**DESCRIPTION:** Feature G is located 12.0 m southeast from Feature F. The pahoehoe excavation is roughly rectangular shape in plan and is excavated through the first layer of pahoehoe. The thickness of the excavated face is c. 14-22 cm with the maximum depth of the hole at 70cm.

The quarried blocks are located immediately NE of the excavated area in a concentrated pile. The blocks range in size from 5x3x6 cm to 70x40x18 cm. The floor of the excavation is fairly cleared of material.

At least three coconut shell fragments were present and located at c. 1.80 m at 90 degrees from the south corner of the excavated area.

FEATURE H: Pahoehoe excavation

**FUNCTION:** Quarry

**DIMENSIONS**: 5.45 m by 4.53 m by 0.20 m

**DESCRIPTION:** A pahoehoe excavation situated on a small pahoehoe blister and upthrust area. The associated blocks are piled above the hole to the NW. There is evidence of other obvious displacement and movement of naturally broken up cobbles in the immediate area. The randomly placed pahoehoe blocks range in size from 8x3x4 cm to 85x43x14 cm. The feature is 10.40 m southwest from Feature A.

FEATURE I: Pahoehoe excavation

**FUNCTION:** Quarry/possible water catchment **DIMENSIONS:** 2.53 m by 2.36 m by 0.42 m

**DESCRIPTION:** Located 8.80 m southwest from Feature A, this excavation is roughly oval shape in plan. The excavated hole measures 1.35 m by 1.56 m with the excavated face ranging 0.14-0.42 cm thick. The floor of the excavation is covered with small angular cobbles. A small pile of excavated blocks are set on the northern half of the hole. One coconut fragment, a waterworn pebble, rusty metal and c.5 cm of loose brown silty loam are visible on the floor of the excavation.

FEATURE J: Pahoehoe excavation

**FUNCTION: Quarry** 

**DIMENSIONS:** 1.47 m by 1.24 m by 0.24 m

**DESCRIPTION:** The top layer of pahoehoe has been excavated in a small area along a large fault face. The maximum depth of the fault is c. 0.7 m. Ten quarried blocks are piled below the excavated face. A few small angular cobbles fill the crack of the fault. It is located 17.44 m southwest from Feature A.

FEATURE K: Pahoehoe excavation

**FUNCTION:** Quarry

**DIMENSIONS**: 4.85 m by 3.86 m by 0.34 m

**DESCRIPTION:** One face along a slightly faulted crack has been excavated. The average thickness of the excavated face is c. 0.20 m. A total of c. 16 quarried blocks are in the immediate area. Two large blocks are located 2-3 m to the south, and c. ten smaller blocks are scattered below to the north and to the east of the feature. At least 4 cm of loose brown silty loam has accumulated in the excavation, which is located 34.8 m south from Feature A.

FEATURE L: Pahoehoe excavation

**FUNCTION:** Quarry

**DIMENSIONS**: 2.44 m by 1.29 m by 0.31 m

**DESCRIPTION:** A rectangular opening measuring c. 0.47 m by 1.24 m. The maximum depth of the hole is c. 0.92 m. All four sides have been excavated and the quarried material piled in the immediate area directly SE of the excavation. The floor is composed of smooth pahoehoe sloping into a cave-like area. It is located 25.6 m southwest from Feature A.

A large soil deposit of black silty loam is present in the cave-like area. The soil is moist throughout the entire area, with a depth of c. 5 cm. The soil area measures c. 1.6 m by 3.0 m.

Southeast and c. 0.9 m from the excavated face are large boulders in another possible excavated area.

FEATURE M: Petroglyph FUNCTION: Rock art

**DIMENSIONS:** 0.34 m by 0.33 m by 0.00 m

**DESCRIPTION:** Feature M consists of lines that appears to represent a human figure. It is c. 1.0 mm maximum thickness, faint and difficult to distinguish. It is located 28.43 m from Feature A at 254 degrees Az.

FEATURE N: Petroglyph FUNCTION: Rock art

**DIMENSIONS**: 0.84 m by 0.64 m by 0.00 m

**DESCRIPTION:** Feature N consists of a series of superimposed lines and geometric shapes engraved into the smooth pahoehoe at a maximum depth of 5.0 mm. Some of these shapes appear to be letters. Two volcanic glass flakes are present. The petroglyph is 6.23 m from Feature Mat 317 degrees Az.

FEATURE O: Petroglyph FUNCTION: Rock art

**DIMENSIONS:** 0.80 m by 0.60 m by 0.00 m

**DESCRIPTION:** Feature O contains pecking marks in a small area on top of pahoehoe surface. The maximum depth is 4.0 mm. It is situated immediately SE of Feature P.

**FEATURE P:** Petroglyph FUNCTION: Rock art

**DIMENSIONS:** 0.62 m by 0.20 m by 0.00 m

**DESCRIPTION**: Situated on top of smooth pahoehoe it has been pecked to a maximum depth of 4.0 mm. The petroglyph consists of a series of the letters U, H, A and N.

It is 1.40 m east from Feature N.

FEATURE R: Petroglyph FUNCTION: Rock art

**DIMENSIONS:** 0.37 m by 0.26 m by 0.00 m

**DESCRIPTION:** Appears to be the letters NA or VN engraved into smooth pahoehoe surface. Maximum depth of engraving is c. 4.0 mm. It is located 1.00 m east from Feature P.

FEATURE S: Petroglyph FUNCTION: Rock art

**DIMENSIONS:** 1.10 m by 0.28 m by 0.00 m

DESCRIPTION: The letters N, E and A engraved on smooth pahoehoe flow. The letters are spaced 0.20 m apart and oriented in different directions. Located 1.60 m east from Feature R.

FEATURE T: Enclosure

FUNCTION: Habitation/agriculture

**DIMENSIONS:** 8.20 m by 5.30 m by 0.57 m

**DESCRIPTION**: Generally rectangular shape in plan. It is constructed with angular pahoehoe boulders and cobbles some of which appear to have been quarried. They range in size from 15x12x8 cm to 54x45x24 cm and are stacked c. two courses high. The floor interior contains scattered small cobbles and pebbles, with rough alignments visible along the NW and SE walls. Brown silty loam is present in crevices both inside and outside the enclosure. A single N. picea shell fragment was observed inside the enclosure.

FEATURE U: Petroglyph FUNCTION: Rock art

**DIMENSIONS:** 0.52 m by 0.49 m by 0.01 m

**DESCRIPTION:** A petroglyph with geometric lines that is possibly animal like in form. It is situated on the WNW slope of the kipuka. In addition, there are c. seven angular rocks scattered south and northeast of the feature. The rocks average in size of 20x21x11 cm.

**FEATURE V:** Petroglyph FUNCTION: Rock art

**DIMENSIONS**: 0.31 m by 0.29 m by 0.002 m

**DESCRIPTION:** A human figure is carved into smooth pahoehoe, 20.57 m from Feature A at 273 degrees Az. The

petroglyph is 2.00 mm deep.

FEATURE W: Mound

FUNCTION: Possible agriculture/possible quarry **DIMENSIONS:** 6.38 m by 2.48 m by 0.40 m

**DESCRIPTION:** A rock concentration of excavated pahoehoe blocks and boulders scattered among the slope of a smooth pahoehoe surface. The excavated blocks may have been removed from Features X and Y, which are pahoehoe excavations. It is located 21.82 m from Feature A at 267 degrees Az.

FEATURE X: Pahoehoe excavation

**FUNCTION:** Ouarry

**DIMENSIONS**: 0.75 m by 0.52 m by 0.22 m

**DESCRIPTION:** The excavated face ranges in thickness from 18-22 cm. Only the northeast face appears to have been excavated and the blocks removed. The floor is composed of cleared, smooth pahoehoe; some rubble occurs along the southeast side of the excavation, however, it appears that much of the excavated stone is not in the immediate vicinity of the excavation. Some of the stones may have been carried to mounds at Features T and W.

FEATURE Y: Pahoehoe excavation

**FUNCTION: Quarry** 

**DIMENSIONS:** 5.64 m by 3.38 m by 0.38 m

**DESCRIPTION:** A pahoehoe flow with numerous excavated faces and natural cracks from which basalt blocks have been removed. Most of the quarried materials have been removed from the immediate vicinity of the excavation, except for two large boulders situated directly in front of the northeast face. Cobbles are scattered throughout the immediate area. Located 20.38 m from Feature A at 287 degrees Az.

(Figure A-11) **SITE NO.:** State: 13281 PHRI: T-28

**SITE TYPE**: Complex (2 Features)

TOPOGRAPHY: Situated at the base and along the NE facing slope of the kipuka rim. The rim is upthrust and major slabs are oriented nearly vertical.

VEGETATION: Christmas-berry, lantana, and noni in the

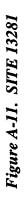
immediate area. ELEVATION: c. 15 feet **CONDITION:** Good **INTEGRITY:** Unaltered

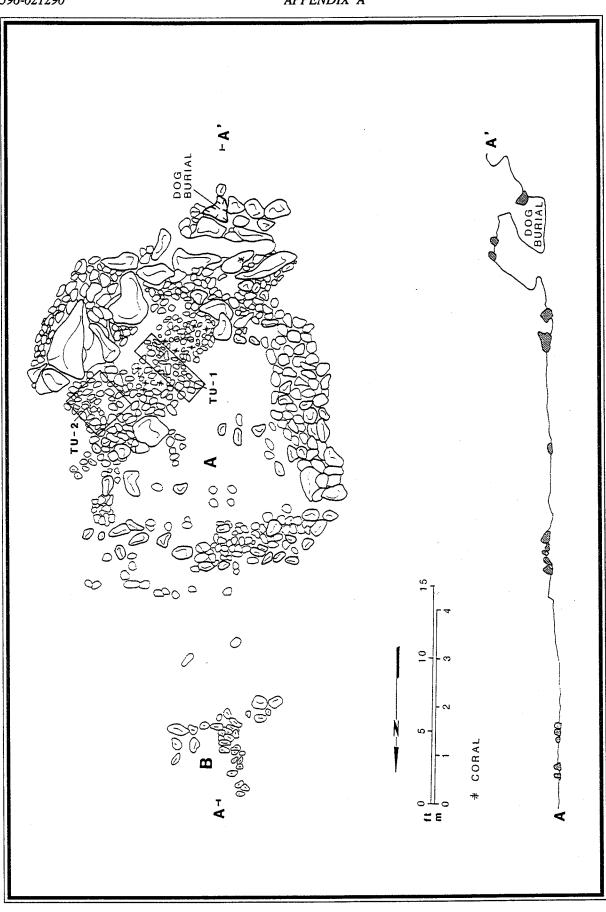
PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Possible ceremonial Overall complex area measure DESCRIPTION: c. 14.5 m (N-S) at 190 degrees by 10.5 m (E-W). The site consists of an enclosure (Feature A) and a small C-shape (Feature B).

FEATURE A: Enclosure

FUNCTION: Possible ceremonial





**DIMENSIONS**: 10.50 m by 9.30 m by 0.90 m

**DESCRIPTION:** The enclosure is roughly rectangular shaped in plan. The interior measures c. 4.8 m (N-S) by 3.05 m (E-W). The walls are loosely stacked, three courses high, with mined and natural pahoehoe slabs and boulders. The average wall height is 0.45 m. Segments of the wall appears somewhat faced especially in the northwest interior corner.

The exterior ground surface along the western wall is slightly higher than the interior floor surface. It is c. 0.60 m from the interior floor surface to the top of the wall and c. 0.30 m from the exterior ground surface to the top of the wall. The south end of the wall goes up onto the natural upright slabs and circles around on the south side between two large natural slabs.

A terrace-like filled area occurs inside the enclosure, against the base of natural upthrusted slabs that rise 1.10 m above the fill level. The filled area is 2.8 m long and has a maximum width of 1.80 m. It is built with mostly slab-like pieces laid flat over a slightly sloping surface, with c. 20 pieces of branch coral on top and intermixed with the fill. The east wall of the enclosure defines the east end of the fill area. Along the west side is a perimeter alignment of larger blocks.

To the north side of the filled area is a rock pile which measures 1.10 m (N-S) by 0.60 m (E-W) by 0.47 m average height. This pile is aligned with the enclosure wall and consists of large pahoehoe cobbles and blocks.

There is a small cave on the upper level, just south of the enclosure wall and at the lower bedrock upthrust. The opening is triangular shape in plan and measures c. 0.57 m by 0.50 m and 0.52 m high at the opening. The interior of the cave contains the skeletal remains of a small dog.

A 1.20 by 0.50 m test trench was excavated across the filled terrace-like area, in order to determine if subsurface features or deposits were present. The fill was found to be an average of 0.06 m thick over pahoehoe bedrock. Three waterworn pebbles were observed in the fill, in addition to several pieces of branch coral. One echinoid spine was also encountered at the base of the fill. No soil was encountered.

A 1.00 by 1.00 m square test unit was excavated into the rock pile located adjacent to the filled area. The pile was found to consist of 32 large cobbles and boulders (up to 40x20x12 cm), and 10 pebbles. It was constructed on a sloping pahoehoe surface which has no soil or other deposits present.

FEATURE B: C-Shape FUNCTION: Indeterminate

**DIMENSIONS**: 2.10 m by 1.40 m by 0.30 m maximum

A-29

height

DESCRIPTION: Feature B is constructed with aligned and stacked pahoehoe blocks. It is located 3.50 m north from the Feature A enclosure wall, on smooth, bare pahoehoe. The C-shape opens to the north with scattered stone present around the opening; it may have been circular in plan at one time. The interior area is quite small and contains no deposits or portable remains. This feature does not appear to have functioned as a temporary habitation shelter.

**SITE NO.:** State: 13282 PHRI: T-29

SITE TYPE: Alignment

TOPOGRAPHY: Smooth flat pahoehoe terrain. VEGETATION: Thick grass, small <u>'ilima</u>, and yellow

flowering weeds.

ELEVATION: c. 15 feet
CONDITION: Poor
INTEGRITY: Altered

PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Indeterminate

**DIMENSIONS**: 8.20 m by 3.57 m by 0.42 m

**DESCRIPTION:** The site consists of two alignments and rock scatter on top of a smooth pahoehoe field. The northwest alignment consists of single blocks placed end to end. The north end of the alignment is a fairly incoherent pile of blocks two courses high. The southeast alignment consists of seven blocks, only two of which are touching.

At the southwest end of the site are two concentrations of angular pahoehoe blocks, one small pile of 11 blocks, and a larger scattering of angular blocks with no formal pattern. These blocks range in size from 17x8x21 cm to 52x26x24 cm. Small blocks, averaging 11x9x4 cm in size, are used to fill in the natural cracks at the northeast end. One waterworn stone measuring 10x7x5 cm is present.

SITE NO.: State: 13283 PHRI: T-31 SITE TYPE: Complex (6 Features)

TOPOGRAPHY: Top of smooth pahoehoe ridge. VEGETATION: Sparse grasses, a few small <u>'ilima</u> bushes,

and some small Christmas-berry trees.

ELEVATION: c. 15 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Indeterminate

**DIMENSIONS:** 4.62 m by 2.40 m by 0.33 m

**DESCRIPTION:** The site consists of a rock alignment in addition to five pahoehoe excavated areas. The total area

including the pahoehoe excavations measures c. 32.0 m by 37.5 m.

The rock alignment is constructed with blocks and slabs of pahoehoe in a C-shape plan. It is constructed one to three blocks high with a small pile of slabs located c.  $0.5 \, \text{m}$  west of the alignment. The blocks range in size from  $11x10x3 \, \text{cm}$  to  $45x38x33 \, \text{cm}$ .

Five excavated pahoehoe blister areas with associated piles of blocks are in the area. The measurements average c. 1.0 m by 0.64 m. The excavated face thickness is c. 12.0 m and the maximum depth is c. 26.0 m. The excavated blocks average 54x42x9 cm.

Two waterworn basalt hammerstones were noted 3.0 m north of the alignment; they exhibit pecking and battering on both ends.

**SITE NO.:** State: 13284 PHRI: T-32 **SITE TYPE:** Complex (4 Features)

**TOPOGRAPHY**: Small ridge of smooth and ropy pahoehoe. **VEGETATION**: Thick to moderate density of grass, small

'ilima, and koa-haole and kiawe bushes.

ELEVATION: c. 9-20 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

**FUNCTIONAL INTERPRETATION:** Possible agriculture **DESCRIPTION:** Overall site complex area measures c. 55.0 m (N-S). It consists of pahoehoe slabs and blocks placed in four concentrated areas.

**FEATURE A:** Rock concentration **FUNCTION**: Possible agriculture

**DIMENSIONS:** 1.27 m by 1.20 m by 0.40 m

**DESCRIPTION:** Feature A consists of seven pahoehoe slabs with surface cortex and eight pahoehoe blocks. The blocks range in size from 15x11x3 to 42x28x17 cm. Some of the stones are placed on edge in a small concentrated area and stacked to two courses high.

**FEATURE B:** Rock concentration **FUNCTION**: Possible agriculture

**DIMENSIONS**: 2.90 m by 2.80 m by 0.30 m

**DESCRIPTION:** A rock concentration consisting of 20+ pahoehoe slabs stacked one to two courses high on top of smooth pahoehoe surface. The slabs range in size from 16x13x4 cm to 60x27x6 cm. No obvious form or pattern is evident. This feature is located 46.80 m from feature A at 12 degrees Az.

FEATURE C: Rock concentration

FUNCTION: Agriculture

**DIMENSIONS**: 2.60 m by 2.10 m by 0.52 m

**DESCRIPTION**: Feature C is a pile of 20 pahoehoe slabs situated on the northeast slope of a ridge. It lies on smooth, ropy pahoehoe and is surrounded by fountain grass, <u>'ilima</u>, <u>kiawe</u> trees and an unidentified weed. The dimensions of the slabs range from 17x10x4 cm to 88x42x11 cm. This feature is located 53.5 m from Feature A at 348 degrees Az.

**FEATURE D:** Rock concentration **FUNCTION**: Possible marker

**DIMENSIONS**: 1.70 m by 1.50 m by 0.30 m

DESCRIPTION: Amorphous in plan view, it is constructed

with pahoehoe blocks and slabs.

SITE NO.: State: 13285 PHRI: T-33 SITE TYPE: Complex (12 Features)

TOPOGRAPHY: Along a ridge of pahoehoe oriented E-W, and one large upthrust of faulted area north of the

ridge.

VEGETATION: Moderate density of fountain grass, lantana, <u>'ilima, kiawe</u> bushes, and a few small Christmas-berry

trees.

ELEVATION: c. 9 feet CONDITION: Good INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric-early historic

FUNCTIONAL INTERPRETATION: Quarry/agriculture DESCRIPTION: This site contains a total of twelve pahoehoe excavated areas consisting of seven excavated faults, three excavated blisters and two excavated cracks. Six of these features have cleared floors, and two of these have no associated excavated material present. The other features have quarried blocks in the interior of the excavated area. The average excavated area is c. 1.6 m and the thickness ranges from 16-28 cm with the maximum depth at 70 cm. Overall site area is 57.00 m by 56.40 m. Additional areas are visible where pahoehoe is naturally cracked and possibly displaced. One Cypraeidae shell fragment and two shotgun shells were noted on the surface.

SITE NO.: State: 13286 PHRI: T-34 SITE TYPE: Complex (10 Features)

TOPOGRAPHY: Smooth pahoehoe ridge oriented c. NE-

SW.

**VEGETATION**: Moderate density of fountain grass, small

<u>'ilima</u>, and <u>koa-haole</u> bushes. **ELEVATION**: c. 13-17 feet **CONDITION**: Good **INTEGRITY**: Unaltered PROBABLE AGE: Prehistoric-early historic

FUNCTIONAL INTERPRETATION: Indeterminate/

markers/possible agriculture

**DESCRIPTION**: Overall complex area measures c. 31.0 m (NE-SW) by 74.0 m (NW-SE). The site consists of an alignment of four cairns (Feature A), a mound (Feature B), an alignment (Feature C), a rock concentration (Feature D), a mound (Feature E), a wall (Feature F), and four concentrated areas of boulders, slabs and stacked pahoehoe slabs (Features G to J).

**FEATURE A:** Alignment of cairns **FUNCTION**: Possible marker

**DIMENSIONS**: 2.14 m by 0.64 m by 0.40 m

**DESCRIPTION:** Feature A consists of four short stacks or piles of pahoehoe slabs in an alignment that is oriented c. SE-NW. The cairns are single stacked to five courses high. The slabs of pahoehoe are fairly uniform in size and are placed on top of smooth pahoehoe. The stacks range in dimensions from 30x28x16 cm to 77x50x40 cm.

FEATURE B: Mound

**FUNCTION:** Possible agriculture/marker **DIMENSIONS:** 8.25 m by 2.10 m by 0.21 m

**DESCRIPTION:** This feature lies on top of a small ridge. It consists of a circular pile of pahoehoe slabs on an area of smooth pahoehoe. Tweny-five pahoehoe slabs have been moved from an unknown area and placed in a nearly circular form on top of a small ridge. The northwest side of the feature is double stacked and the southeast side of the feature is single stacked. The smallest pahoehoe slab measures c. 9x5x2 cm and the largest pahoehoe slab measures c. 30x39x6 cm. This feature could possibly be a collapsed cairn. It is located 12.20 m from Feature A at 323 degrees Az.

**FEATURE C:** Alignment/low wall **FUNCTION**: Indeterminate

**DIMENSIONS**: 1.36 m by 0.62 m by 0.26 m

**DESCRIPTION:** A small semicircular alignment of pahoehoe slabs, single to three slabs high. It consists of two single slabs of pahoehoe placed next to each other with a stack of three slabs on one end. The slabs range in size from 36x25x10 cm to 55x50x6 cm. Located 5.70 m from Feature A at 28 degrees Az.

**FEATURE D:** Rock concentration **FUNCTION**: Possible marker

**DIMENSIONS**: 0.50 m by 0.38 m by 0.17 m

**DESCRIPTION**: A concentration of six small pahoehoe slabs, four of which are in a single stack. Located 5.70 m northeast from Feature C.

FEATURE E: Mound

FUNCTION: Marker/indeterminate

**DIMENSIONS**: 3.40 m by 2.15 m by 0.31 m

**DESCRIPTION:** Two small stacks of pahoehoe slabs c. 1.65 m apart with other scatter of slabs in the surrounding area. The south stack is c. 20+ small pahoehoe slabs arranged in a low circular pile measuring c. 1.0 m (N-S) by 0.75 m (E-W) with other slabs scattered to the south. The north stack consists of four pahoehoe slabs one on top another and measuring c. 0.47 m (E-W) by 0.40 m (N-S). Three additional slabs are to the southeast. Feature E is constructed on top of smooth, fairly flat pahoehoe, and located 13.60 m from Feature A at 60 degrees Az.

FEATURE F: Wall FUNCTION: Indeterminate

**DIMENSIONS**: 2.85 m by 0.70 m by 0.60 m

**DESCRIPTION**: Stacked pahoehoe blocks on the lip of a sinkhole. The wall is constructed with single stacked pahoehoe blocks stacked c. 3-4 courses high. The wall is oriented E-W. The height on the west side is c. 0.60 m and on the east side it is c. 0.30-0.50 m high. The average block measures c. 28x22x12 cm. It is located 45.30 m from Feature B at 296 degrees Az.

FEATURE G: Boulder concentration FUNCTION: Possible agriculture

**DIMENSIONS**: 6.30 m by 5.10 m by 1.20 m

**DESCRIPTION:** A concentration of angular boulders partially filling a sinkhole which contains an overhang along the north rim. A small cleared area is situated at the opening of the overhang. The boulders are randomly placed in the sinkhole, with the average size of the angular boulders measuring c. 50 x 30 x 30 cm. Located 23.10 m from Feature F at 354 degrees Az.

FEATURE H: Stacked pahoehoe FUNCTION: Possible marker

**DIMENSIONS**: 0.88 m by 0.52 m by 0.31 m

**DESCRIPTION**: Four slabs of pahoehoe stacked one on top of another atop flat, smooth pahoehoe blister. No vegetation within 2.0 m of the feature. Fountain grass and small 'ilima comprise the vegetation.

**FEATURE I**: Stacked pahoehoe **FUNCTION**: Possible marker

**DIMENSIONS**: 2.60 m by 1.72 m by 0.21 m

**DESCRIPTION**: Feature I consists of three columns of stacked pahoehoe slabs. The west column consists of two single slabs. The middle column consists of four slabs, one to three courses high. The east column consists of four

slabs, one to two courses high. The slabs range in size from 30x26x5 cm to 74x65x6 cm. The feature is located 12.80 m northeast from Feature F.

**FEATURE J:** Stacked pahoehoe **FUNCTION**: Indeterminate

**DIMENSIONS**: 1.20 m by 0.95 m by 0.28 m

**DESCRIPTION:** Feature J consists of two columns of pahoehoe slabs stacked on top of a smooth pahoehoe surface. The NE column consists of two stacks, stacked two slabs high. The SW column consists of three stacks, stacked one-two slabs high. All slabs measure c. 37x28x4 cm.

**SITE NO.:** State: 13287 PHRI: T-36 (*Figure A-12*)

SITE TYPE: Cave Complex (6 Features) TOPOGRAPHY: Undulating pahoehoe terrain.

**VEGETATION:** Lichens and large Christmas-berry tree

growing out of the cave entrance.

ELEVATION: c. 12 feet CONDITION: Fair INTEGRITY: Altered

PROBABLE AGE: Prehistoric-early historic

FUNCTIONAL INTERPRETATION: Habitation

**DESCRIPTION:** Overall complex measures c. 30.0 m (N-S) by 25.0 m (E-W). It consists of a lava tube containing two hearths (Features A and D), three midden deposits (Features B, C and E) and a terrace (Feature F). The lava tube is fairly clear of debris with many boulders and cobbles at the entrance. The entrance measures c. 3.44 m (N-S) by 2.33 m (E-W) with a height of c. 2.11 m.

Some scatter of angular boulders and cobbles are at the cave entrance and on the cave floor. A wet, very dark brown silty clay cultural deposit (c. 0.10 m thick) and surface concentrations of marine shell, mammal bone, and artifacts occur in the immediate vicinity of the interior features. All identified surface features except Feature F are in the front portion of the tube, within an area 10.0 m from the entrance. The tube continues an additional 29.0 m from the entrance, and contains a pile of discarded jeep parts.

