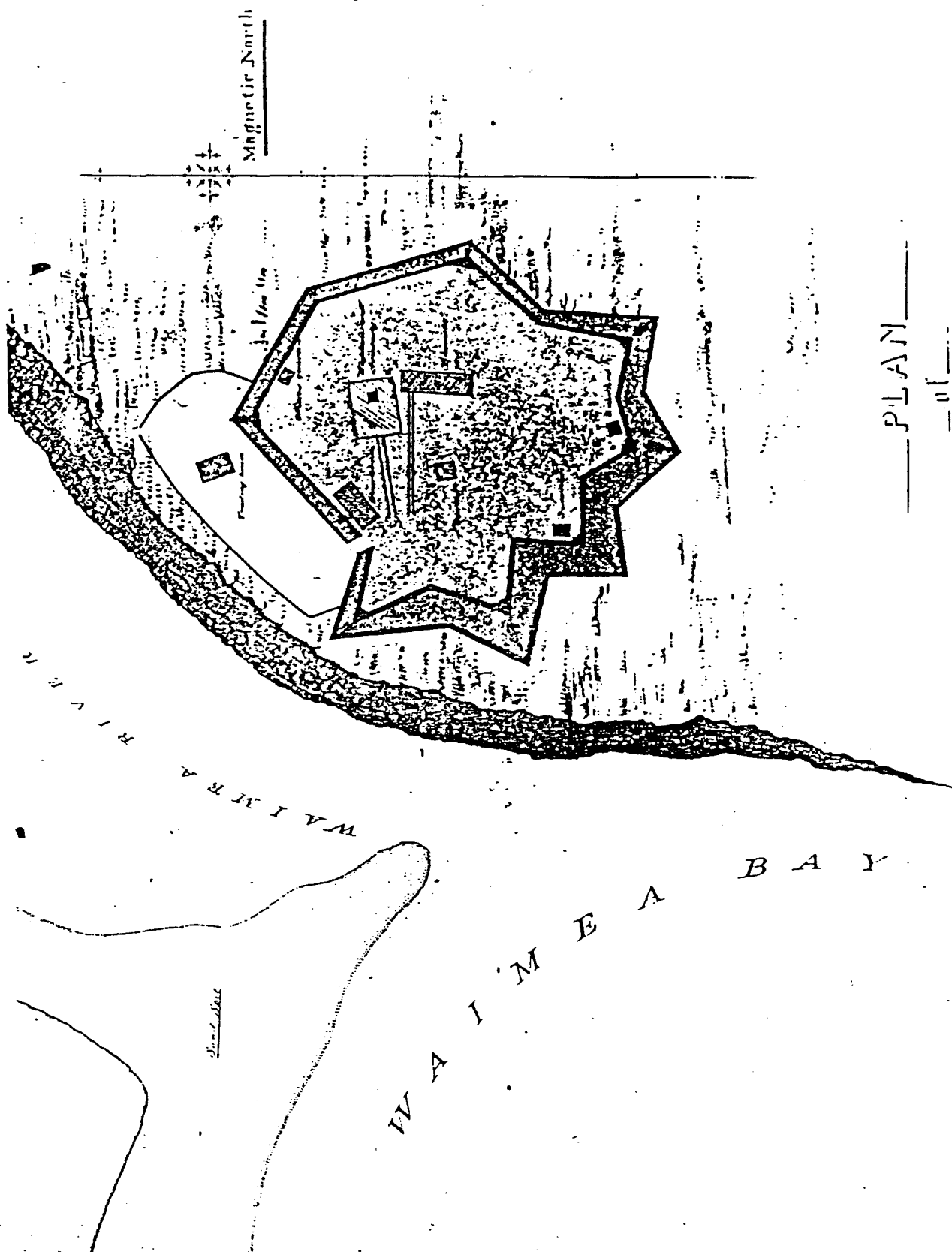
Just what year it was I am unable to say . . . and every time we rode into Waimea he would point out the place where the schooner lay at anchor and the place where the ship's boats came up the river.

There was no wharf in those days but at the Isaac Neck kuliana (sic) on the beach was an outcropping of lava and that acted as a natural protection to the landing or loading of freight -- this outcropping was later covered by sand and the shore line is much farther out to sea.

As soon as the news came Father called on all the able-bodied men in the district to turn out and help dismantle the fort and a large gang of big husky Kanakas turned up. They were a powerful lot and well it was that they were as some of the cannon were exceedingly heavy.

As the fort was on the east bank of the Waimea river it was out of the question to carry the guns over to the regular landing beach. Fortunately there was a small landing place built at the foot of the high bluff on which the fort stands. The men tied ropes to the guns and slid them down onto this and the schooner's boats were able to come up the river and be loaded.

Almost all of the cannon had been rowed out and hoisted on board - only one remained - a brass one - it was heavy and the men had a hard time getting it down through the rocks and into the boat . . . relief when the row boat reached the schooner and the big gun began to rise up into the air. The ropes squealed as the winch wound up the tackle and they were just beginning to swing the boom over to drop it on the deck when zing went the rope and



PLAN
of

OLD RUSSIAN FORT

WAIMERA, KAUAI

Scale 1/4" = 100 feet

Figure 6
OLD RUSSIAN FORT

the big gun dived into the ocean . . . For an hour or two kept diving but no one ever saw the big cannon again.

In the minutes of the Kauai Historical Society dated 19 May 1924, Samuel Wilcox, who was born in 1847, reported visiting the Fort as a boy (Wilcox 1924:68). At that time there were three or four houses in the Fort, with doors padlocked, and all sorts of muskets, three foot long pistols, and other old-fashioned firearms.

Much of our present information on Fort features comes from Captain George Jackson's map, drawn in 1885 (Figure 6). The Daily Pacific Commercial Advertiser published the following about Jackson's visit to Kauai (Honolulu 1885: May 18):

. . . It had probably never been kept in repair after the Russians left it, and now, after a lapse of seventy years, is nothing but a ruin. But it is interesting even in decay, and when Captain Jackson of the Hawaiian Government Survey, was on the island a few weeks ago, he having a little spare time, made a very complete and careful survey of the ruin, and from his notes and sketches, has drawn a plan of the Fort as it stood probably at the time the Doctor was its commandant. This plan evidences that considerable judgement was shown in the selection of the site upon which the Fort was built, and a great deal of labor expended in making it a really formidable work of defense.

Description of the Fort from Captain Jackson's Plans

. . . The Fort itself is star-shape on the half commanding the approach by sea and the entrance to the river. The wall was built of lava rock, neatly trimmed, and is still in position at the angles, of which there were five salient and as many retreating. This wall had an average thickness of 45 or 50 feet, and was about 17 feet high. On each one of the [Salient Angles] was mounted an iron gun, one of which ranged directly over the Waimea Village, the next three covered the mouth of the river and the approach from sea, while the fifth commanded the canoe landing on the shoals on the northeast. From the angle on which was placed the fifth gun

a wall from 17 to 20 feet in thickness, and somewhat lower than the sea-wall of the Fort, was built, which extended around on the land side of the Fort to near the angle on which stood gun number one. This wall, or curtain, completed the circumvalliation of the fortification, and on it was mounted two smaller guns, of brass probably one of which was pointed up the road when it left the trading house, and the other commanded the Fort, where the bridge now is, and up the river. From outside the angle on which was placed this last gun a low stone wall was built around [The Trading House] And joined the main wall of the Fort near gun number one. In the retired angle formed by the junction of the curtain with the main wall was the entrance to the Fort, and close to this, inside, was placed the commandant's quarters, an adobe building 21 x 45 feet in size. Near this was the arsenal and powder magazine 57 x 43, built of good brick and stone, having in the center a sunken space, lined with masonry, 7 feet square for the powder.

A short distance from the arsenal stood the barracks, an adobe building, 70 feet long by 21 feet wide. The entrance to both the barracks and the arsenal was by a covered way some 40 feet in length. In the center of the ruin is the square stone block from which rose the flagstaff, and under the walls at various points stood small buildings, officers' quarters probably. Each one of the salient angles inside were filled in with masonry, arranged so as to form steps about fifteen inches wide by means of which the guns, which were all mounted on barbette, could be approached. The total length of wall surrounding the fortifications was 1,340 the cubical contents of the masonry equaling 750,000 cubic feet, and from the southwest to northeast 417 feet, giving an area inside of about 175,000 square feet.

It will be evident from the above description that the Fort was a formidable affair, and one well calculated to overawe the simple savages living on the islands. The mouth of the river at which it stood not being navigable, and there being no good anchorage for vessels at that point, the site chosen for the Fort possess the interest that attaches to any structure of a bygone age.

[] are those of the authors

In 1923 R. S. Kuykendall of the Historical Commission visited Fort Elizabeth and reported (Kuykendall 1923):

The Fort itself is in a rather better state of preservation than we had anticipated. The outer walls are fairly intact, although the upper parapet has fallen away to a considerable extent. There is considerable obstruction due to the growth of algaroba trees and cactus.

We had with us the account of Russian operations on Kauai written by Prof. W. D Alexander, and printed in 1894 as one of the papers of the Hawaiian Historical Society, which contains a plan of this Fort made by Lieut. Jackson in 1885. With the aid of this plan we were able to identify practically all of the inner works, such as the officers' quarters, guard room, magazine, barracks, flag staff, quarters for soldiers, as well as the trading house located just outside the walls of the Fort. The superstructure of all of these buildings has completely disappeared, but it is possible in most cases to locate the foundations, and a little careful excavation would doubtless uncover the greater part of these foundations; in fact, one corner of the foundation of the armory is now exposed, made of hewn stones. The magazine is plainly to be seen, consisting of a hole about six feet square with stone and cement sides. This is almost completely filled with dirt and rubbish but could probably be cleaned out . . .

Since later writers used Jackson's map as a source, much investigation is needed to determine what actually existed at the Fort site before Jackson's time. Obviously, Jackson used his imagination in drawing his map of Fort Elizabeth. For example, he placed five cannon on the salient angles and two small guns on the low wall at a time after they are documented as already having been removed. Hill (Hill 1818) said there were eight eighteen pounders and a number of lesser calibre on the walls the year following the Russian exit. It must be asked to

extent Jackson used his imagination in identifying the ruins of the structures within the Fort.

Flags Flown over Fort or in Its Vicinity

An entry in the Log of the *Atahualpa* under the date of 8 February 1814 reveals that Americans on Kauai at that time gave Kaumualii an American flag. This was done out of respect for the protection the King had given these foreigners during the War of 1812. This would not be relevant were it not for the fact that two years later, in 1816, Vassili Tarakanov, who took part in the Schäffer incident, reported seeing an American flag raised on the coast of Kauai (or what they thought was Kauai) where the Company's settlement was situated (Petrov n.d.).

Believing there must have been trouble, Tarakanov put to sea and cruised about a week longer at which time the *Il'mena* was encountered. The latter's captain gave Tarakanov's people the bearings for Waimea where they landed the following day. Tarakanov also noted (Ibid.) that before Schäffer's house there was a flagstaff carrying the Russian flag.

On June 2, 1816, Schäffer and Lt. Podushkin gave Kaumualii a Russian flag and the King hoisted it ordering a 13-gun salute from his own guns; the *Otkrytie* replied with a 21-gun salute (Pierce 1965:175). This flag was raised at Kaumualii's house (Ibid., p. 126), and since the Fort had not been started until September 1816, it is obvious the Russian flag flew from the site before the Fort walls were erected. On 24 September

the American Captains Winship, Smith and Gyzelaar stormed ashore from the *O'Cain*, intending to haul down the flag. They were thwarted by the King, who placed an armed guard around it. Whenever a foreign vessel called at Waimea, the King raised the Russian flag (Ibid., p. 102).

On 26 February 1817 Alexander Adams, Kamehameha's captain, anchored in Waimea Bay. On 12 March he gave Kaumualii a flag to hoist in lieu of the Russian flag. Kaumualii told him he used the Russian flag because he had no other (Thrum 1906:69). We recall Schäffer recorded (Pierce 1965:199) that when he returned from Hanalei on 9 April Captain Adams had tried to destroy the Russian flag on Kauai but had failed; the Russian flag was not raised on Schäffer's return, nor did Schäffer again say the Russian flag was in use.

Captain Vassili Golvnin visited Waimea in October of 1818 and found the Fort "flying an English flag" (Wiswell 1974:24). One month later Captain Sam Hill dropped anchor in Waimea Bay. He described the flag as having a field of red with the English Union or St. George's Cross (Hill 1818). The flag in use at Oahu at the time was seven stripes, red and white, with the English Union (Ibid.). We can assume from this that Kaumualii was flying the flag that was in use before Kamehameha adopted that red and white striped flag. At this time we have no knowledge of the date at which the striped flag was first flown over the Fort, but it probably was by the 1820s after Kaumualii had been kidnapped from Kauai and his death in 1824.

The American Flag of 1811

The second flag of the United States contained eight red stripes and seven white, with red at the top and bottom edges. A field of blue in the upper left corner contained fifteen stars, in five horizontal rows and with three stars in each row.

The Flag of the Russian-American Company

Tsar Alexander signed the edict which allowed the Russian-American Company the privilege of using a special flag, and on 19 September 1806 the edict was sent to the head office of the Company for execution (Federova 1970:27). A copy was sent also to the Admiralty and the Ministry of Trade. The flag design was prepared by the heraldic office and sent to the above departments along with the following description: "The flag of the American Company has three stripes, the lower red, the middle blue, and the upper and wider stripe white, with the facsimile on it of the All-Russia state coat-of-arms below which is a ribbon hanging from the talons of the eagle with the inscription 'Russo-American Company's'" (Ibid.). The flag design attached to the edict was multicolored. Alexander I had become a stockholder of the Company in 1803 which might explain the presence of the All-Russia State coat-of-arms (Ibid.).

The following is a quote of Federova's description (Ibid., p. 28):

The only original sample of the flag of the Russo-American Company exists in the collection of the State Hermitage Museum in Leningrad. It is constructed of a fine silk fabric. The coat-of-arms and inscription was done in oil paint. The black

double eagle is shown with the wings wide spread horizontally, the feathers being clearly drawn. On the breast of the eagle there is a square, slightly tapered downward, red shield with the Moscow emblem on which St. George in blue vestment is mounted on a white steed looking to the left. The rider is stabbing the dragon with a lance. The Moscow emblem is traditionally surrounded with the chain of St. Andrew. In the talons of the eagle, besides the scepter and the orb, there is a ribbon. On the front side of the flag the ribbon inscription has retained only the ending, ". . . rican Company's." However, the reverse side of the flag, where only a faint outline of the eagle shows, the first half of the inscription on the ribbon has remained and reads, "Russo-American . . .". Thus originally the ribbons of both sides of the flag had the same inscription, "Russo-American Company's." Contrary to the design attached to the edict establishing the flag, the eagle on the Hermitage copy is almost in the centre of the flag instead of the upper left corner. The wings have lost their elegance, the crown on the eagle's heads and the crown in the middle are crudely drawn, and contrary to custom they do not differ from each other in size or shape. All in all, the flag is not painted by a professional artist.

Between 1818 and 1831, K. T. Khlebnikov, manager of the Company at Sitka, said he employed a special man to make flags because six to ten flags were required annually. Usually the flag was made of a light weight woolen fabric (Ibid., pp. 28-9).

The following quotation gives the dimensions of the flag in Leningrad (Ibid., p. 31):

The overall size of the flag is 94 x 168 sm.; the width of the lower red stripe is 18.5 sm., the blue stripe 19.5 sm., and the white 56 sm. The flag was received by the State Hermitage in 1848-1849 from the Historic Artillery Museum where, in turn, it had probably come from the old Hermitage collection in the 1820s.

[I am in correspondence with the State Hermitage Museum to try to secure two colored photos of this flag.]

The "Pirate" Flag

On 8 May 1817 after Schäffer had been evicted from the land and was aboard his vessel, he saw a strange flag raised on shore. He described this as having white and blue panels with four spheres (Pierce 1965:200). He called it "piratical" (Ibid.) and Taranakov said it did not belong to any known nation (Ibid., p. 103).

Since this flag was not a national flag, it is possible that it was the "house" flag of one of the Boston trading companies, whose captains sailed the Pacific. The theory that it was a Boston flag is strengthened by the fact that Schäffer called the Americans in Hawaii "pirates", and these men were from Boston. That it was a custom for such captains to hoist their own signal flags can be documented. For example on the Northwest Coast, Joseph Ingraham used a French flag to identify himself (Kaplanoff 1971:163); and the captain of the *Tamaahmaah* used a flag with a large K on a field of white (Howay 1932:85).

[Research is continuing in an attempt to identify this flag.]

APPENDIX 2

Historical Notes for Preliminary Study of Waimea-Makaweli Lands

Pre-Schäffer Period

1778-1779. The traditional Hawaiian land tenure custom of the land belonging to the King leads us to assume that Waimea and Makaweli belonged to Kamakahelei, "queen" of Kauai, when the Cook expedition arrived in 1778.

At that time Cook walked up the west side of the Waimea Valley and observed a *heiau* on the east side. However, the site was not designated specifically (1784:200). He stated the village was near the beach and consisted of about sixty houses with nearly forty more houses inland (Ibid.:204, 205). No mention was made of habitations on the east side of the River but an enlargement of a print of William Bligh's profile of Kauai seems to indicate there were structures beneath coconut trees on that side. (Figure 7)

When the Cook expedition returned one year later political change was in progress. A skirmish had recently taken place and Kaneoneo, former husband of Kamakahelei, was ousted. Kamakahelei had just united with Kaeokulani, a high chief of Maui; and her son, Keawe, by a previous union, was acknowledged high chief. His "reign" was short for it appears that with the birth of Kaumualii, son of Kamakahelei and Kaeo, in about 1780, Kaeo assumed rule. He was considered King when foreign visitors arrived in 1786.



View from the $\dagger$ at ATOOI

Figure 7
WILLIAM BLIGH'S PROFILE OF KAUAI

The 1780s. Kaeo visited Captain Nathaniel Portlock on board the "King George"; and then left the ship for his home, which was a little to the eastward of the River. There Kaeo lived when he was in this part of the Island (1789:178, 179). Portlock observed (Ibid.:189, 190) that in the village of Waimea about three hundred yards from the beach there were four or five rather large houses in good shape with no occupants. Abbenui (Opunui), a high chief, informed Portlock that these were Kaeo's when he lived in Waimea and were tabu in his absence. This may confirm the proposition that the village of Waimea occupied both sides of the River.

It might be well to mention that Portlock left a stone on which he etched his name, country and year.

Harry Humphrey, also on board the "King George" told (1787, ms.) of crossing the River on February 5, 1787 and proceeding about two hundred yards to where the King was seated. Afterwards he visited a large house in which double canoes were stored. His party could not visit the *heiau* or the structures housing images for they were tabu.

Captain George Dixon of the "Queen Charlotte", Portlock's companion captain, walked to the bank of the Waimea River. He engaged a native to take him to the opposite side where there was a quadrangular wooden structure on the side of the hill facing him (1789:128). The exact location is not given but it may have been the hill on which the Fort was later built since Samuel Ruggles wrote in 1820 (Aug. 3, 1820 to Jeremiah Evarts) that Kaumualii was building a Christian temple on the very ground where a pagan temple had stood. This was seaward of the Fort walls. Dixon did not land for the area was tabu. He called it a *morai*, a place where the dead were buried (Ibid.). He also remarked that the east side of the River upstream was easier of access than downstream where the *heiau* was situated. Dixon visited Abbenui's (Opunui's) village on the west side of the River about two miles upstream. From that site to the beach houses were scattered here and there (Ibid.:130).

In 1789 John Meares noted (1967:349) that the *morai* on the shore bore North East half North. Here is another documentation for the existence of a *heiau* on the shore.

The 1790s. Kaeokulani left Kauai in 1791 to assist his brother Kahekili in their confrontation with Kamehameha. Either in the 1780s or upon leaving Kauai, Kaeo gave Makaweli to his *kaikua hine* (sister) Manuhaaipo (Archives, Native Register #2960). The testimony for Land Commission Award 2960 stated Kaeo left the land to Kaumualii (Archives, Foreign Testimony).

The Vancouver expedition visited Waimea in 1792, 1793, and 1794. Edward Bell (1929:15) remarked that the village of Waimea was situated on a plain by the sea beach. It was large and well inhabited. A profile of Kauai drawn by Baker of this expedition clearly indicates structures on the shore to the east of Waimea River. (Figure 8)

Archibald Menzies, now with the Vancouver expedition but a previous visitor, left a curious comment (1920:28). During the 1792 visit he accompanied Vancouver on a walk up the western side of the Valley. They passed a place, formerly Kaeo's residence, where some houses had recently burned. He assumed they were destroyed because Kaeo had left the Island and they were tabued to him. From this statement we must assume that Kaeo had houses on both sides of the River since Portlock reported the King's residence on the east side (1789:178, 179).

In 1793 Vancouver returned to Kauai for the express purpose of returning the two Niihau girls, Lahaina and Tymarow, to their home. These were the girls Captain James Baker ("Jenny") took to the Northwest coast in 1792. At Nootka Baker met Vancouver and begged the latter to return the girls as he was bound directly to England. In Hawaii, Vancouver learned that the inhabitants of Niihau had abandoned that island



N. 31 E.

WHYMELA BAY ATOOI in Lat. $10^{\circ} 55' 5''$ N. & Long. $156^{\circ} 10' 0''$ E. Entrance of the River N. 31 E. at about 1/2 Mile N. 31 E.

Figure 8
A PROFILE OF KAUAI BY BAKER

because of drought conditions so he decided to leave the girls on Kauai (1798, Vol. II;230). Oeashew, a Kauai chief who had recently acquired the district of Waimea, assigned the girls a large portion of the land west of the River, commencing at the sea beach, extending along the River and including inland mountain country. The seaward land, the most extensive, was given to Lahaina and inland portion to Tymarow (Ibid.:231).

In 1796 after the death of his half-brother Keawe, Kaumualii ruled. Sometime thereafter he gave his *Kaikuahine* Kailinaoa the lands of Makaweli. The boundaries were from Kawiliwili, a ridge between Mahinauli and Hanapēpē, to Waimea (Archives, Native Register, 2960 and Foreign Testimony LCA 2960).

Schäffer Period

1816. The Archives have three copies (English, Hawaiian, Russian) of a land transfer in June 1816 whereby Benjamin Thompson, an American in the employ of the Russian-American Company, purchased two pieces of land from Kamaholelani, a high chief. A translation of the Hawaiian copy states the land "is adjoining the lands of Mr. George Shefever on the north side of the river Mipowai." The copy in English states: " . . . opposite those of Mr. George Sheferer . . . right hand of the river Mipowai." A translation of the Russian document states: ". . . on the right side of the river Murovay." (Archives FO & EX 1816). If the river Mipowai/Murovay is the Makaweli, Thompson's land was north of the River and Schäffer's south or seaward. In 1839 a Benjamin Thompson relinquished his lands to the King of the Sandwich Islands in return for a lease of same (Archives, FO & EX 1816).

When Georg Anton Schaffer, representing the Russian-American Company, arrived on Kauai in 1816, he received grants of land (Pierce, 1965:79, 80, 185) and the information given is confusing:

October 1, 1816 - From Princess Naoa (Kailinaoa)

". . . a strip of land, called Gamalea, on the river

Mattaveri (Makaweli)" (Ibid.:80).

This is east of Waimea River.

"I received from the King's sister Tairinoa" (Kailinaoa) "a village on the left bank of the river Waimea: (Ibid.:185). Since the east side was Kailinaoa's land, Schäffer's "left bank" must be the east bank. Therefore, Kamaholelani's grant on the right side of the Waimea River must be the west side. This was called Guramaia and was for a building and vegetable gardens. Another strip was granted on the opposite side (east) at Vaikari (Ibid.:79). Thus, Schäffer received lands on both sides of the river.

The 1820s. In 1820 Kaumualii gave Fort Elizabeth and the rich and fertile valley of Waimea to his son George, who just returned to Kauai after spending some years in New England (Damon 1925:205, 206). Within a short time, George lost his privileges and lands.

Lands on both sides of the River were given Samuel Whitney by Kaumualii, and these were retained by Mrs. Samuel Whitney until she died in the 1870s.

In 1821 Kaumualii was taken from Kauai by Liholiho and married to Kaahumanu in Honolulu. Except for occasional visits to the outside Islands, he lived out his life on Oahu. Meanwhile Keeaumoku (Gov. Cox) a brother

of Kaahumanu, took charge of affairs on Kauai until early in 1822 when he left for Oahu. Kaumualii's sister Maihinenui (Wahinenui) was left as governess (Mercy P. Whitney Journal, Jan. 2, 1822).

Just before Kaumualii died in 1824, Kalanimoku asked the former Kauai king how his lands were to be distributed. Kaumualii replied there would be no general redistribution of lands -- those chiefs who had lands would retain them and those without lands would have none (Kamakau 1961:265). At the meeting of the council of chiefs following Kaumualii's death, it was decided to send Kahalaia to Kauai as governor, for Kauai and Niihau had not yet become part of Kamehameha's lands. Kahalaia and his party sailed to Kauai, took possession of the arms in the Fort and enjoyed themselves. (Ibid.:266). Hoapili in a letter to Liholiho in London wrote that Kahalaia was to have charge of the Fort while Kalanimoku would take charge of the land (Archives FO & EX Sept. 13, 1824).