The cave becomes partially inundated during high tide, with a shallow pool forming behind the area of concentrated cultural features and deposits.

FEATURE A: Circular alignment (hearth)

**FUNCTION**: Habitation

**DIMENSIONS**: 1.26 m by 1.00 m by 0.45 m

**DESCRIPTION:** A circular alignment of lava blocks with a waterworn coral at the north side of the feature. Feature A consists of twelve pahoehoe boulders and large rocks surrounding c. 13 cm of a blackish charcoal deposit. Two rocks have collapsed into the hearth. The northwest side

is double stacked and the SE side is single stacked. The dimensions of the rocks measures c. 8x16x6 cm to 40x28x18 cm.

In addition to the charcoal deposit, there is shell midden, animal bones and a scattering of rocks around the feature.

A 1.0 by 1.0 m square test unit (TU-1) was excavated into the area of concentrated rock, immediately northwest of the hearth alignment. The purpose of the excavation was to determine if buried features or deposits were present beneath the rock feature, and to hopefully obtain datable charcoal samples.

The uppermost layer consisted of pahoehoe cobbles with scattered waterworn coral cobbles and marine shell fragments. This layer had an average thickness of 0.30 m, and overlies a layer of small to medium pebbles and small cobbles in a soil matrix of black silty clay loam. Two ash deposits were observed at the surface of the pebble/soil layer, and collected for radiometric age determination. The pebble/soil deposit was excavated in two 0.05 m thick levels, and screened through 1/8 inch mesh with water. Shellfish and mammal remains and charcoal fragments were recovered from both levels. These materials are described in the subsurface findings section.

FEATURE B: Midden concentration

**FUNCTION**: Habitation

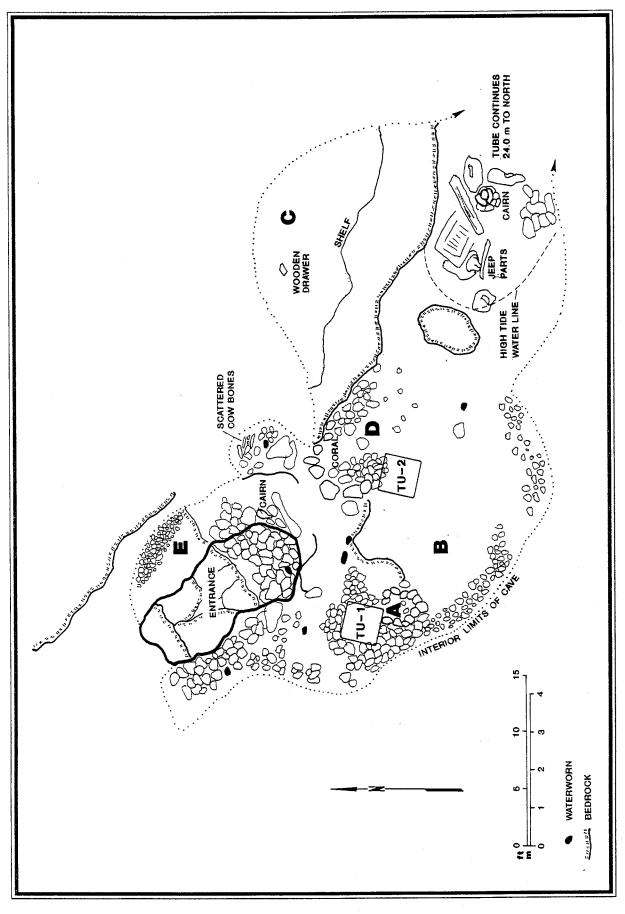
**DIMENSIONS**: 5.50 m by 2.70 m by 0.00 m

DESCRIPTION: A midden concentration on top the fairly flat surface of the cave floor. Situated c. 6.0 m inside of the cave entrance there also appears to be another deposit associated with it. A 1.0 by 1.0 m square test unit (TU-2) was excavated near the center of this deposit, in order to determine depth, presence or absence of stratigraphy, and midden constituents. An undifferentiated deposit of very moist, black silty clay 0.11 to 0.16 m thick was excavated in two levels and screened through 1/8" mesh with water. Shellfish remains, mammal bone and charcoal for age determination was recovered from both levels. These materials are described in the subsurface findings section.

**FEATURE C:** Midden scatter **FUNCTION**: Habitation

**DIMENSIONS**: 7.50 m by 3.50 m by 1.60 m

**DESCRIPTION:** The midden scatter is situated on top of a lava shelf. It consists of shell midden, fish bones and scales, <u>kukui</u> nut and historic material such as galvanized aluminum and a fragmented wooden box scattered over the lava shelf surface. The northern side of the shelf contains a partially circular alignment of small angular rocks measuring c. 0.50 m (E-W) by 0.65 m (N-S).



**FEATURE D:** Circular alignment (possible hearth)

**FUNCTION:** Habitation

**DIMENSIONS:** 1.43 m by 1.22 m by 0.36 m

**DESCRIPTION:** Feature D consists of a circular alignment of angular slab and waterworn rocks. The northeast side of the feature contains double stacked blocks. The northwest side is bounded by an upright pahoehoe slab and the south side is disturbed. The cobbles and rocks range in size from c. 10x8x2 cm to 25x15x10 cm. The largest boulder is c. 44x31x10 cm. There is c. 17 cm of a wet, silty, blackish-brown deposit. In addition, marine shell midden, charcoal and skeletal remains of a boar are present.

A high concentration of large and small cobbles are northwest of feature. There are waterworn corals present in the concentrated area.

FEATURE E: Midden scatter FUNCTION: Habitation

DIMENSIONS: 3.00 m by 1.50 m

**DESCRIPTION:** Midden scatter on a natural shelf-like area that is situated immediately northwest of the entrance. It is in a small overhang with a fairly flat floor, which is covered with <u>kukui</u> nut, marine shell midden and a few mammal bone fragments. Also present are scattered large angular basalt boulders and small cobbled roof collapse.

FEATURE F: Terrace FUNCTION: Indeterminate

**DIMENSIONS:** 1.40 m by 1.30 m by 0.55

**DESCRIPTION:** The terrace is located c. 14.0 m from the entrance. It is a roughly faced and partially collapsed terrace that is built against the cave wall. The eastern edge of the feature is indistinct where it abuts a roughly piled wall which partially closes off another chamber of the lava tube. The north and west faces are formed with a rough boulder alignment. The surface interior is filled with pahoehoe cobbles and the upper surface is covered with small cobbles and pebbles.

Numerous coral fragments, a cowrie shell and mammal bones were present in the vicinity.

SITE NO.: State: 13288 PHRI: T-37 SITE TYPE: Retaining wall/terrace

**TOPOGRAPHY:** Undulating pahoehoe and aa lava flows. 1-2% slope to the south. Bedrock outcrop immediately adjacent to the northwest.

**VEGETATION**: Christmas-berry, <u>kiawe</u>, fountain grass,

<u>'ilima</u>, and <u>noni</u>. **ELEVATION**: c. 22 feet **CONDITION**: Fair-good

INTEGRITY: Unaltered PROBABLE AGE: Historic

FUNCTIONAL INTERPRETATION: Loading ramp

**DIMENSIONS**: 11.50 m by 1.00 m by 1.30 m

DESCRIPTION: A stacked wall constructed with basalt boulders and cobbles. It is oriented NE-SW and built on the southeast side of a bedrock outcrop. The wall is stacked three to six courses high and c. 0.80-1.0 m wide. A terrace abuts the bedrock and is c. 6.0-6.25 m wide. The surface of the terrace is flat and roughly level with areas of asphalt paving. There is a bulldozed slope oriented to the northeast from the terrace for c. 15.0 m to a jeep road. One short section of this slope also has a faced retainment oriented N-S, 2.9 m wide, one to three courses high for a height range of 0.25-0.5 m. The terrace and the bulldozed slope may have been used for dumping or for asphalt tar preparation. Immediately adjacent to the southwest end of the terrace is a large pile of metal tar barrels. Other historic rubbish is in the immediate area.

SITE NO.: State: 13289 PHRI: T-38 SITE TYPE: Complex (15 Features)

TOPOGRAPHY: Undulating field of smooth and ropy

pahoehoe with numerous natural crevices.

VEGETATION: Moderate density of grass, small <u>'ilima</u>, and lantana bushes, some <u>kiawe</u>, and small Christmas-

berry trees.

ELEVATION: c. 9-10 feet CONDITION: Good INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric-early historic

FUNCTIONAL INTERPRETATION: Quarry/possible

agriculture

**DESCRIPTION:** Overall complex area measures c. 49.75 m (N-S) at 358 degrees by 27.14 m (E-W). The site consists of 15 quarried holes with associated excavated blocks. The blocks range in size from 9x6x4 cm to 78x31x28 cm. Thin soil deposits are in Features I and J. Four waterworn basalt cobbles and one piece of coral are present.

FEATURE A: Pahoehoe excavation

**FUNCTION:** Ouarry

**DIMENSIONS**: 1.01 m by 0.92 m by 0.45 m

**DESCRIPTION:** This square-shaped excavation is in a large cracked blister. The floor interior is cleared and all faces are excavated. The thickness of the excavated faces range from 0.27-0.33 m. The excavated blocks are north, east, and south of the excavation. One piece of waterworn coral is located c. 2.24 m from the southwest corner of Feature A.

FEATURE B: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 5.65 m by 3.14 m by 0.55 m

**DESCRIPTION**: A large L-shaped excavated area quarried in a large cracked blister. Excavated in smooth and ropy pahoehoe with the quarried blocks inside of the excavated hole and around all edges. The thickness of the excavated face is 0.17-0.31 cm with the depth ranging from 0.32 m to 0.55 m below surface.

**FEATURE C:** Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 1.68 m by 1.05 m by 0.41 m

**DESCRIPTION**: A small excavation with a partially cleared floor quarried into a large pahoehoe blister. The excavated blocks are piled to the east and south of the excavation. The thickness of the excavated face is 0.16 m and the depth ranges from 0.13 m to 0.41 m below surface.

FEATURE D: Pahoehoe excavation

**FUNCTION:** Quarry

**DIMENSIONS**: 2.04 m by 0.95 m by 0.42 m

**DESCRIPTION**: Oblong shape in plan, the interior is cleared except for a few angular cobbles. The quarried blocks are placed exterior of and along the western half of the feature. A waterworn cobble/boulder with one battered end lies on the southeast floor of the feature. It measures c. 19x12x8 cm. The thickness of the excavated face ranges 18-20 cm. Old pahoehoe is visible as the interior floor surface.

FEATURE E: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 0.54 m by 0.39 m by 0.48 m

**DESCRIPTION**: Triangular shape in plan it is mostly cleared of quarried material. The quarried material is placed north of the feature. The thickness of the excavated face is 19-23 cm.

FEATURE F: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 1.30 m by 1.17 m by 0.45 m

**DESCRIPTION**: A fully excavated and cleared pahoehoe blister. Quarried blocks form a semicircular shape on the southwest side of the pahoehoe excavation. There are blocks within the feature that are possibly natural. The thickness of the excavated face ranges from 17 cm to 29 cm.

FEATURE G: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 0.80 m by 0.30 m by 0.49 m

**DESCRIPTION**: Feature G consists mostly of a natural

crack along a blister from which rocks were removed. The quarried blocks were removed and placed on the southwest and west side of the feature. The thickness of the excavated face is c. 23 cm.

FEATURE H: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 0.65 m by 0.60 m by 0.23 m

**DESCRIPTION**: A small excavated crack with a cleared floor. The quarried blocks are placed south, east, and west of the excavation. The maximum depth of the hole is c. 0.7 m. A small waterworn pebble is present c. 1.87 m at 193 degrees from the south corner of Feature H.

FEATURE I: Pahoehoe excavation FUNCTION: Quarry/possible agriculture **DIMENSIONS**: 0.90 m by 0.76 m by 0.20 m

**DESCRIPTION**: Roughly rectangular shape in plan, with quarried blocks placed c. 0.50 m to the northwest. The thickness of the excavated face is c. 15-20 cm. A deposit of brown, gravelly soil loam, c. 0.05 m thick, occurs in the interior floor of Feature I.

FEATURE J: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 1.88 m by 1.00 m by 0.38 m

**DESCRIPTION**: A rectangular shaped collapsed blister with three faces excavated and with some displacement of broken cobbles. The floor interior is fairly cleared of quarried material. The thickness of the excavated face is 0.14-0.22 m. The depth ranges from 0.22-0.38 m below surface. One waterworn basalt hammerstone measuring c. 22x23x17 cm with two battered corners is in the southeast corner of Feature J.

FEATURE K: Pahoehoe excavation

**FUNCTION: Quarry** 

**DIMENSIONS**: 2.69 m by 1.14 m by 0.22 m

**DESCRIPTION**: Rectangular shape in plan, all faces are excavated. The floor interior is fairly cleared with blocks placed east and west of the excavation. The depth of the feature ranges between 0.45-0.63 m below surface. Two layers of pahoehoe area are excavated and the thickness of the excavated face averages 0.22 m.

**FEATURE L:** Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 2.22 m by 1.15 m by 0.43 m max. depth **DESCRIPTION**: A collapsed blister with three excavated faces. The floor interior is cleared with the quarried blocks placed along the north and southwest edges. The thickness of the excavated faces are 0.9-0.28 m. The range of depth is 0.15-0.43 m below surface. One waterworn basalt hammerstone measuring c. 35x28x18 cm is present c. 1.45 m southeast of Feature L. It shows evidence of battering on one end.

FEATURE M: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 2.34 m by 2.20 m by 0.62 m maximum

depth

**DESCRIPTION:** Generally rectangular shape in plan with all faces excavated. The floor is partially cleared with quarried blocks in the hole and around the edges. The thickness of the excavated face is 0.21 to 0.37 m. The depth range is 0.40 to 0.62 m below surface. It is situated within a small outcrop of pahoehoe blister that consists of slight faulting and cracks at the north end of the site. One mammal bone fragment is present in the southeast corner of the excavated hole.

FEATURE N: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 0.36 m by 0.00 m by 0.31 m

**DESCRIPTION:** A small collapsed area with one face excavated. The excavated blocks are removed and the floor interior is clear of material. The thickness of the excavated face averages 0.22 m. It is situated on a small outcrop of pahoehoe at the north end of the site.

**FEATURE O:** Pahoehoe excavation

**FUNCTION:** Quarry

**DIMENSIONS:** 0.46 m by 0.00 m by 0.32 m

**DESCRIPTION:** A small cracked and partially collapsed blister with an excavated face along the NW side of the collapse. Quarried blocks occur inside the excavation. Thickness of the excavated face averages 0.16 m.

SITE NO.: State: 13290 PHRI: T-39 SITE TYPE: Complex (6 Features)

**TOPOGRAPHY**: The site is situated on uneven pahoehoe flow, with collapsed blisters, cracks and faulted areas.

**VEGETATION:** Moderate density of grass, small lantana,

and 'ilima bushes.

ELEVATION: c. 9-10 feet CONDITION: Good INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric-early historic

**FUNCTIONAL INTERPRETATION:** Quarry/agriculture **DESCRIPTION:** The overall complex area measures c. 35.9 m at 160 degrees by 7.45 m. The quarried blocks range in size from 12x9x5 cm to 42x36x29 cm and are either in the excavations or around the perimeters. A large waterworn basalt hammerstone is present on the site; no soil was observed in the excavations.

**FEATURE A:** Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 1.83 m by 1.72 m by 0.48 m

**DESCRIPTION:** Feature A is a blister with all faces excavated and with the quarried blocks placed along the northeast edge. There are also a few blocks on the feature floor. The thickness of the excavated face is 0.29 m.

**FEATURE B:** Pahoehoe excavation *Figure A-13* 

**FUNCTION**: Ouarry

**DIMENSIONS:** 2.53 m by 0.47 m maximum depth **DESCRIPTION:** Feature B consists of an excavation along a faulted face, 2.79 m southeast from Feature A. Thickness of the excavated pahoehoe face is 0.24 m. The quarried blocks are in a concentrated area east of the excavation.

FEATURE C: Pahoehoe excavation

FUNCTION: Quarry

**DIMENSIONS**: 1.78 m by 0.85 m by 0.74 m

**DESCRIPTION**: Feature C is situated at the south end of a small pahoehoe ridge, 14.1 m south from Feature A. All faces are mined with the associated blocks concentrated to the east. The floor is partially cleared of excavated blocks.

The thickness of the excavated face is 0.39 m.

FEATURE D: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 0.82 m by 0.51 m by 0.33 m

**DESCRIPTION:** Feature D is a blister excavation, 30.93 m south from Feature A. It shows evidence of all faces being quarried with the associated blocks located around the excavated hole. The thickness of the excavated face is 0.22 m. One waterworn basalt measuring c. 29x19x17 cm with some evidence of battering is present 0.93 m north of Feature D. It is located on the north to west side of a large collapsed blister.

FEATURE E: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 1.35 m by 1.00 m by 0.63 m

**DESCRIPTION:** Feature E consists of a blister excavation, 30.35 m southeast from Feature A. It shows evidence of all faces being quarried and has been cleared of loose rubble. The associated blocks are located around the excavated hole. The thickness of the excavated face is 30 cm. The depth ranges from 0.51 to 0.63 m below surface. It is located on the north to west side of a large collapsed blister.

FEATURE F: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 3.96 m by 1.40 m by 0.47 m

**DESCRIPTION**: A blister excavation with evidence of all



Figure A-13. SITE 13290, FEATURE B. View to Northwest (PHRI Neg.1238-17)

faces being quarried. The associated blocks are located around the perimeter of the excavated hole. The thickness of the excavated face is 0.20 to 0.24 m. The depth of the hole ranges from 0.34 to 0.47 m below ground surface. It is located on the north and west side of a large collapsed blister, 31.93 m southeast from Feature A.

SITE NO.: State: 13291 PHRI: T-40 SITE TYPE: Complex (6 Features)

TOPOGRAPHY: Gently undulating smooth and ropy pahoehoe with natural cracks. The surface area is

littered with pahoehoe pebbles.

**VEGETATION:** Moderate thick density of grasses, small <u>'ilima, kiawe</u> bushes, and two small Christmas-berry trees.

ELEVATION: c. 9 feet CONDITION: Fair INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric-early historic FUNCTIONAL INTERPRETATION: Quarry

**DESCRIPTION:** Overall complex area measures c. 14.0 m at 272 degrees by 17.5 m. The site consists of six pahoehoe excavations (Features A-F). No soil or cultural deposits were observed in or around the excavations. A single piece of waterworn coral is present near Feature A. There appears to be some bulldozer activity to the southeast of the site area, c. 10-20 m. It is probably associated with a nearby roadway.

FEATURE A: Pahoehoe excavation

**FUNCTION:** Quarry

**DIMENSIONS**: 4.43 m by 2.44 m by 0.47 m

**DESCRIPTION:** Feature A is an excavated pahoehoe blister. It is roughly rectangular shape in plan with associated blocks piled along the edge to the south. Some blocks are present on the floor surface.

The overall feature, including the quarried block pile, measures c. 7.37 m at 115 degrees by 4.84 m. The thickness of the excavated face is 0.33 m. The excavated blocks average size measures c. 36x20x16 cm. One piece of waterworn coral is present.

**FEATURE B:** Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 1.36 m by 1.22 m by 0.54 m

**DESCRIPTION:** Generally rectangular shape in plan, Feature B consists of an excavated pahoehoe blister. The excavated blocks are piled along the southern edge and scattered on the floor interior. The thickness of the excavated face is 0.21 m on the southeast side and 0.25 m on the

northwest side. The maximum depth ranges from 0.46 to 0.54 m below surface. This excavation is 0.52 m east from Feature A.

FEATURE C: Pahoehoe excavation

**FUNCTION: Quarry** 

**DIMENSIONS:** 3.12 m by 2.00 m by 0.45 m

**DESCRIPTION:** Feature C consists of an excavated pahoehoe blister, 5.62 m east from Feature B. It is roughly rectangular shape in plan, and all faces show evidence of quarrying. The associated quarried blocks are piled along the northern and the western edge. The total area including the excavated hole and the quarried block piles measures 4.73 m at 74 degrees by 5.49 m. The thickness of the excavated face measures 0.32 m. The average quarried block size is 35x19x15 cm.

FEATURE D: Pahoehoe excavation

**FUNCTION:** Quarry

**DIMENSIONS**: 2.18 m by 1.35 m by 0.46 m

**DESCRIPTION:** Feature D is an excavated pahoehoe blister, 5.6 m southeast from Feature A. It is generally rectangular shape in plan, and excavated blocks are stacked on all sides of the excavated area. The average block size measures c. 20x16 x27 cm. The thickness of the excavated face is 0.26 m.

FEATURE E: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 1.90 m by 1.12 m by 0.47 m

**DESCRIPTION:** Feature E is an excavated pahoehoe blister located adjacent to Feature D. It is generally rectangular shape in plan, with an excavated face thickness of 0.30 m. The average block size measures 20x16x27 cm.

FEATURE F: Pahoehoe excavation

**FUNCTION: Quarry** 

**DIMENSIONS**: 2.75 m by 1.06 m by 0.48 m

**DESCRIPTION:** An excavated crevice, it is in an area of natural collapse in which large and small angular rocks were removed and placed northwest of the feature. Feature F contains three faces that are excavated with three to four large rocks within the excavation. It is located 2.10 m northwest from Feature A.

There are small angular blocks to the east that may have naturally collapsed into the feature interior. There are c. 100+ excavated blocks in and around the feature. The average size of the blocks is 27x22x18 cm. The overall feature dimensions including the scattered blocks measures c. 5.68 m (E-W) by 3.85 m (N-S).

**SITE NO.:** State: 13292 PHRI: T-41 SITE TYPE: Complex (18 Features)

TOPOGRAPHY: Terrain consists of a ridge of faulted and cracked smooth and ropy pahoehoe that is oriented

VEGETATION: Sparse fountain grass, a few small lantana and 'ilima bushes, and two Christmas-berry trees on the a ridge.

**ELEVATION:** c. 9 feet CONDITION: Good **INTEGRITY**: Unaltered

PROBABLE AGE: Prehistoric-early historic

FUNCTIONAL INTERPRETATION: Quarry/possible

**DESCRIPTION:** The overall site complex consists of 18 pahoehoe excavations. The total area measures c. 52.90 m (N-S) by 17.5 m (E-W). The excavated areas range in size from c. 0.66-4.60 m x 0.4-1.82 m with face thicknesses of c. 0.10-0.32 m and total depths of c. 0.54-0.61 m below surface. The pahoehoe excavations consists of eight fault excavations, six blister excavations, three crevices and one collapsed blister excavation.

The pahoehoe excavation complex contains c. four excavated faces per feature. Six of the features have totally cleared floors and within four of these there are no associated blocks present. The remaining features have quarried blocks within the excavations or in close proximity to the excavated edges. The blocks range in size from 8x7x9 cm to 55x42x26 cm. One waterworn basalt with evidence of battering marks was present along the southeast boundary of the site. Three Cypraeidae shell fragments were also observed scattered on the site surface. No soil was observed in the excavations.

SITE NO.: State: 13293 PHRI: T-42 **SITE TYPE:** Complex (9 Features)

TOPOGRAPHY: Situated between two low ridges of pahoehoe, the terrain is of undulating pahoehoe flow consisting of small cracks andnatural faulting.

VEGETATION: Moderate to thick grass, small 'ilima and koa-haole bushes, Christmas-berry, and kiawe trees.

**ELEVATION**: c. 9 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Ouarry/possible agriculture

**DESCRIPTION:** The overall complex area measures c. 23.8 m at 26 degrees by 13.8 m. This site consist of a rock alignment (Feature A) and eight pahoehoe excavations. No soil or portable remains were observed.

FEATURE A: Alignment **FUNCTION**: Indeterminate

**DIMENSIONS:** 2.25 m by 1.70 m by 0.35 m

DESCRIPTION: An area of smooth pahoehoe and natural collapse which features a C-shape alignment of pahoehoe blocks. There are c. 15+ angular pahoehoe rocks and slabs placed in a single stacked C-shape alignment. The blocks range in size from 15x13x8 cm to 31x26x28 cm. Some of the rocks were scattered around the alignment. The interior measures 1.12 m (N-S) by 1.05 m (E-W).

FEATURE -: Pahoehoe excavation (8) FUNCTION: Quarry/possible agriculture

DESCRIPTION: This area consists of eight pahoehoe excavations; six blister type excavations and two crevice type excavations. Three of these have cleared floors. All excavations exhibit at least one to four excavated faces with only one layer of pahoehoe quarried. The floors are the exposed second layer of pahoehoe.

The quarried basalt blocks are either on the floor of the excavations or along the perimeters in circular alignments. The average block size is c. 28x18x12 cm; the average excavated area is c. 1.97 m by 0.66 m; the excavated face thickness ranges from 0.11 to 0.34 m and the depth of the excavations range from 0.26 to 0.81 m below surface.

SITE NO.: State: 13294 PHRI: T-43 (Figure A-14) SITE TYPE: Complex (73 Features)

TOPOGRAPHY: Relatively level pahoehoe with an adjacent aa finger flow. There are collapsed tubes in the area and modified shallow blisters.

VEGETATION: Fountain grass, noni trees, kiawe, koahaole, 'ilima, some Christmas-berry, and lantana. Approximately 30% of the surface area is covered with vegetation. The remaining portions are bare.

**ELEVATION**: c. 9 feet CONDITION: Good INTEGRITY: Unaltered

PROBABLE AGE: Indeterminate/prehistoric-historic FUNCTIONAL INTERPRETATION: Agriculture **DESCRIPTION:** The overall complex area measures c. 110.0 m (E-W) by 84.0 m (N-S). The site complex is

divided into four quads for counting the pahoehoe excavations. A 20.0 by 20.0 m sample area in the SE corner of the SW quad was mapped, and individual features (A through F) were recorded. Features recorded and/or counted include a cairn (Feature A), an alignment (Feature B), a pile of pahoehoe blocks (Feature F), and 70 pahoehoe excavations (Features C-E, G-I, and 64 additional excavations. The site is affected along the SW and S side by airport construction and a service road and was possibly larger.

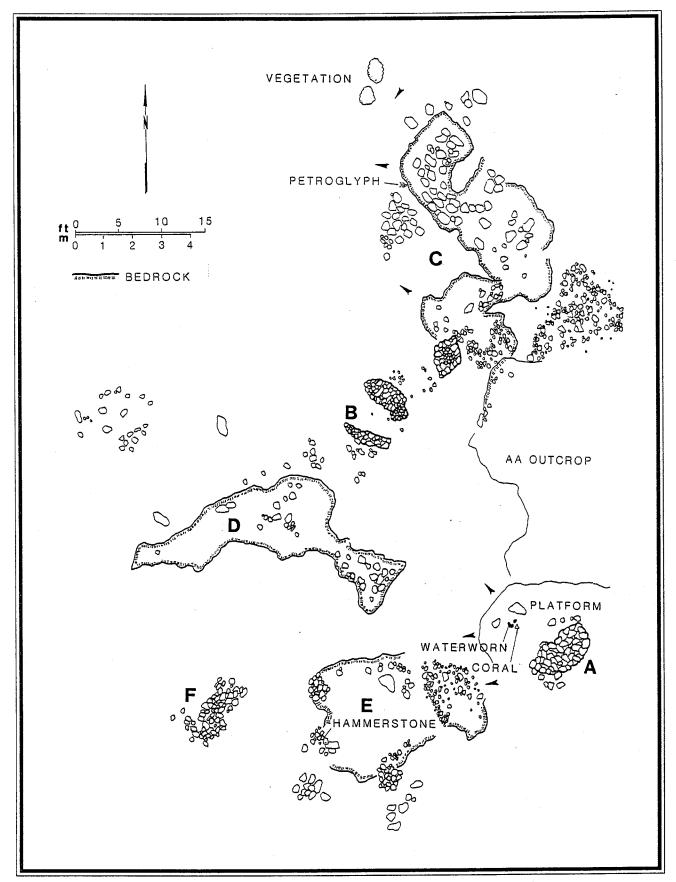


Figure A-14. SITE 13294, FEATURES A-F

Soil deposits were observed in Features G, H and I, and portable remains observed include waterworn pebbles, cobbles, and boulders, stoneware pottery sherds, and modern bottle glass.

FEATURE A: Cairn FUNCTION: Marker

**DIMENSIONS**: 2.52 m by 2.34 m by 0.64 m

**DESCRIPTION:** The cairn is situated on a natural outcrop of aa at the southwest end of the site. Feature A is constructed with piled pahoehoe blocks at the bottom and with aa rocks at the top. There are c. 100+rough aa boulders and cobbles and c. 20+ pahoehoe blocks. Presently, it is in a collapsed condition.

A waterworn cobble hammerstone with two battered ends lies on top of the eastern side of the cairn. In addition, there are three small coral fragments and a small waterworn cobble 1.2 m west of Feature A.

FEATURE B: Alignment FUNCTION: Indeterminate

**DIMENSIONS**: 3.37 m by 2.48 m by 0.45 m

**DESCRIPTION:** A roughly U-shaped alignment, 2-3 courses wide and 1-3 courses high. It is constructed with blocks of pahoehoe and aa. Clinker size pieces of pahoehoe and aa are on top of the feature and in portions around the alignment. Two waterworn basalt fragments and broken glass are present. Feature B is situated at the far SW corner of the site, near the fence line along the old airport runway.

FEATURE C: Pahoehoe excavation

**FUNCTION: Quarry** 

**DIMENSIONS**: 12.35 m by 3.40 m by 0.39 m

**DESCRIPTION:** Feature C is situated at the southwest corner of the site, adjacent to Feature B. It consists of a quarried blister with a partially cleared floor. A second layer of pahoehoe is exposed. There are c. 16 blocks located to the SW of the excavated area, and one small pile of aa and pahoehoe cobbles located on the NW edge of the excavated area. This small pile of cobbles measures c. 1.22 m (N-S) by 0.98 m (E-W). It is piled 2-3 courses high and is c. 0.34 m above the ground surface. The thickness of the excavated face ranges from 0.14-0.37 m and the depth ranges from 0.14-0.39 cm below surface. No soil is present.

The portable remains consists of *Cellana*, rock oyster, and *Cypraeidae* shell fragments, two pieces of coral, one waterworn basalt, glass sherds, and tin cans.

FEATURE D: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 9.50 m by 4.00 m by 0.30 m

**DESCRIPTION:** Feature D is located immediately south of Feature B. The main portion of the pahoehoe excavation is roughly circular in plan and measures c. 2.90 m in diameter. It is a broad, shallow hole with a slightly sloping rough floor. Most of the blocks were removed from the excavation, which is possibly the source for the Feature B alignment.

There are extensions along crevices from the east side and the northwest side of the excavation. Both extensions are 3.2 m in length and are 0.6 to 1.7 m wide. They contain the same flat, rough and cleared floor. The mined basalt is uniform vesicular with no air pockets. Only one layer was mined. A thin pocket of reddish-brown soil is present in the lowest point of the excavation near the center. One waterworn coral pebble, two pieces shatter from a basalt hammerstone, and brown bottle glass are present. The hammerstone shatter pieces were broken from the hammerstone currently located at Feature E.

FEATURE E: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS:** 4.50 m by 3.80 m by 0.23 m

**DESCRIPTION:** Feature E is located 2.00 m east from Feature D. It is a broad, roughly circular, shallow hole with a flat rough floor. All faces were excavated except the SE side. Most of the excavated blocks were removed, however there are c. 12 large blocks remaining in the excavation. Some of the blocks are scattered on the aa flow to the east and a few to the north. The overall feature dimensions including the scatter is c. 6.8 m (N-S) by 5.7 m (E-W).

A large basalt boulder hammerstone is present inside the excavation, against the west wall. It has several flakes removed from it and appears to be the source for flakes observed scattered in the area of Features A-F.

FEATURE F: Block pile FUNCTION: Quarry

**DIMENSIONS**: 2.60 m by 1.40 m by 0.40 m

DESCRIPTION: Feature F is located 2.20 m northwest of Feature D. It is a roughly curved pile of large excavated blocks, some of which are loosely stacked to two courses high. It is constructed with c. 50 pahoehoe blocks with three large aa cobbles. One broken waterworn boulder and one large flake from the Feature E hammerstone were also present. Feature D may be the possible quarry source for this rock pile.

FEATURE G: Pahoehoe excavation FUNCTION: Possible agriculture

**DIMENSIONS**: 2.40 m by 1.90 m by 1.00 m

Feature G consists of an excavated blister and edge of finger. The overall feature area is c. 4.1 m (E-W) by 3.5 m (N-S). Two pahoehoe layers were excavated, however, the upper layer is broken off in a wider area than the lower, forming a shelf along the SW side of the hole. The upper layer of lava is 0.32 m thick and the lower layer is 0.27 m thick.

Broken and excavated blocks are loosely stacked on the north side of the excavation, forming a C-shaped perimeter around the depression. The base of the hole is filled with broken pieces of pebble size basalt. Brown soil mixed with pebble and gravel size pieces is also visible at the bottom of the hole.

FEATURE H: Pahoehoe excavation

**FUNCTION**: Agriculture

**DIMENSIONS**: 3.50 m by 1.60 m by 0.70 m

**DESCRIPTION:** The overall feature measures c. 6.5 m (N-S) by 5.5 m (E-W). Excavated blocks are used to make two compartments inside of the excavated blister and as perimeter around the lower north side.

Large naturally collapsed slabs were moved out of the hole. They measure c. 1.0x0.8x0.25 m. Other blocks were knocked off and arranged in a semicircle around the western compartment and encircle the eastern compartment. All are haphazardly stacked two courses high.

The east side of the western compartment has a cleared floor and the west side has pebbles and soil. A small overhang is situated at the west end of the western compartment. The western compartment measures c. 1.70 m (E-W) by 0.70 m (N-S). The eastern compartment is all pebbles and soil fill with some slabs set on edge around the perimeter. The eastern compartment measures c. 1.0 m (N-S) by 0.57 m (E-W). A small overhang is also present at the east end.

Two layers of pahoehoe were excavated. The upper layer is 0.25 m thick and the lower layer is 0.23 m thick. Feature H is located 3.70 m east of Feature G, and is on the same pahoehoe finger.

**FEATURE I:** Pahoehoe excavation **FUNCTION:** Possible agriculture

**DIMENSIONS**: 7.40 m by 4.70 m by 0.40 m

**DESCRIPTION:** Feature I is c. 6.7 m east of Feature H. Very large blocks are removed from an excavated blister to form a crude enclosure around the excavation. The aligned debris goes around the west, north and east sides. There is a slight break in the center on the north side. The interior

measures c. 3.5 m (E-W) by 2.5 m (N-S) and averages c. 0.9 m wide. Most of the excavation is loosely filled with blocks except for a small hole that contains pebbles and soil.

At the SE end is a filled crevice that has a relatively level surface. It measures c.  $1.8 \,\mathrm{m}\,(N\text{-S})$  by  $1.2 \,\mathrm{m}\,(E\text{-W})$  and goes under an overhang with a ceiling height of  $0.4 \,\mathrm{m}$  above the top of the rock fill. The overhang is c.  $1.4 \,\mathrm{m}$  wide and  $0.6 \,\mathrm{m}$  deep. The depth of the fill appears to be at least three layers of blocks.

At the east end, mixed with small pieces of debris, on top the pahoehoe surface at the base of the slope, are several pieces of broken branch coral and basalt hammerstone shatter and flakes.

**FEATURE** -: Pahoehoe excavation (35)

FUNCTION: Quarry/agriculture

**DESCRIPTION**: The northeast quadrant of the site contains at least 35 pahoehoe excavations, including 15 excavated blisters, 13 crevices and seven faults.

Of these 35 features, 19 have totally or partially cleared floors. Five of these features have an absence of excavated blocks. In the other cases, most blocks are either in the excavated holes and or in close proximity to the edges. For most cases, only the top layer of pahoehoe has been excavated and the floor is fairly level exposing the second layer of pahoehoe.

The excavated areas range in size from c. 0.90 m (NE-SW) by 0.38 m (NW-SE) with excavated face thickness of c. 0.33 m and a total depth of c. 0.52 m below surface, to c. 3.55 m (NE-SW) by 1.83 m (NW-SE) with an excavated face thickness of c. 0.13-0.28 m and a total depth of c. 0.28-0.61 m below surface.

There is a moderate density of recent garbage in the area, various marine shell, coral and two waterworn basalt boulders, the larger of which contains battering on one end. Sparse soil deposits have also collected in the cracks.

**FEATURE** - : Pahoehoe excavation (3) **FUNCTION**: Quarry/possible agriculture

**DESCRIPTION:** The southeast quadrant of the site contains three pahoehoe excavations. Two of these features are single-faced excavations between boundaries of pahoehoe and aa flows. Their floors are partially cleared, but contain many cobble-sized aa pieces. The third feature is a blister excavation, which is also near the aa and pahoehoe boundary. The average excavated face length is 2.25 m and the average thickness of the excavated face is c. 0.18 m. The three

excavations range in depth from 0.26 to 0.64 m below surface.

Most of the excavated blocks are absent from the area. Some larger blocks are strewn c. 6.0 m to the south of the two single faced excavations. A few of the blocks are also located in the third excavated blister floor and along the SE face.

Historic garbage consisting of wood, nails, broken beer bottles are scattered throughout the quad. Near the roadway, much midden scatter and the evidence of bulldozer activity was visible. Coral fragments and shell fragments occur near the aa flow edge.

**FEATURE** -: Pahoehoe excavation (23)

**FUNCTION**: Possible agriculture

**DESCRIPTION**: The northwest quadrant consists of 23 excavated areas and one alignment. Formal variants include eight totally cleared shallow crevices, six deep, narrow crevices with pebble fill and three to four backfilled crevices.

The northern boundary is very indistinct and abuts SIHP Site No. 13386. Across the south half, and extending E-W is a raised finger with several excavations. To the north is a low area of broken pahoehoe and some aa. Features G, H, and I are situated along north face of the finger. They appear to be possible planting areas based on morphology, presence of soil, pebble fill, depth and exposure.

A circular alignment of odd-shaped blocks is situated on the flat at the northern end. The interior dimensions are c. 1.3 by 1.2 m and contains a flat and cleared surface. Portable remains consists of a basalt hammerstone flake, waterworn coral and basalt, shell midden, basalt shatter, and stoneware sherds.

FEATURE -: Pahoehoe excavation (12)

**FUNCTION**: Quarry

**DIMENSIONS:** 50.00 m by 42.00 m

**DESCRIPTION**: The southwest quadrant contains at least 12 features. There are three excavated crevices along an upthrust of ropy pahoehoe at the west boundary. Two broad shallow excavations are at the northeast corner of the quadrant, the smaller of which is backfilled with blocks and the larger one which is empty. Also, an excavated blister is visible just southwest of the area.

An excavated crevice at the western boundary of the site contains broken pebble-size pieces of pahoehoe and two waterworn cobbles, one of which is ground. It is a moist crevice with a small overhang on the south side. It measures

c. 0.6 m deep with an opening of c. 0.8 m by 0.15 m and a ceiling height of c. 0.35 m. Blocks are scattered along the sides of the excavation.

The western boundary of the site is c. 10.0 m from SIHP Site No. 13353, a complex consisting of modified anchialine pools and petroglyphs.

SITE NO.: State: 13295 PHRI: T-44 SITE TYPE: Complex (10 Features)

TOPOGRAPHY: A small ridge of smooth and ropy

pahoehoe oriented roughly E-W.

VEGETATION: Moderate grasses, small 'ilima and lantana

bushes, and small Christmas-berry trees.

ELEVATION: c. 9-10 feet CONDITION: Good INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric-early historic FUNCTIONAL INTERPRETATION: Quarry

**DESCRIPTION:** Site complex consists of quarried faces of pahoehoe with blocks either closely associated around the excavation or in the hole. Two pieces of coral are present at Features H and I.

FEATURE A: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS:** 1.51 m by 1.39 m by 0.48 m

**DESCRIPTION:** Generally rectangular shape in plan with associated blocks placed on the east and southeast edges of the hole. The floor is partially cleared of excavated blocks. The overall feature including the scattered blocks measures 2.98 m (NW-SE) by 2.25 m (NE-SW). The thickness of the excavated face is 0.21 m.

FEATURE B: Pahoehoe excavation

**FUNCTION: Quarry** 

**DIMENSIONS**: 0.98 m by 0.88 m by 0.52 m

**DESCRIPTION:** Feature B is a pahoehoe excavation blister, located 2.25 m west from Feature A. A few excavated blocks are to the southeast of the excavation and many blocks are inside. The total feature area including the excavated material measures c. 1.83 m at 232 degrees by 2.37 m. The thickness of the excavated face is c. 0.25 m.

FEATURE C: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 4.14 m by 0.96 m by 0.68 m

**DESCRIPTION:** An excavated fault in which both faces were excavated. The floor is cleared of quarried material, some of which appear to be downhill to the east and south. The total area measures 4.19 m at 150 degrees by 6.05 m. The thickness of the excavated face is c. 0.39 m. Feature C is 2.90 m at 150 degrees Az. from Feature A.

FEATURE D: Pahoehoe excavation

**FUNCTION:** Quarry

**DIMENSIONS**: 3.82 m by 0.45 m by 0.54 m

**DESCRIPTION:** Feature D is an excavated crevice situated 4.6 m from Feature A at 208 degrees Az. The excavation is generally cleared of rubble, which is concentrated to the southeast of the crevice. The overall feature area including the quarried material measures 3.82 m at 80 degrees by 5.74 m. The thickness of the excavated face is 0.27 m.

FEATURE E: Pahoehoe excavation

**FUNCTION:** Quarry

**DIMENSIONS**: 2.96 m by 0.69 m by 0.37 m

**DESCRIPTION:** Feature E is an excavated blister and fault, situated on top of smooth and ropy pahoehoe on the north edge of a small depression. It is 7.11 m at 248 degrees Az. from Feature A. It consists of a square hole excavated through a blister, and an excavated face along a small fault adjacent the blister. Quarried blocks are located to the southwest and northeast of the excavated area. The overall feature area measures 4.31 m at 284 degrees by 4.51 m. The thickness of the excavated face ranges from 0.08-0.27 m. The depth ranges from 0.08-0.37 m below surface. Thick grass is growing in the excavation.

FEATURE F: Pahoehoe excavation

**FUNCTION:** Ouarry

**DIMENSIONS**: 1.15 m by 0.64 m by 0.43 m

**DESCRIPTION:** Feature F is an excavated blister located 15.05 m at 263 degrees Az. from Feature A. All faces of the feature are excavated and the floor is partially cleared of loose rubble. Quarried blocks are placed on the seaward (west) side of the excavation. The thickness of the excavated face is 0.24 m.

FEATURE G: Pahoehoe excavation

**FUNCTION: Quarry** 

**DIMENSIONS**: 1.32 m by 0.91 m by 0.53 m

**DESCRIPTION:** Feature G is an excavated blister located 17.71 m from Feature A at 265 degrees Az. All faces of the feature are excavated and the floor is partially cleared of rubble. Quarried blocks are placed on the seaward (west) side of the excavation. The excavated pahoehoe face here is 0.30 m thick.

**FEATURE H:** Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS**: 1.59 m by 1.19 m by 0.47 m

**DESCRIPTION:** Feature H is an excavated blister located 19.22 m at 269 degrees Az. from Feature A. All faces of the feature are excavated and the floor is partially cleared of loose rubble. Quarried blocks are placed on the seaward

(west) side of the excavation. Thickness of the excavated pahoehoe layer is 0.28 m. One piece of coral was located 1.84 m to the northwest of Feature H.

FEATURE I: Pahoehoe excavation

**FUNCTION**: Quarry

**DIMENSIONS:** 1.17 m by 1.12 m by 0.46 m

**DESCRIPTION:** Feature I is another excavated blister located 17.54 m from Feature A at 270 degrees Az. All faces of this feature are excavated and the floor is partially cleared of loose rubble. Quarried blocks are placed on the seaward (west) side of the excavation. Thickness of the excavated pahoehoe layer here is 0.29 m. One piece of waterworn coral is located 1.74 m to the north of Feature I.

**FEATURE J:** Displaced quarried rocks **FUNCTION:** Possible quarried material **DIMENSIONS:** 9.65 m by 5.82 m by 0.22 m

**DESCRIPTION:** Feature J is situated c. 25.48 m at 183 degrees from Feature A. It is a displacement of cracked and broken ropy pahoehoe, located west of the major portion of this site. Slabs of pahoehoe are flipped over and moved from their original position. The slabs and blocks range in size from 6x3x6 cm to 80x73x21 cm.

**SITE NO.:** State: 13296 PHRI: T-45 (*Figure A-15*)

**SITE TYPE:** Complex (13 Features)

TOPOGRAPHY: Undulating ropy and smooth pahoehoe. VEGETATION: Moderate density of grass, 'ilima, kiawe,

and Christmas-berry.
ELEVATION: c. 9-10 feet
CONDITION: Good
INTEGRITY: Unaltered
PROBABLE AGE: Prehistoric

**FUNCTIONAL INTERPRETATION: Quarry** 

**DESCRIPTION:** The overall complex area measures c. 35.00 m at 180 degrees by 44.50 m. This site consists of 13 pahoehoe excavations. Formal variants include nine excavated faults, two excavated blisters, one crevice and one flow edge. Four of the excavations have cleared floors, all excavated areas have the majority of the excavated blocks in close proximity to the holes. One to four faces are excavated, usually the upper layer. The average excavated area is c. 1.25 m by 0.80 m. The average thickness of the excavated face is c. 0.47 m. The average depth is c. 0.65 m below surface. The excavated blocks range in size from 0.8x0.7x0.4 m to 0.75x0.30x0.27 m.

SITE NO.: State: 13297 PHRI: T-47 SITE TYPE: Complex (9 Features)

TOPOGRAPHY: Undulating smooth and ropy pahoehoe

flow with natural cracks and faulting.

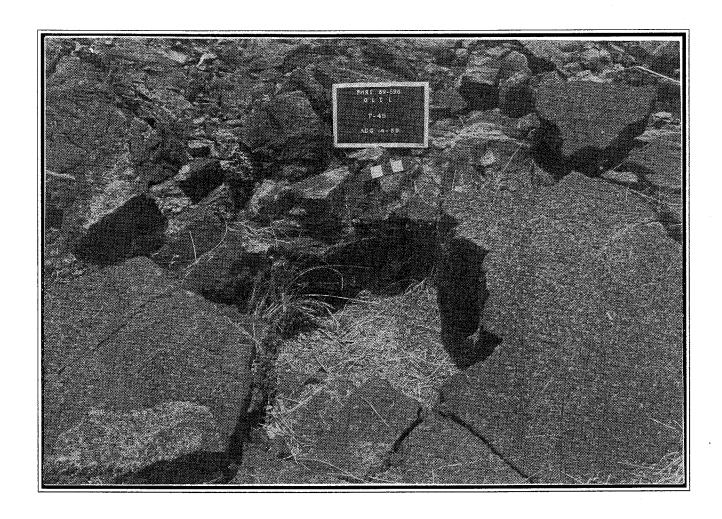


Figure A-15. SITE 13296. View to Northwest (PHRI Neg.1242-16)

**VEGETATION**: Moderate to thick density of grass, small <u>'ilima</u> and <u>koa-haole</u> bushes, Christmas-berry, and <u>kiawe</u> treesand bushes.

ELEVATION: c. 17.5 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Quarry/possible

agriculture

**DESCRIPTION:** This site consists of nine pahoehoe excavations within an area 42.73 m by 38.40 m. Formal variants observed include excavated blisters, crevices and faults. One to four faces are excavated per feature, with the average excavation measuring 1.68 m by 1.15 m. Thickness of the excavated pahoehoe layer averages 0.26 m and the average depth is 0.36 m below surface. Two of the excavations have cleared floors. The remaining have excavated blocks closely associated with the features in addition to a couple of isolated block scatters. The average block size is 31x12x28 cm. Ten stoneware pottery sherds are located c. 25.68 m at 12 degrees from the site datum.

SITE NO.: State: 13298 PHRI: T-48 SITE TYPE: Complex (7 Features)

TOPOGRAPHY: Depression between pahoehoe ridges

oriented NW-SE.

**VEGETATION:** Thick grass, <u>kiawe</u>, <u>koa-haole</u>, lantana, purple floweringvines, and <u>'ilima</u> in depression.

ELEVATION: c. 20 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Quarry/agriculture/

temporary habitation

**DESCRIPTION:** The site complex consists of a cairn (Feature A), a rubble concentration (Feature B), two linear mounds (Features C and F), a modified crevice (Feature D), a pahoehoe excavation (Feature E) and a modified fault (Feature G). The features are relatively dispersed over an area of at least 1000.00 sq m.

FEATURE A: Cairn

**FUNCTION**: Indeterminate marker

**DIMENSIONS**: 0.34 m by 0.30 m by 0.77 m

**DESCRIPTION:** The cairn is constructed with four pahoehoe blocks of similar shape and size stacked one on top of another. It is built on top of naturally cracked pahoehoe, situated on the southwest side of and below large ridge of pahoehoe.

FEATURE B: Rubble concentration

**FUNCTION:** Quarry

**DIMENSIONS:** 7.20 m by 4.50 m by 0.27 m

**DESCRIPTION:** Feature B is located 2.44 m south from Feature A. It consists of pahoehoe cobbles and boulders concentrated near an overhang at the base of a ridge. The cobbles and boulders range in size from 13x10x5 cm to 62x34x27 cm. They are concentrated in front of the overhang and were probably removed from the overhang area. No deposits or portable remains are present inside the overhang. A vesicular basalt abrader occurs on the rock concentration; it measures 12x12x10 cm.

FEATURE C: Linear mound (Figure A-16) FUNCTION: Possible temporary habitation/agriculture DIMENSIONS: 3.55 m by 1.68 m by 0.86 m

**DESCRIPTION:**A linear mound roughly oriented N-S, parallel to small the major axis of an adjacent overhang. The mound is partially faced on the west side and is constructed with crudely stacked angular pahoehoe cobbles and boulders. The rock size ranges from 10x9x7 cm to 54x47x12 cm. A waterworn basalt hammerstone with battering marks on two ends, is present between the linear mound and the overhang.

A 1.80 by 1.00 m test trench was excavated across the narrow axis of the mound, at the center, in order to determine if subsurface features were buried beneath the rocks. The rock fill was found to be overlying a depression in the pahoehoe surface, and continued to 0.94 m below the top of the mound. At the base of the rock fill, which was a uniform deposit of large cobbles and small boulders, a bedrock surface with narrow, soil-filled crevices was encountered. The soil deposits were up to 0.13 cm thick in the crevices and consists of very rich, black loam. No portable remains were observed. A sample of the soil deposit was obtained for additional analysis (see subsurface findings).

FEATURE D: Modified crevice

**FUNCTION**: Possible water catchment/agriculture **DIMENSIONS**: 5.00 m by 2.20 m by 0.85 m

**DESCRIPTION:** Feature D is located 25.4 m from Feature B at 201 degrees Az. It consists of piled and stacked boulders and cobbles in a natural crevice between an aa flow and an overhang. The feature is situated along the southwest edge of the site at the southeast base of a pahoehoe ridge. The ends of the crevice, and a small area in front of the overhang are filled with slabs and blocks of pahoehoe, leaving a central area clear of cobbles. This central area has the appearance of a walled hole. The hole area measures c. 2.05 m at 228 degrees by 0.85 m. A large waterworn basalt hammerstone measuring c. 23x23x17 cm with battering on two ends is located in the NE wall.

**FEATURE E:** Pahoehoe excavation **FUNCTION:** Quarry/possible agriculture **DIMENSIONS:** 2.50 m by 1.30 m by 0.28 m

**DESCRIPTION:** Modified pahoehoe excavation, located 11.00 m south from Feature D. The excavation is rectangular in plan, and quarried blocks are stacked 1-2 courses high, directly on the edges of the excavation. Two layers of pahoehoe are excavated through. The hole is cleared, with the exception of a few blocks. The excavated hole measures c. 1.8 m at 210 degrees by 0.62 m. The hole depth is c. 0.78 to 1.2 m below surface.

FEATURE F: Linear mound FUNCTION: Indeterminate

**DIMENSIONS**: 4.66 m by 1.58 m by 0.52 m

**DESCRIPTION:** This linear mound is situated on the top of a linear pahoehoe ridge, and is oriented northeast/southwest. It is constructed with thin slabs of pahoehoe and has a long rectangular shape. The slabs range from 16x10x3 cm to 96x46x6 cm. The area surrounding Feature F consists of broken pahoehoe slabs that cover the top of the ridge.