Kalanimoku sailed to Waimea to settle affairs and land disputes. He examined the Fort at Waimea and called a council to inform the chiefs of Kaumualii's will -- "the lands shall continue as they now stand." Some chiefs wanted a redistribution of land but Kalanimoku would not agree. Dissatisfied Kauai chiefs and their followers entered the Fort to arm themselves. Dispersed, they fled while Kalanimoku sent to Oahu for reinforcements (Ibid.:267, 268).

The lands held by Kailinaoa and her daughter Kauukualii (Ahukai), i.e. the lands of Waimea and Makaweli, were tabu (Ibid.:268). The Windward forces defeated the Kauai forces and Kalanimoku called a meeting and redistributed the lands of Kauai. The lands of Kauai chiefs, who were on

Maui attending Kaumualii's funeral, and the lands of Kauai chiefs who had remained loyal to the Windward ruler, were seized as were the lands of others. These were given to the Windward favorites. Kalanimoku returned to Oahu where a council decided Kahalaia should be recalled and Kaikioewa, an old, expert warrior, should be governor. Once more the lands were redistributed -- soldiers who had received land and returned to Oahu were deprived of them and "the loafers and hangers-on of Oahu and Maui obtained the rich lands of Kauai" (Ibid.:268, 269).

Ahukai, daughter of Kailinaoa, presented evidence on 14 December 1848 to show the validity of her claim to Makaweli and the 'ili of Puuwahie in Waimea (Archives, Native Register Vol. 9 #6508). Her mother had received Makaweli from Kaumualii. After the insurrection Kalanimoku gave this land to Kahalaia, who gave it to Ahukai for it had been occupied by her ancestors. When Kahalaia died, Kalanimoku and Kaahumanu gave Makaweli to Kinau and Kinau gave it to Ahukai since it had been occupied by her ancestors. When Kinau died, Kekauluohi (governess of Kauai) said Ahukai was to have Makaweli. No one disputed this until 1846 when Kekuanaoa took Makaweli and some other lands belonging to Ahukai. Her land Puuwahie, an 'ili in Waimea, was given her by Kaumualii and held in peace.

Two years later Oliver Chapin (Archives, Foreign and Native Testimony, No. 6508) testified that Ahukai was *luna* only of Makaweli and that the true owner was Victoria, daughter of Kinau and Kekuanaoa. Ahukai gave the same information in Native Register No. 6508 and Native Register #2960 (Archives, *ibid.*) but in her husband's Land Commission Award (LCA 2960) two witnesses gave an explanation of her claim on the *ahupua'a*

of Makaweli (excepting parts held by common people, *nā kuleana*, missionaries). Opunui and Lakaiia Lae, both familiar with Kaumualii's family, gave these facts: "These lands are the old possession of Kauukualii's, cits. wife from her ancestors. From Kaeo the old King they fell to Kaumualii who left them to his sister Kailinaoa - she to her daughter Kauukualii who held them in peace till 1846. When Kauai fell to the Windward chiefs in the time of Kaumualii, these lands remained quiet possession of Kauukualii's family and in the rebellion of 1824 were not disturbed nor ever so till 1846 when Kekuanaoa took possession of the *ahupua'a* of Makaweli but without the consent of Kauukualii and has held it ever since against her will: The reasons are - he asked her to give him Kekupua an '*ili* in Makaweli which she refused for which he took away Makaweli *ahupua'a*.

Victoria, daughter of Kekuanaoa, received title from the Land Commission under LCA 7713, for the *ahupua'a* of Makaweli.

There were land areas within the boundaries of the *ahupua'a* of Makaweli that were not a part of the *ahupua'a* belonging to Victoria. Some of these lands were for the use of soldiers at the Fort. An early record of such a reservation, the '*ili* of Kahoomano, is found in Vol. 9 of the Native Register (Archives) No. 6578, 6589, Paele, claimant. Paele was appointed Fort commander in 1846 by Governor Kanoa and he lived on land adjoining the Fort. This land belonged to the Fort from the days of Kaumualii. He said Kaahumanu gave the '*ili* of Kahoomano to Kahalaia for the use of the Fort soldiers. This had to be in 1824 before the insurrection. When Kaikioewa was governor (appointed 1824) the land belonged to

the Fort and continued to belong to the Fort down to the time of Governess Kekauonohi (early 1840s) when she began to assign parcels of land to others. The, Kekuanaoa took it and gave it to Kaupean at that time. Paele protested the "theft" of Fort land.

Another early account of Fort land comes from a letter of 1839 to Kekauluohi from Emilia, wife of Kaikioewa and acting governess (Archives, Interior-hand File). Emilia mentioned the lands of Kahoomano, Hakioa and Kekupua which the King gave to the soldiers of the Fort for thier sustenance. It would appear that as early as 1839 people, other than the soldiers, were encroaching on the above 'ili for Emilia's letter is a complaint. She believed Waimea and Makaweli should be for the soldiers so that they will be near their post at the same time they raisied their crops. It would appear they were traveling to *Hulā'ia* to raise their food, and she was thinking of bringing them to Waimea.

More research should clarify the land situation around the Fort.
(Figure 9)



Figure 9
RUSSIAN FORT WITH GRASS HOUSE.

This photograph is from Bishop Museum, 1890's.

Note remains of native houses, which may be identified
with further research.

APPENDIX 3

Chronological Pictorial Inventory

	PERIOD OR DATE	SKETCH OR PAINTING	LINE PRINT OR ETCHING	PHOTO	HALF TONE	X=XEROX M=MAP OTHER	CAPTION, ABBREVIATED TITLE AND FORMAT	NEG. #
1.	ca.1778		x				Webber Print	
2.	ca.1800		x			X	Alexander A. Baranov (1746 - 1819)	
3.	ca.1800	x			x	X	Tzarina Elizabeth	
4.	ca.1820		x				View of Waimea by H. Bingham	
5.	ca.1820		x				Detail Above	
6.	ca.1820- 1840					XM	Chart - Roadstead [Check 1840 USN Survey?]	
7.	ca.1840 (1830?)			x			Waimea Village From Fort	K.M.# a/c 1052.
8.	ca.1840 (1830?)			x			Waimea Valley from Fort	K.M.# N 541-04
9.	1853		x	x			<u>Church and Village of Waimea...</u> Prob. Bates	
10.	1874 Dec.					XM	<u>Plan of Waimea...</u> J.W. Gay, Surveyor	
11.	1885 Feb.	x				X	<u>View West from Old Fort</u>	
12.	1885 Feb.	x				X	<u>View up River from Old Fort - Station B</u> - Jackson	

	PERIOD OR DATE	SKETCH OR PAINTING	LINE PRINT OR ETCHING	PHOTO	HALF TONE	X=XEROX M=MAP OTHER	CAPTION, ABBREVIATED TITLE AND FORMAT	NEG. #
13.	1885	x				X	View up River from <u>Old Fort - Station B2</u> - Jackson	
14.	1885 Feb.	x				X	View to Ocean from Old Fort - Back Traverse - Jackson	
15.	1885 Feb.	x				X	Old Fort from Waimea - Jackson	
16.	1885 Apr.					Plan X	<u>Plan of Old Russian Fort</u> - Jackson	
17.	From 1885 (1972)					Plan X	<u>Planview Map of Fort</u> <u>Elizabeth</u> McCoy After Jackson	
18.	ca.1880			x			Fort & Bridge from Waimea Archives Photo	K.M. 1462.
19.	ca.1880			x			Waimea Town - With Wooden Bridge (No Windmill)	K.M.# N2373
20.	ca.1890			x			Russian Fort with Grass House	
21.	1891 Mar.					XM	<u>Waimea Bay</u> - Hawaiian Government Survey	
22.	1894 May					XM	<u>Waimea Bay</u> - Copy from Above	
23.	N/D ca.1890?			x			Fishing from a Canoe Along West Bank of Waimea River	K.M.# N2465
24.	1890- 1898			x			<u>Waimea Bridge and Town</u> (Windmill)	Severi #64, K.M.# N2057
25.	ca.1890			x			Waimea Town from Pali just South of Makaweli River Fork	From Hist. Pro C

	PERIOD OR DATE	SKETCH OR PAINTING	LINE PRINT OR ETCHING	PHOTO	HALF TONE	X=XEROX M=MAP OTHER	CAPTION, ABBREVIATED TITLE AND FORMAT	NEG. #
26.	ca.1895			x			Waimea River Bridge	K.M.# N942(b)
27.	ca.1890			x		Detail 25	Detail of 25 Showing Fort, Bridge and Windmill	
28.	ca.1890			x		Detail 25	Detail of 25 Showing Fort, and Part of Bridge	
29.	1902			x			<u>Waimea River</u>	K.M.# N 14 1902
30.	ca.1910			x			Waimea, Kauai, #3 (Iron Bridge) and Steamer	K.M.# N2185 (1228.5
31.	ca.1900			x			Waimea Road to Makaweli just Visible to Right Along Bluff	K.M.# N2464
32.	ca.1900			x			A Rice Field, Waimea	K.M.# 2025 600N1
33.	ca.1910					XM	Waimea Section of USGS 15 min Quad	
34.	ca.1910			x			Waimea River - 1910	K.M.# N2370
35.	ca.1915- 1920			x			Waimea Town and River, Fort at Lower Right in Trees	K.M.# N2371
36.	1924 July			x			Waimea Landing	K.M.# N541
37.	1924			x		XM	USCGS D. of Int. Map 4114	.03
38.	1963					XM	USGS Quads 5 & 9 Hanapepe and Kekaha	

	PERIOD OR DATE	SKETCH OR PAINTING	LINE PRINT OR ETCHING	PHOTO	HALF TONE	X=XEROX M=MAP OTHER	CAPTION, ABBREVIATED TITLE AND FORMAT	NEG. #
39.	1972 July					XM	<u>Fort Elizabeth - Site</u> <u>50-KA-C2-14</u>	
40.	1973					XM	<u>Russian Fort State Park</u>	
41.	1975					XM	<u>Test Excavations in</u> <u>Area A</u>	
42.	1975			x			Waimea Valley and Town - Fort at Left Side of River Mouth (Taken from same Vantage Point as 25)	14-36 B13-12A
43.	ca.1890			x			Same View as Above	



THE LAYLAND VIEW, IN, ITTOOT.

Figure 10
1. Webber Print



Alexander A. Baranov (1746 - 1819)

Figure 11
2. Alexander A. Baranov
(1746 - 1819)



Figure 12
3. Tzarina Elizabeth



Village of Waimea, Kauai Page 217

Figure 13
4. View of Waimea by H. Bingham

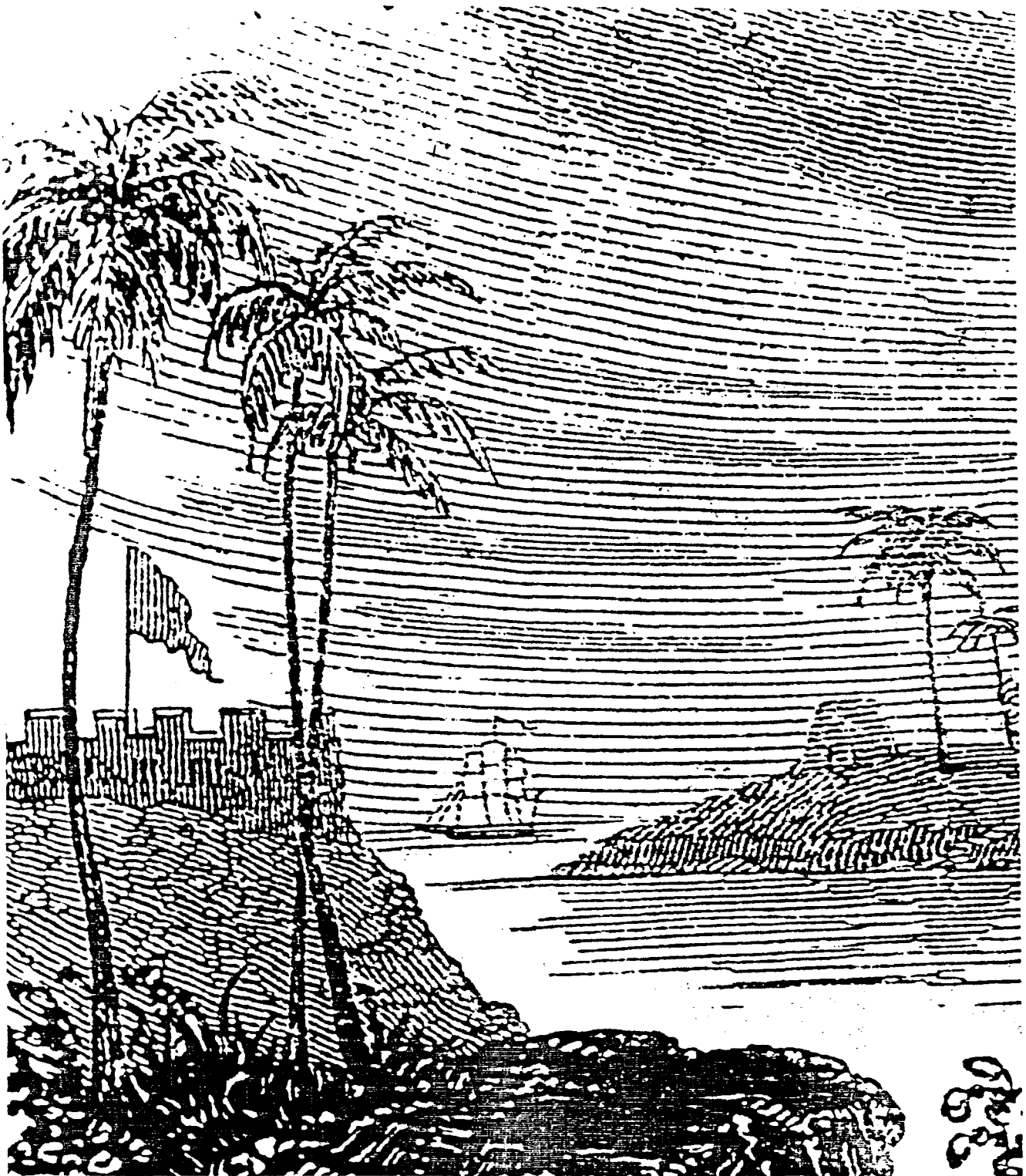


Figure 14
5. Detail Above

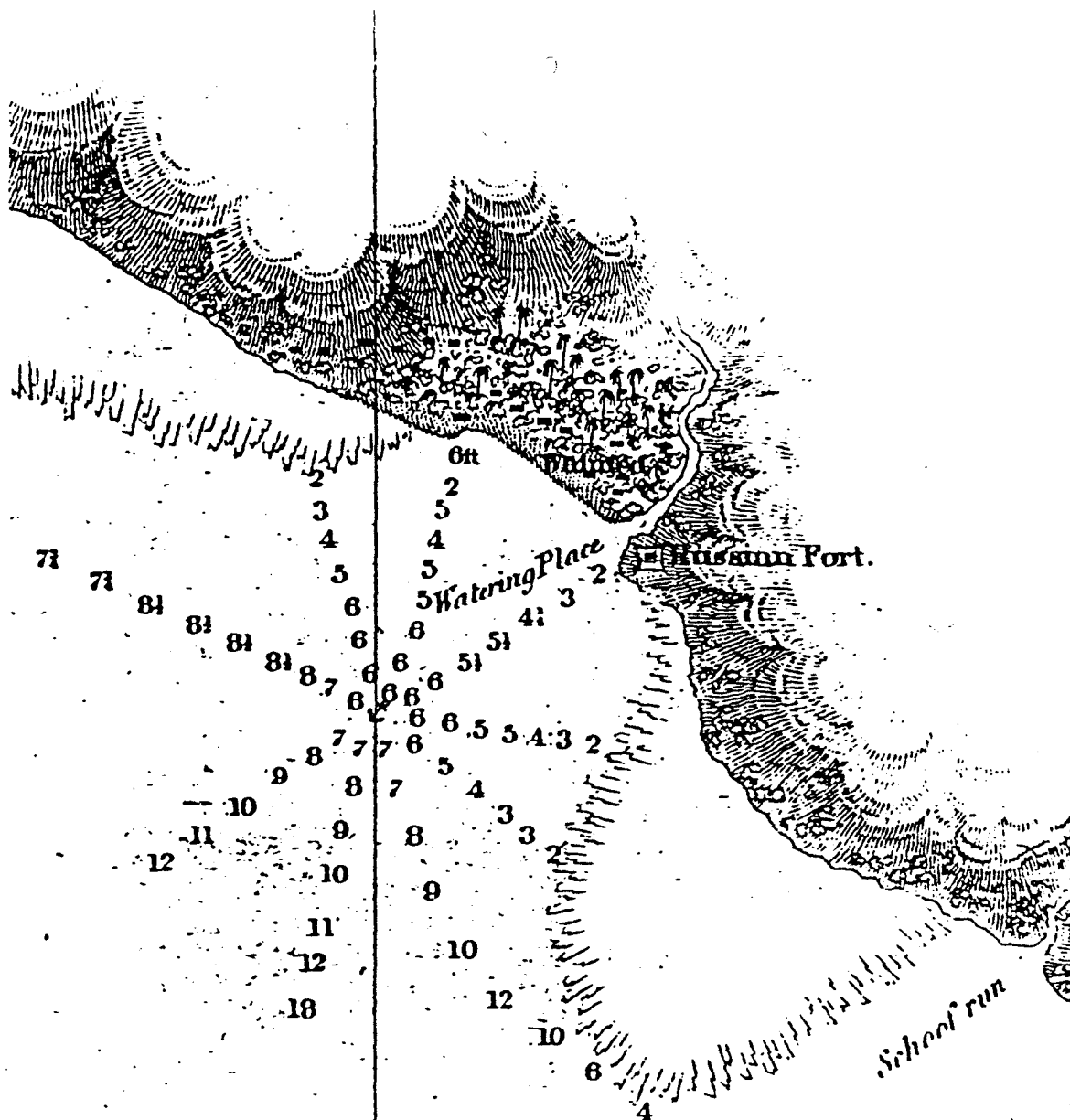


Figure 15
6. Chart - Waimea Roadstead

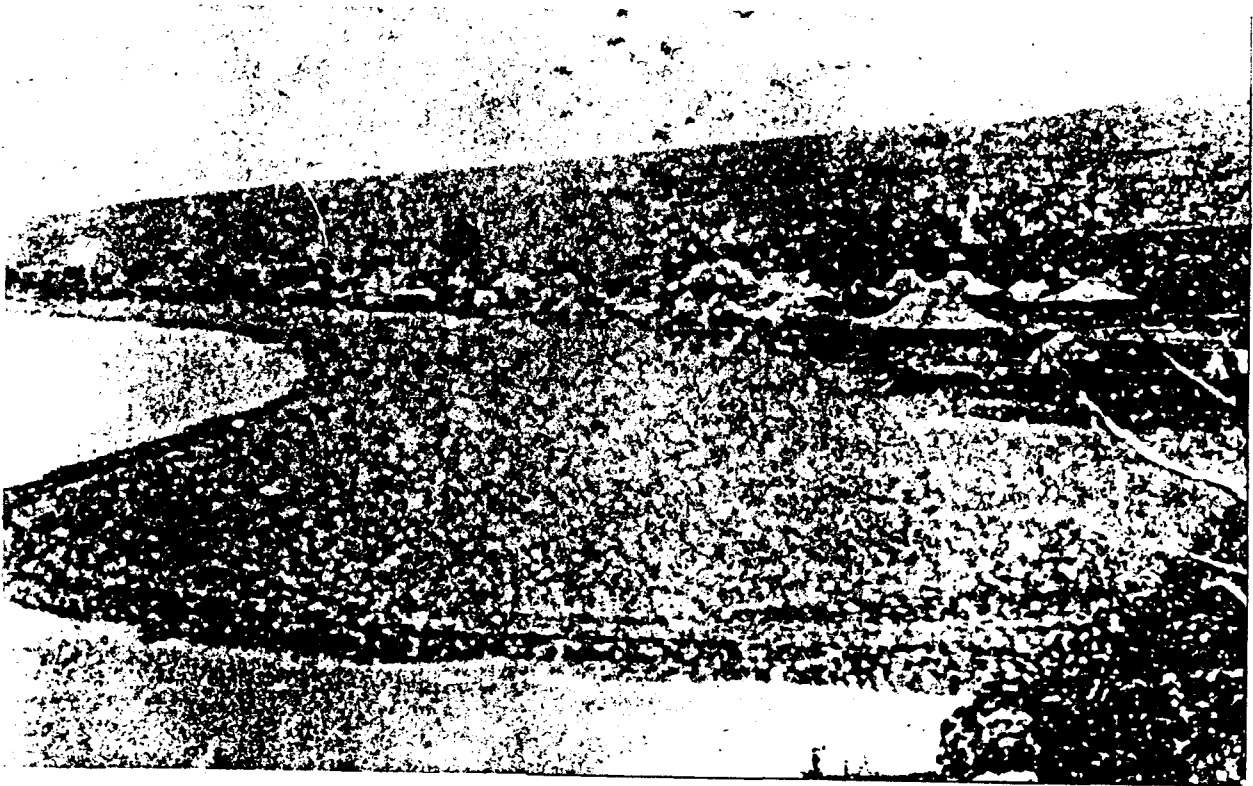
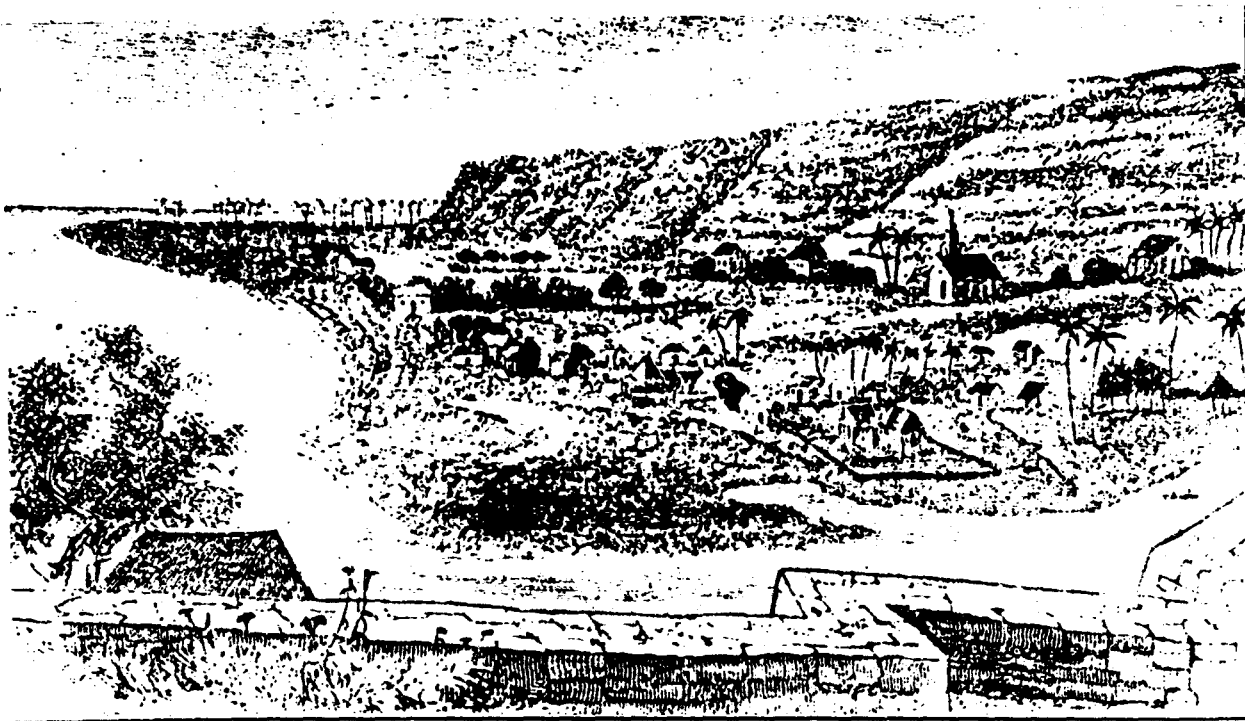


Figure 16
7. Waimea Village from Fort



Figure 17
8. Waimea Valley from Fort



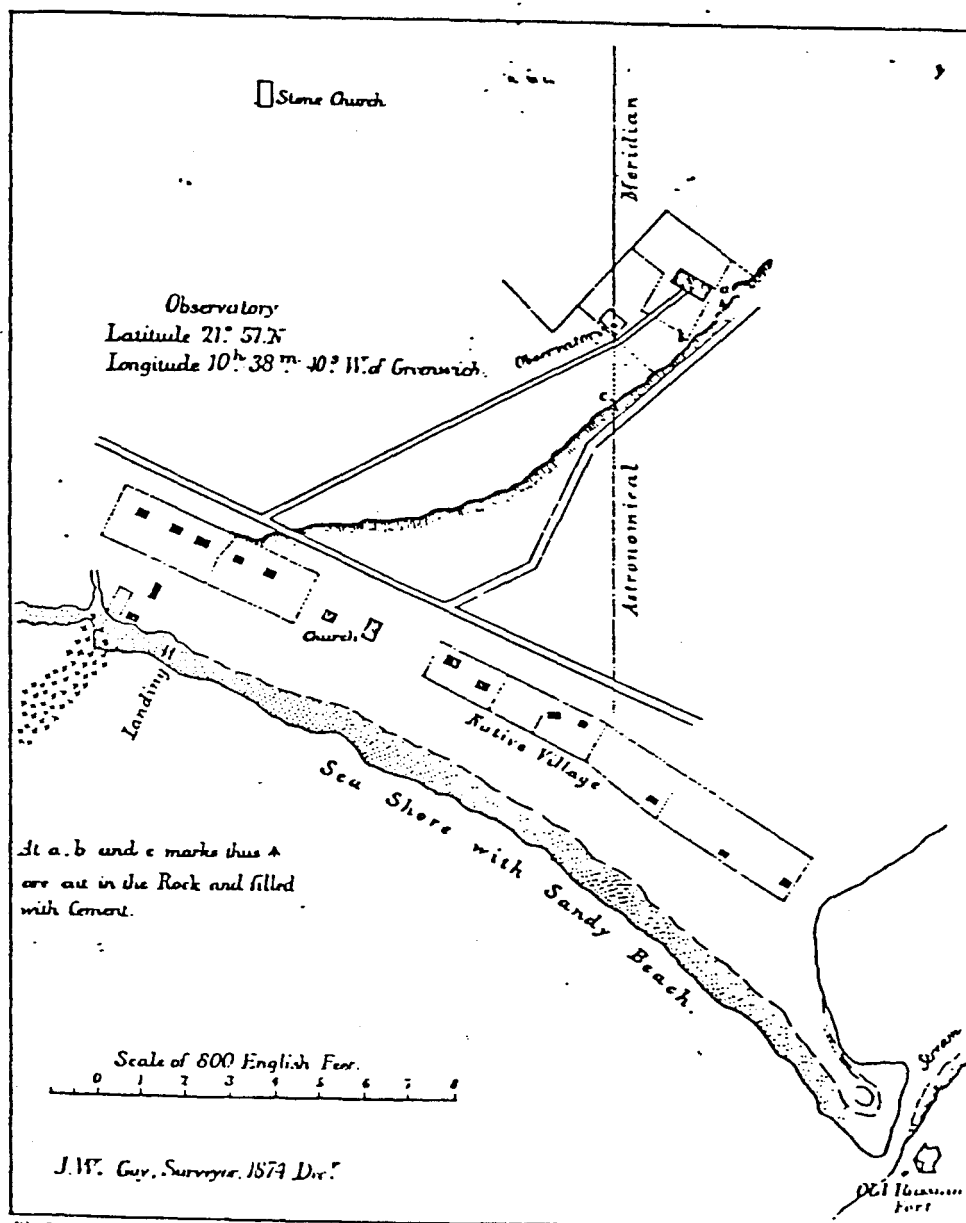
Church and Village of Waimea, Kauai. An old sketch taken from the wall of the fort

Figure 18

9. Church and Village of Waimea - Probably Bates

Transit of Venus, 1874 Dec. 8.