**FEATURE G:** Modified crevice (*Figure A-17*) **FUNCTION**: Possible water catchment

**DIMENSIONS**: 4.20 m by 1.15 m by 1.55 m maximum

**DESCRIPTION:** This feature is located 24.10 m west from Feature B. It consists of a large crevice/fault area with two faced walls oriented across and perpendicular with the long axis of the crack. The wall are 0.66 m high, and are filled behind with small cobbles, creating a cleared, vertical-sided depression between the walls. This open depression measures 1.40 m at 88 degrees by 0.96 m. Maximum depth of the hole from the natural faulted surface is 1.55 m.

SITE NO.: State: 13299 PHRI: T-4 (Figure A-18)

SITE TYPE: Terrace

**TOPOGRAPHY:** The terrain consists of a depression area with an undulating floor, and high ridges in all directions.

**VEGETATION:** Thick grass, <u>'ilima</u>, purple flowering vines, and <u>kiawe</u> trees.

ELEVATION: c. 17 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Ceremonial/

possible agriculture

**DIMENSIONS:** 3.50 m by 2.55 m by 0.55 m overall

maximum height

**DESCRIPTION**: The site is located at the base of the northeast rim of a pahoehoe ridge, in a shallow depression.

It is constructed with pahoehoe slabs and smaller pieces of broken pahoehoe. The slabs are concentrated in the northern portion of the terrace, where rock fill is deepest. The main terrace is D-shaped and raised along the western, curved side.

A semicircular extension occurs off the southwest edge of the terrace. The extension surface is level; fill consists of small pahoehoe pieces with a perimeter of larger pieces. It is raised 0.19 m on the west side, and is 0.36 m below the surface of the main terrace.

Portable remains present on the terrace include branch coral fragments, waterworn cobbles and pebbles, and concreted sand.

A 1.0 by 1.0 m test unit was excavated into the terrace in order to determine if buried features (i.e., human skeletal remains) were present. Surface fill in the test unit consisted of flat pahoehoe slabs, branch coral, four waterworn pebbles, and various-size pieces of broken pahoehoe. This deposit continued for 0.35 m. A thin deposit of small coral fragments and irregular, pebble-size pahoehoe pieces occurred immediately on the bedrock surface, 0.35 m below the terrace surface. A soil deposit 0.03 m thick occurred in a shallow crevice at the northwest corner of the unit. This deposit was sampled for further analysis (see subsurface findings). No portable remains or cultural deposit was encountered.

SITE NO.: State: 13300 PHRI: T-50 SITE TYPE: Complex (13 Features)

**TOPOGRAPHY:** Very uneven, upthrusted pahoehoe ridge that is oriented N-S with collapsed blisters and sinkholes in the surrounding area.

**VEGETATION:** Thick grasses, <u>'ilima</u> and Christmasberry in the sink holes, and sparse grass and <u>'ilima</u> on the ridge.

ELEVATION: c. 17 feet CONDITION: Good INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric/possibly recent FUNCTIONAL INTERPRETATION: Habitationagriculture

**DESCRIPTION:** The overall complex area measures c. 39.42 m (N-S) by 26.65 m (E-W). Portable remains consists of waterworn basalt, coral, marine shell midden, and a possible cultural deposit. Recent refuse is also present in the area.

FEATURE A: Enclosure (4) (Figure A-19)

FUNCTION: Agriculture

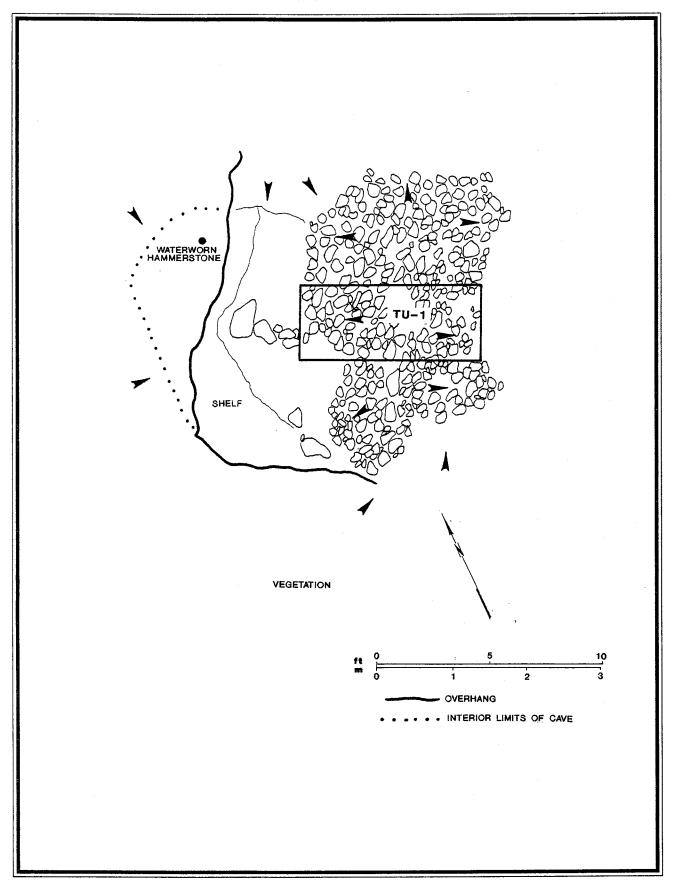


Figure A-16. SITE 13298, FEATURE C



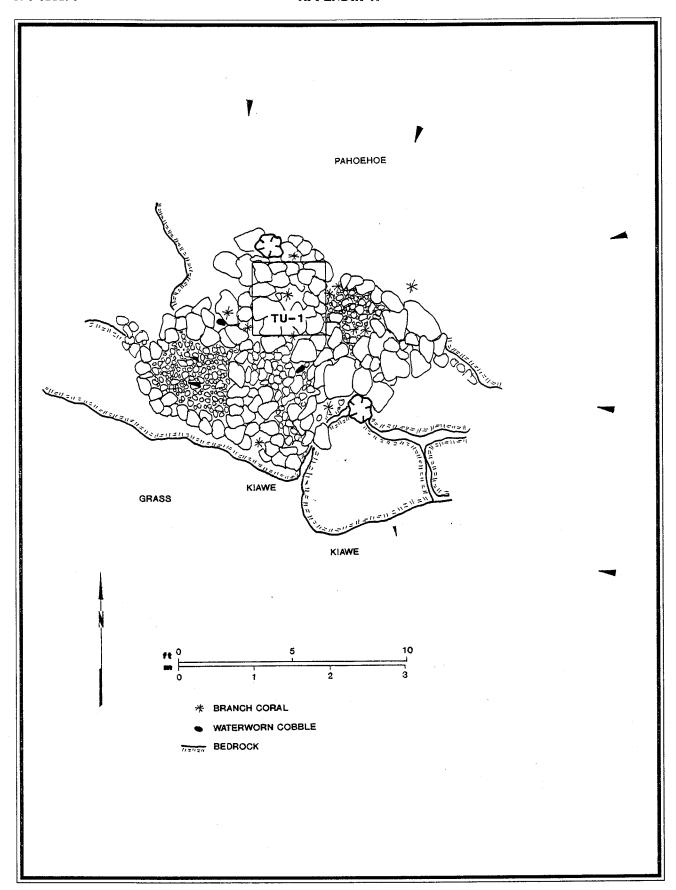


Figure A-18. SITE 13299

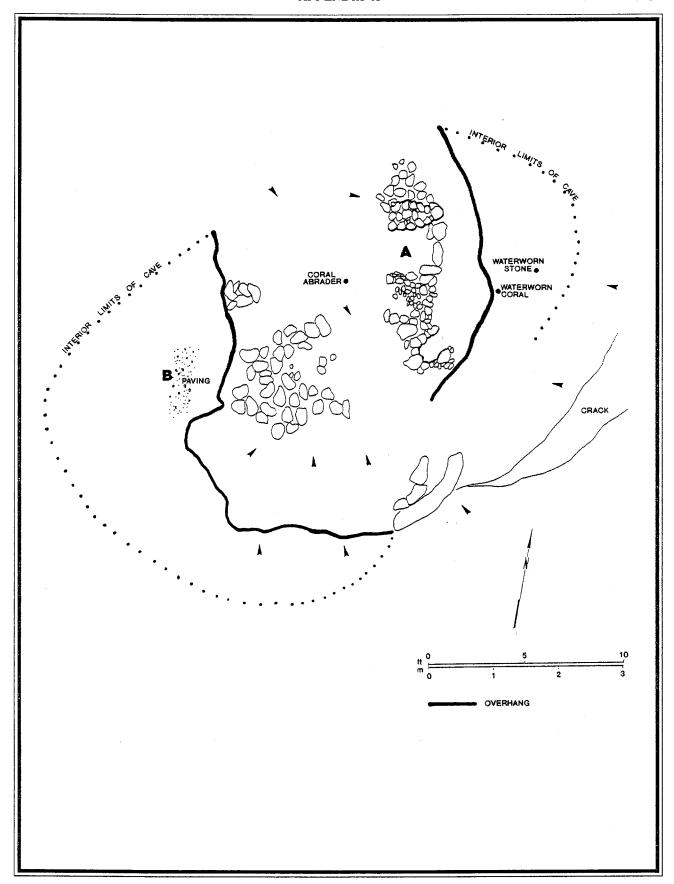


Figure A-19. SITE 13300, FEATURES A AND B

**DIMENSIONS**: 3.60 m by 0.90 m by 0.30 m

**DESCRIPTION:** The feature consists of four small enclosures located in the bottom of a 1.00 m deep sinkhole. The enclosures are adjacent to one another and share common walls. They vary in shape from roughly rectangular to circular, and follow natural formations in the sinkhole. Small blocks and slabs of pahoehoe are stacked in alignments to create the enclosures. The walls are stacked one and two cobbles high, with heights ranging from 0.13 to 0.30 m.

The enclosures or planting areas are numbered 1 to 4 from north to south in order to describe the dimensions. No. 1 measures 0.7 (N-S) by 0.68 m (E-W) and wall width of 0.18-0.4 m. No. 2 measures 0.45 m (N-S) by 0.4 m (E-W) and wall width of 0.2 m. No. 3 measures 0.4 m (N-S) by 0.35 m (E-W) and wall width of 0.2-0.4 m. No. 4 measures 1.2 m (N-S) by 0.36 m (E-W) and wall width of 0.2 m. No. 4's east wall incorporates natural pahoehoe collapse.

Soil deposits are present in all enclosures; two are cleared of stones and two have some small cobbles mixed with the soil. Plastic water jugs and plastic plant bags are scattered in an adjacent overhang, inside the sinkhole. Feature A has apparently been used recently for cultivation purposes, and may have been constructed recently as well. A soil sample was obtained from one of the enclosures for comparative purposes.

**FEATURE B:** Modified overhang **FUNCTION**: Temporary habitation

**DIMENSIONS**: 11.00 m by 9.00 m by 0.95 m maximum

ceiling height

**DESCRIPTION:** The overhang is located under the southwestern rim of the Feature A sinkhole. The overhang floor is 0.78 m above the floor of the sinkhole, and is slightly sloping and irregular. A depressed area of the floor at the access is paved with pahoehoe slabs and blocks. The paving measures 1.38 by 0.64 m. Ceiling height at the access from the sinkhole is 0.56 m. No portable remains or soil deposits are present inside the overhang.

FEATURE C: Modified sinkhole

**FUNCTION:** Agriculture

DIMENSIONS: 11.00 m by 4.20 m by 1.00 m maximum

denth

**DESCRIPTION:** This modified sinkhole is located 7.30 m from the north rim of the Feature A/B sinkhole at 330 degrees Az. The Feature C sinkhole is oriented northeast-southwest and is collapsed and open at the southwest end. The floor of the sinkhole is covered with angular pahoehoe cobbles and boulders.

Four identifiable areas within the sink hole have been cleared. These areas are numbered 1 to 4. Clearing no. 1 is located at the far west end of the sinkhole. It measures 1.77 m at 272 degrees by 0.9 m. It extends 0.50-0.75 m below the surrounding boulders. Clearing no. 2 is located at the far south corner of the sinkhole. It measures 1.8 m at 168 degrees by 1.6 m, and is 0.5-0.7 m below the surrounding boulders. A large waterworn basalt hammerstone is inside the clearing. Clearing no. 3 is along the mid-south wall. It measures 2.8 m at 222 degrees by 1.4 m, and is 0.6-1.0 m deep. Clearing no. 4 is at the far southeast corner of the sinkhole. It measures 3.20 m at 93 degrees by 1.7 m, and is 0.8 m deep. No soil was observed inside the clearings, however, the rock fill continues below the base of the clearings, so buried soil may be present.

FEATURE D: Overhang (Figure A-20) FUNCTION: Temporary habitation

**DIMENSIONS**: 11.00 m by 2.50 m by 1.76 m maximum

ceiling height

**DESCRIPTION:** Feature D is an overhang situated along the eastern rim of a sinkhole, located 25.53 m northeast of the Feature A/B sinkhole. The floor of the sinkhole is 2.26 m below surface along the east side, and the overhang floor is on a shelf 0.50 m above the floor of the sinkhole.

The access to the overhang from the sinkhole is paved with pahoehoe slabs. The paved area measures 2.3 m (N-S) by 2.15 m (E-W). It is built with mostly single laid slabs with a maximum thickness of three slabs.

<u>Kukui</u> nut shells, marine shell, a waterworn basalt pebble, and pig skeletal remains are scattered inside the overhang. A waterworn basalt hammerstone was located c. 3.4 m WSW of the south end of the paving. Soil is present, however, no charcoal was observed. Two soil samples were collected from areas with the thickest soil deposition (0.03 m).

FEATURE E: Overhang

FUNCTION: Temporary habitation

DIMENSIONS: 4.50 m by 2.20 m by 1.47 m maximum

ceiling height

**DESCRIPTION**: Feature E is located along the north rim of the Feature D sinkhole, 7.00 m northwest from Feature D. It is a small overhang shelter, situated on a shelf 0.50 m above the floor of the sinkhole. A small paved area consisting of flat pahoehoe slabs occurs at the access from the sinkhole. The pavement is 2.40 by 1.70 m and is raised a maximum of 0.05 m above the overhang floor. No soil or portable remains occur inside the overhang.

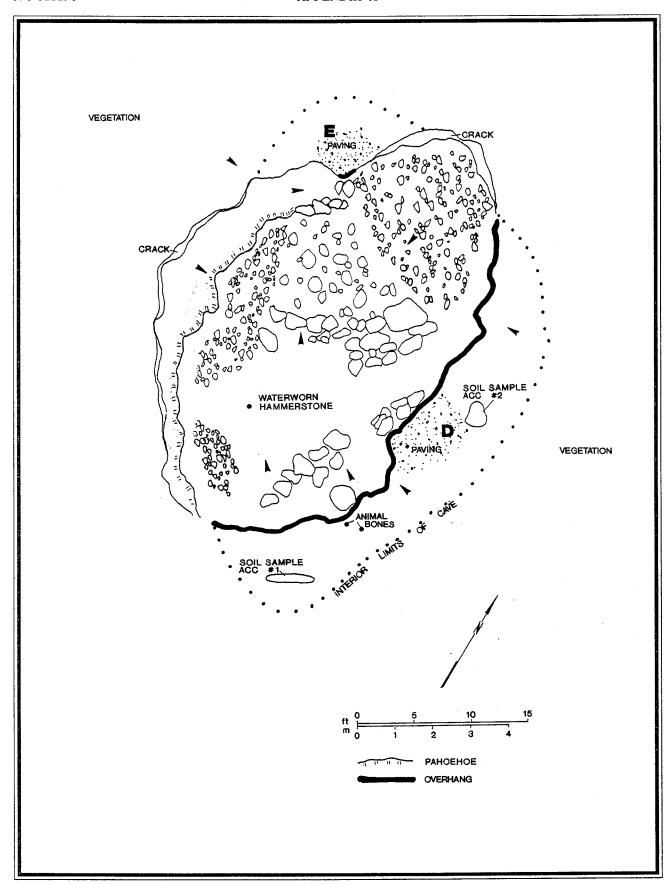


Figure A-20. SITE 13300, FEATURES D AND E

**FEATURE** -: Pahoehoe excavation (5)

FUNCTION: Quarry/agriculture

**DESCRIPTION:** Throughout Site 13300 are five pahoehoe excavations, including two excavated blisters, two crevices and one fault. Two of these excavations have totally cleared floors. One to four of the faces are excavated and the average pahoehoe layer thickness is 0.25 m; average depth of the excavations is 0.47 m below surface.

The quarried slabs and blocks are closely associated with the excavated areas. The blocks average size is c. 18x10x21 cm. Two small hammerstones were noted near the various pahoehoe excavation areas with battering and pecking marks visible on two to four sides.

**SITE NO.:** State: 13301 PHRI: T-51 **SITE TYPE:** Complex (2 Features)

**TOPOGRAPHY**: Site is situated at the bottom of a large collapsed blister. The floor of the blister is fairly flat, ropy pahoehoe.

**VEGETATION**: Thick grass, <u>kiawe</u>, and Christmas-berry

ELEVATION: c. 20 feet CONDITION: Good INTEGRITY: Unaltered

PROBABLE AGE: Indeterminate/prehistoric

**FUNCTIONAL INTERPRETATION:** Possible agriculture **DESCRIPTION:** The overall complex area measures c. 5.2 m at 234 degrees by 3.08 m. The site consists of a terrace (Feature A) and a cobble concentration (Feature B).

FEATURE A: Terrace FUNCTION: Agriculture

**DIMENSIONS**: 2.56 m by 2.28 m by 0.40 m maximum

height

**DESCRIPTION:** The terrace is roughly triangular shape in plan. It is level with the ground surface on the north and east sides and raised two to three courses high (0.40 m) on the south and west sides. The terrace surface is relatively level and paved with small angular pahoehoe cobbles. The southwest corner is raised slightly above the terrace surface. Larger boulders and cobbles define the perimeter. A single cobble alignment extends from Feature A to Feature B along the southern boundary of the features.

**FEATURE B:** Angular cobble concentration

FUNCTION: Agriculture

**DIMENSIONS**: 1.74 m by 1.66 m by 0.36 m

**DESCRIPTION**: Feature B is a low pile of angular cobbles and slabs of pahoehoe. It consists of angular blocks and slabs ranging in size from 12x8x6 cm to 33x31x21 cm crudely stacked one to two courses high.

SITE NO.: State: 13302 PHRI: T-52 SITE TYPE: Complex (7 Features)

TOPOGRAPHY: Large pahoehoe ridge or upthrust with

a low depression to the east.

VEGETATION: Thick grass, 'ilima, lantana bushes, and

Christmas-berry trees.
ELEVATION: c. 18 feet
CONDITION: Good
INTEGRITY: Unaltered
PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Temporary

habitation-quarry/agriculture

**DESCRIPTION:** The overall complex area measures c. 27.5 m at 329 degrees by 15.2 m. The complex consists of two caves (Features A and B) a bi-level overhang shelter (Feature C) and four pahoehoe excavations.

Portable remains present at the site include coconut husks, coral, marine shell fragments, small pockets of soil in Features B and C and an ash deposit in Feature C. The midden is sparse and the ash deposits look very low in charcoal.

FEATURE A: Cave

FUNCTION: Temporary habitation

**DIMENSIONS:** 3.60 m by 3.20 m by 1.00 m

DESCRIPTION: The cave entrance is at the base of a large pahoehoe upthrust, and faces 100 degrees Az; it is horizontal and measures 0.85 m in width by 0.9 m in height. An area 1.10 m wide is blocked off on the south side of the entrance and 0.4 m wide is also blocked off on the north side of the opening. The stacked blocks may have been quarried from the cave dripline, which appears to have been mined. The cave interior floor is cleared of loose rubble and slightly lower that the surface exterior. A single Conus shell fragment and a piece of branch coral is present inside the cave. A concentration of coconut husks also occurs at the northern end where the ceiling is c. 0.6 m high.

FEATURE B: Cave

FUNCTION: Temporary habitation

**DIMENSIONS**: 6.75 m by 2.50 m by 1.17 m maximum

ceiling height

**DESCRIPTION:** Feature B is located in a steep-sided ravine between two large upthrusts, 27.2 m from Feature A at 329 degrees Az. The sheltered area opens to to the southeast through a nearly vertical entrance. The entrance measures c. 2.8 m by 1.4 m with a ceiling height of 1.17 m. A depression immediately inside of the opening has been filled with large pahoehoe blocks possibly knocked from the rim of the overhang. The interior area is divided into three compartments that are separated by roughly aligned blocks.

The easternmost compartment is a crawlspace with scattered coconut husks on the floor. The western compartment also has coconuts and is a cleared, fairly level area measuring 1.4 m (E-W) by 1.37 m. A narrow tube (0.50 m wide) extends off the southeastern end of this compartment. The floor of the tube is very irregular and blocked at the western compartment by a large boulder; however, it is still accessible. Coconut husks are scattered in crevices in the tube floor 6.0 m from the west compartment. The tube branches and continues in both directions, but is not accessible.

Portable remains scattered on the cave floor include 20+ Cypraeidae shell fragments, six *Nerita picea* shells, four Thaididae shells and a Conus shell fragment, in addition to several coconut husks.

FEATURE C: Overhang (Figure A-21)

FUNCTION: Temporary habitation

DIMENSIONS: 5.00 m by 2.40 m by 2.15 m overall ceiling

height

**DESCRIPTION:** Feature C is a bi-level overhang located along the south side of the narrow ravine, 15.0 m east from Feature B. The two overhang levels share the same opening, with the floor of the upper level forming the ceiling of the lower level. The upper level floor is 1.35 m above the lower level floor. Thin deposits of soil and ash occur in both levels.

The upper level is 5.00 m wide by 2.40 m deep and has an average ceiling height of 0.80 m. The floor is even, but irregular, and cleared of loose stones which were used to fill a depression at the east end. The filled depression is 1.55 m (E-W) by 0.9 m, and serves to extend the floor space of the shelter. Other rocks are loosely stacked behind the filled area. Two Thaididae shells and six Cypraeidae fragments are scattered on the upper level floor. Two very thin patches of ashy soil, suggestive of hearths, are present.

The lower level shelter is 4.30 m wide by 2.40 m deep and has an average ceiling height of 0.65 m, with a height of 0.84 m at the opening. The floor is relatively uneven and has been cleared of loose rubble, which is concentrated along the side walls. A depression at the north end of the shelter has been filled to level with the surrounding floor. The fill consists of a single layer of pahoehoe cobbles overlying a thin deposit of soil. Portable remains in this level include bird bone, Echinoidea spine pieces, Thaididae shell and Cypraeidae shell fragments.

A 1.00 by 0.50 m test unit was excavated into the cobble-filled depression, where the greatest deposit thickness was observed. The soil here was found to vary in thickness from 0.03 to 0.05 m. All soil was screened through 1/8 inch

mesh. Three Cypraeidae shell fragments were recovered. No charcoal or other portable remains were recovered from the test unit.

At the west end of the overhang is a small shelf, situated midway between the upper and lower levels of the feature. An ashy soil deposit with Echinoidea spines occurs on the shelf. The shelf is a faulted portion of the upper level floor/lower level ceiling, which dropped 0.50 m. The ceiling is the western, low, end of same ceiling over upper level. The shelf and the deposit is best accessed from the lower level, the floor of which is 0.40 m below the shelf level.

FEATURE -: Pahoehoe excavation (4)

FUNCTION: Quarry/agriculture

**DESCRIPTION:** A total of four pahoehoe excavation areas were noticed southeast of Features A and B in a low area between pahoehoe upthrusts and ridges. All excavations have cleared interior floors with quarried blocks in close proximity. The average excavated area is 0.75 m by 0.63 m, and average thickness of the excavated pahoehoe layer is 0.16 m.

SITE NO.: State: 13303 PHRI: T-53

SITE TYPE: Cave

TOPOGRAPHY: Undulating pahoehoe with an aa field

c. 10.0 m to the northwest.

VEGETATION: No vegetation in the immediate area.

ELEVATION: c. 20 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Storage

**DIMENSIONS**: 3.50 m by 2.35 m by 0.80 m maximum

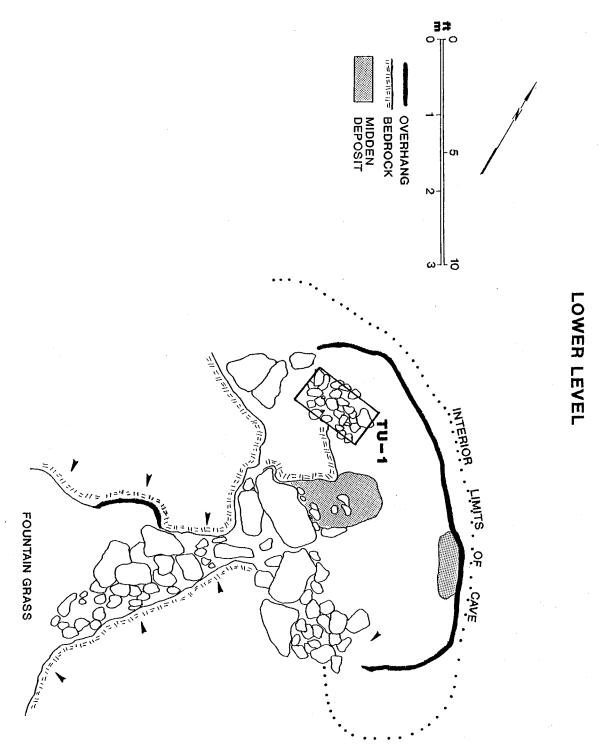
ceiling height

**DESCRIPTION:** The entrance opens to the north and measures 0.82 m wide and 0.37 m high. It is a natural lava bubble with a cleared floor area. It is small and not large enough for habitation. A single Echinoidea fragment was observed on the floor, in addition to coconut husks. A depression immediately outside the cave entrance is filled with pahoehoe cobbles to within 0.25 m below the surrounding surface.

SITE NO.: State: 13304 PHRI: T-54 SITE TYPE: Pahoehoe excavation

TOPOGRAPHY: Smooth and flat pahoehoe surface. VEGETATION: Small succulent vines and <u>koa-haole</u>, with a large <u>noni</u> growing out of the excavated opening.