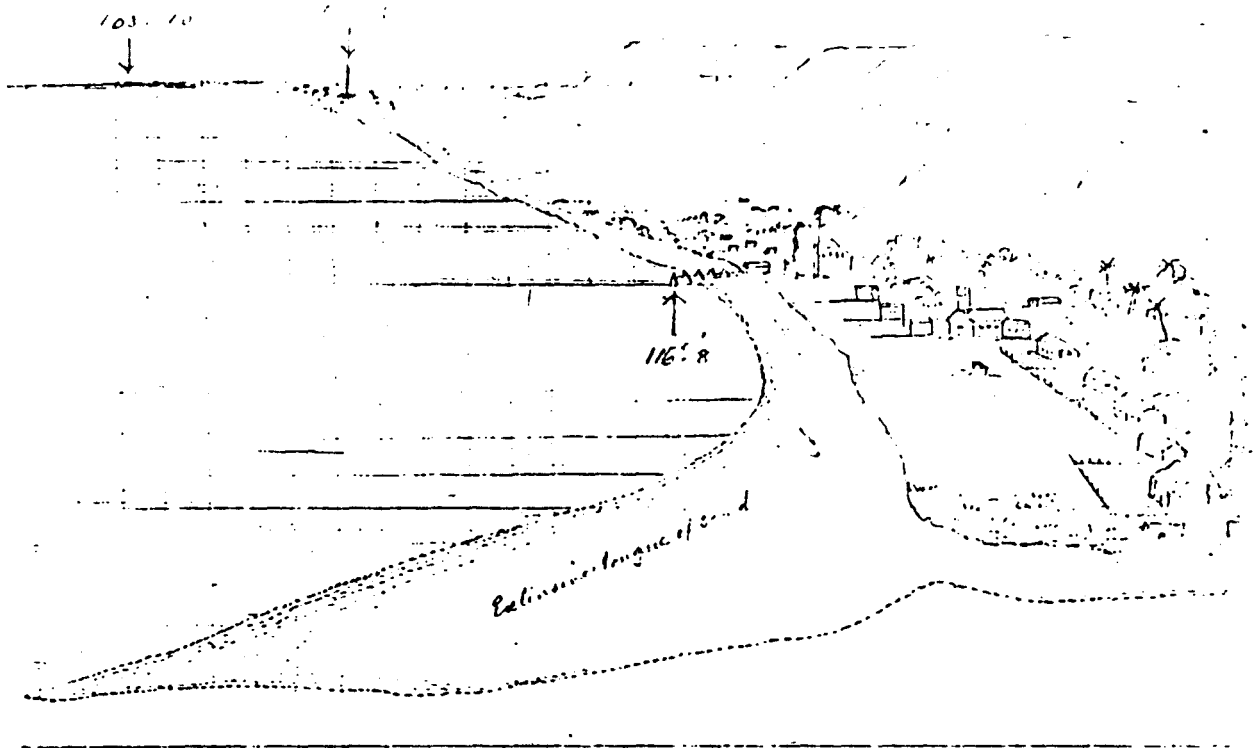
Plan of the Village of Waimea, on the Island of Kauai,
showing the position of Mr. Johnson's Observatory.



To here page 232.

Distances from 22 to 23 1/2 Miles S. of Waimea

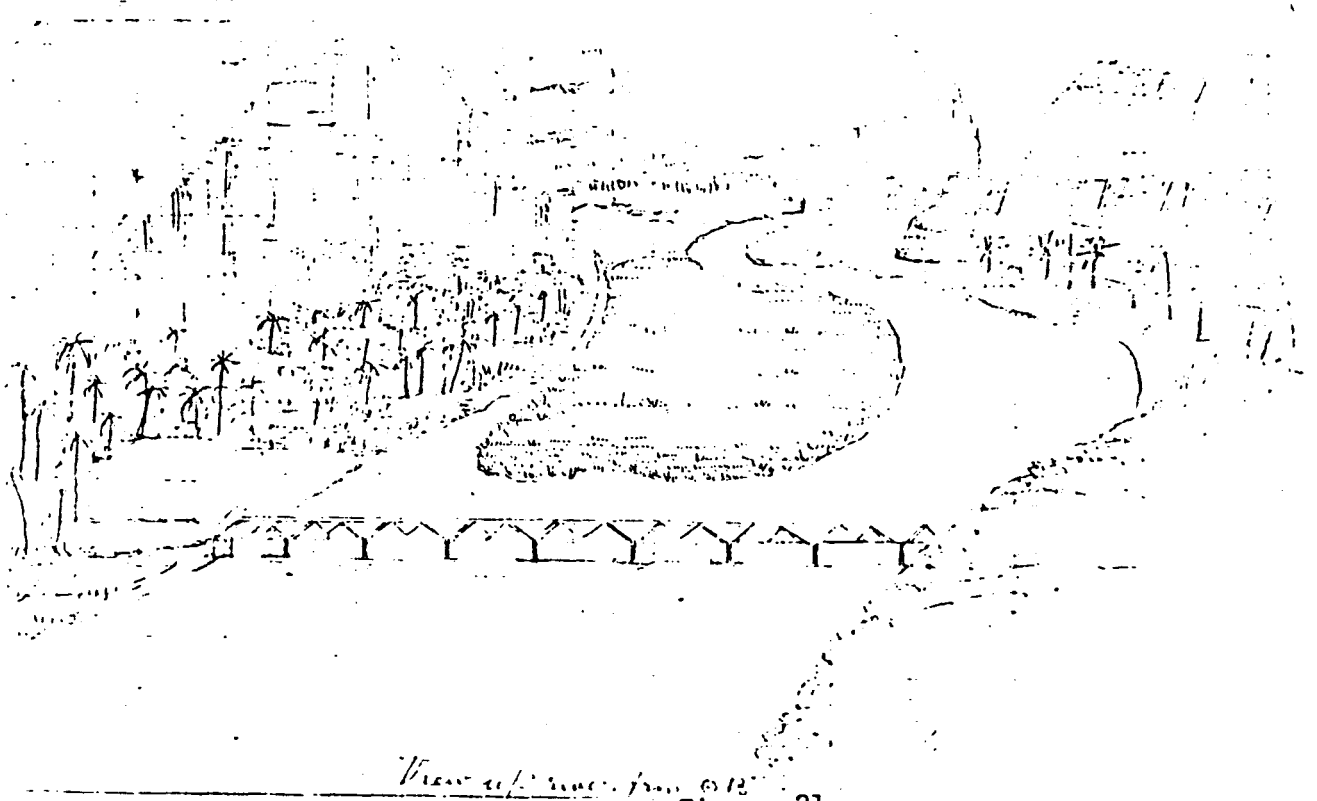
Figure 19
10. Plan of Waimea - J.W. Gay, Surveyor



View West from O.B. (on top of old fort)

Figure 20

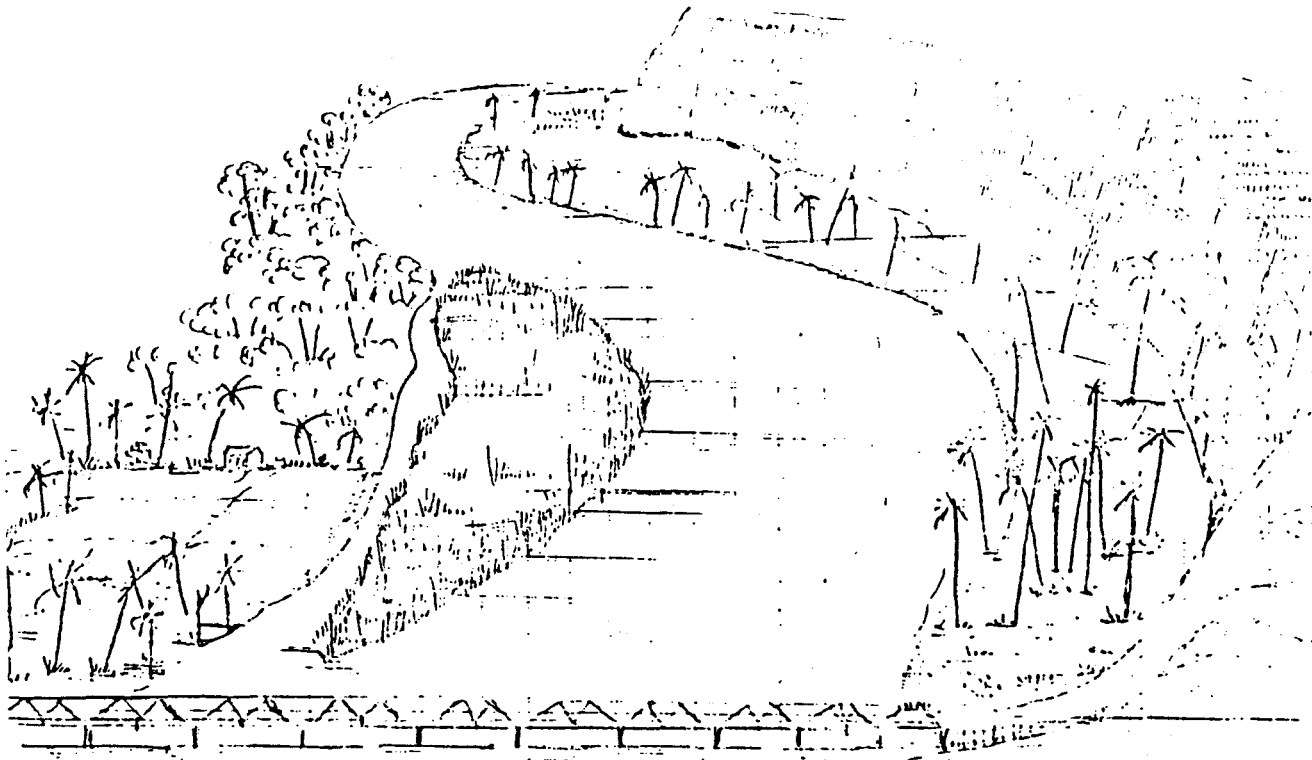
11. View West from Old Fort



View up-river from O.B.

Figure 21

12. View Up-River from Old Fort - Station B - Jackson



View up river from Old Fort

Figure 22
13. View Up-River from Old Fort - Station B2 - Jackson

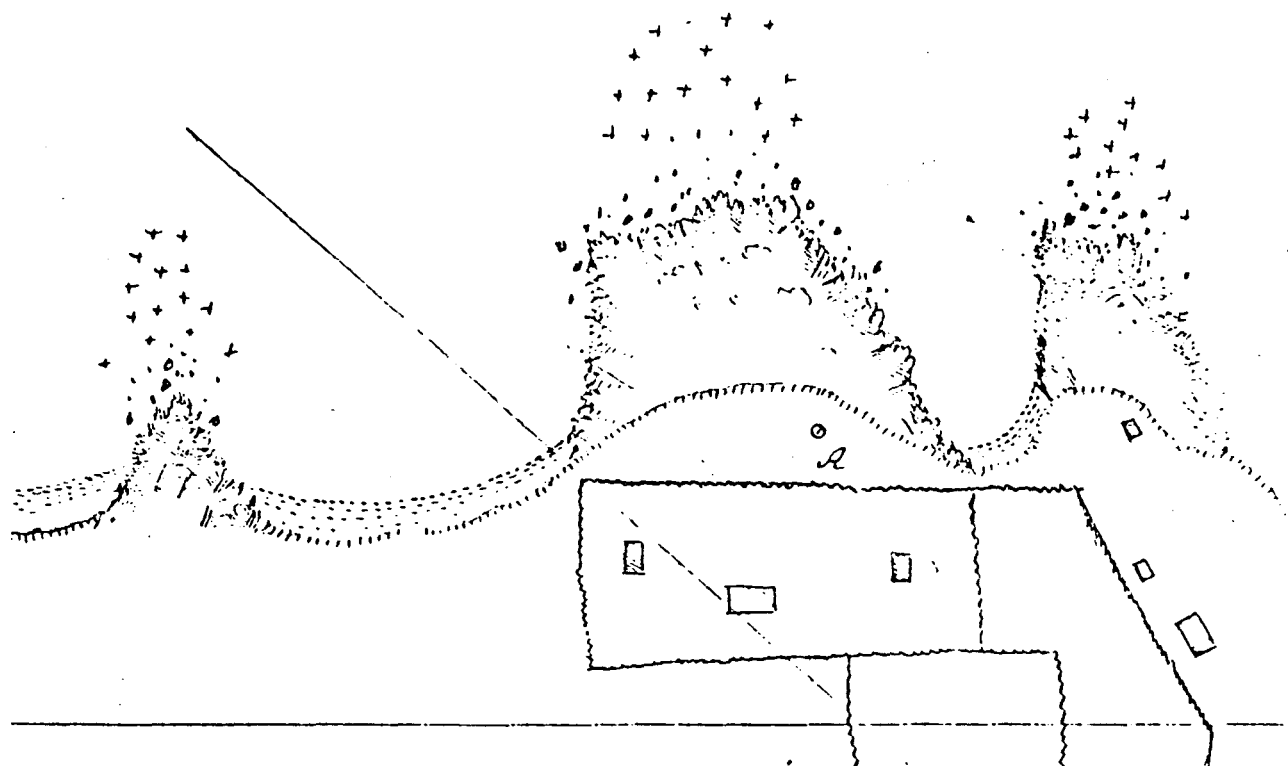
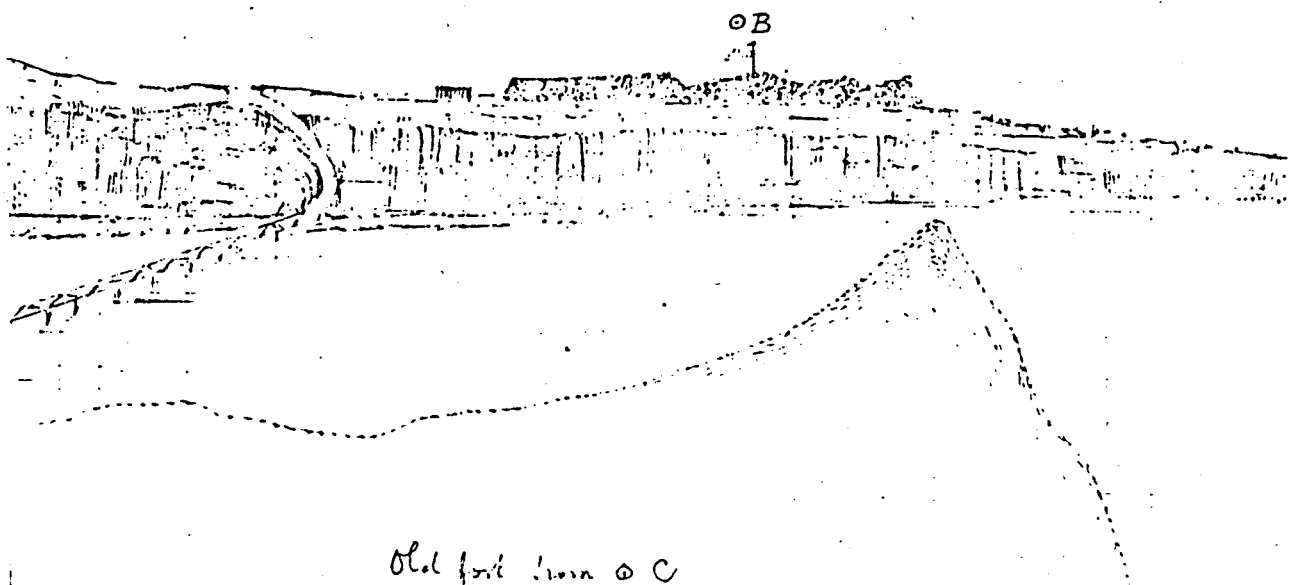


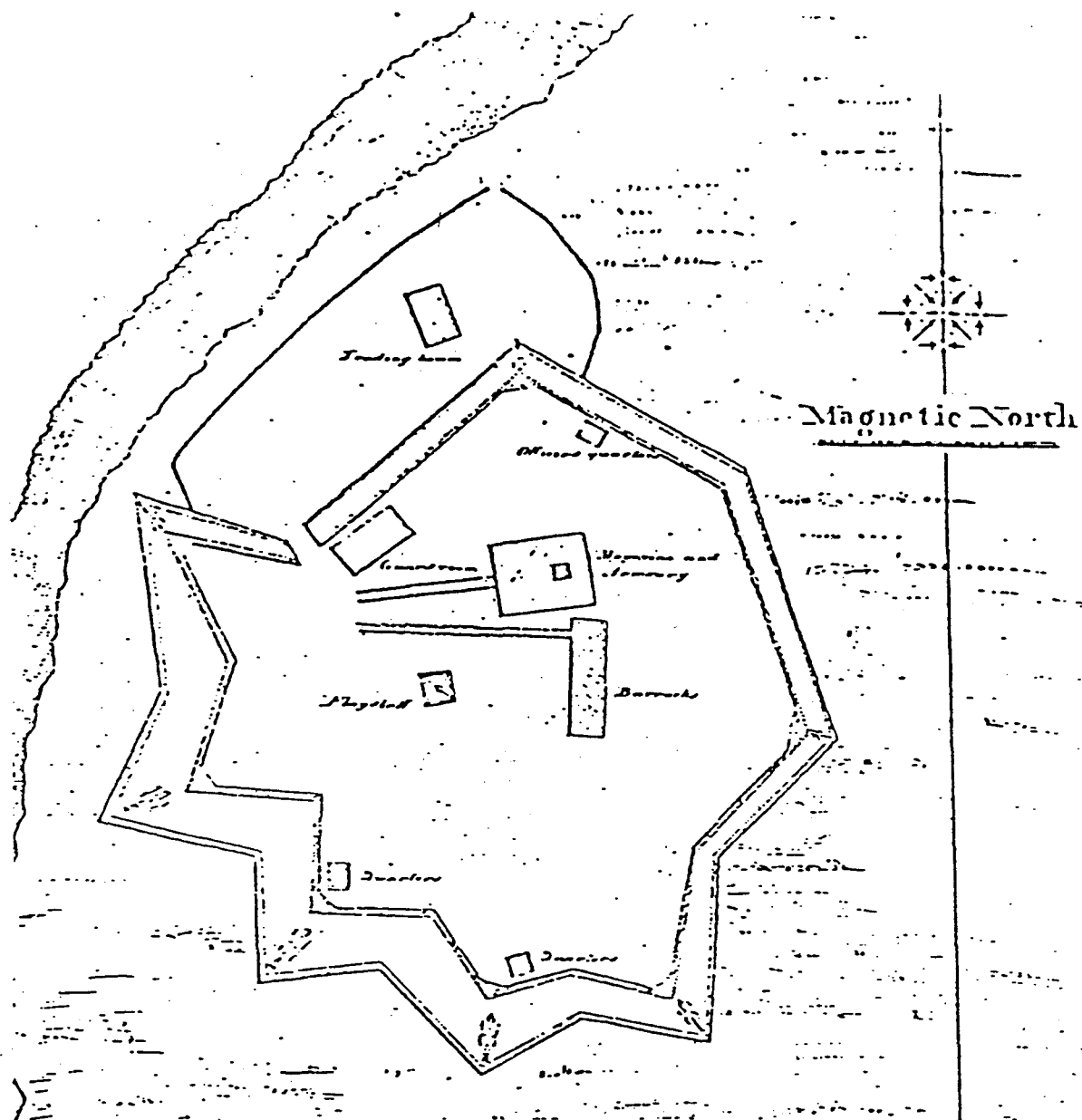
Figure 23
14. View to Ocean from Old Fort - Jackson