ELEVATION: c. 84 feet CONDITION: Good INTEGRITY: Unaltered



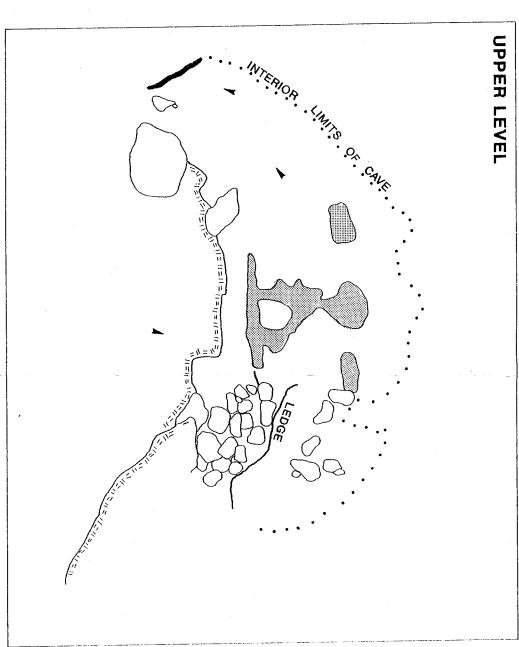


Figure A-21. SITE 13302, FEATURE C

PROBABLE AGE: Prehistoric

**FUNCTIONAL INTERPRETATION: Quarry DIMENSIONS**: 0.57 m by 0.47 m by 0.38 m

**DESCRIPTION**: A blister type of excavation in which a small hole has been excavated. There are a few quarried blocks on the floor interior. No modifications except for c. 30 small boulders stacked in a circular arrangement around the opening.

**SITE NO.:** State: 13305 PHRI: T-55 SITE TYPE: Pahoehoe excavation TOPOGRAPHY: Smooth pahoehoe flow.

VEGETATION: Sparse grass, one kiawe tree, small 'ilima

bushes, and succulent plants. ELEVATION: c. 107 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

**FUNCTIONAL INTERPRETATION: Quarry DIMENSIONS**: 0.63 m by 0.52 m by 0.53 m

**DESCRIPTION**: One small excavation into a pahoehoe blister. The associated quarried blocks are located 1.0 m to the northeast and are arranged in a rough alignment. Two faces are excavated; the mined pahoehoe layer is 0.15 m to 0.36 m thick. Depth of the excavation varies from 0.46 m to 0.53 m below surface. The interior is cleared of loose rubble and no soil is evident.

**SITE NO.:** State: 13306 PHRI: T-57 **SITE TYPE:** Complex (12 Features) TOPOGRAPHY: Pahoehoe finger flows.

VEGETATION: Lantana, Christmas-berry, kiawe, and

fountain grass.

ELEVATION: c. 209 feet **CONDITION:** Good **INTEGRITY**: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture DESCRIPTION: The site consists of 12 pahoehoe excavations, all of which are into blisters. Quarried stone is scattered haphazardly around and in the excavations. Overall site area is 55.0 m at 340 degrees Az. by 12.50 m.

**SITE NO.:** State: 13307 PHRI: T-58 SITE TYPE: Pahoehoe excavation

TOPOGRAPHY: Pahoehoe fingers with aa flow surrounding

the southeast area.

VEGETATION: Christmas-berry and fountain grass.

ELEVATION: c. 226 feet **CONDITION:** Fair **INTEGRITY**: Unaltered PROBABLE AGE: Prehistoric FUNCTIONAL INTERPRETATION: Possible agriculture

**DIMENSIONS**: 1.10 m by 0.50 m by 0.35 m

**DESCRIPTION**: This is a semicircular excavation into a pahoehoe blister. A small overhang occurs under the north rim of the excavation. Quarried blocks are haphazardly arranged to the north and south of the excavation, and the interior area is cleared of larger pieces of rubble. The overall measurement including the quarried rocks is 4.10 m at 250 degrees by 2.20 m.

A soil deposit with gravel occurs within an area 0.70 by 0.35 m inside the excavation. The mined lava layer her is 0.22 m thick.

SITE NO.: State: 13308 PHRI: T-60

SITE TYPE: Trail

TOPOGRAPHY: The terrain consists of aa flow sloping

NE to the SW.

VEGETATION: Sparse Christmas-berry and kiawe trees.

**ELEVATION**: c. 119 feet CONDITION: Poor-fair INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Transportation

**DIMENSIONS**: 49.80 m by 0.82 m

**DESCRIPTION**: This trail section was identifiable only where it crossed an aa flow. It is segmented with places along the measured length that could not be distinguished. Portions of the trail that are distinguishable are slightly indented from the surrounding aa and paved with packed aa clinkers. A few portions of the trail are bordered with aa cobbles. The trail is oriented north/south, roughly parallel to the shoreline.

SITE NO.: State: 13309 PHRI: T-61

SITE TYPE: Terrace

TOPOGRAPHY: Uneven pahoehoe flow with a gentle

flow from the northeast.

VEGETATION: Thick grass, lantana, koa-haole, kiawe,

and sparse 'ilima. ELEVATION: c. 106 feet CONDITION: Fair

**INTEGRITY**: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture

**DIMENSIONS**: 2.80 m by 1.83 m by 0.25 m

**DESCRIPTION**: A roughly L-shape terrace, it is partially constructed on bedrock. It is faced on the SW side with large pahoehoe cobbles and is raised 0.25 m above the natural ground surface. The terrace surface is fairly smooth with

small cobbles and pebbles used as fill.

**SITE NO.:** State: 13310 PHRI: T-62

**SITE TYPE:** Alignment

TOPOGRAPHY: Fairly flat smooth pahoehoe which

slopes southeast of site.

VEGETATION: Fountain grass, kiawe, lantana, and koa-

haole heavily surrounds the site.

ELEVATION: c. 74 feet CONDITION: Fair INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric-historic

FUNCTIONAL INTERPRETATION: Indeterminate

**DIMENSIONS**: 4.20 m by 3.90 m by 0.21 m

**DESCRIPTION:**Pahoehoe blocks and slabs were removed and placed on top of smooth pahoehoe in a roughly semi-oval alignment. The blocks are single stacked, 0.10-0.20 m high, with additional blocks in and around the alignment. In all, there are c. 35 pahoehoe blocks. The interior measures 2.3 m (E-W) by 0.8 m (N-S). No indication of any type of pahoehoe excavation blister or crevice is in the area.

SITE NO.: State: 13311 PHRI: T-63 SITE TYPE: Complex (2 Features)

TOPOGRAPHY: Smooth pahoehoe flow that slopes to

the SSW.

VEGETATION: Heavily surrounded with fountain grass,

kiawe, koa-haole, lantana, and wild 'ilima.

ELEVATION: c. 71 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Possible agriculture

**DIMENSIONS**: 10.00 m by 9.20 m by 0.47 m

**DESCRIPTION:** This site consists of two excavated pahoehoe blisters. It is located within an area of smooth pahoehoe and heavy vegetation. All faces of both features are excavated. The excavated blisters are 5.8 m (NE-SW) apart from each other. Both blisters contain less than 0.05 m of brown soil deposit on the floor interiors.

One of the excavations is associated with an overhang that measures 6.0 m (N-S) by 3.5 m (E-W). The excavated blocks were removed and placed inside of the overhang at c. 1.0-2.0 m from the opening. There are c. 50 pahoehoe blocks in a random arrangement. This pahoehoe excavation measures 0.89 m (E-W) by 0.75 m (N-S). The maximum depth is 0.92 m and the excavated pahoehoe layer is 0.28-0.30 m thick. The excavated opening is semicircular shape in plan.

The second excavated blister is triangular in shape and measures 1.33 m (E-W) by 1.0 m (N-S). It is 0.36 m deep on the south side and 0.47 m on the north side. The 25 quarried blocks are placed on the south side of the excavation.

**SITE NO.:** State: 13312 PHRI: T-64

**SITE TYPE:** Terrace

TOPOGRAPHY: The immediate area consists of two flat

areas separated by a 0.60 m vertical wall.

VEGETATION: Thick grass, koa-haole, and kiawe.

ELEVATION: c. 64 feet CONDITION: Fair INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture

**DIMENSIONS**: 6.55 m by 1.13 m by 0.41 m

**DESCRIPTION:** This linear terrace is oriented NW-SE. It is raised on the southwest side 0.25 to 0.41 m, and faced with two to three courses of stacked cobbles. The terrace surface is fairly level, and fill consists of pahoehoe cobbles and pebbles. Two levels are present, with the upper level an average of 0.16 m above the lower level. The upper level surface is paved with small pebbles, whereas the lower level contains a deposit of soil at least 0.15 m thick.

**SITE NO.:** State: 13313 PHRI: T-66

SITE TYPE: Pecking marks

**TOPOGRAPHY:** The site is situated on top of smooth pahoehoe finger that slopes to the southwest. The finger

is surrounded by aa flow.

**VEGETATION**: A low density of fountain grass, kiawe,

kolu, and 'ilima surround the site.
ELEVATION: c. 65-70 feet
CONDITION: Poor-fair
INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Indeterminate

DIMENSIONS: 0.30 m by 0.06 m

**DESCRIPTION:** The site consists of a series of pecked marks forming four round shallow depressions aligned on smooth pahoehoe. The average diameter of the depressions measures 0.05 m. There are many pahoehoe blocks and cobbles to the northwest and south side of the site.

SITE NO.: State: 13314 PHRI: T-67 SITE TYPE: Pahoehoe excavation

**TOPOGRAPHY**: Undulating pahoehoe flow. **VEGETATION**: Grass, <u>koa-haole</u>, and <u>kiawe</u>.

ELEVATION: c. 94 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Quarry/possible

agriculture

**DIMENSIONS**: 1.61 m by 1.18 m by 0.63 m

**DESCRIPTION**: An excavated pahoehoe blister with one layer of pahoehoe penetrated. The interior of the excavation

is level and covered with small angular cobbles and three small boulders. The thickness of the excavated pahoehoe layer ranges from 0.23-0.63 m. The depth of the excavation ranges from 0.57-0.73 m below surface. There are c. 20 quarried blocks concentrated on the northwest side of the blister. They range in size from 19x11x20 to 45x23x18 cm.

**SITE NO.:** State: 13315 PHRI: T-68

SITE TYPE: Rubble wall

TOPOGRAPHY: The site is on a fairly flat pahoehoe

blister that slopes slightly toward the WNW.

**VEGETATION**: The site is surrounded by koa-haole,

fountain grass, kiawe, and Christmas-berry.

ELEVATION: c. 88 feet CONDITION: Fair INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric-historic

FUNCTIONAL INTERPRETATION: Indeterminate

**DIMENSIONS**: 2.95 m by 0.95 m by 0.32 m

**DESCRIPTION:** A rubble wall of pahoehoe blocks and slabs occurs in an area of natural collapse and high density of vegetation. The wall width ranges from 0.24-0.95 m and the height from 0.12-0.32 cm. The types of rocks consists of surface blocks and slabs of both smooth and ropy pahoehoe, and aa cobbles. The wall is along the edge of a naturally collapsed blister. There are c. 30 blocks and/or slabs present.

**SITE NO.:** State: 13316 PHRI: T-69 (*Figure A-22*)

**SITE TYPE:** Complex (8 Features) **TOPOGRAPHY:** Pahoehoe flow.

VEGETATION: Fountain grass, koa-haole, 'ilima, kiawe,

impatiens, and lantana.

ELEVATION: c. 108 feet

CONDITION: Good

INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric

**FUNCTIONAL INTERPRETATION: Quarry** 

**DESCRIPTION:** This site consists of eight pahoehoe excavations, six of which are in blisters and two of which are along crevices. Overall site area is 33.55 m at 356 degrees Az. by 12.60 m. The excavations range from  $0.42 \text{ m} \times 0.45 \text{ m} \times 0.29 \text{ m}$  to  $2.54 \text{ m} \times 1.8 \text{ m} \times 0.52 \text{ m}$ . The thickness of the excavated pahoehoe layer averages 0.25 m.

**SITE NO.:** State: 13317 PHRI: T-70

SITE TYPE: Pavement

**TOPOGRAPHY**: Fairly flat smooth pahoehoe setting. **VEGETATION**: Dense grass, <u>koa-haole</u>, <u>kiawe</u>, and morning

glory.

ELEVATION: c. 93 feet CONDITION: Fair-good

INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Indeterminate

**DIMENSIONS**: 6.00 m by 2.00 m by 0.05 m

**DESCRIPTION**: An arrangement of pahoehoe cobbles set in a single layer on smooth pahoehoe. No portable remains or soil is present.

SITE NO.: State: 13318 PHRI: T-71 SITE TYPE: Modified blister

**TOPOGRAPHY**: Fairly flat and smooth pahoehoe flow. **VEGETATION**: Moderate grass, small <u>koa-haole</u> trees,

and lantana bushes.

ELEVATION: c. 98 feet

CONDITION: Good

INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric

**FUNCTIONAL INTERPRETATION:** Possible agriculture **DESCRIPTION:** A large collapsed pahoehoe blister that is partially cleared of natural collapse rubble. The cleared portion is 1.50 by 1.40 m, and located at the northwest edge of the blister. The remained of the interior area is filled with loosely piled rubble. No portable remains were observed at the site.

SITE NO.: State: 13319 PHRI: T-72 SITE TYPE: Pahoehoe excavation

TOPOGRAPHY: Fairly even pahoehoe flow to the west

with an aa flow to the northeast.

VEGETATION: Koa-hoale and morning glory.

ELEVATION: c. 105 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

**FUNCTIONAL INTERPRETATION:** Quarry **DIMENSIONS:** 3.85 m by 0.00 m by 0.39 m

**DESCRIPTION:** This site consists of an excavated edge of the pahoehoe flow. The flow edge is oriented c. N-S with the actual excavation at various points along the face edge.

One layer of pahoehoe is excavated with the average thickness at 0.39 m. The quarried blocks are located to the west and east of the aa flow.

**SITE NO.:** State: 13320 PHRI: T-73

SITE TYPE: Modified blister

**TOPOGRAPHY**: A collapsed blister of smooth pahoehoe. **VEGETATION**: Thick fountain grass, <u>koa-haole</u> trees,

and small <u>'ilima</u> bushes. **ELEVATION**: c. 140-147 feet

CONDITION: Fair INTEGRITY: Unaltered



Figure A-22. SITE 13316. View to West (PHRI Neg.1243-35).



Figure A-29. SITE 13339, FEATURE A. View to Southeast (PHRI Neg.1248-27)

Feature G is adjacent to the west side of Feature E. It is rectangular shape in plan, and raised on the SW side with a faced perimeter of pahoehoe boulders. The terrace is filled with pahoehoe cobbles and pebbles.

**FEATURE H:** Rubble mound **FUNCTION**: Agriculture

**DIMENSIONS**: 11.00 m by 6.50 m by 1.00 m

**DESCRIPTION:** This mound is located 3.0 m from Feature I at 350 degrees Az. It is irregularly shaped and is loosely constructed with large boulders, cobbles and gravel.

FEATURE I: Platform/enclosure

FUNCTION: Indeterminate/possible ceremonial

DIMENSIONS: 8.50 m by 4.60 m

**DESCRIPTION:** This feature is 3.00 m northeast from Feature G. The platform is raised on four sides with an alignment on the southeast edge that turns inward to form a square plan enclosure within the platform. This enclosure contains four boulders and an upright. The interior edges are faced 2-3 courses high and the exterior edges blend into the platform. The platform is constructed with pahoehoe boulders stacked 2-3 courses high around the exterior. The interior of the platform is filled with cobbles and clinkers. One Cypraeidae shell was observed.

FEATURE J: Cave

FUNCTION: Agriculture-habitation

**DIMENSIONS:** 8.85 m by 8.25 m by 2.10 m

**DESCRIPTION:** This cave is 34.00 m northeast from Feature C. It is a N-S oriented lava tube that originates in a collapsed blister. It contains a paved floor area with pahoehoe cobbles used as fill and excavated boulders haphazardly placed. A natural pahoehoe ledge surrounds 3/4ths of the paved area, except for the west side. A faced wall, stacked 2 courses high and 3.5 m in length occurs along this western side. South and west of the wall is a blister with a semicircular wall that is stacked 4 courses high. At the southern end of the blister is a chamber with modifications.

Oriented E-W across the north end of the chamber is another wall of boulders and cobbles stacked 3-5 courses high. At the west end, near the opening, it is stacked 8 courses high. The east corner, the wall becomes a single course alignment extending east and northeast.

The southeast corner of the chamber contains two rock mounds, spaced 0.50 m apart, and stacked 2-3 courses high. Exterior of the chamber and southwest of the paved floor is a raised paved area of boulders and pahoehoe slabs.

Portable remains observed in the cave include four Cypraeidae fragments, four *Nerita picea*, one Cellana, three Isognomonidae fragments and two waterworn basalt pebbles. In addition, there is a quantity of modern refuse, suggestive of a recent occupation component. Some or all of the modifications at this feature could therefore be recent.

FEATURE K: Terrace

FUNCTION: Possible agriculture

**DIMENSIONS**: 8.20 m by 6.00 m by 0.85 m

**DESCRIPTION:** Feature K is adjacent to and west of Feature J. Raised along the east side, it is constructed with large pahoehoe boulders stacked 2-3 courses high. The terrace fill consists of pahoehoe cobbles and clinkers. A waterworn basalt boulder is present on the feature.

**SITE NO.:** State: 13340 PHRI: T-113 **SITE TYPE:** Complex (7 Features)

TOPOGRAPHY: Undulating seaward slope with naturally

exposed bedrock.

VEGETATION: Thick fountain grass, small lantana bushes,

and several <u>kiawe</u> trees. **ELEVATION**: c. 163-169 feet **CONDITION**: Fair-good

INTEGRITY: Unaltered-except for some bulldozer

disturbance

PROBABLE AGE: Prehistoric-early historic

FUNCTIONAL INTERPRETATION: Agriculture-

habitation-possible ceremonial

**DESCRIPTION:** The overall complex area measures 27.38 m at 143 degrees by 12.92 m. The site complex consists of three terraces (Features A, D and F), three upright blocks (Feature B), an enclosure (Feature C), a modified blister (Feature E), and a platform (Feature G).

**FEATURE A:** Terrace (*Figure A-30*) **FUNCTION**: Habitation/possible ceremonial

**DIMENSIONS**: 11.35 m by 8.40 m by 0.60 m

**DESCRIPTION:** Rectangular shape in plan, the terrace is oriented c. NW-SE. The northeast and southwest sides are slightly raised and faced. The perimeter is constructed from generally large angular pahoehoe cobbles and boulders, some of which have been set upright or on edge. A few large slabs and boulders are placed at various locations on the terrace surface. The surface consists mostly of small cobbles and pebbles.

On the southwest side of Feature A is a smaller terrace which extends 3.0-4.0 m in length and is 2.0 m wide. Larger blocks comprise the perimeter of the terrace and it is filled with small angular cobbles.



Figure A-30. SITE 13340, FEATURE A. View to South PHRI Neg.1244-9)

A wall extends 5.0 m southeast from the smaller terrace. It is constructed with large perimeter blocks and filled with smaller angular cobbles. It is 0.80-1.0 m wide and 0.20-0.60 m high. Built on the edge of the pahoehoe flow, portions of wall show evidence of facing but, mostly is collasped.

FEATURE B: Upright/cairn

FUNCTION: Marker

**DIMENSIONS**: 0.85 m by 0.59 m by 0.65 m

**DESCRIPTION:** Three large angular pahoehoe blocks have been positioned on smooth pahoehoe. One block is in an upright position; one is leaning on the other two blocks, and the third block is laying on its side. The blocks are 0.40-0.62 m in length and 0.30-0.40 m in width. The cairn is 7.39 m east from Feature C.

**FEATURE C:** Enclosure and terrace **FUNCTION**: Possible agriculture

**DIMENSIONS**: 6.20 m by 5.40 m by 0.45 m

**DESCRIPTION:** A small square shape enclosure with a small diamond-shaped terrace located at the southeast side of the enclosure. The enclosure is built on top of smooth pahoehoe. It measures 3.70 m (NE-SW) by 3.17 m (NW-SE) with interior measurements of 1.8 by 1.8 m. The enclosure wall has boulder perimeters that are faced on both sides, and is filled with angular cobbles. The northeast section of the wall is 1.4 m wide and the remaining portions are 0.60-0.70 m wide.

The terrace is built on the southeast side of the enclosure and at the edge of a pahoehoe lava flow. It measures 1.6 m (NE-SW) by 2.2 m (NW-SE). The perimeter is constructed with large pahoehoe blocks and the fill consists of small cobbles.

Also on the southeast corner of the enclosure is a small square-shaped crevice that has been excavated along three faces. It measures 0.75 m (NE-SW) by 0.50 m (SE-NW) and is not cleared of quarried material.

FEATURE D: Terrace FUNCTION: Agriculture

**DIMENSIONS**: 5.00 m by 4.50 m by 0.68 m

**DESCRIPTION:** Feature D is located 8.21 m southeast from Feature A. It consists of a terrace with a small paved area adjacent to the southeast side of the terrace. The overall dimensions for both the terrace and the paved area is 5.0 m by 4.5 m. The terrace is 3.50 m E-W by 2.75 m N-S. It is raised on the west side with aligned pahoehoe boulders and on the south side with loosely stacked pahoehoe boulders. The height along the west side is 0.48 m and the south side is 0.68 m.

The paved area measures 4.5 m (E-W) by 2.25 m (N-S). A humus deposit at least 0.08 m thick was observed between the cobbles.

FEATURE E: Modified blister FUNCTION: Agriculture

**DIMENSIONS**: 4.70 m by 3.55 m by 0.76 m

**DESCRIPTION:** This feature is 8.05 m south from Feature C. It consists of a blister that is filled with pahoehoe slabs, boulders and cobbles, creating a roughly level surface. The fill is one to three layers deep. A rubble wall is constructed on the pahoehoe fill. The wall extends out of the blister to the north and connects with the Feature C enclosure wall.

FEATURE F: Terrace

FUNCTION: Possible ceremonial DIMENSIONS: 6.80 m by 5.80 m

**DESCRIPTION:** This feature is 4.80 m from a larger shrine, Feature G. It is a small triangular terrace that abuts pahoehoe bedrock on two sides. The south side is raised with pahoehoe cobbles stacked two to three courses high. The terrace contains a small paved area with an upright stone at one end and aligned stones on either side. This paved area is situated near the east end of the raised terrace wall. The feature appears to be a shrine.

FEATURE G: Platform

**FUNCTION**: Possible ceremonial

**DIMENSIONS**: 5.35 m by 3.60 m by 1.05 m

**DESCRIPTION:** The platform is faced with pahoehoe blocks, boulders, and slabs along the northwest, north and east wall. The south wall is faced with pahoehoe blocks and boulders. The walls are stacked 3-4 courses high and the surface is paved with small cobbles. The wall heights range from 0.84 to 1.05 m on the south side and 0.72-0.87 m on the north side.

On the southwest corner of the platform is a raised terrace. It measures 3.12 m (E-W) by 2.9 m (N-S) and is built with stacked boulders 1-3 courses high. The surface of the terrace is slightly sloping cobble paving. The northern half of this raised terrace appears to have boulders enclosing a slightly raised portion. Based on construction and lack of portable remains of this structure, it may have functioned as a possible ceremonial feature.

SITE NO.: State: 13341 PHRI: T-114 (Figure A-31)

SITE TYPE: Modified outcrop

TOPOGRAPHY: Pahoehoe flow edge and area of bedrock

outcrops.

VEGETATION: Koa-haole and fountain grass.

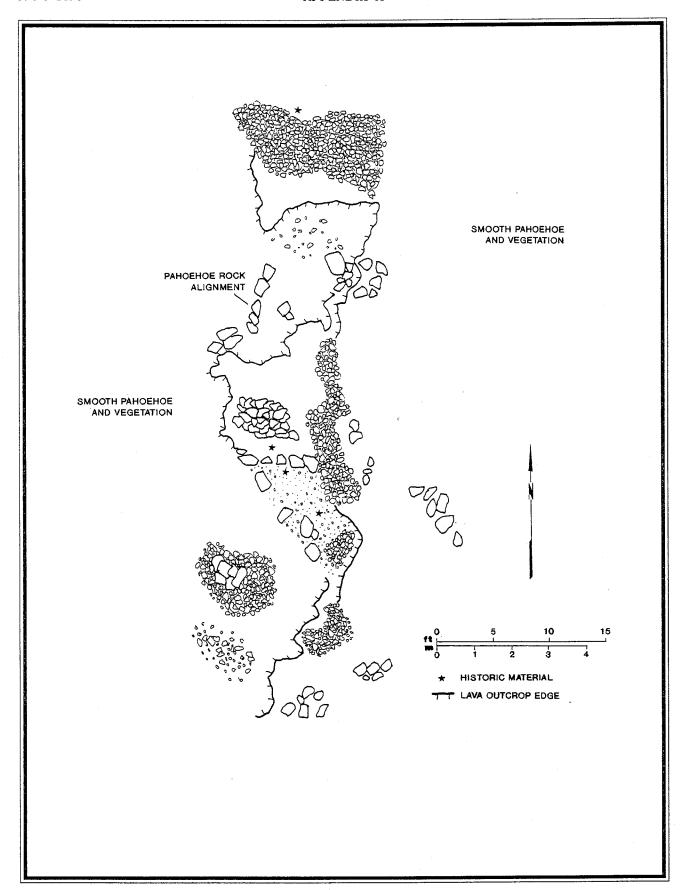


Figure A-31. SITE 13341

ELEVATION: c. 162.5 feet CONDITION: Good INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric-early historic FUNCTIONAL INTERPRETATION: Agriculture

**DIMENSIONS**: 26.00 m by 17.50 m

**DESCRIPTION:** The overall dimensions of the modified outcrop complex measures c. 26.0 m (N-S) by 17.5 m (E-W). The mapped portion of the site measures c. 16.0 m (N-S) by 4.5-5.0 m (E-W). Generally, this site consists of a large pahoehoe bedrock outcrop area that is modified with piled pahoehoe rubble, rough alignments of pahoehoe blocks, and with cobbles used as paving or to fill in crevices. The modifications follow along the edge and on top of the outcrop. The portable remains consists mostly of historic trash, beer bottles, roofing material and one <u>kukui</u> nut.

SITE NO.: State: 13342 PHRI: T-116 SITE TYPE: Complex (5 Features)

TOPOGRAPHY: Pahoehoe flows scattered throughout

the site area.