Old fort from O C

Figure 24

15. Old Fort from Waimea - Jackson



PLAN
 of
OLD RUSSIAN FORT
WAIMANALO, KAUAI

SCALE, 50 FEET TO ONE INCH

Designed by J. G. G. G. G.
Drawn by J. G. G. G.
1895

Figure 25
 16. Plan of Old Russian Fort - Jackson

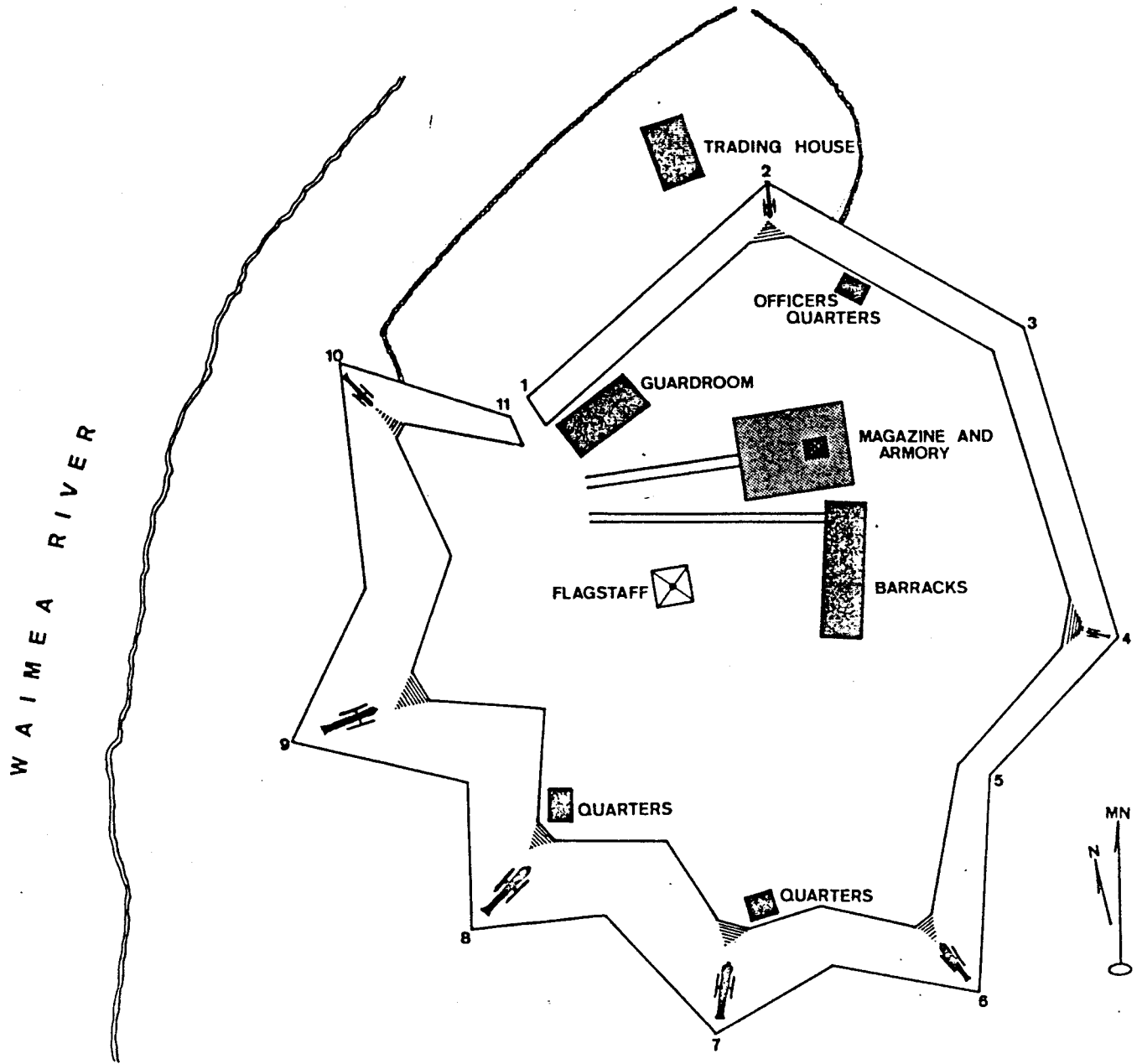


Figure 26
17. Planview Map of Fort Elizabeth
McCoy after Jackson



Figure 27
18. Fort & Bridge from Waimea - Archives Photo

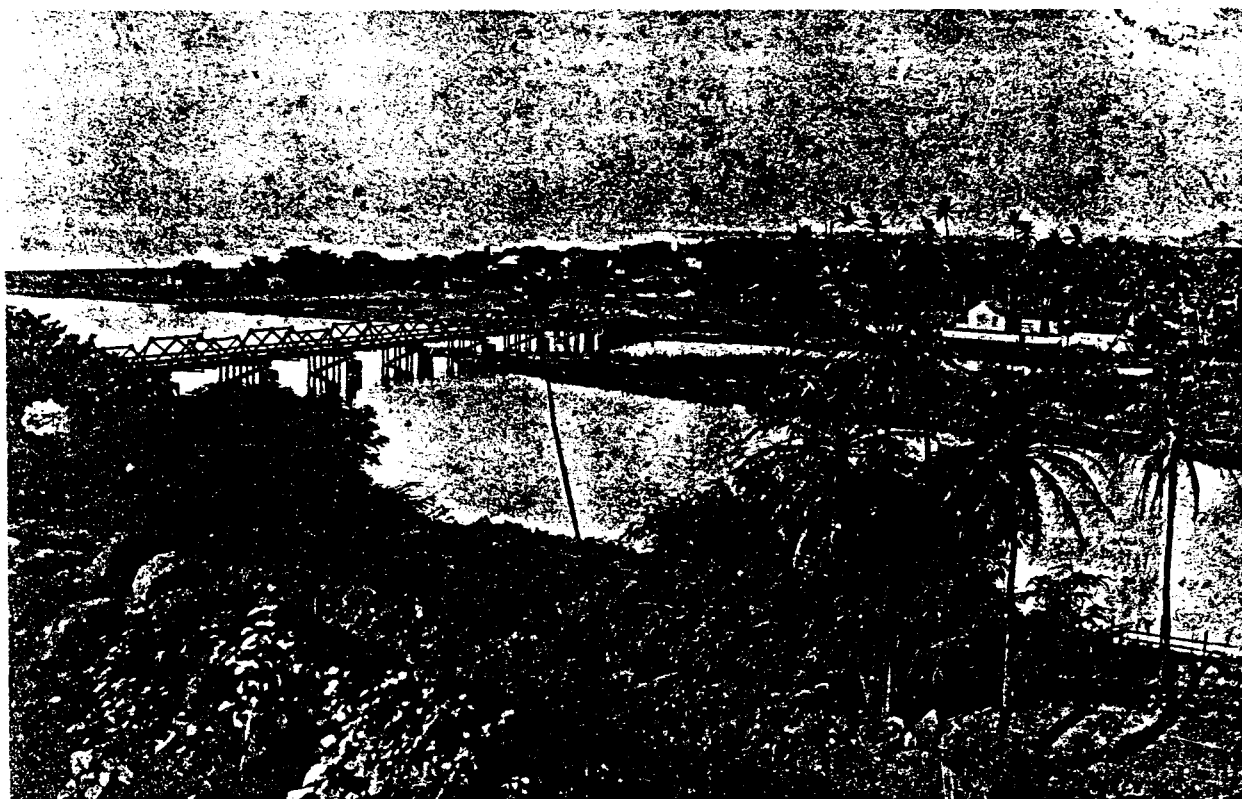


Figure 28
19. Waimea Town - With Wooden Bridge
(No Windmill)



Figure 29
20. Russian Fort with Grass House

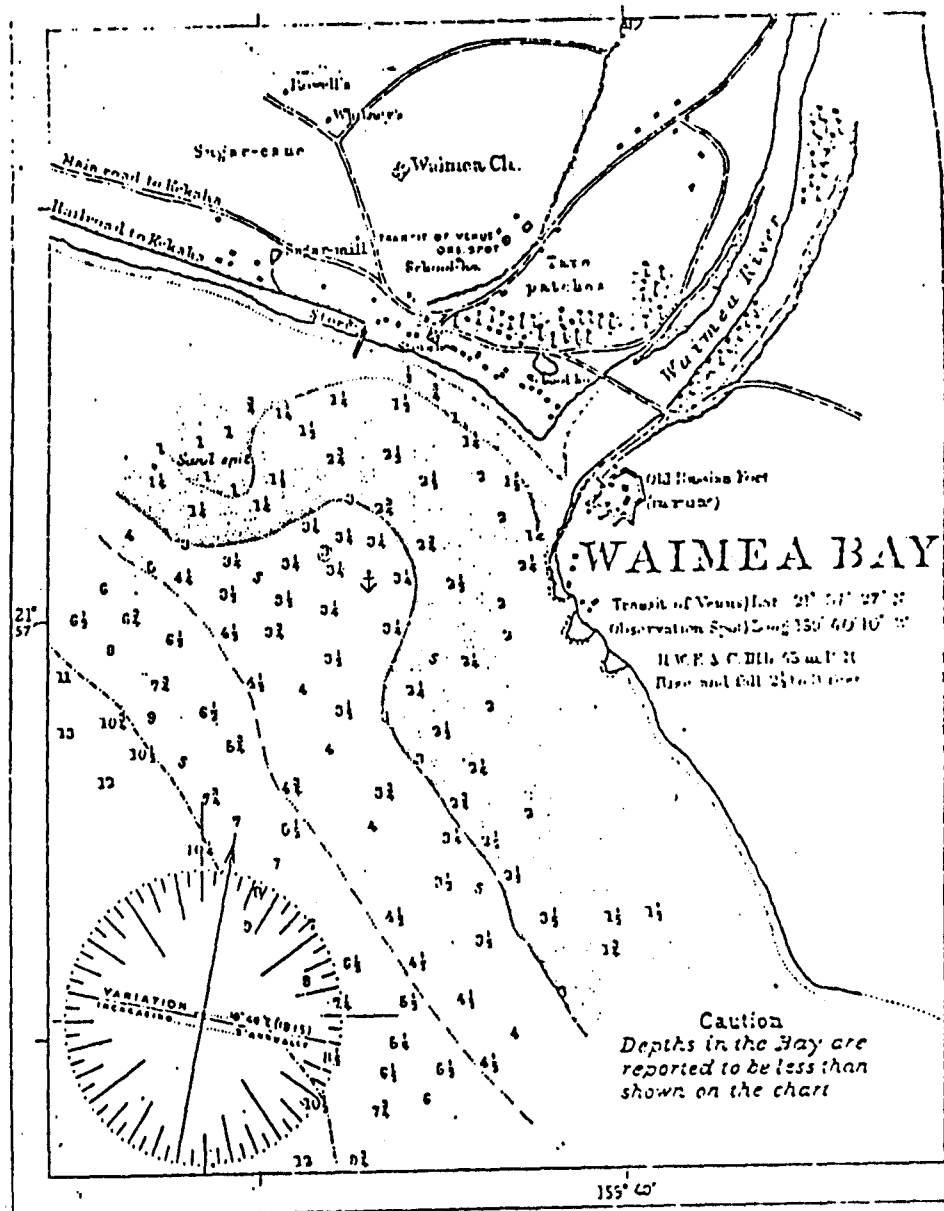


Figure 30

21. Waimea Bay - Hawaiian Government Survey

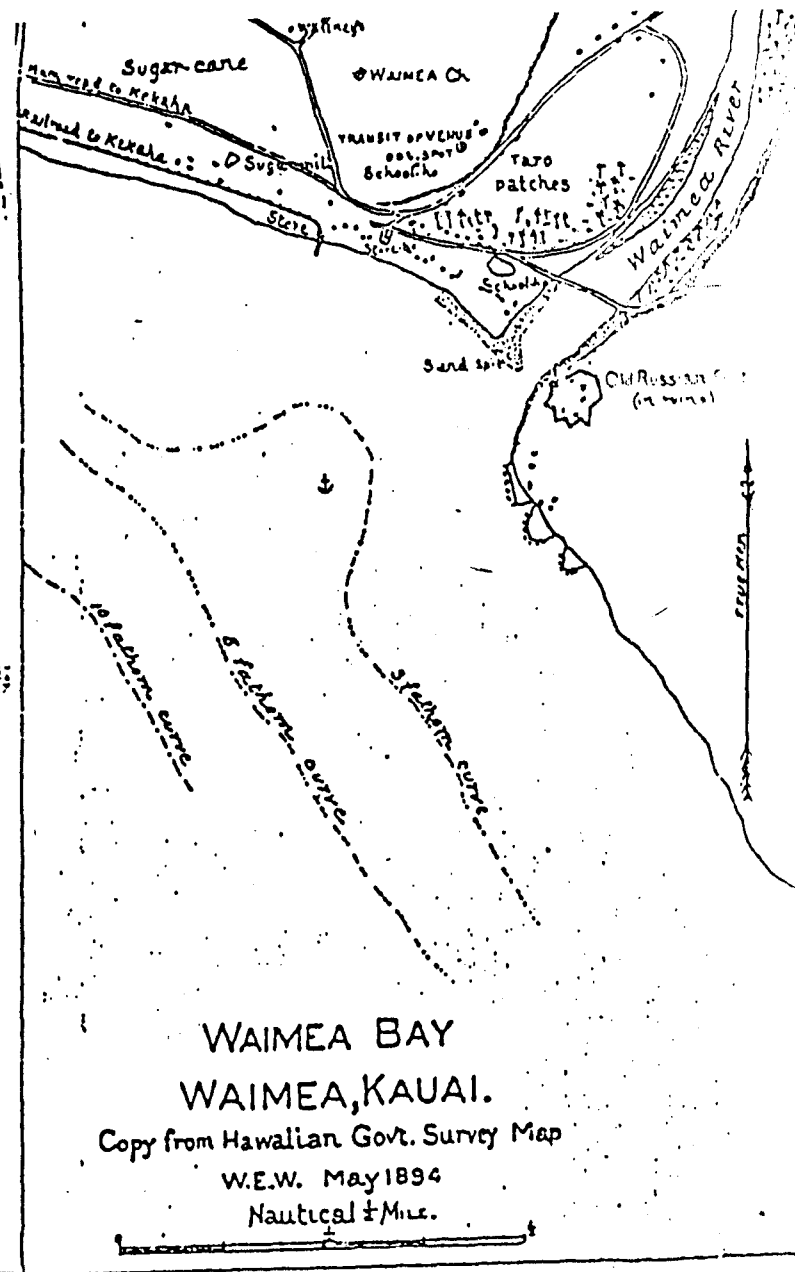


Figure 31

22. Copy - Hawaiian Government Survey 1891



Figure 32
23. Fishing from a Canoe
Along West Bank of Waimea River

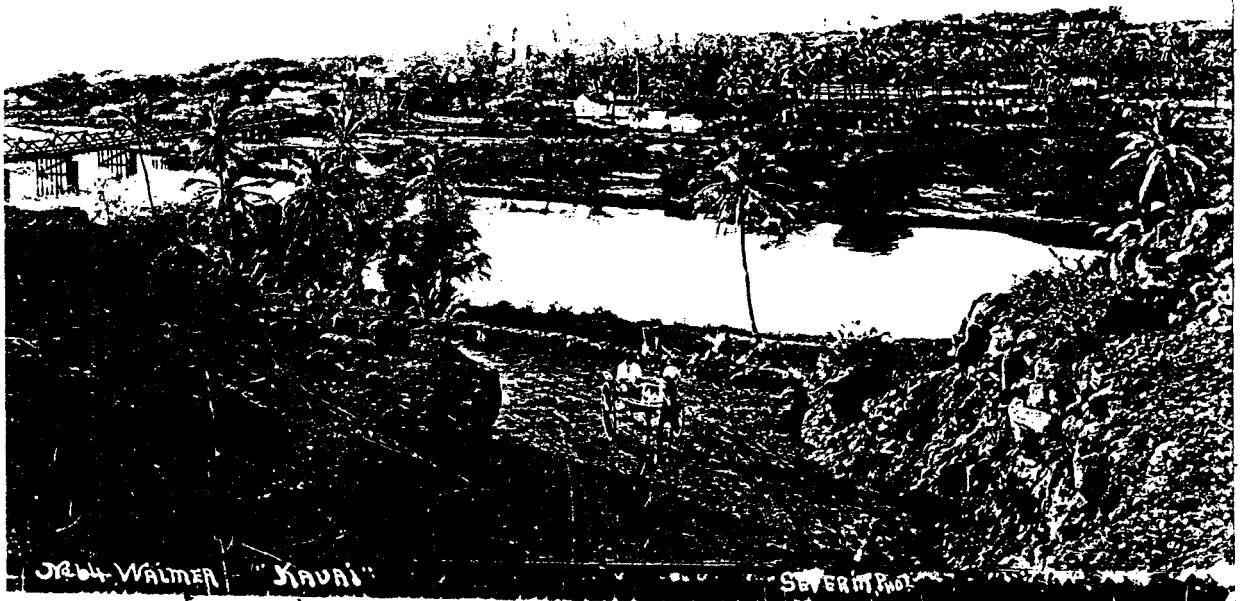


Figure 33
24. Waimea Bridge and Town (Windmill)

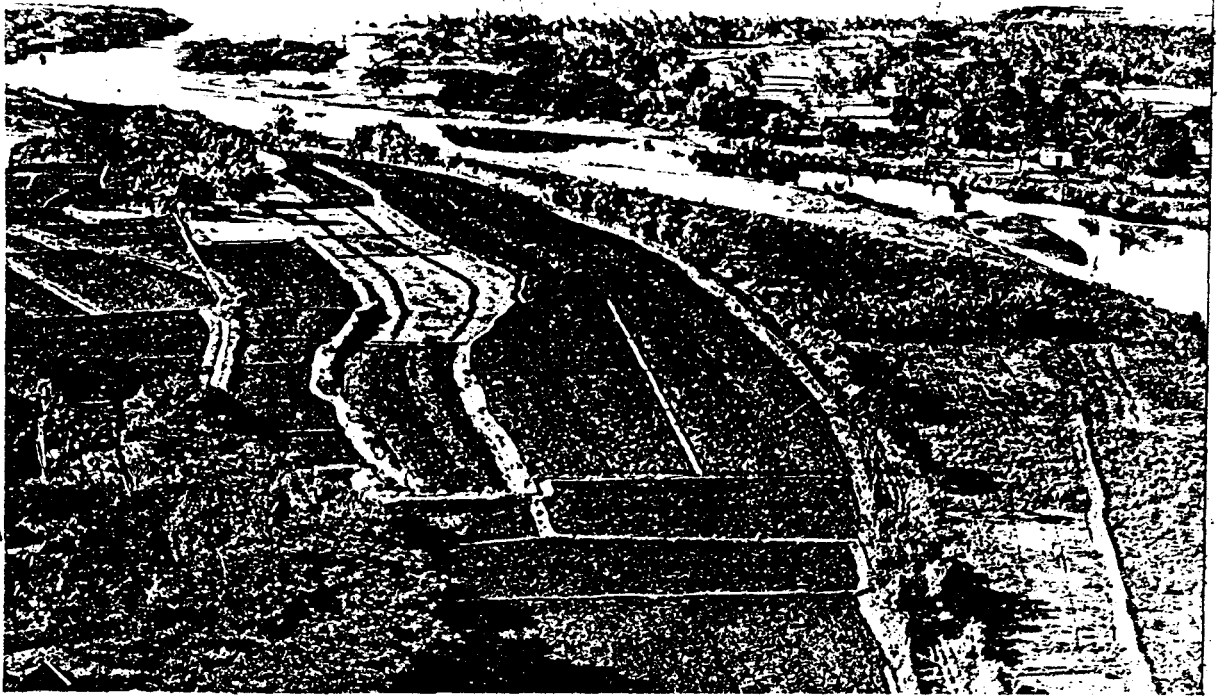


Figure 34
25. Waimea Town from Pali just South
of Makaweli River Fork

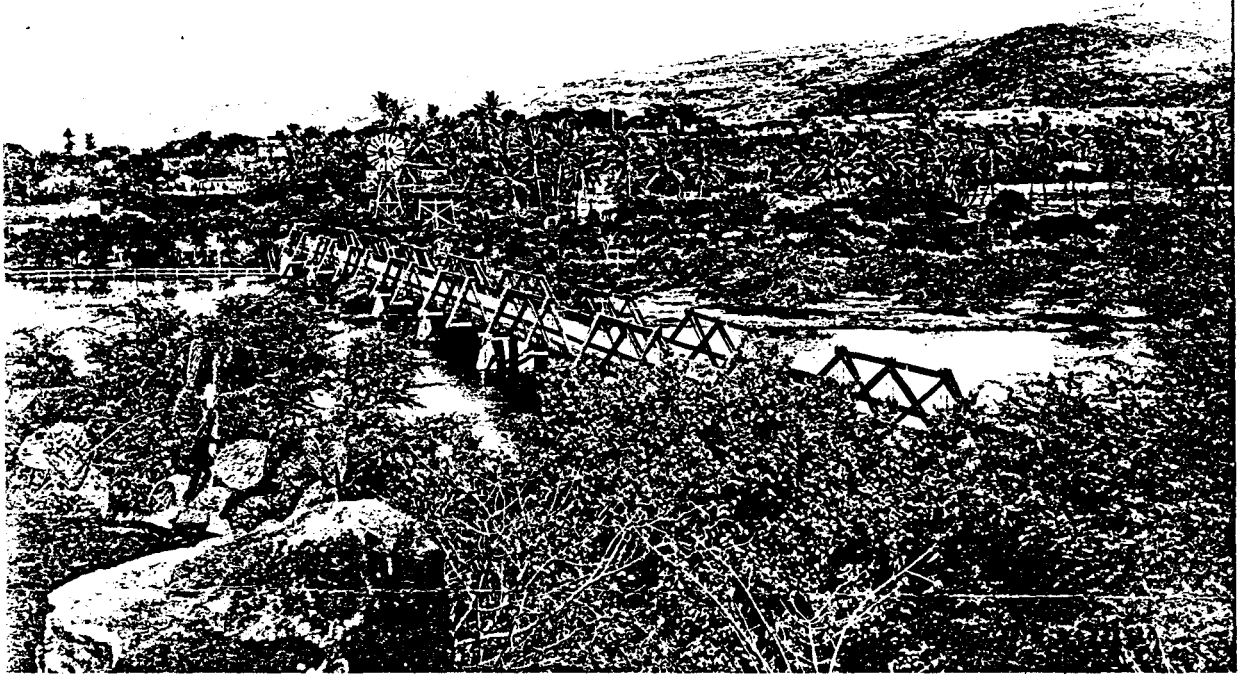


Figure 35
26. Waimea River Bridge



Figure 36
27. Detail of 25 Showing Fort, Bridge and Windmill



Figure 37
28. Detail of 25 Showing Fort, and Part of Bridge



Figure 38
29. Waimea River



Figure 39
30. Waimea, Kauai, #3 (Iron Bridge and Steamer)



Figure 40

31. Waimea Road to Makaweli just Visible to Right Along Bluff



Figure 41

32. A Rice Field, Waimea

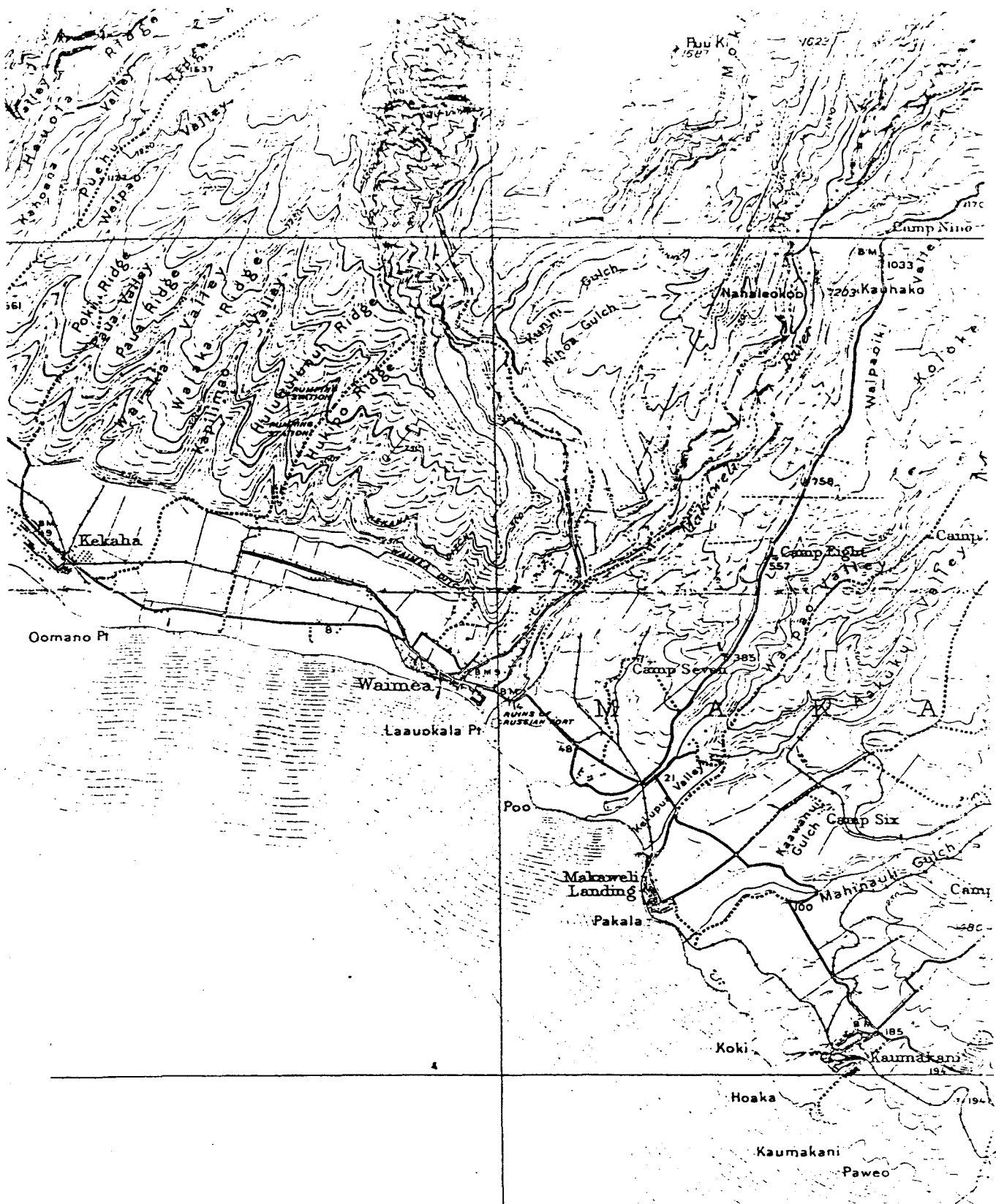


Figure 42
33. Waimea - Section of USGS 15 min Quad

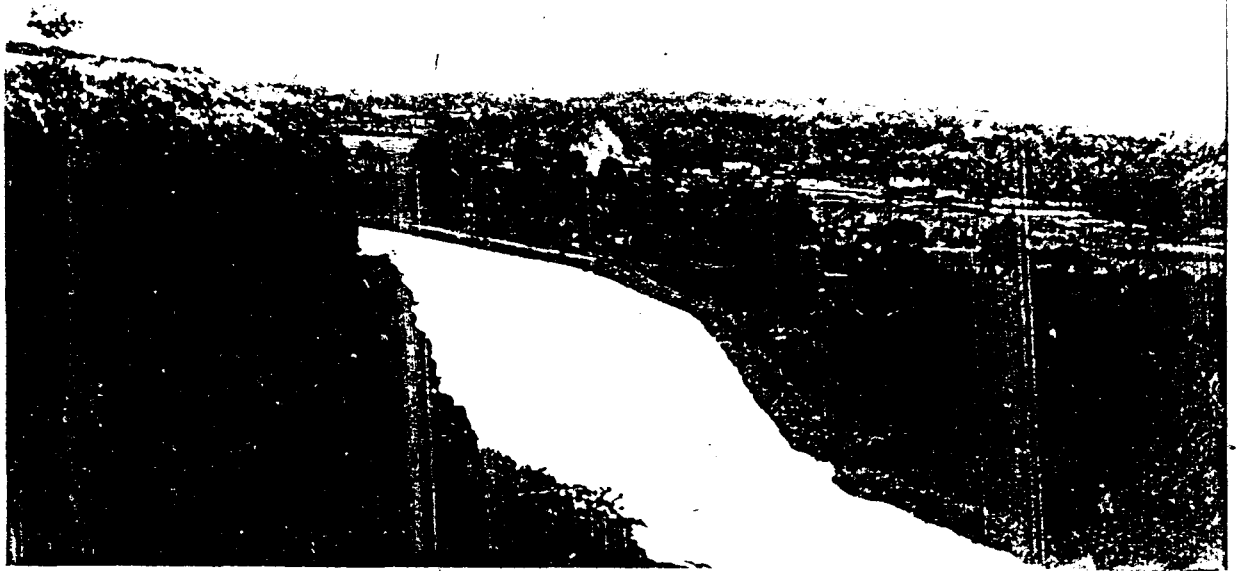


Figure 43
34. Waimea River - 1910



Figure 44
35. Waimea Town and River, Fort at Lower Right in Trees

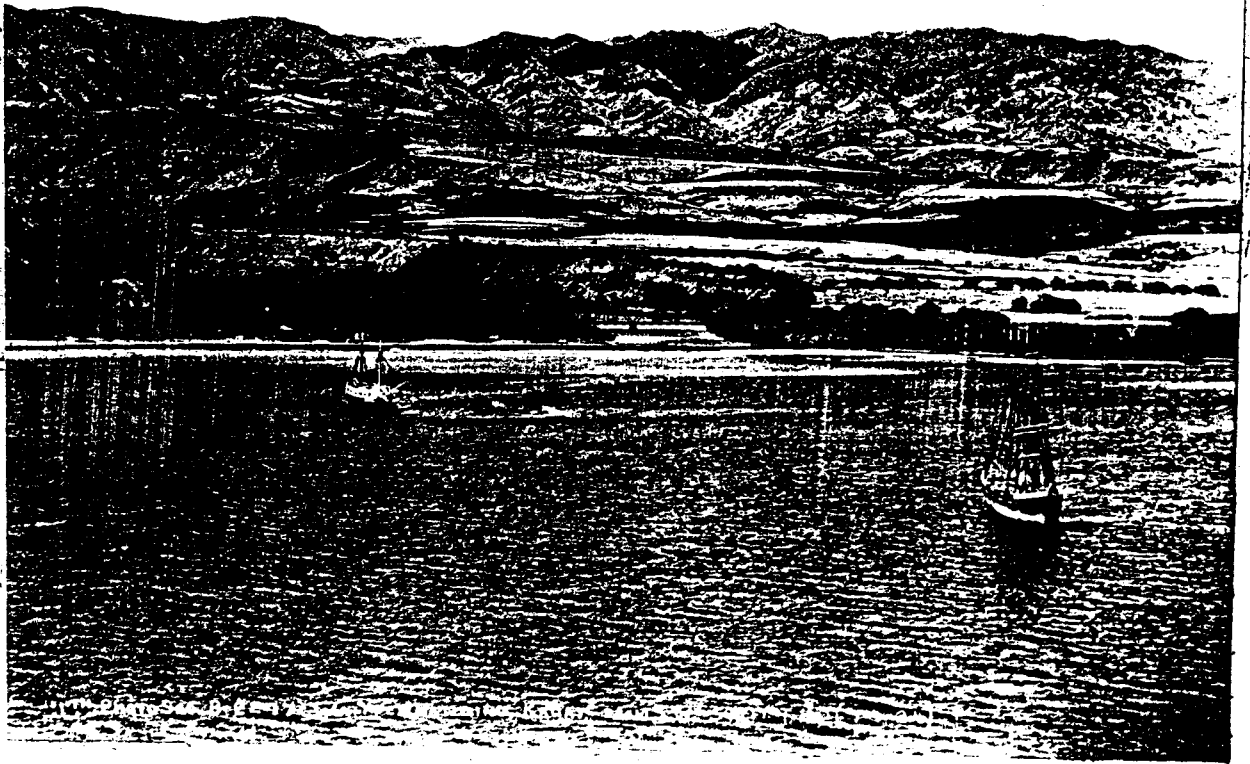


Figure 45
36. Waimea Landing

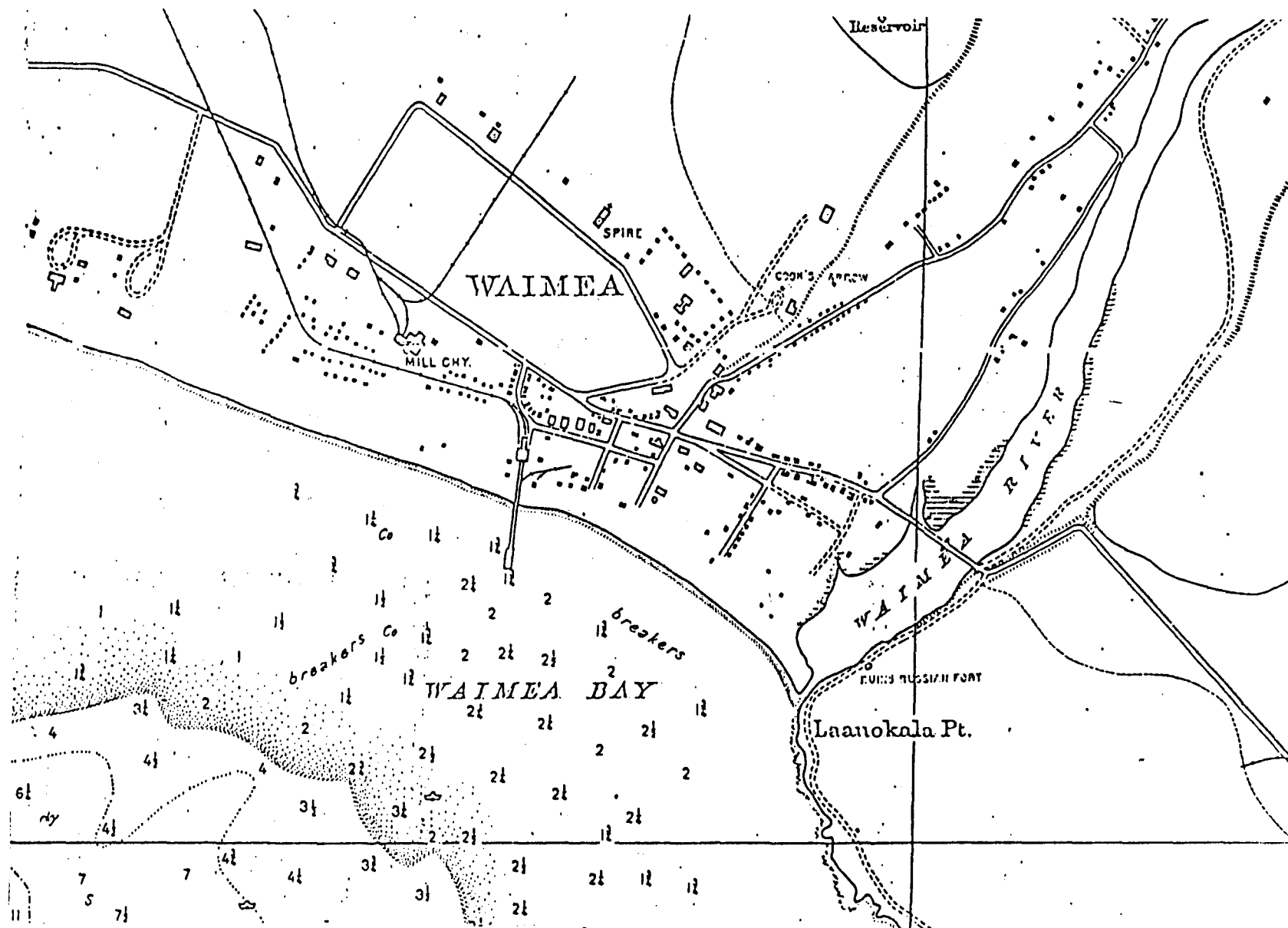


Figure 46
37. USCGS, Department of Interior Map 4114

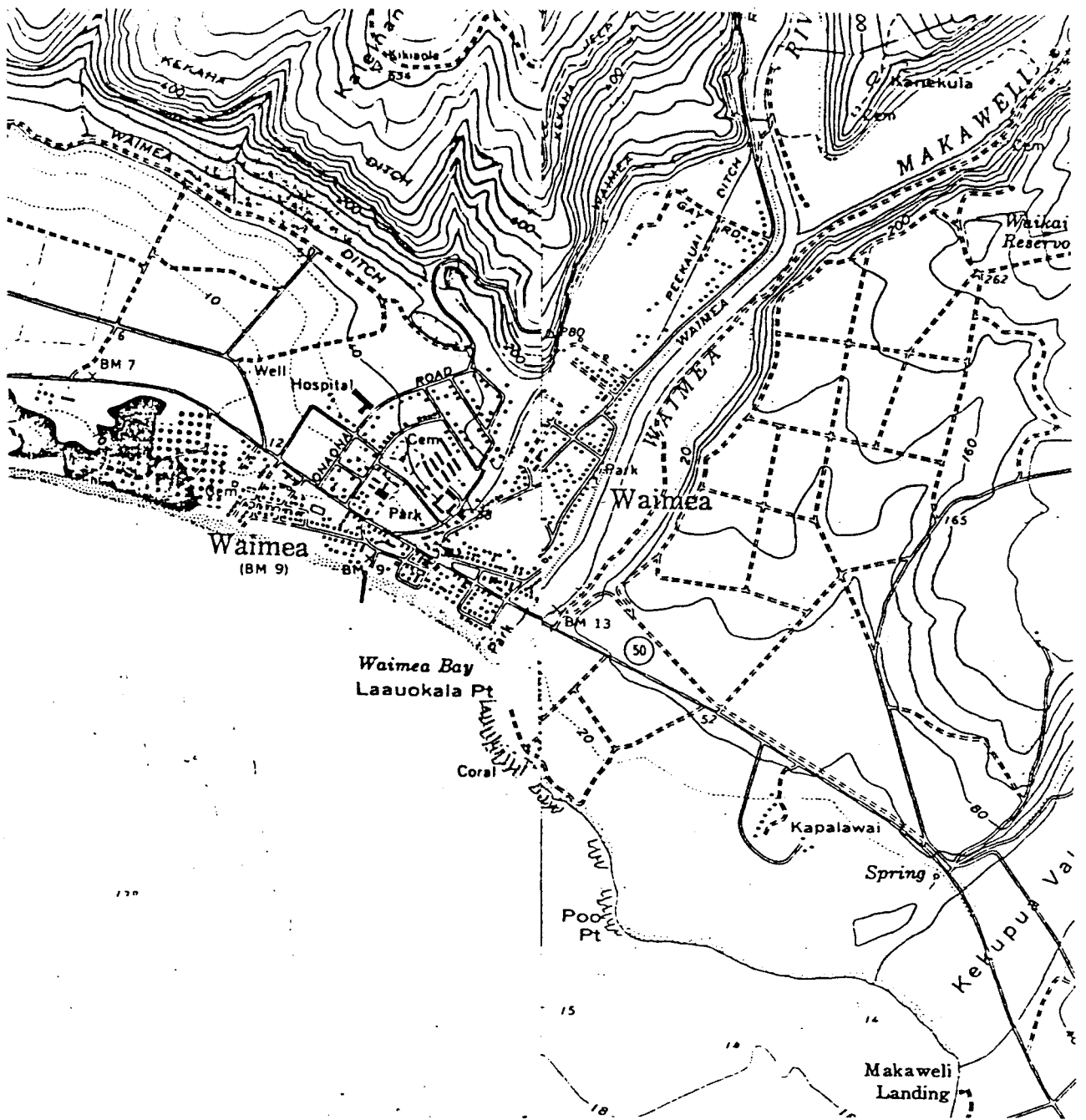


Figure 47
38. USGS Quads 5 and 9 (Hanapepe and Kekaha)

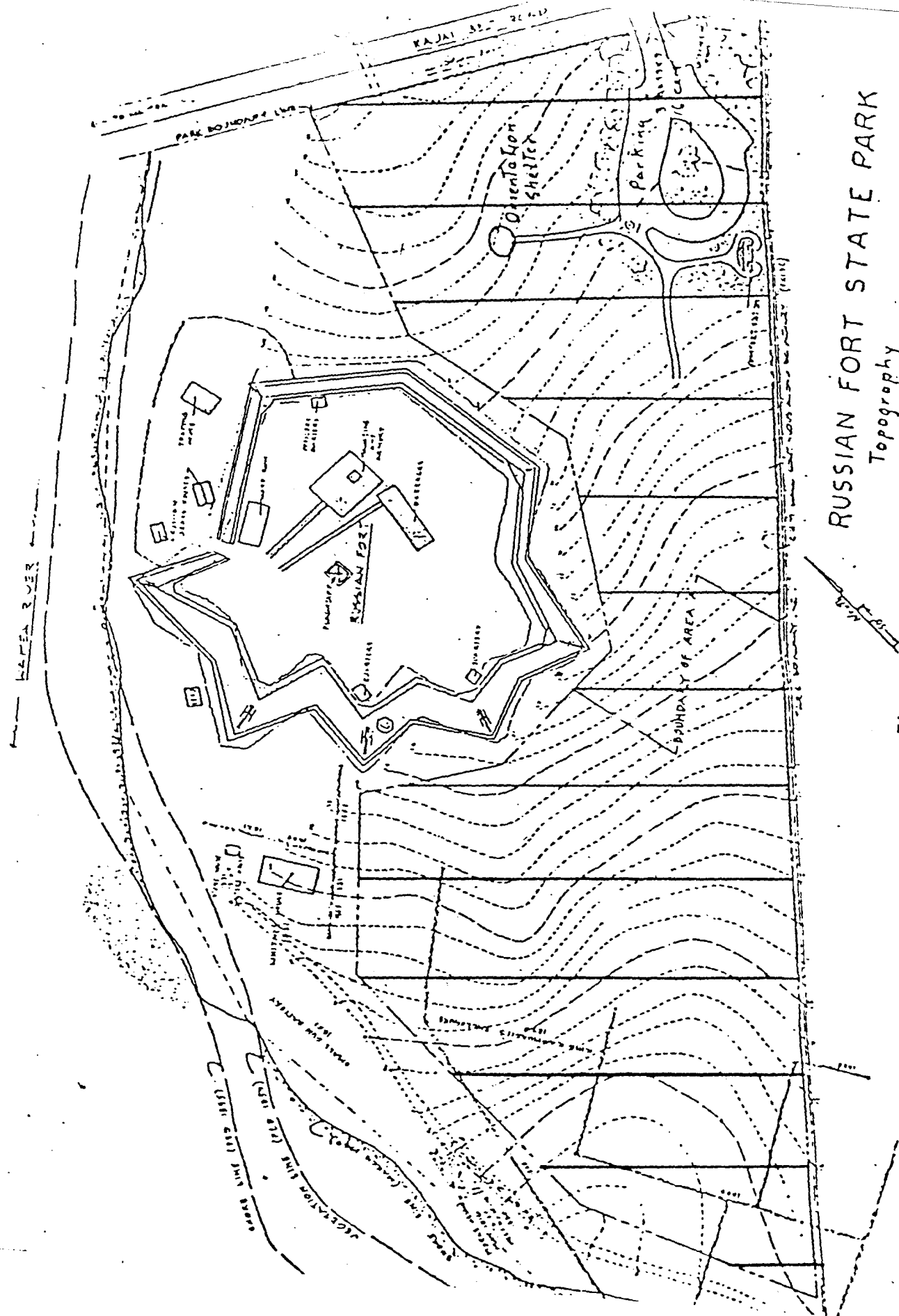


Figure 49
40. Russian Fort State Park

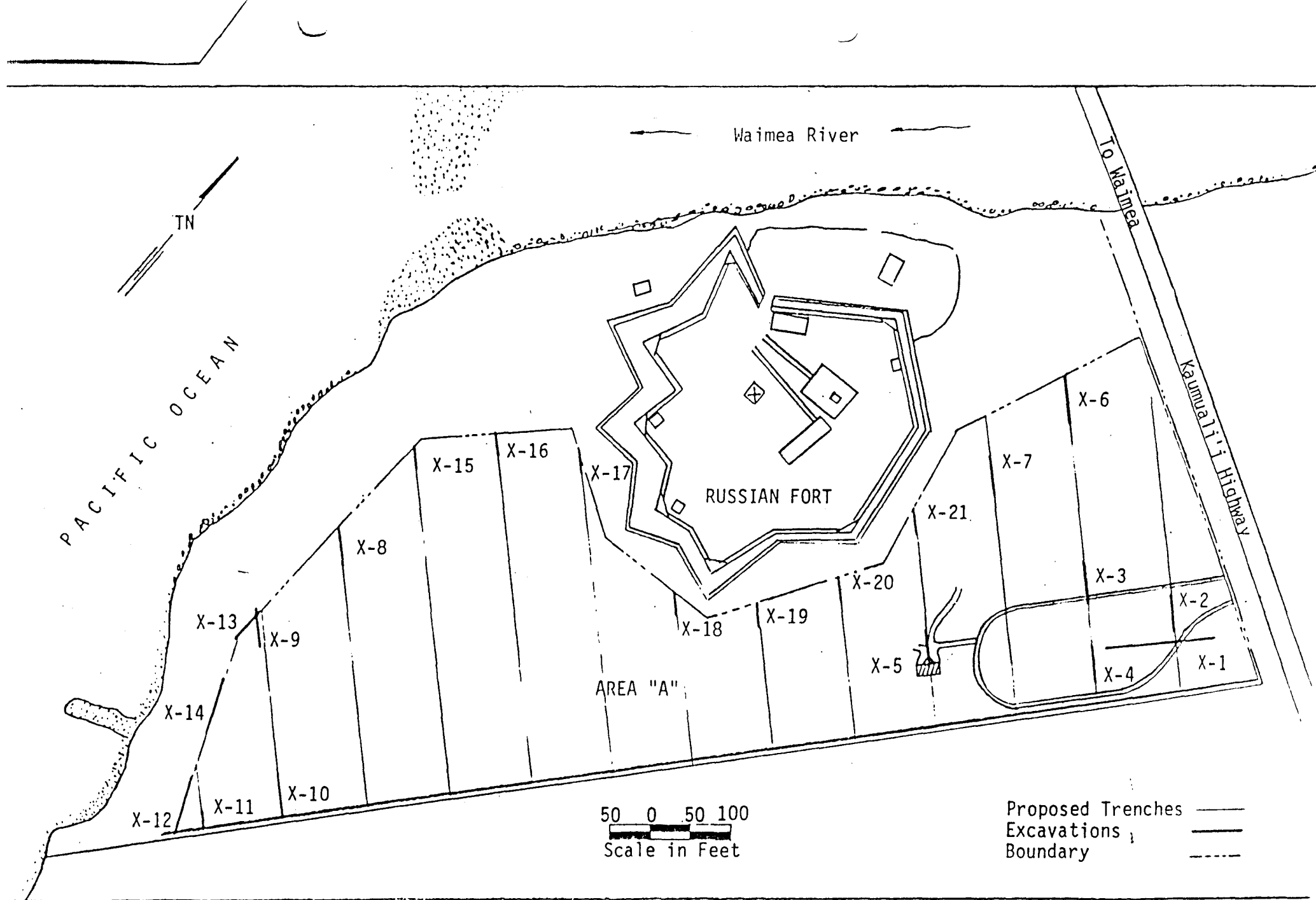


Figure 50
41. TEST EXCAVATIONS IN AREA "A"



Figure 51

42. Waimea Valley and Town - Fort at Left Side of River Mouth (Taken from same Vantage Point as 25)



Figure 52
43. South view as Above

PART II. ARCHAEOLOGICAL RESEARCH

ARCHAEOLOGICAL RESEARCH

Wall and Constituent Feature Designation System

To facilitate discussion, analysis and future work, the walls of the Fort have been assigned letter designations. The interior structural features and certain exterior features have been assigned numbers. (Figure 53)

Walls A through J from the *makai* portion of the Fort display a salient-and-retreat conformation. Each of the corners is designated by a double-letter symbol, consisting of the letters for the two walls that meet at the corner. Thus, the "star-point" corners that were labeled 6, 7, 8, 9 and 10 by McCoy (1972) receive the designations AB, CD, EF, GH and IJ, respectively. The *mauka* portion of the Fort is defined by walls K, L, M and N.

The twenty-nine features within the Fort walls that were recorded by McCoy (1972:Figure 5) have been assigned numbers 1 through 29. Numbers 1 through 7 refer to stairways on the interior of corners AB, CD, EF, GH, IJ, KL and MN, respectively. In addition to the stairways (Features 1-7), and the entrance (Feature 15), Jackson's 1885 map includes 8 interior features that can be definitely identified as numbers 11, 12, 13, 14, 16, 17, 20, 28 and two other features that appear to be 9 (or 8, or both 8 and 9), and 23.

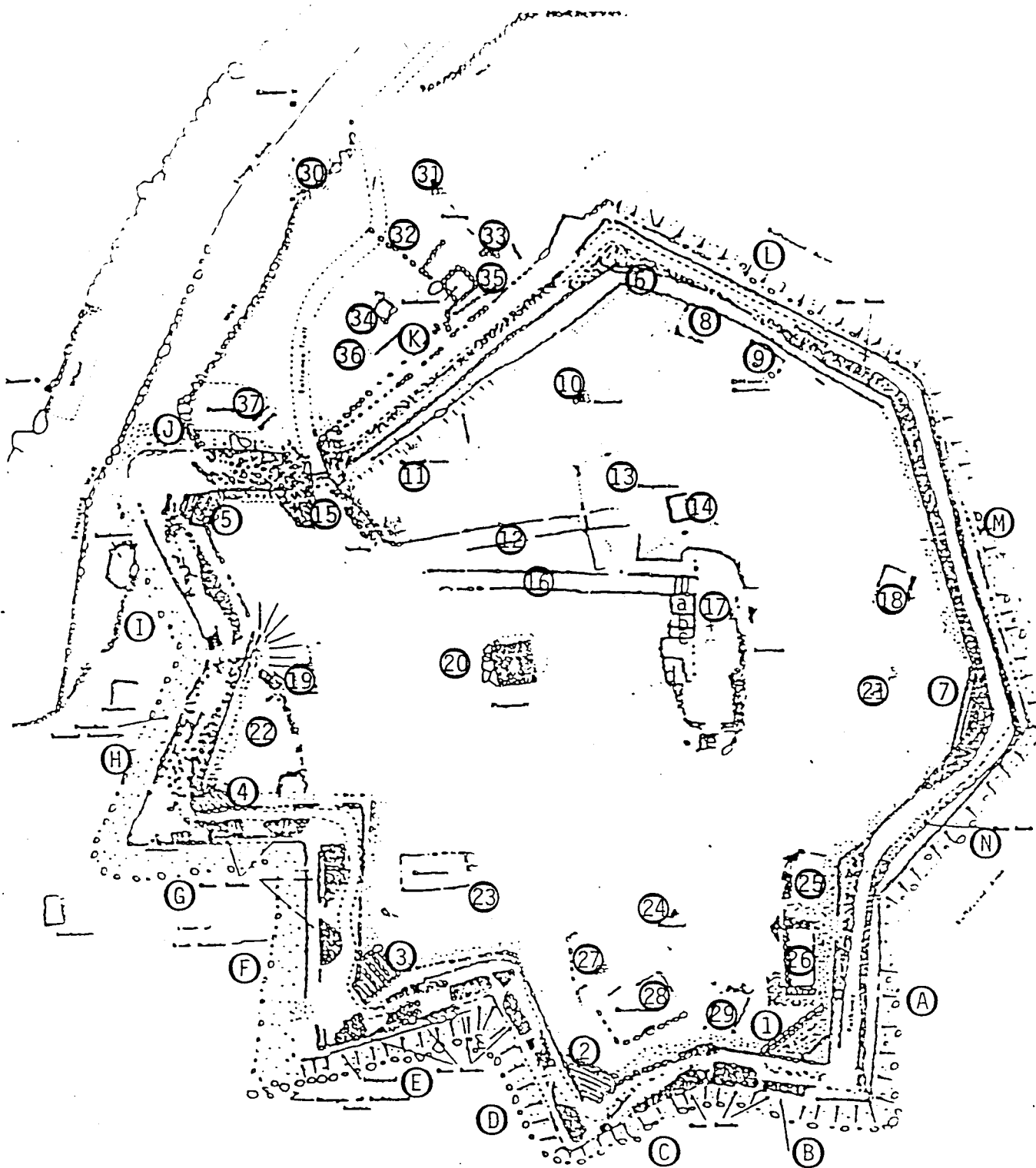


Figure 53
WALL AND CONSTITUENT FEATURE DESIGNATION MAP

Eight features located outside the main walls of the Fort in the "factory" or "trading" area have been assigned numbers 30 through 37.

One of these features is the enclosing wall (30) indicated on Jackson's map. The conjectural structure labeled "Trading House" on Jackson's map may correspond to at least one of archaeological features 31, 32, 33 and 35.