**VEGETATION**: <u>Koa-haole</u>, fountain grass, vines, air plants, lantana, and unidentified grasses and forbs.

ELEVATION: c. 193 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture-

habitation

**DESCRIPTION:** The overall complex area measures 53.0 m (N-S) by 28.0 m (E-W). The site consists of a mound (Feature A), three paved areas (Feature B), and a terrace (Feature C).

FEATURE A: Mound FUNCTION: Agriculture

**DIMENSIONS**: 6.20 m by 4.10 m by 0.85 m

**DESCRIPTION:** This mound is built on the south and southeast sides of a low pahoehoe outcrop. It is oriented NE-SW and is constructed of small basalt boulders, blocky basalt cobbles, and pebbles. No formal facing is evident. A five boulder alignment roughly bisects the feature along the short axis, near the center.

**FEATURE B:** Paved area (3) **FUNCTION:** Agriculture **DIMENSIONS:** 9.00 m by 8.29 m

**DESCRIPTION:** Feature B is located on the edge of a pahoehoe flow in a depression that is filled with cobble to pebble size pahoehoe rocks, 48.00 m north from Feature A. It does not appear that the flow edge has been excavated.

There are two other paved areas 19.00 m north of the above pavement. The two paved areas are separated by a pahoehoe outcrop. One of the pavements covers an area 12.5 m (N-S) by 6.0 m (E-W). The other paved area measures 4.0 m (N-S) by 2.0 m (E-W).

**FEATURE C:** Terrace and pavement **FUNCTION:** Agriculture/habitation

**DIMENSIONS:** 20.00 m by 9.00 m by 0.80 m

**DESCRIPTION:** The terrace is located 6.00 m northwest from Feature A. It is raised on the southwest side and incorporates a naturally terraced pahoehoe flow. It measures 14.0 m by 5.0 m, and is partially defined by pahoehoe excavations. A paved area is located 0.80 m below the terrace. The pavement is enclosed on three sides by natural outcrops. It has a surface area 20.0 m by 4.0 m and consists of pebble to large cobble size pahoehoe blocks.

SITE NO.: State: 13343 PHRI: T-117 SITE TYPE: Complex (3 Features)

**TOPOGRAPHY:** The area is surrounded by pahoehoe flows and collapsed blisters. Generally, the terrain is i

rregular and on a slight slope.

**VEGETATION:** Rubber tree, Christmas-berry, and lantana.

ELEVATION: c. 197 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Habitation-

agriculture

**DESCRIPTION:** The overall complex area measures 46.0 m (E-W) by 48.0 m (N-S). The site consists of two pahoehoe excavations (Features A and B) and a platform (Feature C). SIHP Site No. 13342 (T-116) and SIHP Site No. 13343 (T-117) may possibly be one site. Additional features consisting of pahoehoe excavations and paving are in the immediate area surrounding the features.

FEATURE A: Pahoehoe excavation

FUNCTION: Agriculture

**DIMENSIONS:** 23.00 m by 5.60 m

**DESCRIPTION:** Feature A is situated within a large collapsed blister with excavated areas visible along the edges. Shallow overhang areas are created with rock alignments constructed in front of and enclosing them. The overhang areas are partially filled with pebble to cobble size pahoehoe rocks. The collapsed blister is also filled with pebble to small boulder size pahoehoe. In addition, some of the areas within the collapsed blister appears to be paved.

FEATURE B: Pahoehoe excavation

**FUNCTION:** Agriculture

**DIMENSIONS:** 11.20 m by 5.88 m

**DESCRIPTION:** Feature B is 11.00 m south from Feature A. It consists of a pahoehoe blister excavation filled with pahoehoe pebbles and cobbles, and terraced into three levels. The upper level terrace is small, one course high, and surrounded on three sides by the pahoehoe blister edge. The second terrace drops down into a depression rising on a slight slope to a flat paved area. This drops down a step, 2-3 courses of cobbles, onto the bottom floor. The terrace is oriented 230 degrees azimuth (NE-SW). The upper terrace measures 3.50 m by 1.53 m. The middle terrace measures 5.0 m by 3.0 m and the lower terrace measures 5.80 m by 5.25 m.

There are also three small overhang areas filled with pahoehoe cobbles and pebbles.

**FEATURE C:** Platform

FUNCTION: Habitation/agriculture DIMENSIONS: 12.60 m by 8.80 m

**DESCRIPTION:** The platform is situated on a small knoll which is located 16.60 m north from Feature A. The platform is constructed from cobble-size pahoehoe rubble that is filled between the vertical perimeters and the sloping surface of the knoll. The relatively flat crest of the knoll forms the major portion of the platform surface, which is paved with smooth flat pahoehoe slabs. The southwest side of the platform appears to have been faced at one time, but it is presently collapsed with remnants and an upright remaining. A possible entrance is visible at the southeast corner consisting of a paved path leading to a step up onto the platform.

SITE NO.: State: 13344 PHRI: T-118 SITE TYPE: Complex (3 Features)

TOPOGRAPHY: Pahoehoe and aa flows in the immediate

area with a slight southwest slope.

VEGETATION: Koa-haole, fiddle tree, lantana, and

various grasses and vines.

ELEVATION: c. 190 feet

CONDITION: Good

INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric

**FUNCTIONAL INTERPRETATION:** Agriculture/quarry **DESCRIPTION:**Overall complex area measures 11.0 m at 146 degrees Az. by 11.0 m. Three pahoehoe excavations were identified at the site.

**FEATURE A:** Pahoehoe excavation with alignment (2)

**FUNCTION:** Agriculture/possible quarry **DIMENSIONS:** 5.50 m by 4.40 m by 0.50 m

pahoehoe excavations with alignments of large cobbles and small boulders, which form roughly sub-rectangular structures. The NW excavation measures 2.4 m (NE-SW) by 1.90 m (NW-SE). The SW excavation measures 3.10 m (NE-SW) by 2.50 m (NW-SE). The alignments are a maximum of two courses high and consist of small boulders and large cobbles. The area between the two excavations is paved with small cobbles and pebbles.

FEATURE B: Pahoehoe excavation

**FUNCTION:** Agriculture

DIMENSIONS: 2.50 m by 1.20 m

**DESCRIPTION:** Rectangular shape in plan, the excavation is located in a blister. The excavation is filled with cobbles to small boulder size pahoehoe rocks.

SITE NO.: State: 13345 PHRI: T-119
SITE TYPE: Complex (2 Features)
TOPOGRAPHY: Pahoehoe and aa flows.
VEGETATION: Kolu, kiawe, and fountain grass

ELEVATION: c. 191 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture DESCRIPTION: The site consists of a rectangular shaped

excavated blister and an alignment.

FEATURE -: Pahoehoe excavation

FUNCTION: Agriculture

**DIMENSIONS:** 2.16 m by 1.14 m by 0.55 m

**DESCRIPTION:** The pahoehoe excavation is rectangular shape in plan. The quarried as cobble material is piled along the west side of the excavated blister. The piled mound measures 2.10 m by 2.00 m and 0.59 m in height.

FEATURE -: Alignment FUNCTION: Agriculture DIMENSIONS: 4.10 m by 1.20 m

**DESCRIPTION:** The alignment is located 4.00 m from the pahoehoe excavation at 200 degrees Az. It is constructed

from aa cobbles, stacked two courses high.

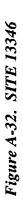
**SITE NO.:** State: 13346 PHRI: T-120 (*Figure A-32*)

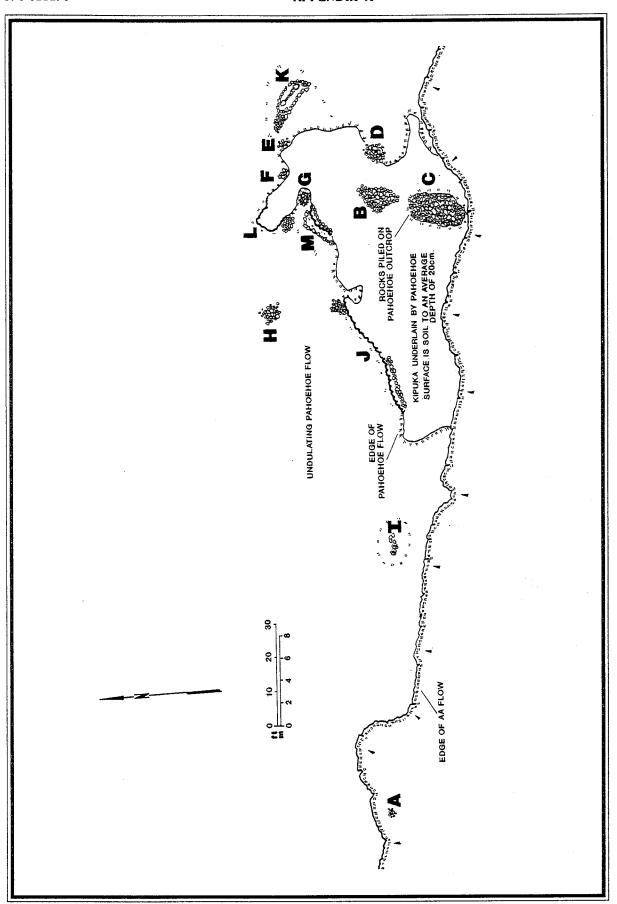
**SITE TYPE:** Complex (13 Features)

**TOPOGRAPHY:** The terrain is a fairly flat sloping pahoehoe flow adjacent to and north of a relatively wide (c. 100.0 m) aa flow.

VEGETATION: Kiawe, koa-haole, lantana, grasses, and

scrub brush.





ELEVATION: c. 152 feet CONDITION: Fair-good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture DESCRIPTION: This complex consists of eight clearing mounds (Features A-H) and five pahoehoe excavations (Features I-M). The overall complex area measures 68.0 m (E-W) by 20.0 m (N-S).

FEATURE A: Mound FUNCTION: Agriculture

**DIMENSIONS:** 0.85 m by 0.65 m by 0.60 m

**DESCRIPTION:** Feature A is at the western edge of the site, 24.00 m from the nearest feature (I). It is the only feature located on the aa flow. It consists of loosely piled cobbles ranging in size from 0.12-0.22 m.

FEATURE B: Mound FUNCTION: Agriculture

**DIMENSIONS:** 3.00 m by 2.50 m by 0.65 m

**DESCRIPTION:** Feature B is near the center of a grass-covered pahoehoe <u>kipuka</u> along the aa flow edge. It is constructed with loosely stacked rocks which range in length from 0.15 m to 0.45 m.

FEATURE C: Mound FUNCTION: Agriculture

**DIMENSIONS:** 6.00 m by 3.00 m by 0.80 m

**DESCRIPTION:** This mound is 1.00 m south from Feature B, on an outcrop at the edge of the aa flow. The sides of the mound are faced and the center is cleared, exposing the pahoehoe surface. The long axis is at 5 degrees Az.

FEATURE D: Mound FUNCTION: Agriculture

**DIMENSIONS:** 1.40 m by 0.80 m by 0.42 m

**DESCRIPTION:** Located 2.00 m east from Feature B, along the eastern perimeter of the <u>kipuka</u>. This oval mound is loosely piled, with rocks ranging in length from 0.10 m to 0.45 m. The long axis is at 280 degrees Az.

FEATURE E: Mound FUNCTION: Agriculture

**DIMENSIONS:** 2.00 m by 1.70 m by 0.20 m

**DESCRIPTION:** Feature E is just beyond the northern edge of the <u>kipuka</u>, on a pahoehoe flow, 7.00 m north from Feature D. It is loosely stacked, with faced sides. The rocks range in length from 0.15-0.50 m.

FEATURE F: Mound FUNCTION: Agriculture

**DIMENSIONS:** 2.70 m by 1.80 m by 0.30 m

**DESCRIPTION:** This oval mound is along the northern edge of the <u>kipuka</u>, 2.00 m west from Feature E. It is constructed with stacked cobbles and small boulders, and has faced sides.

FEATURE G: Mound FUNCTION: Agriculture

**DIMENSIONS:** 1.85 m by 0.90 m by 0.25 m

**DESCRIPTION:** Feature G is at the edge of the <u>kipuka</u>, 2.20 m southwest from Feature F. It consists of loosely stacked cobbles and boulders which range in length from 0.50 to 0.40 m. The long axis of the mound is oriented 125 degrees Az.

FEATURE H: Mound FUNCTION: Agriculture

**DIMENSIONS:** 2.10 m by 2.00 m by 0.35 m

**DESCRIPTION**: This mound is located 9.00 m west from Feature G. It has an irregular shape and is constructed with piled cobbles. The cobbles range in length from 0.12 to 0.31 m.

**FUNCTION:** Agriculture

FEATURE I: Pahoehoe excavation

**DIMENSIONS:** 3.00 m by 1.70 m by 0.70 m

**DESCRIPTION:** Feature I is 9.00 m west of the <u>kipuka</u> and 2.50 m from the edge of the aa flow, on smooth pahoehoe. It consists of an excavated blister. The excavated pahoehoe layer here is 0.27 m. Quarried blocks are present, with lengths ranging from 0.10 to 0.42 m.

FEATURE J: Pahoehoe excavation

**FUNCTION:** Agriculture

**DIMENSIONS:** 10.00 m by 0.00 m by 0.65 m

**DESCRIPTION:** Feature J is located along the northern edge of the <u>kipuka</u>, 12.00 m east from Feature I. The edge of the pahoehoe flow surrounding the <u>kipuka</u> has been excavated and quarried blocks scattered in a linear arrangement to the south of the excavation. The excavated pahoehoe layer is an average of 0.33 m thick. The quarried blocks and pieces range in length from 0.5 to 0.25 m.

FEATURE K: Pahoehoe excavation

FUNCTION: Agriculture

**DIMENSIONS:** 9.00 m by 7.00 m by 0.94 m

**DESCRIPTION:** Feature K is an excavated pahoehoe blister, located on smooth pahoehoe at the eastern edge of the site, 1.00 m east from Feature E. Quarry debris is scattered in a linear pattern around the perimeter of the excavation. The mined pahoehoe layer is an average of 0.75 m thick. The quarried material varies in length from 0.10 m to 0.65 m.

FEATURE L: Pahoehoe excavation

**FUNCTION:** Agriculture

**DIMENSIONS:** 4.10 m by 2.50 m by 0.48 m

**DESCRIPTION:** Feature L is located along the edge of the smooth pahoehoe which surrounds the <u>kipuka</u>. It is in a small pocket between rock mounds G and F. Adjacent to the excavated flow edge to the west is an associated pile of quarried debris. The excavated pahoehoe layer here is 0.48 m thick. Quarried rubble averages 0.17 m to 0.46 m long.

FEATURE M: Pahoehoe excavation

**FUNCTION:** Agriculture

**DIMENSIONS:** 4.50 m by 0.00 m by 0.30 m

**DESCRIPTION:** Feature M is a third excavated section of the pahoehoe flow edge. The Feature G mound, is located at the eastern end of the excavated face. The mined pahoehoe layer is 0.27 m thick and the quarried material averages 0.10 m to 0.36 m in length.

**SITE NO.:** State: 13347 PHRI: T-121

SITE TYPE: Pahoehoe excavation

**TOPOGRAPHY:** Pahoehoe surface and finger flows. **VEGETATION:** Fountain grass, Christmas-berry, <u>koa-</u>

haole, kolu, kiawe, noni, and lantana.

ELEVATION: c. 208 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture

**DIMENSIONS:** 6.50 m by 3.20 m by 0.49 m

**DESCRIPTION:** A pahoehoe blister excavation that is filled with excavated cobbles and boulders. In addition, pahoehoe and aa blocks have been strewn haphazardly within 2.00 m south of the excavation.

**SITE NO.:** State: 13348 PHRI: T-122 **SITE TYPE:** Complex (5+ Features)

**TOPOGRAPHY:** Generally irregular topography, the site is located on a gently sloping SSW pahoehoe flow that is on the side of a hill.

**VEGETATION:** Surrounding the area is <u>noni</u>, <u>koa-haole</u>, Christmas-berry, sword ferns, and fountain grass.

ELEVATION: c. 220 feet CONDITION: Good INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric-early historic

FUNCTIONAL INTERPRETATION: Quarry-rock art-

recreation

**DESCRIPTION:** The overall complex area measures c. 93.0 m (N-S) by 22.60 (E-W). The site consists of a pahoehoe excavation (Feature A), two cairns (Feature B), a

papamu board (Feature C), a paved pathway (Feature D) and a cave (Feature E).

FEATURE A: Pahoehoe excavation

**FUNCTION: Quarry** 

**DIMENSIONS:** 6.00 m by 5.90 m by 3.00 m

**DESCRIPTION:** Large blocks of pahoehoe were excavated and the quarried material used to construct the other features at the site. A C-shaped pathway has been constructed in the center of the hole. The upper dimensions of the excavation are 10.65 m (NE-SW) by 9.45 m (NW-SE).

FEATURE B: Cairn (2) FUNCTION: Marker

**DIMENSIONS:** 2.80 m by 1.60 m by 0.55 m

**DESCRIPTION:** Two cairns are situated on the SW edge of Feature A. The area around the cairns is built up and slopes down onto the quarry edge. The cairn to the east is built with large slabs of flat pahoehoe three courses high. It is situated on a pahoehoe outcrop and measures 0.65 m by 0.55 m. The cairn to the west is four courses high, and the base consists of cobbles, rather than slabs. It measures 0.70 m by 0.65 m. Both cairns are 0.55 m high. The area between the two cairns is built up to the first course of the cairns. This section in between slopes downward and them flattens out. Although this is somewhat level it does not appear to be paved.

FEATURE C: <u>Papamu</u> (Figure A-33)

**FUNCTION:** Recreation

DIMENSIONS: 0.94 m by 0.89 m

**DESCRIPTION:** A <u>papamu</u> board carved into a smooth pahoehoe boulder, 5.00 m southeast from Feature B. The <u>papamu</u> consists of 74 pecked holes, arranged in eight rows and nine columns. Directly under the northern corner of the boulder are three pahoehoe slabs stacked three high and appears to function as a support for the <u>papamu</u>. Immediately adjacent to the <u>papamu</u> are the engraved letters VPE. They cover an area of c. 0.28 m by 0.14 m.

**FEATURE D:** Paved pathway **FUNCTION:** Transportation

**DIMENSIONS:** 0.95 m by 2.50 m by 0.73 m

**DESCRIPTION:** A filled cobble area measuring 2.46 m by 0.86 m is immediately downslope from Feature C at 90 degrees Az. Adjacent to this cobble area is a cobble and pebble path that is aligned on either side and extends toward the pahoehoe excavation (Feature A). The pathway is oriented E-W up a slope to a paved area. It is 2.57 m long with an exterior height of 0.84 m and an interior height of 0.58 m. The paved area above the trail measures 2.90 m by 1.85 m. It is paved with aa and pahoehoe cobbles and boulders.

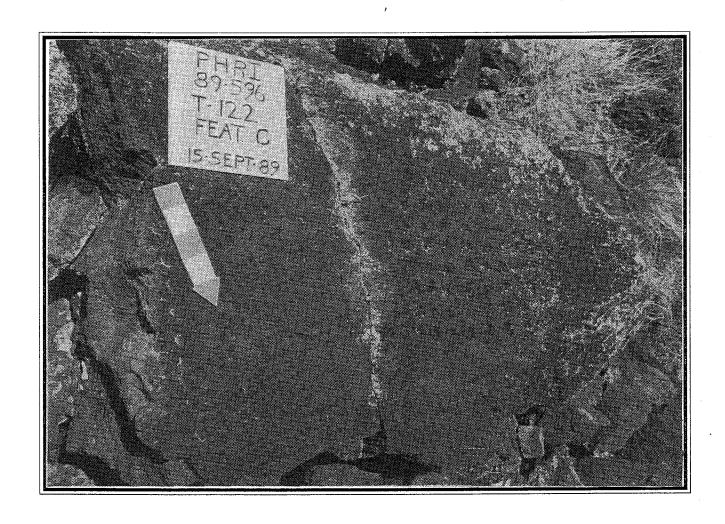


Figure A-33. SITE 13347, FEATURE C. View to South (PHRI Neg.1249-16)

FEATURE E: Cave

**FUNCTION:** Possible storage

**DIMENSIONS:** 2.80 m by 2.50 m by 1.74 m

**DESCRIPTION:** A small cave situated in the interior of Feature A that is filled nearly to the top surface with large basalt cobbles and small basalt boulders. The cave has two entrances; a roof entrance formed by the collapse of an overhang and a lateral entrance facing 60 degrees Az. upon which part of the collapsed overhang rests. There is a small hole in the scattered fill inside the cave, which may have been used for storage.

**SITE NO.:** State: 13349 PHRI: T-123

SITE TYPE: Wall

**TOPOGRAPHY:** The terrain is variable with numerous

pahoehoe flows in the area.

VEGETATION: Thick koa-haole, lantana, and grasses.

ELEVATION: c. 222 feet CONDITION: Fair INTEGRITY: Unaltered PROBABLE AGE: Historic

FUNCTIONAL INTERPRETATION: Land division

**DIMENSIONS:** 381.00 m by 1.60 m by 1.45 m

**DESCRIPTION:** This wall is oriented east-west and connected at the eastern end to the northern end of the Kuakini Wall. It is built with basalt boulders and cobbles stacked and faced three to nine courses high. It is core filled with smaller cobbles and pebbles. Portions of the wall are collapsing. It is uncertain at this time if the wall represents a continuation of the Kuakini Wall, or a later addition.

SITE NO.: State: 13350 PHRI: T-124 (Figure A-34)

SITE TYPE: Complex (11 Features) TOPOGRAPHY: Pahoehoe flows.

**VEGETATION:** Fountain grass, <u>kiawe</u>, Christmas-berry, ferns, moss, <u>noni</u>, lantana, <u>koa-haole</u>, and succulents.

ELEVATION: c. 217 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Habitation-burial DESCRIPTION: The overall complex area measures 144.0 m (N-S) by 50.0 m (E-W). The site consists of a large blister cave complex, with eleven features inside the cave. The main chamber (Feature A) contains a terrace (Feature B) and two enclosures (Features F and G). There are two chambers with modifications to the east of the main chamber (Features C and D), a third tube chamber to the northwest (Feature E) which contains two enclosures. A fourth tube chamber (Feature H) extends south from the main chamber. This long tube contains a terrace (Feature J) and two enclosures (Features I and K).

FEATURE A: Large blister cave

**FUNCTION:** Habitation

DIMENSIONS: 17.00 m by 19.50 m by 2.80 m maximum

ceiling height

**DESCRIPTION:** This feature is the main and central chamber for an extensive lava tube cave system. It is accessed vertically through a circular collapse area 4.80 m in diameter, situated in the center of the feature. Three additional smaller entries are present to the west of the main entrance.

FEATURE B: Terrace FUNCTION: Habitation

**DIMENSIONS:** 4.80 m by 4.30 m by 1.60 m

**DESCRIPTION:** The terrace is situated immediately north of the main complex entrance, against the north wall of the main chamber. The terrace is raised on the north and east sides, with pahoehoe boulders stacked 1-2 courses high. The west and south sides are flush with ceiling collapse rubble that is scattered on the cave floor. The terrace is filled with pahoehoe boulders and cobbles and is partially paved.

FEATURE C: Modified cave chamber

**FUNCTION: Habitation** 

**DIMENSIONS:** 6.50 m by 5.00 m by 1.60 m maximum

ceiling height

**DESCRIPTION:** The Feature C tube chamber extends northeast from the northeastern corner of the main chamber. The floor is cleared of large cobbles with scattered gravel size basalt remaining. A smaller tube chamber 4.40 m long and 3.50 m wide extends northeast from this main chamber. The entrance to the tube extension is partially blocked by a low rubble wall, 2.60 m long and 0.58 m high. A second wall is constructed across the chamber, oriented NW-SE. This wall is 3.00 m long, 1.10 m wide and 0.60 m high. At the east end of this wall is a rubble mound, faced on the west side. A third wall extends from the rubble mound to the east wall of the cave, forming an enclosed area between the two walls and the mound. The third wall is 2.45 m long, 0.40 m wide and 0.80 m high.

Portable remains observed in Feature C include a Cypraeidae shell lure, waterworn basalt pebbles, an Echinoid spine abrader, a coral abrader, marine shell midden, <u>kukui</u> nut shell, charcoal, feral goat remains, and coconut husks.

A large chunk of carbonized wood observed on the surface adjacent to the second rubble wall was collected for age determination analysis.