Recording Systems

Beginning with this project, Archaeological Research Center Hawaii, Inc. will adopt new systems for recording photographs, artifacts, and archaeological samples. All future records will be maintained as follows:

Photographic Records

Each roll of film will be given a unique designation which will include the following: 1) the project number as assigned by the Archaeological Research Center Hawaii, Inc. (The "14- " is the State assigned institution-designation for the Archaeological Research Center Hawaii, Inc. As reports from other researchers are received by the State, the appropriate institution designator can be added as a prefix to photo records.); 2) the general type of film (whether black and white or color); and 3) a serial number for the roll of film that is unique for the project and the general film type. Thus, for example, Roll 14-36 B43, would be black-and-white roll number 43, for project "14-36" (Fort Elizabeth). Note that in using this system there may also occur a Roll 14-36 C43, a roll of color film for the same project with the same individual roll number.

PHOTO RECORD (14-)
ARCHAEOLOGICAL RESEARCH CENTER HAWAII, INC.

Roll No. _____ Film Size _____ Location/Site _____

Film Type _____ ASA Rating 1 Comments _____

Camera _____

[illegible]

Each black-and-white frame, and each color slide will have a unique designation, composed of the roll designation number followed by the number of the frame or slide as it appears on the negative or on the cardboard mount of the slide. Thus, an example of a black-and-white frame designation number would be 14-36 B43-15, or for a color slide, 14-36 C43-15.

Detailed information for both negatives and slides will be recorded on two versions of a photo-record sheet (Figure 54). These two versions are identical except that the field versions are reduced in size so that facing pages fit sideways on a single page. The permanent record version will consist of two facing full-sized pages. Information will be directly transferred from the field forms to the permanent record forms, which will be kept at Archaeological Research Center Hawaii, Inc. headquarters.

Note that if the frame number on the negative or on the cardboard mount of the color slide does not match the photo-record field form, then the number on the photo-record field form shall be changed by marking out the erroneous number (the one on the field form) and adding the proper number in the space provided on the permanent record.

Artifact Recording System

Each artifact that is collected in the field will have a four part field designation number, assigned at time of collection. In the example "30-1000-AR34," the first two digit number identifies the island on which the artifact was found. This shall be assigned accord-

ing to the following numbering system, which was developed for purposes of the Statewide Inventory of Historic Places:

10 = Hawai'i;
20 = Kaho'olawe;
30 = Kaua'i;
40 = Lana'i;
50 = Maui;
60 = Moloka'i;
70 = Ni'ihau; and
80 = O'ahu

Note that a two-digit number replaces the three-part prefix of the State site designation system (e.g. "50-30-05," in which "50- " stands for the state of Hawai'i, "30- " for Kaua'i, and "05- " for the U.S.G.S. 7.5 minute quadrangle map on which the site appears).

The second part of the artifact designation refers to the archaeological site in which the artifact was found. It is a one-to four-digit number assigned to that site using the Statewide Inventory site designation system. If an artifact is found in an area away from any previously recorded or numbered site or sites, it shall be assigned an artifact number that includes the site number of the closest site or of a nearby site with which the artifact probably is associated. For example, the artifact number of an isolated 19th-century bottle would include the number of a nearby 19th-century site rather than a closer site that is clearly prehistoric

The third part of the artifact designation consists of the capital letters "AR," standing for "artifact," and the fourth part is the unique number of the artifact itself. Normally these numbers will be assigned in the field in the order in which the artifacts are found, and are recorded in the field notebook and on the label of the field bag. In most

cases, each artifact will have a separate unique number. However, two or more small artifacts, such as beads or stone flakes, found in a small space, the group of items may receive a single number designation. Any individual item within the group may then be assigned a letter designation added to the unique number.

Note that two-digit or two-letter designations will be assigned to islands other than the major Hawaiian Islands, as the need arises.

Sample Recording System

Each sample of any kind collected from an archaeological site receives a number-and letter-designation that is similar to that of an artifact, except that the "AR" that constitutes the third part of the designation is replaced by a two letter designation that is appropriate to the type of sample involved. Examples of these letter-pairs are as follows:

- BG = Basaltic Glass
- BN = Bone (other than human bone)
- GL = Glass (manufactured, as opposed to basaltic glass)
- GR = Gourd
- HR = Human Remains
- MD = Midden (General; Mixed)
- MS = Mollusc Shell
- MT = Metal
- PL = Pollen
- PM = Perishable Materials
- RC = Radio-Carbon Sample
- SL = Soil
- TP = Tapa
- WD = Wood

Other symbols may be added if and when they become necessary. Some of the categories overlap with others and some include more specific categories. In a large and productive site, the more specific designations



Figure 55
INTERIOR OF THE FORT BEFORE CLEARING SHOWING WALL K.

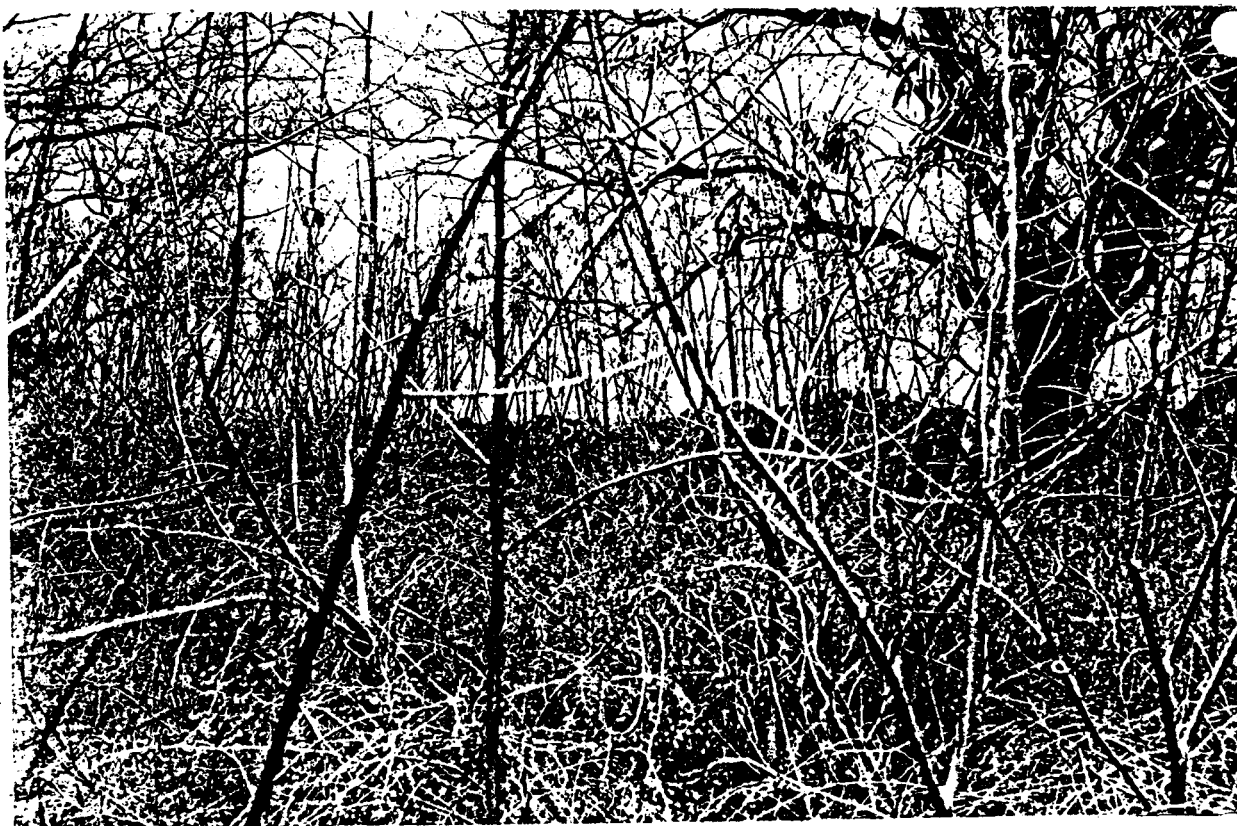


Figure 56
INTERIOR OF THE FORT BEFORE CLEARING SHOWING WALL M.

would be used, and conversely, in a smaller site the more general categories (such as MD, midden) would suffice.

Note that when possible without duplication, the letters listed above are the first two consonants in a single word category (except for "AR," for "artifact," which begins with a vowel), or the initial consonants in two-word categories.

The number-series for each category of cultural item (including artifacts and midden samples) begins with 1 (one) for each site.

The Clearing of Fort Elizabeth

At the beginning of the Fort Elizabeth Archaeological Project, the Fort and its environs were covered with the scrub vegetation that is common to this dry southwestern region of Kaua'i. The vegetation in and around the Fort included large, mature *kiawe* (*Prosopis pallida*) trees, *koa haole* (*Leucaena glauca*), a tall shrub, *'ilima* (*Sida fallax*), a low bush, and various weeds and grasses. The walls themselves and much of the interior were covered with a thick growth of older *koa haole* shrubs.

As of the preparation of the final draft of this report, nearly all of the Fort as well as a broad margin of land to the southwest and northwest has been cleared of the scrub vegetation (Figures 55-66). The clearing crew exercised great care at all times to avoid disturbing the walls and the constituent structural features within and outside the Fort. Each stem and branch was cut horizontally as close to the ground- or structure-surface as possible. Immediately after each stem and branch was cut, the stump was painted with a potent herbicide in order to



Figure 57
INTERIOR OF THE FORT BEFORE CLEARING SHOWING WALL G.



Figure 58
INTERIOR OF THE FORT BEFORE CLEARING SHOWING WALL H.

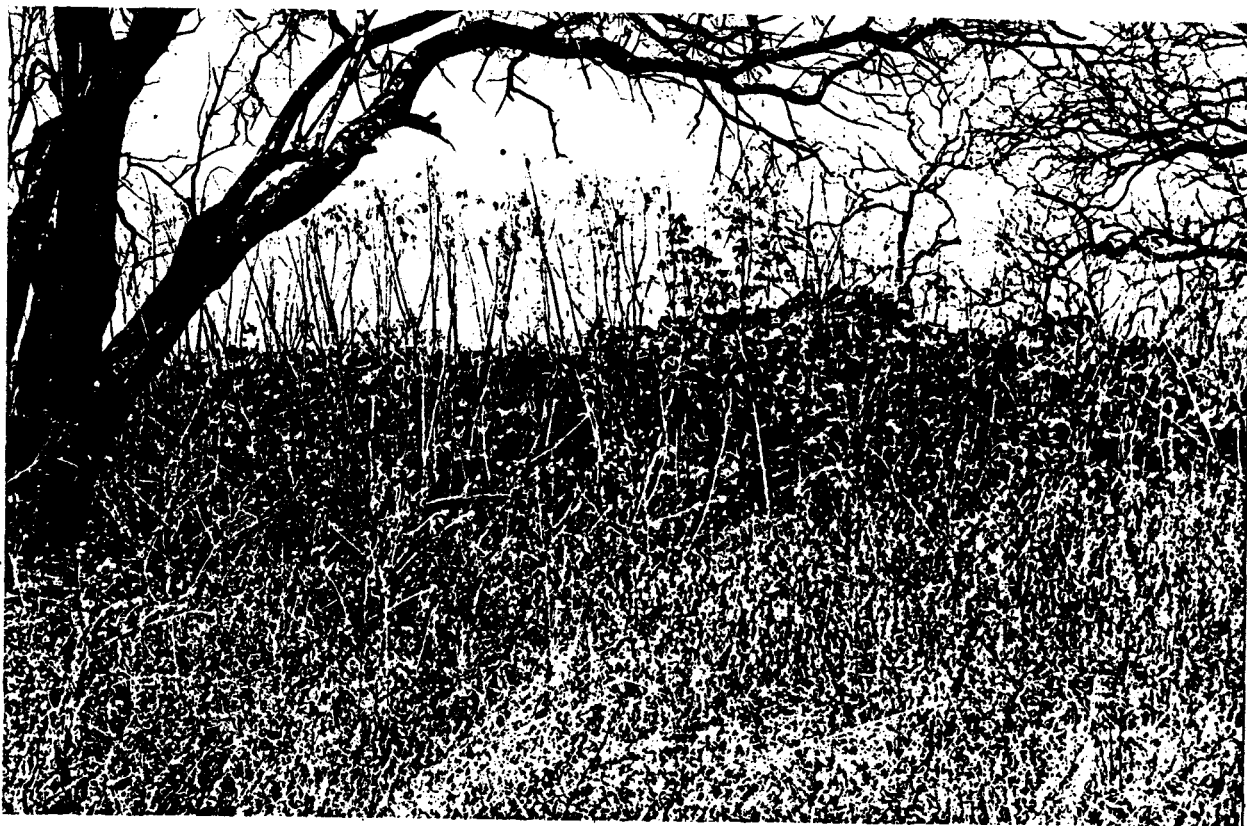


Figure 59
INTERIOR OF THE FORT BEFORE CLEARING SHOWING WALL D.



Figure 60
INTERIOR OF THE FORT BEFORE CLEARING SHOWING WALL N.



Figure 61
INTERIOR OF THE FORT SHOWING WALL F.



Figure 62
TOP OF WALL L AFTER CLEARING, INTERIOR OF THE FORT IS AT THE RIGHT.

ensure that the root system of each plant would die, thus preventing regrowth, while minimizing the contamination of the soil. The poison solution is a mixture of 6 ounces of 2-4-D and 2-4-5-T, diluted by 2 gallons of crankcase oil.

The clearing of the Fort first proceeded around the exterior surfaces and the tops of the enclosing walls. During this step the surrounding area shown in (Figure 64) was also cleared. The next step was the removal of the vegetation from the interior surfaces of the walls and the adjacent areas of the floor of the Fort. Before it was cleared, the floor of the Fort was covered with a thick growth of weeds. After the above surface portions were removed, the floor of the Fort was treated with the herbicide Karmex, which is a "pre-emergence" chemical whose purpose is to kill the weed seeds before they are able to sprout.

In the event that charcoal samples are collected during the archaeological investigations within the Fort and are sent to a radio-carbon laboratory for age-determination analysis, a complete description of the eradication process will be included with the samples so that any skewing affects of the petroleum-based poisons can be counteracted. It should be noted that in the past the Fort has been repeatedly cleared by both burning and poisoning, and agricultural burning was and still is standard practice during cane harvesting - 200 feet distant.

Two series of photographs document the process of vegetation-clearing. The first series was taken before each section was cleared and the second series was taken from the same vantage points after the



Figure 63
CLEARING OF THE INTERIOR FACING WALLS AT WALL N.



Figure 64
THE EXTERIOR OF WALLS H AND I AFTER CLEARING.

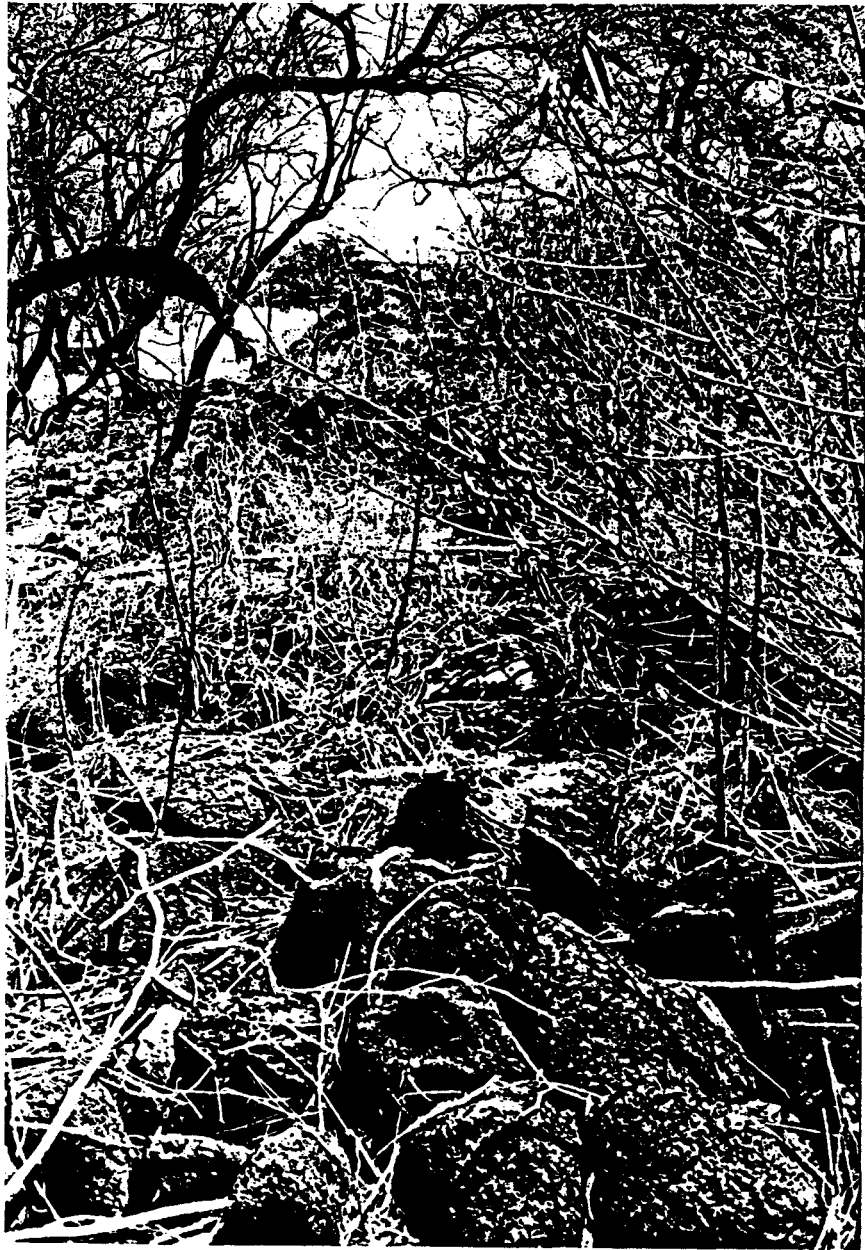


Figure 65
VIEW OF WALL K IN THE PROCESS OF BEING CLEARED.



Figure 66
AREA SHOWING EXTERIOR OF MAKAI FORT WALLS AFTER CLEARING,
WALL G APPEARS ON THE RIGHT, WAIMEA RIVER IN CENTER OF PHOTOGRAPH.

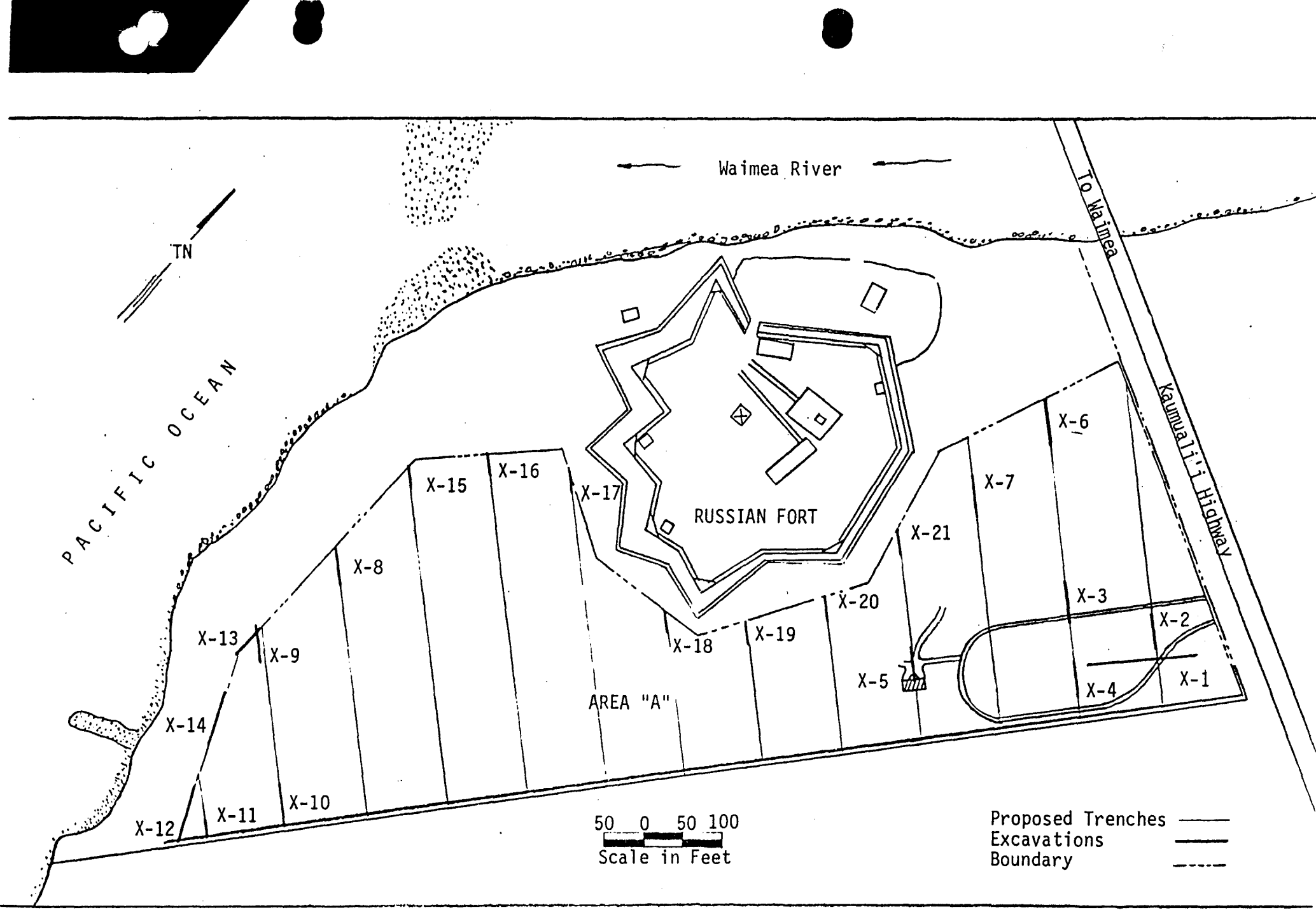


Figure 67 TEST EXCAVATIONS IN AREA "A"

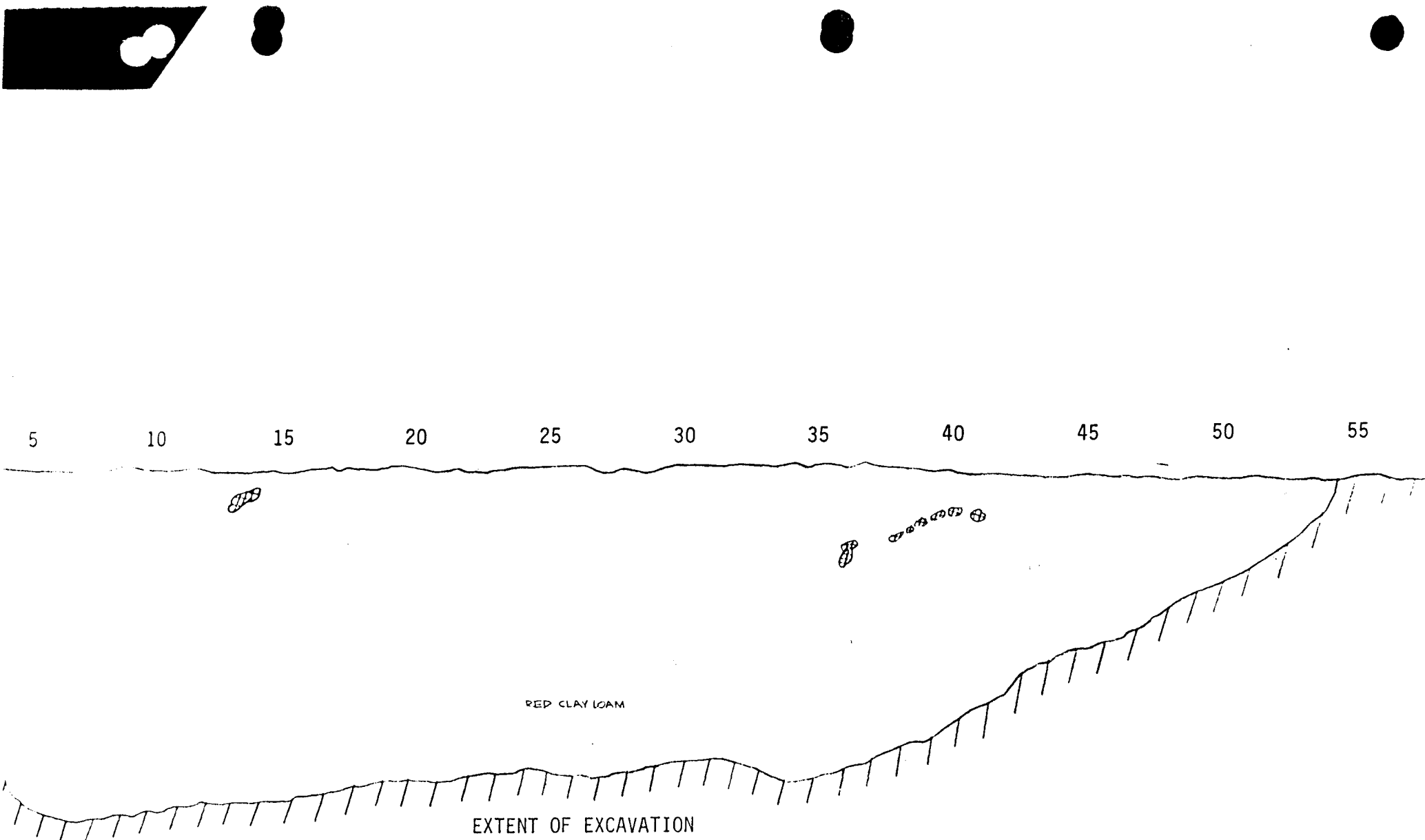
clearing of each section was complete. Both these before and after series were taken using black and white film as well as color transparencies.

Test Trenching in Area "A"

Twenty back-hoe trenches, with a combined length of 861 feet were excavated in Area "A" to determine the existence and location of intact archaeological deposits that might be disturbed or destroyed by future park-related construction and landscaping activities. For this purpose, Mr. James Kaneakua, the State Parks heavy equipment operator was assigned to work at Fort Elizabeth for two weeks (September 2nd through 19th).

Each of the twenty trenches was excavated to a depth of 6.5 feet, or to a level at which bedrock or boulders prevented further digging. Most of the trenches were at least 13 inches wide--the width of the back-hoe bucket--though the first four trenches were somewhat wider. Each excavated trench was assigned a number preceded by the letter "X" (for excavation). The back-hoe trench that was excavated under the supervision of State Parks personnel in 1974 was designated "X-1." The location of all trenches is shown in Figure 67.

The four trenches (X-2,-3,-4 and -5) in the area of the proposed parking lot averaged 5.7 feet deep and the hard, dusky-red soil in their profiles exhibited virtually no change from the surface to the greatest depth. No plow-zone could be discerned. The soil in trenches X-6 and X-7 was similar to that in X-2 through X-5, but its depth varied from



Scale in Feet

H = 1x

V = 2x

Length = 54'

Width = 30"/18"

Depth = 75"/48"

Figure 68

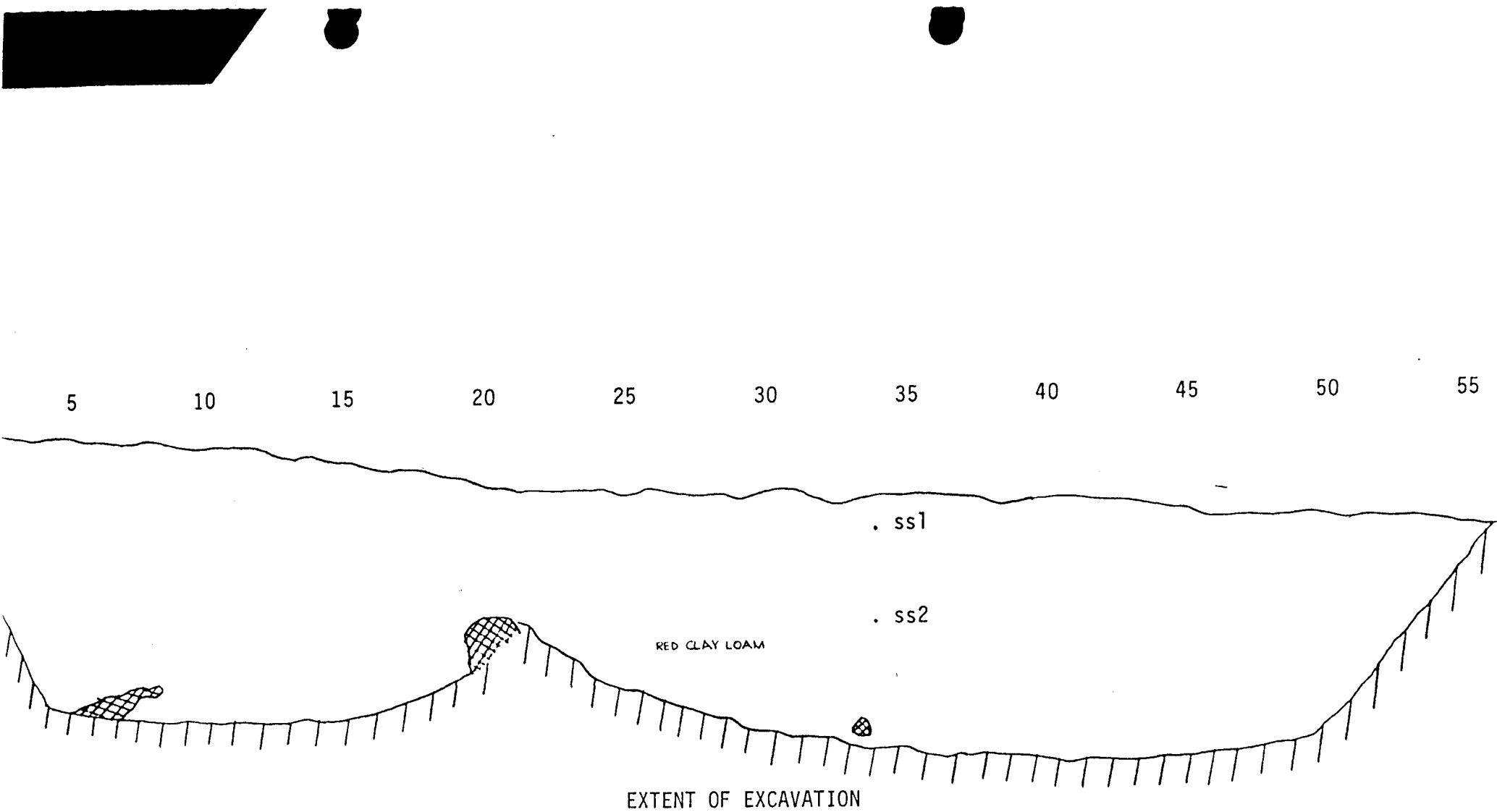
Project 14-36

50-30-05-1000

Profile of X-2

North Face

 = Rock



Scale in Feet

H = 1x

V = 2x

Length = 55'

Width = 30"/18"

Depth = 60"/27"

Figure 69

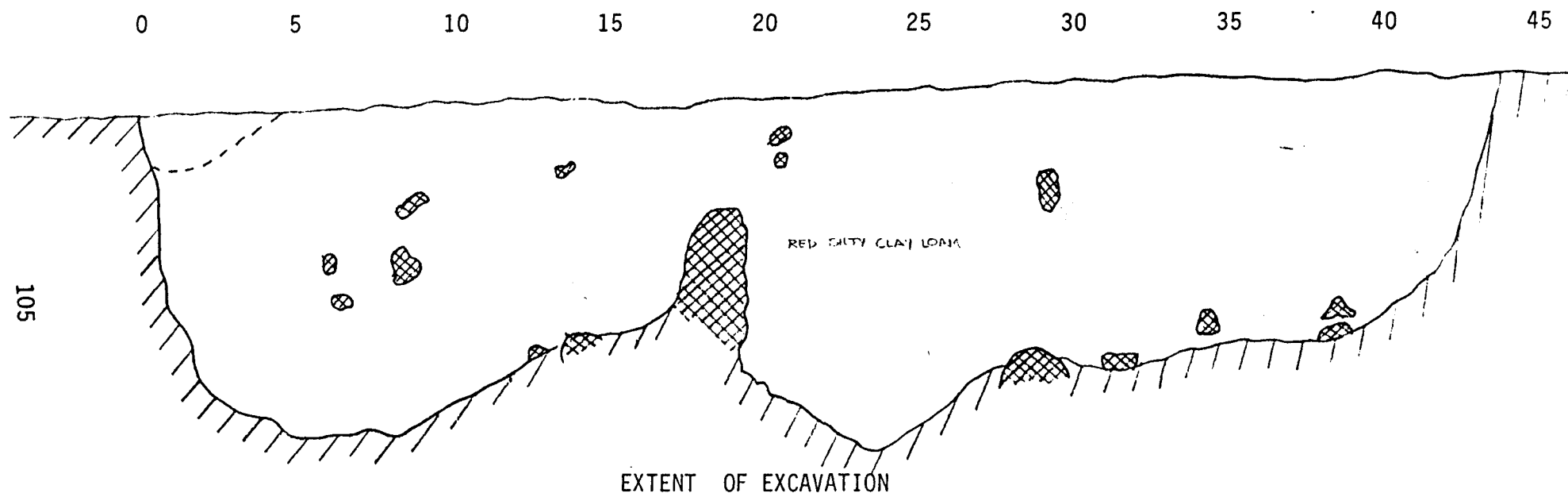
Project 14-36

50-30-05-1000

Profile of X-3

North Face

 = Rock



Scale in Feet

H = 1x

V = 2x

Length = 44'

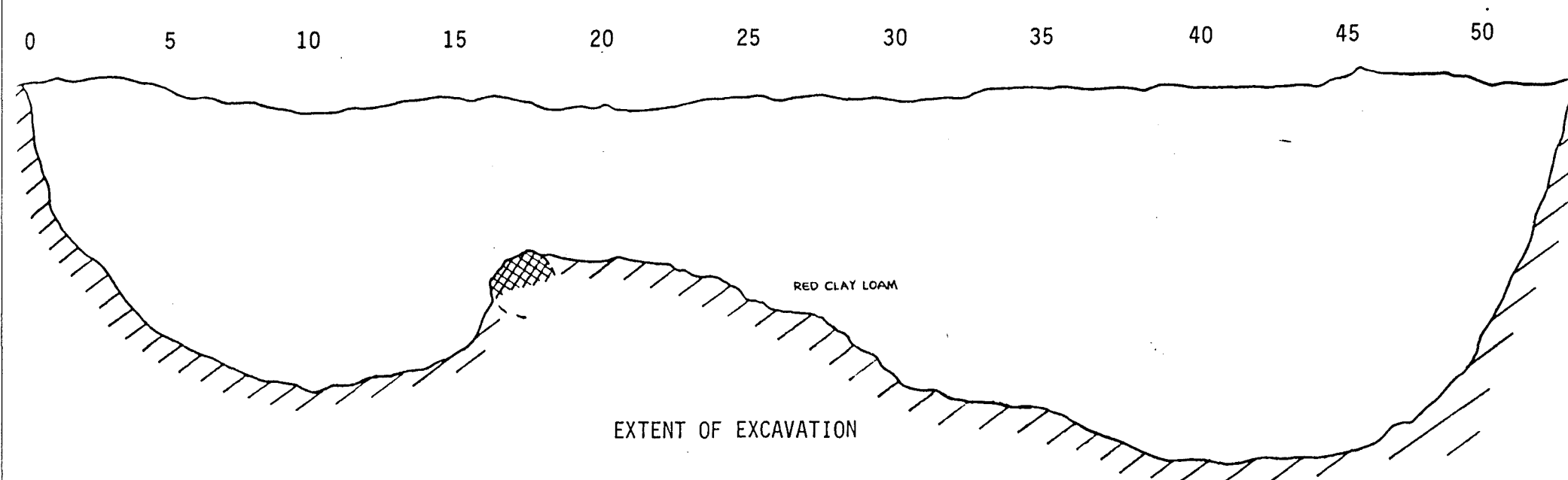
Width = 30"/18"

Depth = 66"/21"

Figure 70

Project 14-36
50-30-05-1000
Profile of X-4
North Face

 = Rock
SS = Soil Sample



Scale in Feet

H = 1x

V = 2x

Length = 53'

Width = 30"/18"

Depth = 75"/30"

Figure 71

Project 14-36

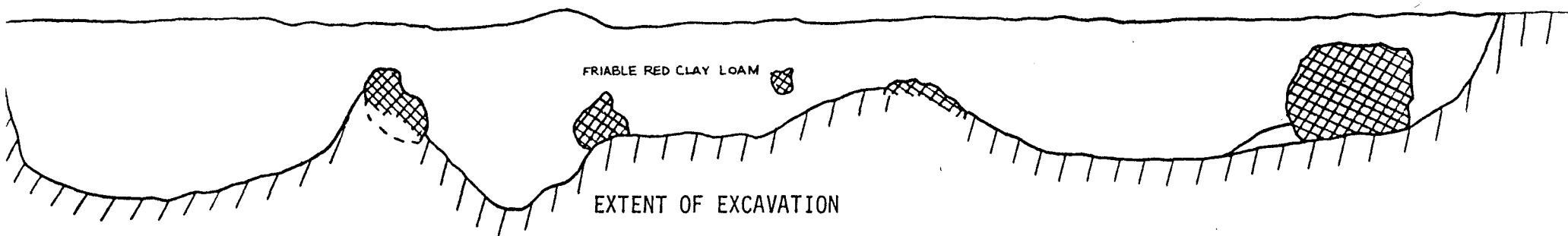
50-30-05-1000

Profile of X-5

North Face

 = Root

5 10 15 20 25 30 35 40 45 50



Scale in Feet

H = 1x

V = 2x

Length = 51'

Width = 30"/18"

Depth = 39"/9"

Figure 72

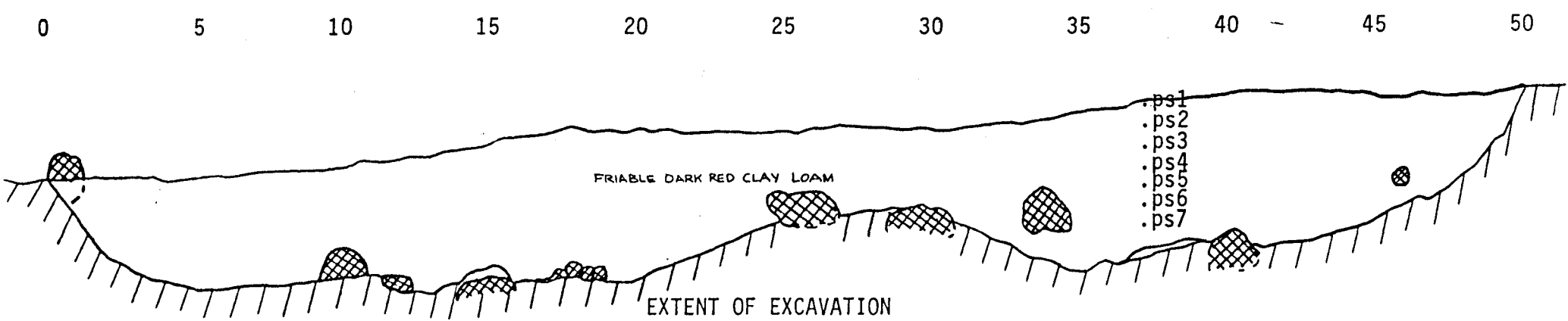
Project 14-36

50-30-05-1000

Profile of X-6

South Face

 = Rock



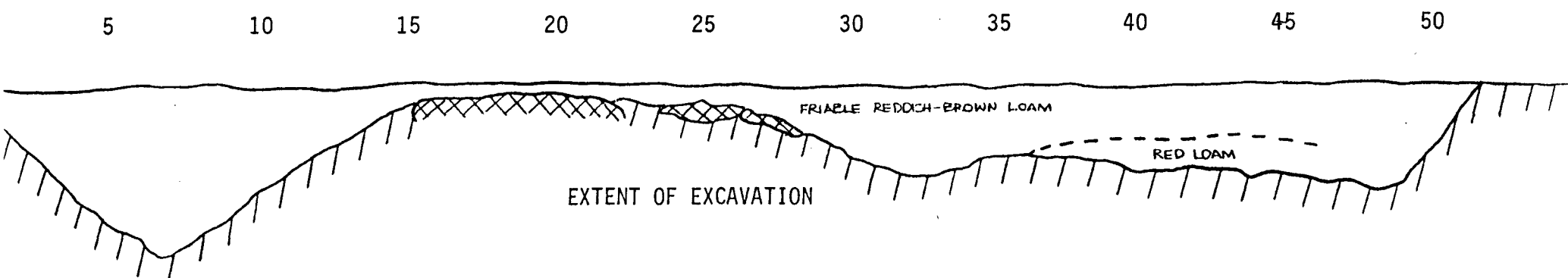
Scale in Feet
H = 1x
V = 2x

Length = 50'
Width = 24"/12"
Depth = 33"/12"

Figure 73

Project 14-36
50-30-05-1000
Profile of X-7
South Face

 = Rock
PS = Pollen Sample



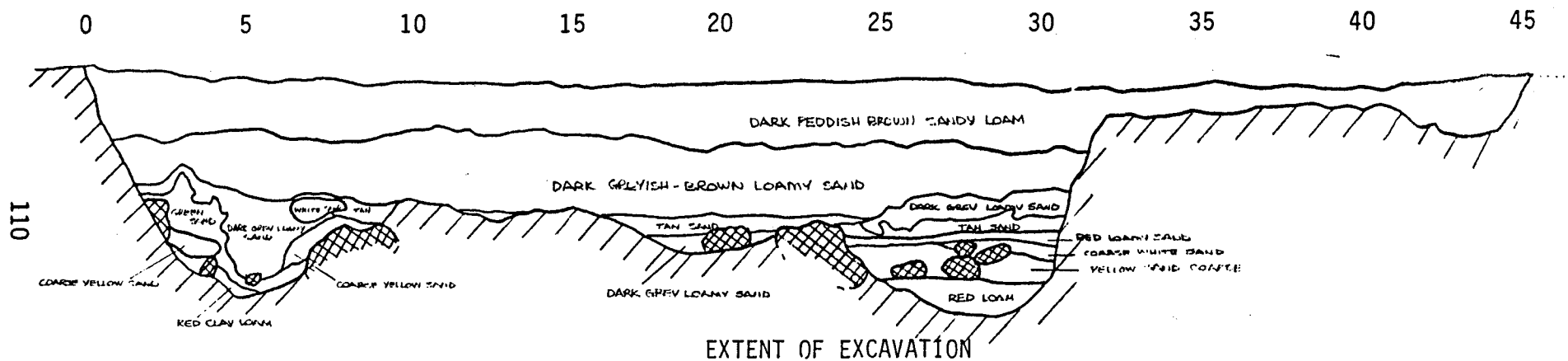
Scale in Feet
H = 1x
V = 2x

Length = 51'
Width = 24"/13"
Depth = 34"/12"

Figure 74

Project 14-36
50-30-05-1000
Profile of X-8
South Face

 = Rock



Scale in Feet

H = 1x

V = 2x

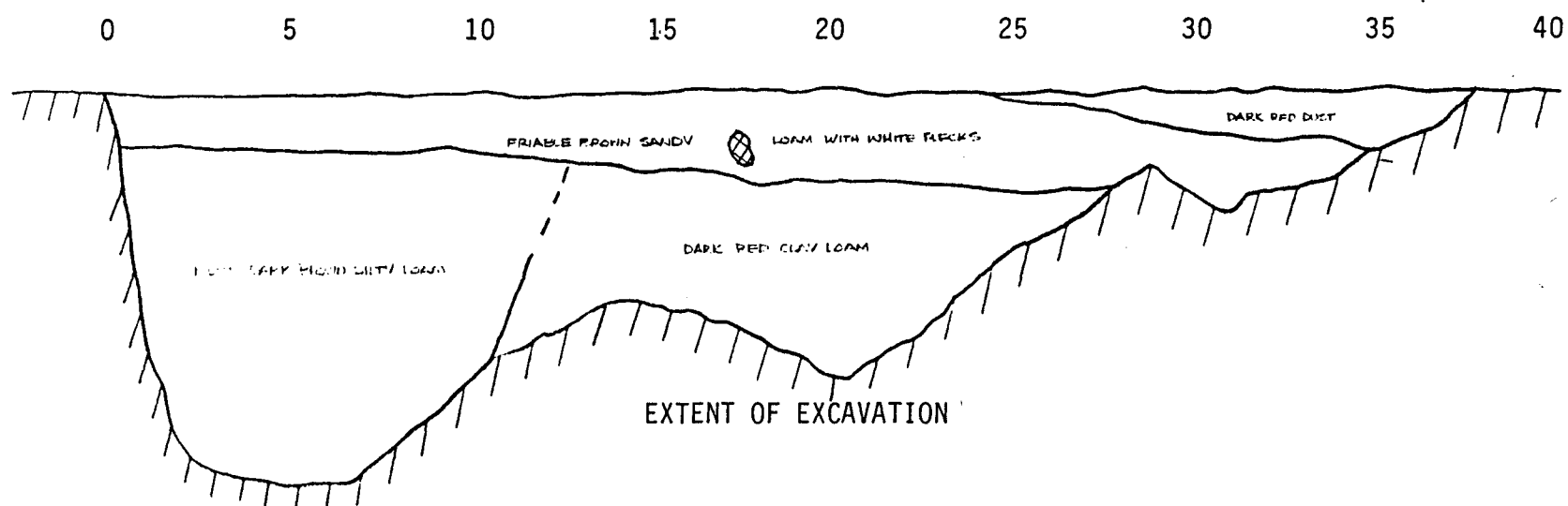
Length = 45'

Width = 28"/18"

Depth = 48"/12"

Figure 75

Project 14-36
50-30-05-1000
Profile of X-9
South Face



Scale in Feet

H = 1x

V = 2x

Length = 37'

Width = 24"/13"

Depth = 68"/8"

Figure 76

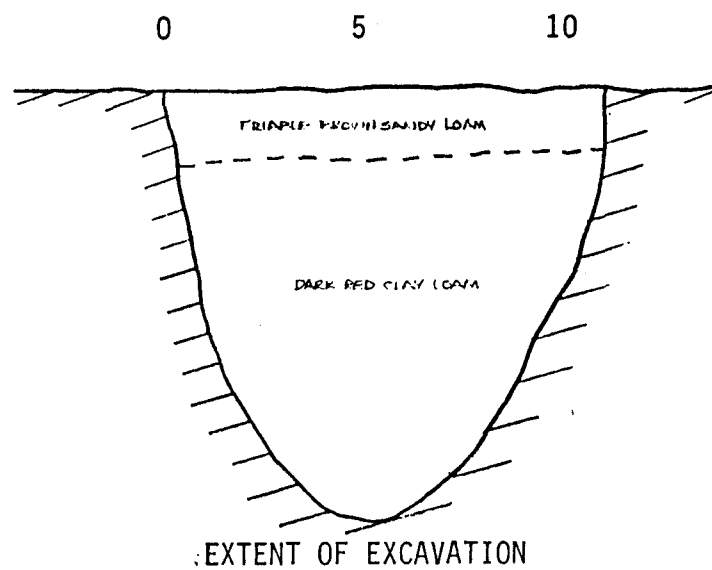
Project 14-36

50-30-05-1000

Profile of X-10

South Face

 = Rock



Scale in Feet

H = 1x

V = 2x

Length = 11"

Width = 24"/12"

Depth = 66"

Project 14-36
50-30-05-1000
Profile of X-11
North Face

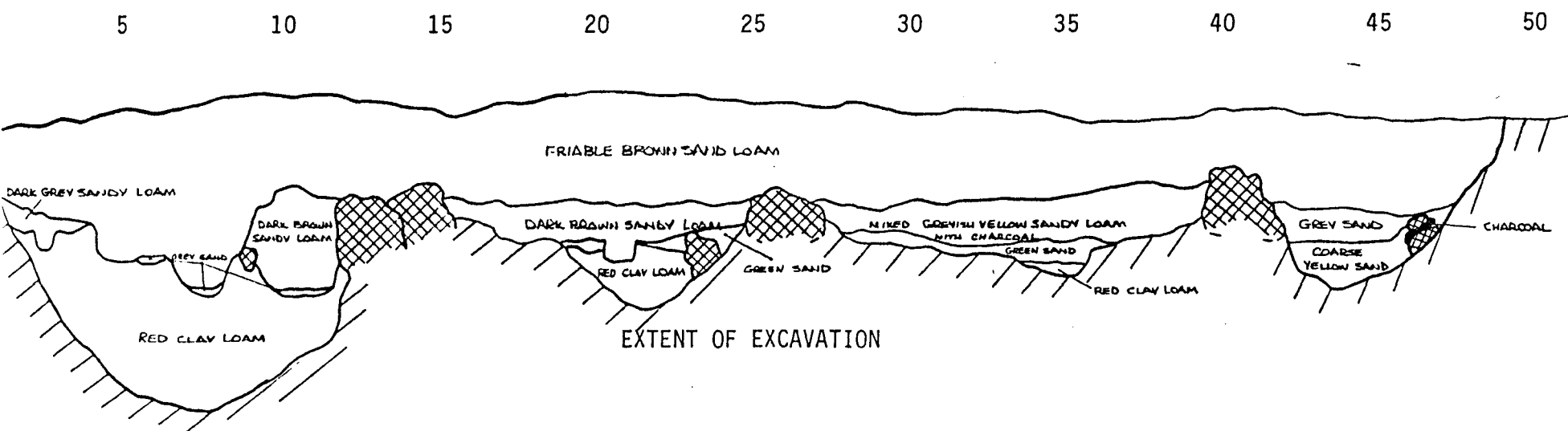
Figure 77

only about two to three feet. No archaeological material was found in any of these trenches and construction and landscaping activities may begin in that portion of Area "A" at any time.

Two soil samples were collected from the profile of trench X-3 at a depth of 6 inches and 2 feet, respectively (Figure 69). They have been submitted to the Soil Testing Service Laboratory of the University of Hawaii for analysis. A total of seven samples of soil were collected from the side of trench X-7 for the purpose of pollen analysis. These samples have been sealed in sterile plastic bags and have been submitted to State Parks Division, as required by contract, for analysis.

Following the excavation of trenches X-2 through X-7, seven trenches were excavated at the *makai* end of Area "A." The trenches within Area "A" revealed no evidence of human activity, though beach sand occurred near the bottom of trench X-9. In order to determine whether such evidence was to be found anywhere within the Area "A" *makai* boundary, three trenches (X-12, X-13 and X-14; Figures 78, 79, 80) were excavated along this boundary itself.