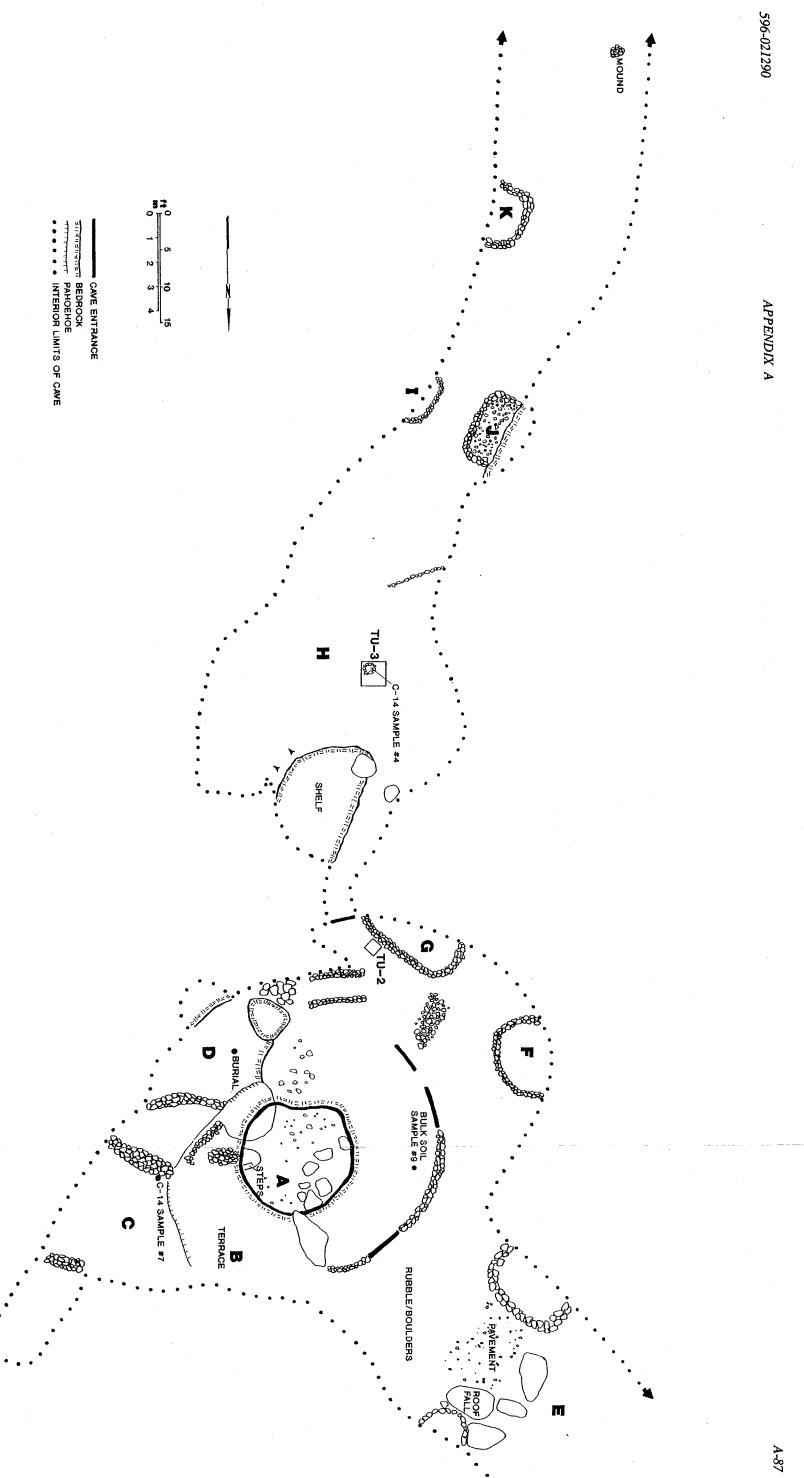


Figure A-34. SITE 13350

**FEATURE D:** Lava tube chamber **FUNCTION:** Burial-possible habitation **DIMENSIONS:** 4.70 m by 3.50 m by 1.70 m

**DESCRIPTION:** Feature D is to the south of the Feature C enclosed area, and east from the main chamber (Feature A). A small shelf chamber extends southeast from the sidewall of Feature D. It is 2.10 m wide and 1.20 m deep. The partial remains of a subadult skeleton were observed on a natural shelf at the center of the chamber. Portable remains scattered on the chamber floor include feral goat, Echinoidea, coral, kukui nut shell, and marine shell midden.

FEATURE E: Cave FUNCTION: Habitation

**DIMENSIONS:** 51.60 m by 8.00 m by 2.20 m

**DESCRIPTION:** Feature E is a long, narrow lava tube which extends to the northwest from the main complex chamber (Feature A). Two enclosures are present at the front of the chamber, within 9.00 m of the main entrance. The largest of the enclosures is built against the south wall of the tube and has an interior area of 3.1 m by 1.6 m, with walls 0.30 m high. The other enclosure is directly across the chamber, against the north wall. It has an interior area of 2.1 m by 1.2 m and is 0.2-0.3 m high. The enclosures are 4.50 m apart; the area between them is leveled and paved.

**FEATURE F:** Enclosure **FUNCTION:** Habitation

**DIMENSIONS:** 2.56 m by 2.00 m by 1.17 m

**DESCRIPTION:** Feature F is located against the west sidewall of the Feature A chamber, 3.2 m west from the opening. The enclosure wall is 2-4 courses high and faced with pahoehoe boulders, cobbles and slabs. It is C-shape in plan with the open end abutting the slanting cave wall. The floor is filled with pahoehoe cobbles and gravels. Portable remains observed include two coral abraders, an adze preform, Echinoidea and faunal material. Soil deposits are also present.

FEATURE G: Enclosure FUNCTION: Indeterminate

**DIMENSIONS:** 2.55 m by 1.10 m by 0.80 m

**DESCRIPTION:** This enclosure is located along the rim of a natural depression, against the west sidewall of Feature A, 3.50 m south from Feature F. It is constructed with stacked cobbles and boulders, and is curved, with the open end abutting the cave wall. A pig mandible was observed inside the enclosure.

A 0.50 by 0.50 m square test unit was excavated immediately outside the wall of Feature G, to the east. A 0.02 m thick deposit of ashy soil containing charcoal was

encountered, beginning from the surface of the unit. Beneath the ashy soil was a 0.03 m thick deposit of dark silty soil with midden remains. This deposit was screened through 1/8 inch mesh. Various shellfish fragments, charcoal, kukui nut shell, and mammal bone was recovered (see subsurface findings). Two bulk samples and a sample of charred wood were recovered for age determination analysis.

FEATURE H: Lava tube chamber FUNCTION: Habitation-possible burial

**DIMENSIONS:** 80.00 m by 10.7 m maximum width by

2.00 m ceiling ht.

**DESCRIPTION:** This feature is a long, narrow lava tube extending south from the central area of the complex. It is accessed through a narrow (1.10 m wide) opening immediately west from Feature G. The chamber contains two enclosures (Features I and K), a terrace (Feature J), an alignment and a mound. The designated features are described below. The alignment is located 14.00 m south from the chamber entrance. The west end of the 2.30 m long alignment abuts the west wall of the chamber. The mound is located 36.00 m south from the chamber entrance, near the center of the tube, which is 6.00 m wide at this location.

Portable remains observed on the chamber floor include waterworn basalt pebbles and cobbles, coral, bamboo, coral abraders, an adze, a Cypraeidae shell lure, a bone pin, a Cellana shell scraper, modified mammal bone, and marine shell fragments. Long bones tentatively identified as an infant were also observed.

A hearth feature defined by an alignment of cobbles is located near the center of the chamber, 10.00 m from the entrance. A bulk sample was collected from the ash and charcoal deposit in the hearth, for age determination analysis.

FEATURE I: Enclosure FUNCTION: Indeterminate

**DIMENSIONS:** 1.90 m by 0.90 m by 0.35 m

**DESCRIPTION:** This enclosure is located along and abutting the east wall of the Feature H tube, 20.5 m south from the entrance to the chamber. The wall is roughly rectangular with the open end abutting the tube wall. It is constructed with pahoehoe boulders and cobbles, stacked one to two courses high. Two coral abraders were observed inside the enclosure.

FEATURE J: Terrace FUNCTION: Indeterminate

**DIMENSIONS:** 2.90 m by 1.50 m by 0.33 m

**DESCRIPTION:** Feature J abuts the west wall of the Feature H tube chamber, directly across from Feature I. The

tube is 3.60 m wide at this location. It is built with pahoehoe cobbles and boulders along the exterior. The terrace interior is paved with pahoehoe slabs. A waterworn basalt cobble and an adze preform were observed on the feature.

FEATURE K: Enclosure FUNCTION: Indeterminate

**DIMENSIONS:** 1.80 m by 1.10 m by 0.75 m

**DESCRIPTION:** Feature K is built abutting the east wall of the Feature H tube, 5.70 m south from Feature I. It is constructed with pahoehoe boulders and cobbles, loosely stacked two to three courses high. The wall is faced on the interior and exterior sides. No portable remains were observed within the enclosure, however, a concentration of charred wood and <u>kukui</u> nut shell occurs 15.55 m to the south. A sample of this concentration was collected for age determination analysis.

SITE NO.: State: 13351 PHRI: T-126 SITE TYPE: Complex (11 Features)

**TOPOGRAPHY:** Generally flat pahoehoe flow with features

on and around the surrounding blisters.

VEGETATION: Fountain grass, sparse 'ilima, koa-haole,

and kiawe.

ELEVATION: c. 10 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Quarry

**DESCRIPTION:** The overall complex area measures 46.00 m at 46 degrees Az. by 28.00 m. Identified features include a water cave (Feature A) and ten pahoehoe excavations (Features B-F)

FEATURE A: Cave (Figure A-35)

FUNCTION: Water catchment

**DIMENSIONS:** 11.00 m by 9.00 m by 1.90 m

DESCRIPTION: Feature A contains an anchialine water pool that is influenced by the tides. The cave is primarily a partially collapsed blister with a small lava tube extending north. The lava tube measures 0.70 m in diameter and leads slightly downward of the collapsed area. This tube is cleared at the mouth probably for easy access to the 0.15 m deep pool of slightly brackish water that is present at high tide.

There are two other shallow depressed areas in a side chamber to the SW of the entrance. They also appear to have slight modifications such as cleared areas in addition to small charcoal pieces. These areas also contain water at high tide.

A cultural deposit consisting of c. 0.15 m of piled pahoehoe gravel mixed with charcoal chunks and branch coral is present. It is in a discrete area 4.5 m west of the cave entrance.

FEATURE B: Pahoehoe excavation

**FUNCTION: Quarry** 

**DIMENSIONS:** 4.10 m by 3.20 m by 0.60 m

**DESCRIPTION:** A fault type pahoehoe excavation along the west edge of the fault, 19.00 m southwest from Feature A. Pahoehoe blocks are piled to the southeast of the feature. It appears that few if any blocks were removed from the excavation.

There is a small excavation 3.00 m at 50 degrees north along the fault line. In addition, there is a very rough rectangular shaped area of scattered pahoehoe cobbles 3.00 m north of Feature B.

FEATURE C: Pahoehoe excavation (5)

**FUNCTION:** Quarry

**DIMENSIONS:** 9.00 m by 6.50 m by 0.95 m

DESCRIPTION: Feature C consists of three small areas that were quarried into the west side of a crack, 17.00 m south from Feature A. Also, two smaller pit excavations, one of which is excavated into a blister surface and measures 0.70 m by 0.40 m by 0.95 m deep. The other pit excavation is 2.5 m south. It is excavated into a crack and measures 1.50 m by 0.7 m and 0.85 m deep. There are several scattered pahoehoe cobbles and boulders on the surface around these excavations. They cover an area 2.0 m square and are piled up to 0.42 m high.

FEATURE D: Pahoehoe excavation (3)

**FUNCTION: Quarry** 

**DIMENSIONS:** 2.00 m by 1.00 m by 0.48 m

**DESCRIPTION:** Feature D consists of three shallow excavated crevices, located 35.00 m southwest from Feature A. Four large quarried blocks are present. A thin moist dark brown silty loam occurs inside the crevices.

FEATURE E: Pahoehoe excavation

**FUNCTION: Quarry** 

**DIMENSIONS:** 7.60 m by 6.00 m by 0.76 m

**DESCRIPTION:** This excavated fault is located 45.00 m southwest from Feature A. The fault is 1.50 m high, with the excavation located at the base. The quarried blocks are mostly piled in the excavated area. There is a very small cairn constructed of pahoehoe cobbles and pebbles stacked two courses high. It is 0.20 m high and is situated on the north side of Feature E.

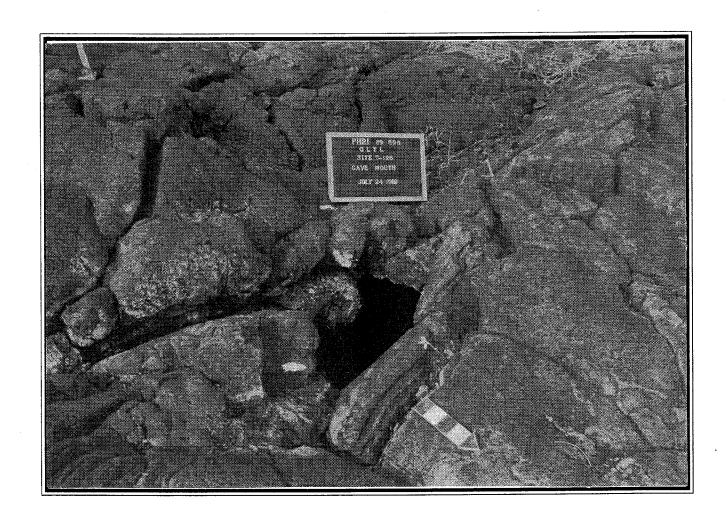


Figure A-35. SITE 13351, FEATURE A. View to Southwest (PHRI Neg. 1233-34)

FEATURE F: Pahoehoe excavation

**FUNCTION: Quarry** 

**DIMENSIONS:** 1.80 m by 0.90 m by 1.90 m

**DESCRIPTION:** Feature F is an excavated crevice situated off center of a pahoehoe ridge, 40.00 m northeast from Feature A. East of the excavation is a roughly linear mound of basalt blocks. It measures 5.0 m (N-S) by 1.0 m (E-W) and is 0.43 m high. Silty loam soil is present at the bottom of the excavation.

SITE NO.: State: 13352 PHRI: T-127 SITE TYPE: Complex (10 Features)

TOPOGRAPHY: Site is on and around a c. 30.0 m long

lava tumulus that is c. 4.0 m high.

VEGETATION: Sparse fountain grass, 'ilima, Christmas-

berry, and a passiflora plant. **ELEVATION:** c. 9 feet **CONDITION:** Good

INTEGRITY: Unaltered-possibly altered with a recent

petroglyph

PROBABLE AGE: Prehistoric

**FUNCTIONAL INTERPRETATION: Quarry** 

**DESCRIPTION:** The overall complex area measures 35.5 m (E-W) by 17.0 m (N-S). Very sparse midden and coral is scattered widely in the site area. A basalt hammerstone was present on Feature A. The complex is adjacent to Site 13287, a cave shelter. Features identified include nine pahoehoe excavations and a mound

FEATURE A: Pahoehoe excavation

**FUNCTION:** Quarry

**DIMENSIONS:** 1.33 m by 0.49 m by 0.30 m

**DESCRIPTION:** This small excavation is located along two sides of a crevice, at the base of a major upthrust. The excavation has a flat, cleared floor. Quarried stones are localized immediately downslope, along a crevice. The debris pile is 1.54 by 0.62 by 0.41 m high. Measurements for the additional excavations have not been obtained to date.

SITE NO.: State: 13353 PHRI: T-128 SITE TYPE: Complex (3 Features)

TOPOGRAPHY: Upthrusted and faulted pahoehoe. VEGETATION: Sparse grass, 'ilima, red flowering plants,

and Christmas-berry trees. **ELEVATION:** c. 9 feet **CONDITION:** Good

INTEGRITY: Unaltered-except for bulldozer activity

around Feature C.

PROBABLE AGE: Prehistoric-early historic FUNCTIONAL INTERPRETATION: Rock art-

aquaculture-bathing

**DESCRIPTION:** The overall complex area measures 22.5 m at 256 degrees Az. by 19.0 m. The site consists of petroglyphs (Feature A) and two modified anchailine pools (Features B and C).

FEATURE A: Petroglyph FUNCTION: Rock art

DIMENSIONS: 13.00 m by 5.00 m

**DESCRIPTION:** Feature A consists of three panels of petroglyphs that are concentrated in an area of natural collapsing pahoehoe. The petroglyphs are situated on an upthrust of smooth pahoehoe with an average thickness of 0.25 m. The panel of petroglyphs face northeast, northwest and southeast, respectively.

On the northeast-facing panel, there are at least nine human stick figures and six other geometric shapes or symbols. This panel is at a 45 degree angle and measures 5.15 m in length by 2.8 m in height.

The northwest-facing panel contains two human stick figures and two geometric shapes or symbols. This panel is at a 45 degree angle and measures 4.5 m in length and 0.80 m in height.

The southeast-facing panel contains at least one human stick figure and six other geometric shapes or symbols. This panel measures 3.15 m in length and 1.8 m in height.

There are two waterworn basalt cobbles and a waterworn coral cobble in front of the panels.

FEATURE B: Modified tide pool

FUNCTION: Aquaculture/bathing/water source DIMENSIONS: 6.50 m by 2.60 m by 0.75 m

DESCRIPTION: Feature B is 9.80 m west from Feature A. It consists of an oblong opening in the surface pahoehoe layer which provides access to a small tidal pool. The feature is bordered by natural fault lines on the northwest and southeast sides, and by two walls of stacked angular cobbles and boulders on the northeast and southwest sides. The access opening between the fault lines and the two cobble walls measures 1.4 m (NE-SW) by 1.14 m (NW-SE). A few angular cobbles are piled behind the lip of the southeastern fault.

The water level of the pool appears to rise and fall with the tide. At the time of survey, it was 0.20 m deep, however a water line mark is visible at 0.70 m above the bottom of the pool. The bottom of the pool is covered with small angular cobbles and contains red shrimp.

FEATURE C: Modified tide pool

**FUNCTION:** Aquaculture/bathing/water source **DIMENSIONS:** 2.70 m by 2.70 m by 1.65 m

DESCRIPTION: This feature is along the fenceline between the project area and the old Kona airport, 22.1 m west from Feature A. It consists of a tidal pool at the base of a collapsed blister that has been cleared. Surrounding all edges of the pond are angular cobbles and large boulders. The bottom of the pond is covered with small angular waterworn cobbles and sand. The pond extends under an overhang along the southwest rim of the blister. The water was 0.86 m deep at the time of survey, and red shrimp were observed. Coral and marine shells are also at the bottom of the pool.

There is at least 2-3 meters of bulldozer push on the south and west sides of the pool. There has been much bulldozing activity in the area. Also, recent garbage is present around the pool.

SITE NO.: State: 13354 PHRI: T-129 SITE TYPE: Pahoehoe excavation

**TOPOGRAPHY:** A pahoehoe finger abutting an aa flow. **VEGETATION:** Dense grass, two <u>kiawe</u> trees, and one

lantana.

ELEVATION: c. 212 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture/quarry

**DIMENSIONS:** 3.00 m by 2.00 m

**DESCRIPTION:** The end of a pahoehoe blister has been excavated forming a blister "ledge". Some blocks are haphazardly thrown around the perimeter of the excavation. Many large blocks remain inside the excavation. It is located 28.0 m at 190 degrees Az. from SIHP Site No. 13350.

SITE NO.: State: 13355 PHRI: T-130 SITE TYPE: Complex (3 Features)

TOPOGRAPHY: Pahoehoe flows, variable slope and

uneven terrain.

VEGETATION: Open area consisting predominantly of

grass.

ELEVATION: c. 212 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Possible quarry-

indeterminate

**DESCRIPTION:** Overall complex area measures 19.5 m at 330 degrees Az. by 4.0 m. The site consists of two cairns (Features A and C), and a pahoehoe excavation (Feature B).

Pahoehoe boulders and cobbles are strewn between Features B and C, and to the north of Feature C. A possible small mound of boulders is located 4.0 m north of Feature C, underneath a large <u>kiawe</u> tree. Dense grass makes it almost impossible to follow possible alignments of boulders without first extensively clearing the area.

FEATURE A: Cairn
FUNCTION: Indeterminate

**DIMENSIONS:** 0.50 m by 0.50 m by 0.50 m

**DESCRIPTION:** Feature A consists of a large pahoehoe slab atop two smaller pahoehoe slabs. It is situated in the middle of an oblong rock mound of pahoehoe cobbles that is not formally constructed.

FEATURE B: Pahoehoe excavation

FUNCTION: Possible quarry

**DIMENSIONS:** 9.50 m by 4.00 m by 0.00 m

**DESCRIPTION:** Oval shape in plan, it is a blister type excavation. It is situated 8.3 m at 150 degrees Az. from Feature A. A few blocks are thrown along the edges of the excavation. The floor is covered with pahoehoe cobbles of

varying sizes with no paving evident.

A second, smalle r pahoehoe excavation is located 0.70 m east of the southern end of Feature B. It measures 0.8 m by 0.5 m. The bottom of the small pahoehoe excavation is scattered with small pahoehoe cobbles and gravel.

FEATURE C: Cairn FUNCTION: Indeterminate

**DIMENSIONS:** 0.47 m by 0.42 m by 0.29 m

**DESCRIPTION:** Feature C consists of a large pahoehoe slab supported by three smaller pahoehoe slabs. It is located 2.7 m northwest from Feature A. The large slab is 0.12 m thick and lays horizontally across the top of the other slabs.

SITE NO.: State: 13356 PHRI: T-132 SITE TYPE: Pahoehoe excavation

TOPOGRAPHY: Pahoehoe flow, c. 10.0 m away from the

aa flow.

VEGETATION: Dense grass, lantana, and four kiawe

trees.

ELEVATION: c. 205 feet CONDITION: Good

INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture

**DIMENSIONS:** 5.50 m by 2.30 m by 0.55 m

**DESCRIPTION:** Thick large blocks of pahoehoe have been excavated and loosely stacked around two-thirds (2/3) of the excavated area, forming an enclosure-like wall. Small to medium size cobbles remain on the floor of the excavation. Most of the boulders have been stacked on the northwest side of the excavation. It is located 20.0 m at 190 degrees Az. from SIHP Site No. 13354.

**SITE NO.:** State: 13357 PHRI: T-133 **SITE TYPE:** Complex (8 Features)

TOPOGRAPHY: Ropy pahoehoe flow surrounding the

VEGETATION: Christmas-berry, fountain grass, koa-

haole, and lantana. ELEVATION: c. 265 feet **CONDITION:** Fair INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture **DESCRIPTION:** The overall complex area measures 20.80 m at 35 degrees Az. by 12.60 m. The site consists of a cairn, a cave, and six pahoehoe excavations.

FEATURE -: Cairn

**FUNCTION:** Agriculture

**DIMENSIONS:** 1.00 m by 1.00 m by 0.46 m

**DESCRIPTION**: Oval shape in plan at the base. It is constructed with stacked excavated blocks four courses high. The stacked blocks range in size from 20.0 m by 12.0 m to 30.0 m by 18.0 m. Scatter of excavated blocks along the base is 1.80 m by 1.60 m. No evidence of cultural deposit visible. Measurements have not been obtained for the pahoehoe excavations to date. The cave does not appear to be modified, and there is no interior deposits or portable remains.

SITE NO.: State: 13358 PHRI: T-134 **SITE TYPE:** Complex (3 Features)

TOPOGRAPHY: Rolling mounds of both ropy and smooth

pahoehoe flow.

**VEGETATION:** Kiawe, Christmas-berry, and koa-haole.

**ELEVATION:** c. 267 feet CONDITION: Good **INTEGRITY:** Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture/quarry **DESCRIPTION:** Overall complex area measures 84.0 m at 90 degrees Az. by 61.05 m at 165 degrees Az. and consists

of three pahoehoe excavations. The size of the excavated blocks vary throughout the three pahoehoe excavations. The boulders and cobbles range from 0.71 m by 0.51 m to 0.26 m by 0.20 m. There is no vegetation growing inside of the excavations.

FEATURE -: Pahoehoe excavation FUNCTION: Agriculture/quarry

**DIMENSIONS:** 5.40 m by 2.43 m by 0.69 m

**DESCRIPTION:** S-shaped in plan it is excavated with a slight overhang to the east. Large boulders are strewn around the excavated area, generally in the areas to the southeast, northeast and northwest. Boulders also fill the excavated area along the north end. A linear alignment of large boulders extends west towards the second pahoehoe excavation. Southwest of the alignment at 0.75 m is a pile of excavated boulders and cobbles stacked two courses high. Inside the excavation is a thin layer of soil with pebbles, covering an area of 1.0 m by 0.53 m.

FEATURE -: Pahoehoe excavation FUNCTION: Agriculture/quarry

**DIMENSIONS:** 2.23 m by 1.58 m by 0.70 m

**DESCRIPTION**: The second pahoehoe excavation is located 45.05 m west of the first pahoehoe excavation. Circular in shape, with one large boulder and many cobbles filling the excavated area. Pahoehoe cobbles have been strewn throughout the area along the south west side. Immediately to the north, excavated blocks have been piled. The pile of excavated blocks and cobbles connects to the third pahoehoe excavation.

**FEATURE -:** Pahoehoe excavation FUNCTION: Agriculture/quarry

**DIMENSIONS:** 1.33 m by 0.80 m by 0.51 m

**DESCRIPTION:** This pahoehoe excavation is filled with

quarried cobbles.

SITE NO.: State: 13359 PHRI: T-137 SITE TYPE: Complex (3 Features)

TOPOGRAPHY: Pahoehoe flow surrounds the complex. VEGETATION: Sword and laua'e ferns inside the east chamber and also around the entrance area. Kiawe, Christmas-berry, and koa-haole surrounds the complex.

ELEVATION: c. 276 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Habitation-burial **DESCRIPTION:** The overall complex area measures 19.45 m at 60 degrees azimuth by 9.75 m. The site consists of two caves and a modified outcrop (Feature C). One of the caves contains two tube chambers (Feature A). The other cave contains skeletal remains (Feature B).

FEATURE A: Cave FUNCTION: Habitation

**DIMENSIONS:** 28.5 m by 4.75 m by 3.00 m maximum

ceiling height

**DESCRIPTION:** Feature A is situated at the bottom of a collapsed blister that is 4.50 by 4.75 m. The entrance is 2.5 m below the ground surface. Two tube chambers are present, one the the east and one to the west. The western chamber is at least 28.50 m long, 2.60 m wide and has a ceiling height from 2.20 to 3.00 m. A rectangular enclosure is located inside the west chamber, 1.15 m from the entrance. The enclosure has an interior area of 2.75 by 0.90 m and an average wall width of 0.45 m. The interior floor consists of aa cobbles with small pockets of soil.

The eastern chamber is unmodified, however, historic period portable remains, such as tin cans and leather straps, are scattered on the floor, in addition to feral goat bones.

FEATURE B: Cave FUNCTION: Burial

**DIMENSIONS:** 5.50 m by 4.50 m by 1.70 m

**DESCRIPTION:** The cave has a vertical opening 1.50 by 0.90 m that drops 2.60 m from the ground surface. The opening has been modified by excavation around the edges. The main chamber is unmodified, and the floor is scattered with roof fall. There are crawlspaces extending from the west and east ends of the south wall of the main chamber, and a tube extension eastward from the north wall. A human interment is located against the north wall of the tube extension, 1.60 m from its connection with the main chamber. The bones are currently exposed.

FEATURE C: Modified outcrop

FUNCTION: Agriculture

**DIMENSIONS:** 2.90 m by 1.60 m by 0.00 m

**DESCRIPTION:** Feature C is 5.50 m northeast of Feature A and 1.60 m northwest from Feature B. It consists of a natural pahoehoe depression that filled with pebble size pieces of pahoehoe. The perimeter of the filled area is outlined larger pahoehoe blocks. Two alignments are at the north side of the depression where a 0.57 m wide opening is present between the alignments.