It was expected that a cultural deposit might be found in trench X-13, since excavations conducted by McCoy in 1972 revealed an apparent intact living surface, two simple structural features and several Hawaiian artifacts nearby at site 50-KA-05-1001 (McCoy 1972:33 ff.). The profiles of the present work shows that the strata in X-13 and X-14 that correspond to McCoy's cultural layers II and III were almost entirely destroyed through the preparation of the area as a field for the



Scale in Feet

H = 1x

V = 2x

Length = 49'

Width = 32"/13"

Depth = 57"/11"

Figure 78

Project 14-36

50-30-05-1000

Profile of X-12

South Face

 = Rock

Depth = $48''/14''$

Project 14-36
50-30-05-1000
Profile of X-13
South Face

 = Rock

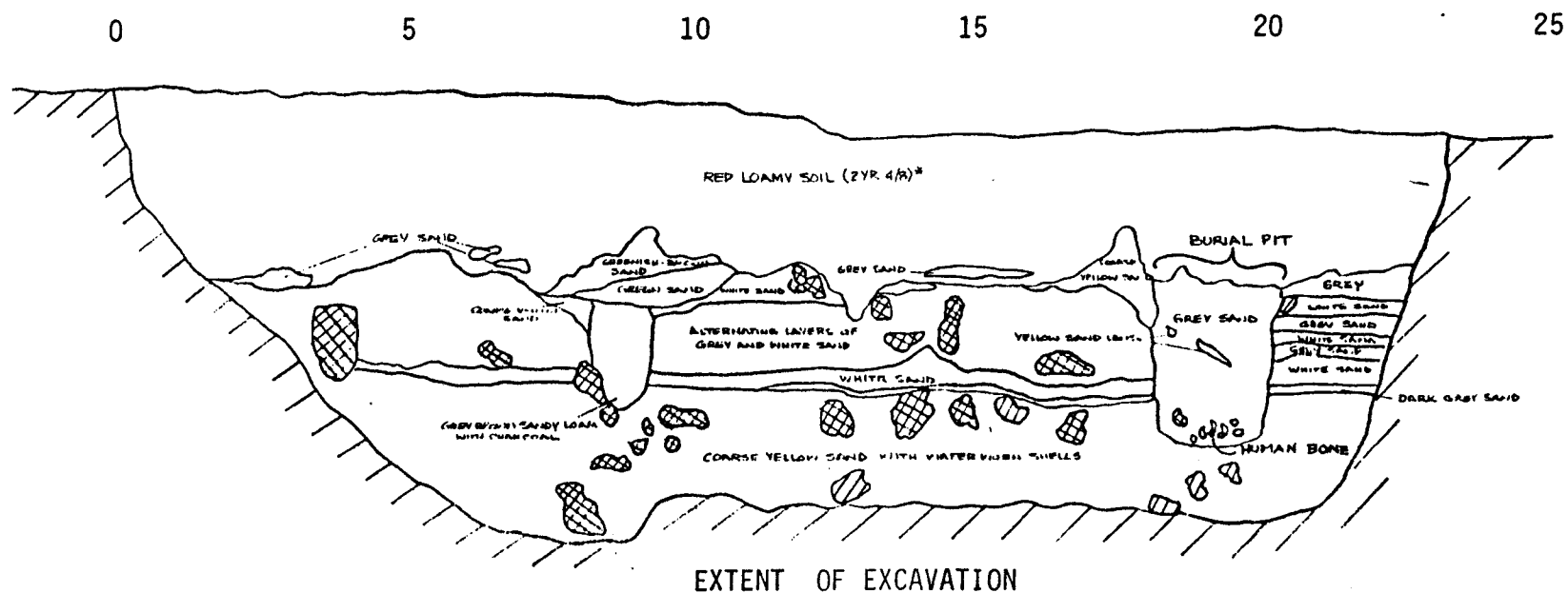
Figure 79



Figure 80
VIEW SHOWING BACKHOE TRENCHES X-9 AND X-13.



Figure 81
VIEW SHOWING BACKHOE TRENCH PROFILE DRAWING IN PROGRESS.



Scale in Feet

H = 1x

V = 2x

Length = 23'

Width = 24"/12"

Depth = 48"

* Munsell Soil Color Book

Figure 82

Project 14-36
50-30-05-1000
Profile of X-14
South Face

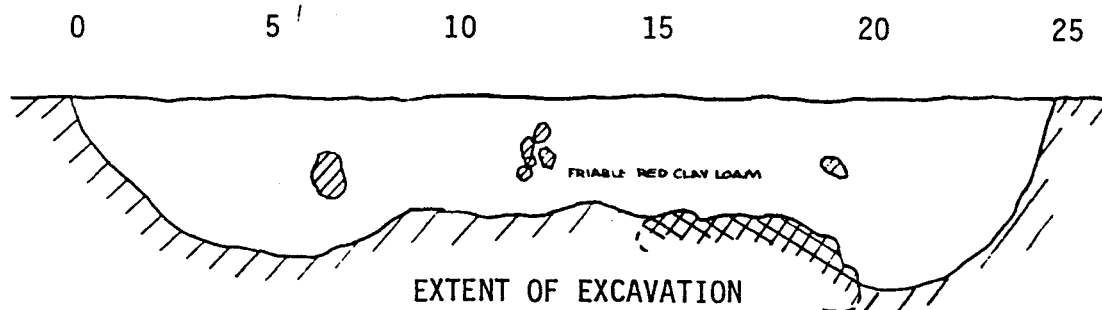
 = Rock
 = Coral



Figure 83
BONE FRAGMENTS FROM BURIAL DISCOVERED IN BACKHOE TRENCH X-14.



Figure 84
SOUTH FACE OF BURIAL FOUND IN BACKHOE TRENCH X-14.



Scale in Feet

H = 1x

V = 2x

Length = 25'

Width = 20"/13"

Depth = 30"/16"

Project 14-36

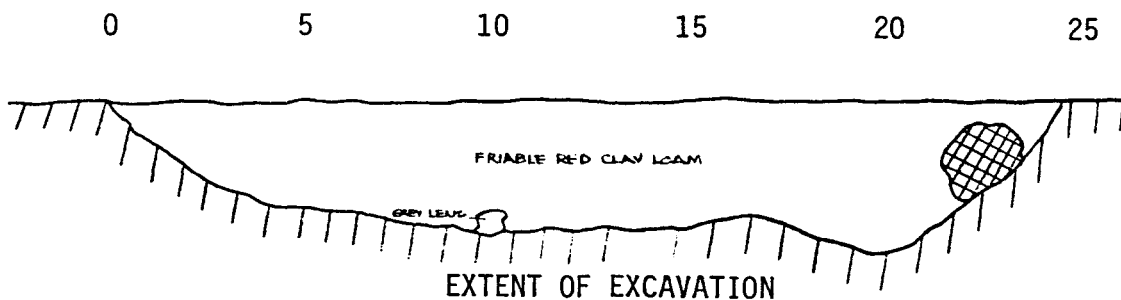
50-30-05-1000

Profile of X-15

South Face

Figure 85

 = Rock



Scale in Feet

H = 1x

V = 2x

Length = 24'6"

Width = 22"/15"

Depth = 24"/17"

Project 14-36

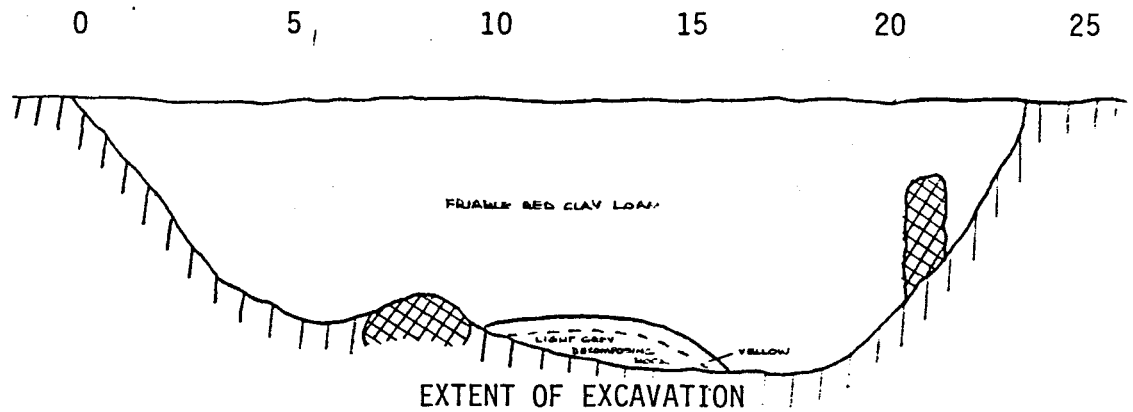
50-30-05-1000

Profile of X-16

South Face

Figure 86

 = Rock



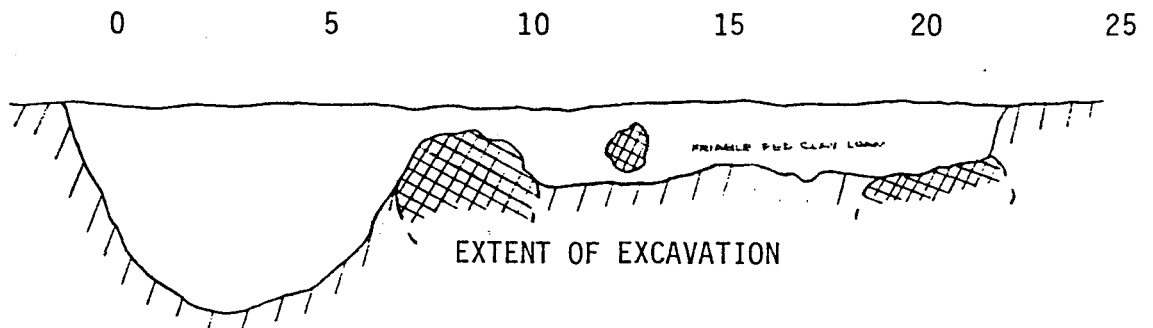
Scale in Feet
H = 1x
V = 2x

Length = 24'
Width = 24"/12"
Depth = 42"/30"

Project 14-36
50-30-05-1000
Profile of X-17
South Face

Figure 87

 = Rock



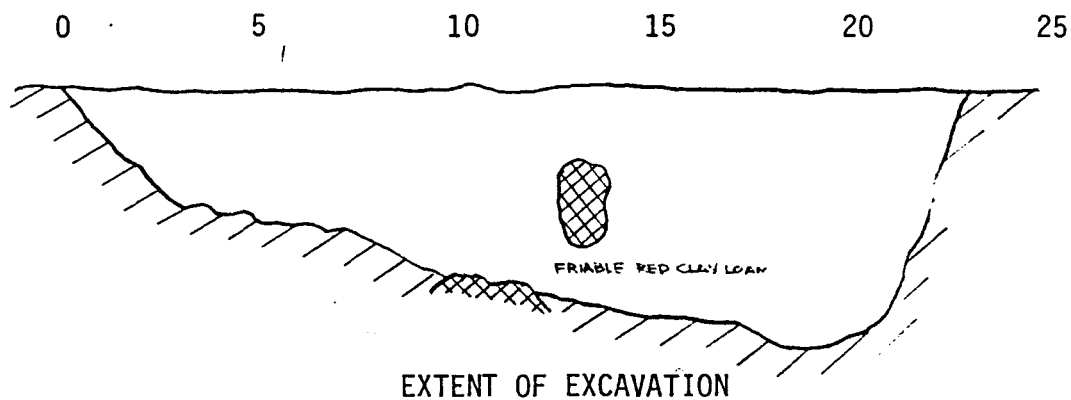
Scale in Feet
H = 1x
V = 2x

Length = 24'
Width = 20"/15"
Depth = 32"/4"

Project 14-36
50-30-05-1000
Profile of X-18
South Face

Figure 88

 = Rock



Scale in Feet

H = 1x

V = 2x

Length = 23'

Width = 24"/12"

Depth = 39"/18"

Figure 89

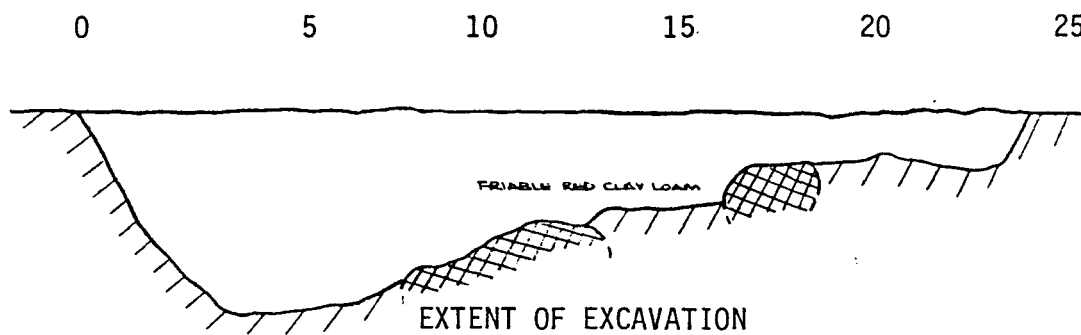
Project 14-36

50-30-05-1000

Profile of X-19

South Face

 = Rock



Scale in Feet

H = 1x

V = 2x

Length = 24'

Width = 20"/13"

Depth = 31"/7"

Figure 90

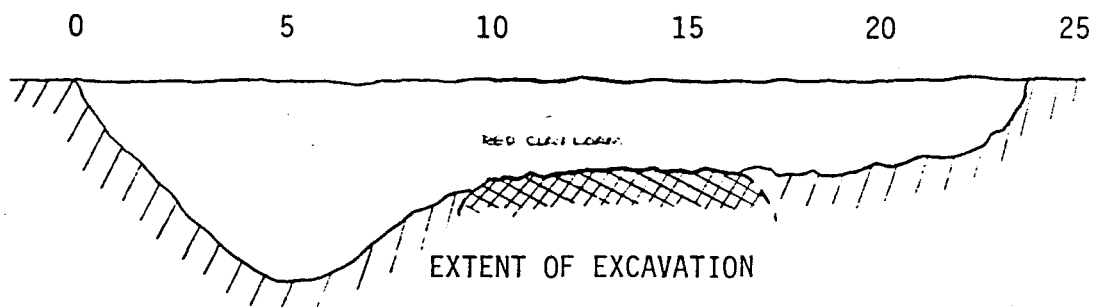
Project 14-36

50-30-05-1000

Profile of X-20

South Face

 = Rock



Scale in Feet

H = 1x

V = 2x

Length = 24'6"

Width = 20"/12"

Depth = 31"/12"

Project 14-36

50-30-05-1000

Profile of X-21

South Face

 = Rock

Figure 91

cultivation of sugarcane. The uppermost layer in the profiles of X-13 and X-14 is a reddish loam resembling the loam of the *mauka* trenches. Its position and homogeneous nature indicate that this layer is the plow zone and that whatever culture-bearing layers once existed in this area have been destroyed and thoroughly mixed by plowing.

Between the plow zone and the bedrock and red clay that form the lower limit of the trenches are a series of strata that seem to represent a complex sequence of erosion and deposition. Most of these strata appear to have been deposited by marine wave action since they are identical with beach sands of various colors and textures found along this coast of Kaua'i. It is not the purpose of this preliminary report to present an analysis of the geologic history of this portion of Area "A" as indicated by these stratigraphic sections. However, it should be noted that three archaeological features were found to be associated with the above-mentioned sand strata.

The three cultural features include a possible *imu* (underground oven) and a burial in the west face of trench X-13 and a second burial that was unfortunately partially destroyed by the backhoe during the excavation of X-14 (Figure 84). The human remains found in the west face of trench X-13 consist of a few phalanges (finger bones) and fragments of long bones that were broken beyond identification by the backhoe. It is probable that the backhoe disturbed only a small portion of the burial. The orientation and position of the body could not be determined. It is apparent that this burial is the older of the two cultural features in X-13 since it is partially overlain by the coarse yellow beach sand into which the *imu* was originally excavated. It appears that the south side and the top of the fill of the pit in which the

human remains were placed were eroded before the deposition of the beach sand.

The broad, shallow pit in the north half of trench X-13 is tentatively identified as an *imu* on the basis of its general shape and the presence of abundant charcoal on its floor. A sample of this charcoal was collected so that the approximate age of the pit could be determined by carbon-14 analysis at some future time, if such analysis is deemed necessary.

The second burial pit is shown in the profile of trench X-14 (Figure 82, 84). The human remains, situated at the bottom of the pit, were evidently in a fully extended position since phalanges and broken pelvic and femur bones were found in the *makai* (southwest) face of the trench and the broken ends of tibia and fibula bones were found in the *mauka* (northeast) face.

Seven additional test trenches (X-15 through X-21) were excavated along the western boundary of the central section of Area "A" (Figures 85-91). The underlying bedrock limited the depth of the trenches to an average of two to three feet. The profiles exhibited a homogeneous layer of dusk-red silty clay loam. No plow zone was distinguishable, and no evidence of human activity was found.

On the basis of the nature and stratigraphic position of the cultural remains, we recommend that no construction activities take place *makai* of trenches X-9 and X-11, though grass may be planted in this area if deleterious affects are limited to less than the 18 inch depth of the plow zone.

Based on the above findings of the Preliminary Field excavations and Archaeological Research, as corroborated by the historic evidence considered to date, The Archaeological Research Center Hawaii, Inc. can grant clearance for the following contemplated construction and landscaping activities (those activities to be undertaken by Division of State Parks):

The planned parking lot and restroom facilities can be constructed in the area designated for that use. Grass may now be planted in all of Area "A" (Figure 67) if it can be shown that grass roots will not go deeper than 18 inches below the present surface.

Water and sprinkler lines may be layed in all of Area "A", except for an area set back 100 feet in from *makai* boundary of "A". (Figure 67) This approximately coincides with a line drawn from test trenches X-9 and X-11.

KEY TO FIGURE 92

1. Steps At (SE) Corner - AB
2. Steps At (S) Corner - CD
3. Steps At (SW) Corner - EF
4. Steps At (WSW) Corner - GH
5. Steps At (NW) Corner - IJ
6. Steps At (N) Corner - KL
7. Steps At (E) Corner - MN
8. "L" Shaped Rock Alignment
9. Officers Quarters
10. Rock Mound
11. Guard Room
12. Pathway To Armory and Magazine
13. Armory Area
14. Magazine
15. Entrance
16. Pathway to Barracks

17. Barracks
 - A. Square Alignment on West Side of Barracks
 - B. Rectangular Alignment on West Side of Barracks
 - C. Rectangular Alignment on West Side of Barracks
 - D. Rectangular Alignment on West Side of Barracks
 - E. Alignment on South Side of Barracks
18. Rectangular Platform Identified as Possible Grave
19. Unidentified Stone Alignment Near Corner HI
20. Flagstaff
21. Stone Alignment Between Barracks and Corner MN
22. Wall and Enclosure Between Walls G and H. Function Unknown. Possible Tunnel Entrance
23. Quarters Point 8
24. Rock Mound
25. Enclosure Adjacent to Wall A Near Corner NA. Possible Hawaiian House Site
26. Enclosure Adjacent to Wall A Near Corner AB. Possible Hawaiian House Site
27. Unknown Stone Alignments
28. Quarters at Corner CD
29. Rectangular Stone Outline. Function Unknown

There are 28 interior features within the Fort. These include:

- 6 Alignments, Function Unknown,
- 1 Armory,
- 1 Barracks,
- 1 Burial, Possible,
- 1 Flagstaff,
- 1 Guard Room,
- 2 Hawaiian House Sites,
- 1 Magazine,
- 2 Mounds, Rock, Function Unknown,
- 2 Pathways,
- 3 Quarters,
- 7 Steps

Eleven of these do not appear on Jackson's map for one reason or another. While seventeen are identified by Jackson (1885).

McCoy identifies 3 of these features as 2 house sites and 1 possible burial. No function is assigned to 8 of the remaining features.

For clarification purposes, the Fort walls have been numbered as follows:

- A. Exterior Facing, E. N to S Axis. Past Alteration Caused By Facing of Interior Side. Approximately 26 m Long.
- B. Exterior Facing S. E to W Axis. Two Gunbanks on Top. Approximately 20 m Long.
- C. Exterior Facing W. One Gunbank 22 m Long.
- D. Exterior Facing W. One Gunbank 22 m Long.
- E. Exterior Facing SE. Three Gunbanks. Stepped Front Wall 25 m Long.
- F. Exterior Facing W. Two Gunbanks. 29 m Long.
- G. Exterior Facing S. Two Gunbanks. Stepped Facing at Point. 23 m Long.
- H. Exterior Facing NW. Tunnel Possibly Built Through This Section. 28 m Long.
- I. Exterior Facing SW. 25 m Long.
- J. Exterior Facing N. East End Terminates at Gate. 23 m Long.
- K. Exterior Facing NW. Exterior Upright Stone in Facing. Jog at N End. 48 m Long.
- L. Exterior Facing NE. Low Wall. Parapet on N Side of Top. One Gunbank. 42 m Long.
- M. Exterior Facing E. Low Wall. Stepped Exterior Wall. 46 m Long.
- N. Exterior Facing SSW. Possible Alteration Caused by Facing Interior Side. Approximately 27 m Long.

The *makai* walls average 4.5 meters in height, while the *mauka* walls average 2.5 meters in height.

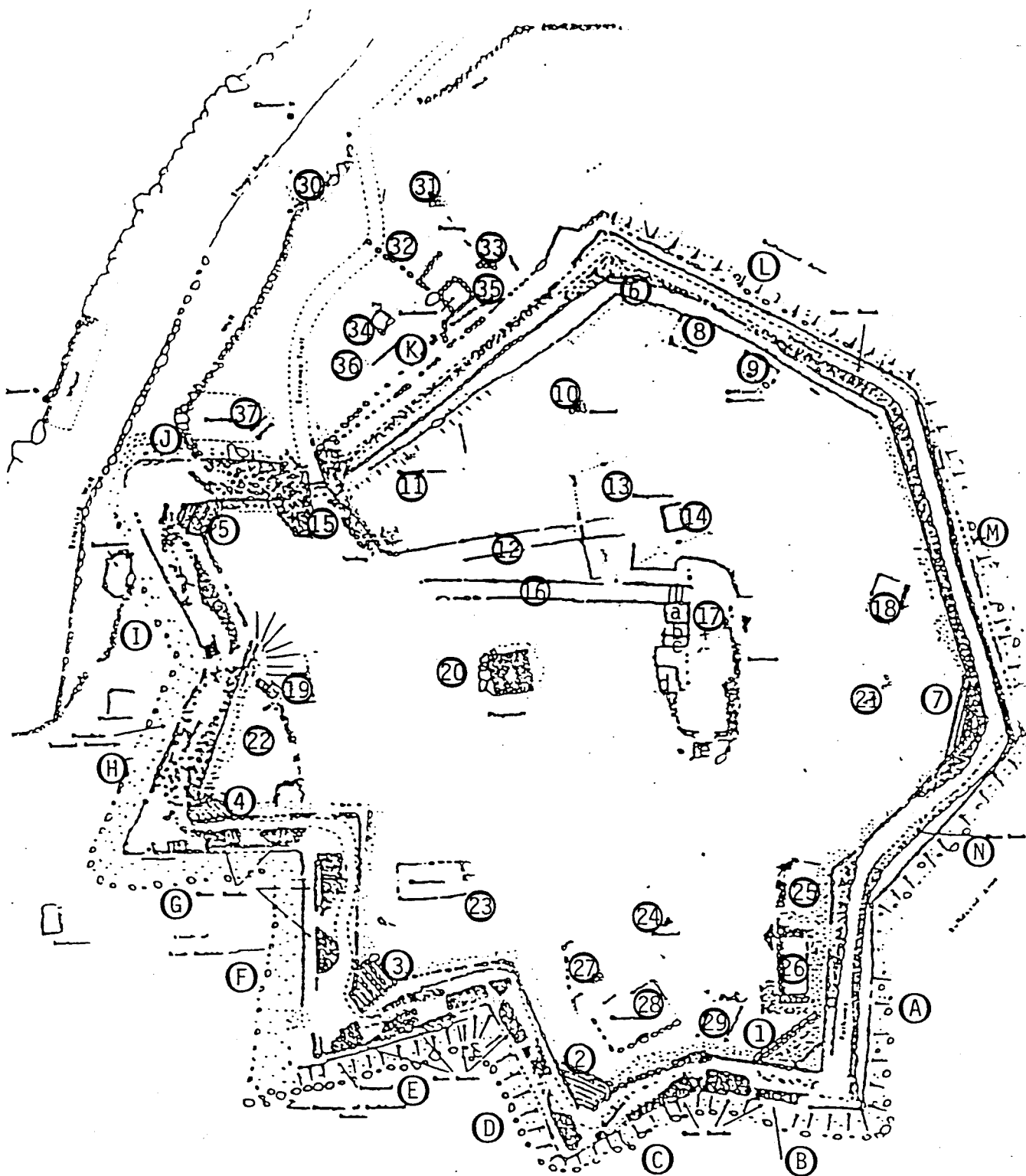


Figure 92
WALL AND CONSTITUENT FEATURE DESIGNATION MAP