SITE NO.: State: 13360 PHRI: T-138 SITE TYPE: Complex (5 Features) TOPOGRAPHY: Pahoehoe flow with cave.

VEGETATION: Christmas-berry, kiawe, noni, and fountain

grass

ELEVATION: c. 278 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

**FUNCTIONAL INTERPRETATION:** Burial-quarry **DESCRIPTION:** The overall complex area measures 24.0 m at 20 degrees Az. by 15.00 m. A burial cave (Feature A) and four pahoehoe excavations (Feature B) are present.

FEATURE A: Cave FUNCTION: Burial

**DIMENSIONS:** 14.20 m by 8.24 m by 2.08 m

**DESCRIPTION:** The cave opening measures 1.50 m at by 1.10 m with the ceiling height at the base of the entrance at 1.22 m. The entry has a sloping surface of collapsed stone. The tube is oriented N-S with a circular tube/chamber in the middle and to the west which houses the burial. The chamber measures 11.6 m by 8.24 m with a ceiling height of 2.08 m. The burial is beneath a rock mound in this chamber.

FEATURE B: Pahoehoe excavation (4)

**FUNCTION:** Quarry

**DIMENSIONS:** 3.80 m by 3.45 m

**DESCRIPTION:** Angular shaped pahoehoe excavations filled with two large excavated boulders and many cobbles. The northeast corner of the excavation has cobbles placed in a linear fashion and oriented NW-SE. Southwest of the excavation, cobbles are scattered upon the pahoehoe surface.

SITE NO.: State: 13361 PHRI: T-139 (Figure A-36)

SITE TYPE: Modified outcrop

TOPOGRAPHY: Undulating pahoehoe flow.

VEGETATION: Kiawe, koa-haole, lantana, grasses, and

scrub brush.

ELEVATION: c. 142 feet CONDITION: Fair INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

**FUNCTIONAL INTERPRETATION:** Agriculture **DIMENSIONS:** 15.00 m by 12.00 m by 2.00 m

**DESCRIPTION:** The outcrop is modified in two ways. The top northeast half is paved with small to large basalt cobbles a few small boulders. This paved surface is fairly flat and level. It extends from the north and west top edges of the outcrop to a straight alignment that is oriented NESW. The paving is thin, mostly one course high and measures 5.5 m (E-W) by 4.0 m (N-S).

The other modification is an oval shaped stone alignment that encloses a cleared and fairly flat soil filled area. The alignment is not continuous but utilizes natural bedrock

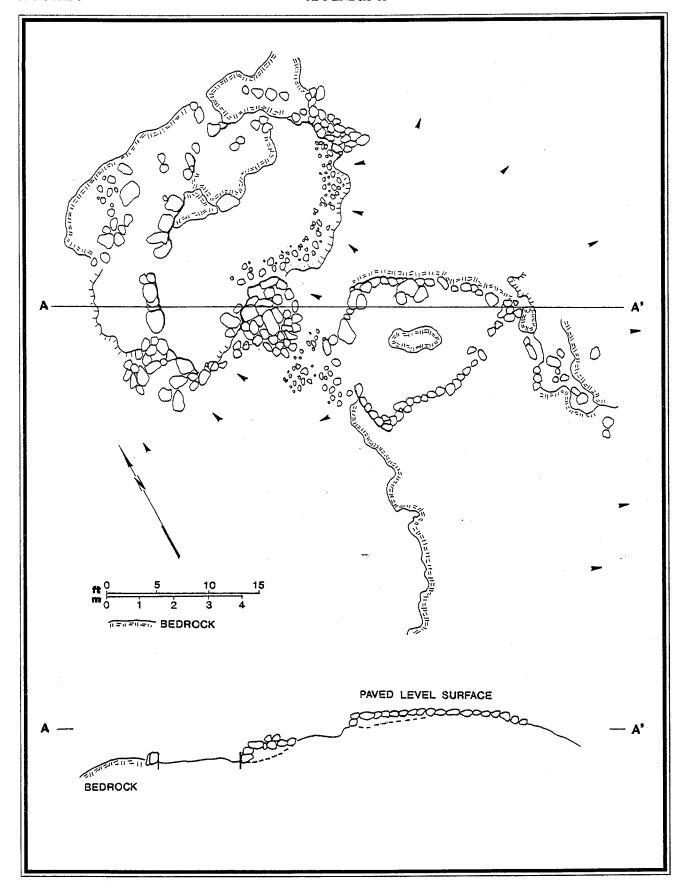


Figure A-36. SITE 13361

outcropping along sections. Situated on the NW side of the feature it appears to be a cleared planting are. Most of the loose rocks from the interior of the soil area have been removed and loosely placed within the alignment. It measures 8.0 m (NE-SW) by 4.5 m (NW-SE). The soil depth within this is 0.15 to 0.25 m deep. The enclosed area is like a small shelf with a drop off of c. 0.30 to 0.50 m to the west. The height of the outcrop along the southeast side is 2.00 m.

SITE NO.: State: 13362 PHRI: T-140 SITE TYPE: Complex (35+ Features)

TOPOGRAPHY: Slightly undulating pahoehoe flow that

slopes slightly to the southwest.

**VEGETATION:** <u>Kiawe</u>, <u>koa-haole</u>, lantana, fountain grass,

grass, vines, and scrub brush. **ELEVATION:** c. 147 feet **CONDITION:** Fair-good

INTEGRITY: Unaltered-except possibly by bulldozing

PROBABLE AGE: Prehistoric

**FUNCTIONAL INTERPRETATION:** Agriculture **DESCRIPTION:** The overall complex area measures 51.0 m (N-S) by 43.0 m (E-W). The site area has numerous modified basalt bedrock outcrops and pahoehoe excavations and wall alignments. A bulldozer push area is visible on the northeast edge of the site.

**FEATURE - :** Modified outcrop/pahoehoe excavation complex (24+)

**FUNCTION:** Agriculture

**DESCRIPTHON:** The outcrops are modified by the mining of the bedrock and piling it on top of the outcrops. There are four large outcrops with measurements that average 5.0 m by 3.0 m and 0.97 m in height. Ten medium outcrops that average 3.0 m by 2.0 m and 0.50 m in height. Ten small modified outcrops with average measurements of 2.0 m by 1.0 m and 0.45 m in height.

**FEATURE -:** Pahoehoe excavation (9+)

FUNCTION: Agriculture

**DESCRIPTION:** Eight pahoehoe excavations were identified on the site, and it is likely that additional features are present. The excavations average 2.0 m by 2.0 m and 0.37 m deep. In addition, there is a larger pahoehoe excavation that measures 6.0 m by 5.50 m that is filled with rubble and a short wall section.

**FEATURE -:** Wall section (2) **FUNCTION:** Agriculture

**DESCRIPTION:** There are two short wall sections. One is situated in a large pahoehoe excavation. It extends southeast and is 3.5 m long and 0.30 to 0.50 m in height. There is another short wall/alignment section in the NW

quad of the site. It measures 2.5 m in length and is 0.30 to 0.50 m in height.

SITE NO.: State: 13363 PHRI: T-143 SITE TYPE: Complex (11 Features)

TOPOGRAPHY: Gentle NE to SW slope with an uneven

surface and much exposed bedrock.

VEGETATION: Thick grasses, kiawe, koa-haole, and

fairly thick lantana.

ELEVATION: c. 136 feet

CONDITION: Good

INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture

**DESCRIPTION:** This site consists of eight modified outcrops, two low rubble concentrations, scattered rubble and one pahoehoe excavation. The overall complex area measures 25.27 m by 9.69 m at 219 degrees azimuth. Angular cobbles and boulders are concentrated around the bases and on top of the low exposed bedrock outcrops. The individual features have not been measured at this site to date.

SITE NO.: State: 13364 PHRI: T-144 SITE TYPE: Complex (10 Features)

TOPOGRAPHY: Gentle NE to SW slope with much

exposed bedrock.

**VEGETATION:** Thick grasses, thick small <u>koa-haole</u>, several large dead <u>kiawe</u> trees, and moderate density of lantana.

ELEVATION: c. 133 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

**FUNCTIONAL INTERPRETATION:** Agriculture **DESCRIPTION:** The overall complex area measures 30.0 m (NW-SE) by 30.0 m (NE-SW). Six modified outcrops, two pahoehoe excavated areas, and one rock mound are in a 10.0 m radius of Feature A, a platform.

FEATURE A: Platform (Figure A-37) FUNCTION: Possible habitation/agricultural DIMENSIONS: 9.55 m by 7.53 m by 1.62 m

DESCRIPTION: The platform is constructed over a rounded pahoehoe blister, portions of which protrude through the surface paving. It is rectangular shape in plan, and vertically faced on all four sides. The western side consists of a single width of facing stones, placed against the nearly vertical face of the blister. The northern side is sloping, following the natural bedrock, in a ramp-like form. Natural bedrock is incorporated into much of the southeast 1/3 of the structure.



Figure A-37. SITE 13364, FEATURE A. View to Northeast (PHRI Neg. 1246-30)

The remainder of the platform filled with large angular boulders stacked four to six courses high.

At the SE end of the platform is a small vertical opening into the blister. It measures 0.87 m (NE-SW) by 0.33 m (NW-SE) and accesses an air pocket that extends 0.88 m below the platform surface. A small tube extends northwest and south from the air pocket, under the platform, and opens at the base of the south side of the platform. This opening is too small for human access. A small concentration of blocks and small angular cobbles is located on the platform, to the east of the crawlspace opening. These stones appear to have been moved from the opening, which may have been covered originally. No portable remains were observed in the crawlspace. A thin layer of wind-blown loess is present.

**SITE NO.:** State: 13365 PHRI: T-148 **SITE TYPE:** Complex (4 Features)

TOPOGRAPHY: Fairly flat pahoehoe flow with a light

slope to the southwest.

VEGETATION: Koa-haole, kiawe, and fountain grass.

ELEVATION: c. 100 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture-

habitation

**DESCRIPTION:** Overall complex area measures 27.0 m (E-W) by 25.0 m (N-S). It consists of a terrace (Feature A), and three mounds (Features B-D).

FEATURE A: Terrace FUNCTION: Habitation

**DIMENSIONS:** 8.00 m by 7.00 m by 0.95 m

**DESCRIPTION:** A flat and mostly level paved terrace constructed on top of a fairly high outcrop. The southeast half of the outcrop was partly mined and filled with small basalt boulders and large to medium cobbles. These were partially fitted on the surface to form a level paving. The west edge has a straight facing/alignment of small boulders. The southern end of this alignment is raised and the northern section rests on sloping bedrock. The raised side is 3 to 4 courses high.

There is also boulder facing on the southwest corner which slowly curves away from the terrace to the west. It forms a small linear terrace against the south side of a bubble extension of the outcrop. This small area is the same level as the main terrace. The bubble outcrop has been mined to expose an almost square and flat floor surface. This floor has a soil deposit of 0.05-0.10 m. The terrace is built up to the bubble and crosses the opening with a straight alignment.

FEATURE B: Mound FUNCTION: Agriculture

**DIMENSIONS:** 2.90 m by 1.80 m by 0.95 m

**DESCRIPTION:** Feature B is 12.30 m at 128 degrees Az. from the center of Feature A. It is a small blister which has been mined and the material piled to form a mound.

FEATURE C: Mound FUNCTION: Agriculture

**DIMENSIONS:** 2.20 m by 2.10 m by 1.00 m

**DESCRIPTION:** Feature C is 17.30 m at 189 degrees Az. from Feature A. It is similar in construction to Feature B. Feature C is nearby a small blister that has been mined and

the material piled to form the mound.

FEATURE D: Mound FUNCTION: Agriculture

**DIMENSIONS:** 4.60 m by 1.80 m by 0.90 m

**DESCRIPTION**: Feature D is a modified outcrop with a small pahoehoe excavation. Portions of the south side of the outcrop was broken away and the rubble piled against the outcrop. It is 26.50 m at 222 degrees Az. from Feature A.

SITE NO.: State: 13366 PHRI: T-149 SITE TYPE: Complex (7 Features)

TOPOGRAPHY: Gently sloping from north to south smooth pahoehoe. A rubble filled blister is in the area. **VEGETATION:** Moderate density of fountain grass, low bushes with yellow flowers, *portulaca* sp., thick lantana,

koa-haole, and kiawe trees.

ELEVATION: c. 97 feet

CONDITION: Good

INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture

**DESCRIPTION:** The overall complex area measures 18.1 m at 60 degrees Az. by 13.5 m. It consists of a large collapsed and faulted blister with blocks arranged in two low, wide linear mounds and five cleared paved pahoehoe excavated areas. At various points around the blister edge there are small areas of basalt blocks.

Large angular cobbles and boulders are arranged in a linear formation bisecting the collapsed blister. The mound is oriented N-S and measures 7.2 m (N-S) by 1.7 m (E-W) and 0.70 m above the floor.

The second linear mound is situated east of and paralleling the first mound. This mound measures 6.0 m (N-S) by 1.8 m (E-W) and is stacked higher at the north end at 0.58 m above the blister floor.

There are five cleared areas within the blister which have small gravel and small cobble paving to level the floor area. These areas average 2.64 m by 1.73 m and 0.32 m below the blister surface. They contain no soil, only small cobbles and gravel. Besides these cleared areas the rest of the blister floor is covered with angular cobbles and boulders.

**SITE NO.:** State: 13367 PHRI: T-150

SITE TYPE: Terrace

**TOPOGRAPHY:** Undulating pahoehoe flow that is sloping

to the southwest.

VEGETATION: Large kiawe, koa-haole, lantana, grasses,

and small shrubs.

ELEVATION: c. 130 feet CONDITION: Fair-good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture

**DIMENSIONS:** 7.20 m by 5.20 m by 1.10 m

**DESCRIPTION:** This site appears is a large pahoehoe excavation which has been filled and leveled with pahoehoe boulders, cobbles and pebbles creating a roughly rectangular shaped terrace. The terrace abuts a pahoehoe outcrop along the west and north sides.

The south half of the terrace is faced along the west portion, to the southwest corner. The facing is of large cobbles and a few small boulders, two to four courses high at 0.65 m. There is a depression in the south central half which appears to be a filled excavation.

The north-half-of the terrace has a slightly domed surface and it is rough with large cobbles and small boulders. The remaining terrace surface is roughly flat with a slight slope to the south. The edges of the outcrop appear quarried, with the highest section at 0.55 m.

North and northwest of the terrace at 3.0 m is another quarried section of outcropping. It extends 3.5 m in a NW-SE direction.

SITE NO.: State: 13368 PHRI: T-151 SITE TYPE: Complex (45 Features)

**TOPOGRAPHY:** Gentle northeast to southwest slope with much exposed bedrock. An aa flow is to the NNW.

VEGETATION: Thick grass, large kiawe, koa-haole

trees, lantana, and succulents. **ELEVATION:** c. 111-116 feet **CONDITION:** Fair-good **INTEGRITY:** Unaltered

PROBABLE AGE: Prehistoric-historic

FUNCTIONAL INTERPRETATION: Agriculture-

transportation

**DESCRIPTION:** The overall complex area measures 49.0 m at 133 degrees Az. by 26.8 m. Seven features were designated and individually recorded, and an additional 32 features were tabulated. Recorded features include 2 terraces (Features A and B), two walls (Features C and E), a modified outcrop/terrace (Feature D), and two trail sections (Features F and G). In addition to the designated features, there are 26 modified outcrops, four pahoehoe excavations and eight mounds.

FEATURE A: Terrace FUNCTION: Agriculture

**DIMENSIONS:** 6.85 m by 1.82 m by 0.66 m

**DESCRIPTION:** Feature A is built up and abutting bedrock outcropping on the east side. Oriented N-S, it is slightly arch-shaped and roughly faced on the east side, 2-4 cobbles high. The remaining sides are level with the present ground surface. The terrace follows the natural slope of the outcrop from north to south, giving it the appearance of a ramp. The surface in and around the outcrop consists of flat and even paving. On the west side surface, small angular cobbles have been placed around the outcrop.

FEATURE B: Terraced outcrop FUNCTION: Agriculture

**DIMENSIONS:** 9.00 m by 1.75 m by 1.50 m

**DESCRIPTION:** This is a linear terrace built on the southeast edge of an extended outcrop. Materials used were small basalt boulders with large to small cobbles. The southeast side is faced, 3 to 6 courses, to a height of 0.90 m above bedrock. The southwest end tapers to 1.0 m in width and connects with the southeast corner of the Feature C wall. The northwest side has a very rough facing of 1 to 2 courses high averaging 0.30 m. The northeast end appears to have been faced but is disturbed by a large <u>kiawe</u> tree. The surface of Feature B is roughly flat with a slight slope to the southwest.

There is a higher outcrop immediately to the north upon which the Feature E wall is constructed. Feature B may have abutted this outcrop, as there is a small amount of rubble collapsed below the outcrop and the northeast end of Feature B. It also appears that some of the stone used may have come from an aa flow 3.0 m to the north.

FEATURE C: Wall FUNCTION: Agriculture

**DIMENSIONS:** 36.00 m by 16.00 m by 1.20 m

**DESCRIPTION:** This is a loosely stacked wall/alignment constructed mainly of small basalt boulders stacked on higher outcropped areas. The wall is curved in many areas, but generally it is oriented NW-SE, and follows the topography.

At the north end of the wall and to the east is a pahoehoe excavation. It measures 5.0 m by 4.0 m. The wall curves almost 90 degrees azimuth to the east along the north side of the excavation and continues for 5.0 m.

West from the northern end of the wall, a small terrace was constructed with two faced retaining walls along the northwest and southwest sides. These faces meet at a 90 degree angle abutting a small rubble pile. The faces are 0.70 m and three courses high. The terrace area measures 3.25 m (E-W) by 2.90 m (N-S) with roughly flat and level surfaces. The upslope and interior areas of the wall appears cleared.

FEATURE D: Modified outcrop/terrace

**FUNCTION:** Agriculture

**DIMENSIONS:** 9.50 m by 9.00 m by 3.25 m

DESCRIPTION: The outcrop is a large lava bubble with an apparent open interior which has been filled with small to large cobbles and small boulders of pahoehoe. The opening to the interior of the outcrop is faced with a straight wall of small boulders, 0.85 m in height, three courses high and 1.20 m wide. The southeast side is faced with small to medium boulders, 1.45 m and 6 to 7 courses high and 2.5 m wide. There is facing on the west side, 1.10 m and five courses high and 1.2 m wide. The surface of the fill is flat and level. It measures 2.90 m (NW-SE) by 2.35 m (NE-SW).

The northern portion of the outcrop is a cracked area that appears to have been excavated. It is 0.85 m deep and may have been the source for the terrace fill.

At the western base of the bubble/outcrop, appears to be a rough terrace of small boulders and large cobbles. There is a rough alignment oriented N-S along the western edge with a possible short alignment extending E-W on the north end.

FEATURE E: Wall FUNCTION: Agriculture

**DIMENSIONS:** 12.00 m by 8.50 m by 1.25 m

**DESCRIPTION:** Northeast of the site is an outcrop that has several sections of loosely stacked boulders forming wall/alignments. They are situated along the south, southwest and western perimeters. These sections are mostly single stone high and wide with occasional double stones. They average in height 0.45 m. The left central half of the outcrop has a roughly circular stone alignment on the top surface constructed of single stones. This alignment is 3.10 m by 2.90 m and 0.25 m in height. The surface of the outcrop is flat with a slight slope to the NE and appears cleared of

larger stone. The east half is an type stone and appears slightly crushed. The southeast corner is a rubble pile of small boulders which abuts a collapsed area which might have been the northeast end of Feature B.

**FEATURE F:** Trail section **FUNCTION:** Transportation

**DIMENSIONS:** 23.50 m by 0.75 m by 0.00 m

**DESCRIPTION:** This foot path crosses a small aa flow and cannot be seen in the vegetated pahoehoe areas at the flow edge. The large cobbles and small boulders have been removed leaving a small and medium cobble trail bed. This trail section has a slight curve upslope at both ends. There is a possible trail section leading from the south end of this section and upslope to the main site area. However, it is very obscured.

Two small cairns are nearby (upslope) and are both believed to be recent due to the stability and poor construction. The first cairn is on top bedrock boulder and measures 0.45 m in diameter and 0.85 m in height. It is 9.0 m northeast of the feature datum. The second cairn is 0.40 m in diameter and 0.40 m in height. It is 19.0 m east of the feature datum. The feature datum is 27.50 m at 148 degrees Az. from the site tag.

**FEATURE G:** Trail section **FUNCTION:** Transportation

**DIMENSIONS:** 18.25 m by 0.75 m by 0.00 m

**DESCRIPTION:** This footpath crosses a small aa flow. Most of the small boulders and larger cobbles have been removed and thrown to the sides. There is a crude cairn on the northwest end and located on the north side of the trail. It measures 0.50 m in diameter and 0.65 m in height.

The trail is very rough and appears to be recent. It is 30.0 m west of Feature F and 30.0 m east of the old quarry road. Lots of historic rubbish is in the area.

SITE NO.: State: 13369 PHRI: T-152 SITE TYPE: Complex (7 Features)

TOPOGRAPHY: Smooth and ropy pahoehoe flow with an

aa flow that is oriented southeast.

VEGETATION: Fountain grass, lantana, kiawe, Christmas-

berry, and noni.

ELEVATION: c. 237 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

**FUNCTIONAL INTERPRETATION:** Agriculture **DESCRIPTION:** The overall complex area measures 45.0 m at 256 degrees Az. by 27.0 m. This site consists of

seven pahoehoe excavations (four cleared, two partially cleared and the largest with associated mounds).

The largest pahoehoe blister measures 27.0 m by 6.8 m. It has been quarried for basalt blocks and the mined material placed into distinct piles. The excavated blister is also filled with cobbles and boulders. The area of excavated blocks measures 12.50 m across.

At the northeast corner of the excavation, is a pile of excavated cobbles arranged in a circular pattern with an upright pahoehoe slab positioned in the center. The upright measures 1.43 by 1.08 m. Excavated cobbles have also been haphazardly placed on the very northeast corner of the excavation. Extending immediately to the southwest it is also excavated with boulders and cobbles piled in groups and singularly placed.

Six additional pahoehoe excavations are within an area 45.0 m at 265 degrees Az. from the above feature. Four of the excavations are cleared pahoehoe blisters with the following measurements: 1) 1.10 m by 0.80 m, 2) 1.90 m by 1.60 m, 3) 1.10 m by 0.75 m and 4) 1.49 m by 1.16 m. The depths range from 0.30-0.50 m. The remaining two are partially cleared blisters with measurements of 1.60 m by 1.50 m and 2.60 m by 1.45 m. The depths also range from 0.30-0.50 m. Excavated cobbles are strewn haphazardly throughout the surrounding area.

**SITE NO.:** State: 13370 [**P**]@ PHRI: T-153

SITE TYPE: Mounded wall ELEVATION: c. 232 feet

**FUNCTIONAL INTERPRETATION:** Agriculture **DIMENSIONS:** 20.00 m by 0.00 m by 0.50 m

**SITE NO.:** State: 13371 [**P**] PHRI: T-154

SITE TYPE: Platform ELEVATION: c. 225 feet

**FUNCTIONAL INTERPRETATION:** Possible habitation **DESCRIPTION:**Rectangular shape with a level top. The platform is built partially against bedrock outcrop.

**SITE NO.:** State: 13372 [**P**] PHRI: T-155

**SITE TYPE:** Complex (10 Features)

**TOPOGRAPHY:** Pahoehoe flows on a mild slope. **VEGETATION:** Very thick grasses, <u>koa-haole</u>, and lantana.

ELEVATION: c. 230 feet CONDITION: Fair

INTEGRITY: Partially altered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture-

habitation-quarry

**DESCRIPTION:** The overall complex area measures 30.0 m (N-S) by 20.0 m (E-W). The site consists of a platform (Feature A), an enclosure (Feature B), a cairn, three mounds, three pahoehoe excavations, and a terrace Measurements were recorded for Features A and B, and for two pahoehoe excavations (Features G and H).

FEATURE A: Platform FUNCTION: Indeterminate

**DIMENSIONS:** 6.10 m by 4.70 m by 1.02 m

**DESCRIPTION:** Pahoehoe boulders and cobbles loosely piled, with a relatively flat surface. It is situated 2.0 m at 133 degrees Az. from Feature B.

FEATURE B: Enclosure FUNCTION: Agriculture

**DIMENSIONS:** 4.00 m by 3.10 m

**DESCRIPTION**: Large pahoehoe boulders are loosely stacked 2 to 3 courses high in a circular fashion and filled with pahoehoe cobbles and loam. It is adjacent to Feature A, 2.0 m to the southeast.

**FEATURE G:** Pahoehoe excavation **FUNCTION:** Possible quarry

**DIMENSIONS:** 4.03 m by 1.71 m by 1.04 m

**DESCRIPTION:** Feature G consists of a possible pahoehoe quarry area with an adjacent rock pile. It appears to be the edge of a large pahoehoe blister, partially broken off, with pahoehoe boulders and cobbles heaped on top and around it.

The adjacent rock pile is 1.12 m northeast from the quarry area. It measures 3.94 m E-W and is 0.59 to 0.68 m in height.

FEATURE H: Pahoehoe excavation

FUNCTION: Agriculture

**DIMENSIONS:** 2.10 m by 1.80 m by 0.50 m

DESCRIPTION: A pahoehoe flow with quarried pahoehoe cobbles and boulders from the interior stacked along the western part of the ledge. The interior has a deposit of loam and small cobbles and clinkers. On the SW exterior of the feature there appears to be rubble pile from the excavated pahoehoe. Directly south of Feature H is a rubble pile that measures 6.0 m E-W by 2.5 m N-S and 1.1 m high.

**SITE NO.:** State: 13373 [P] PHRI: T-156

**SITE TYPE:** Complex (10+ Features)

**ELEVATION:** c. 250 feet

<sup>&</sup>lt;sup>®</sup>[P] Site is located in preserve area; recording was conducted only at sites near the western boundary of preserve.

**FUNCTIONAL INTERPRETATION:** Agriculture-habitation-possible ceremonial -possible burial

**DESCRIPTION:** The site complex consists of an enclosure, a C-shape wall, a midden scatter, terrace, two rock mounds and a low wall. Two more mounds that may be possible burials and many additional rock mounds and pahoehoe excavations are in the area. The enclosure is 12.00 by 10.00 m, with biface, core-filled walls 1.00 to 2.00 m wide. Coral is present on the wall.

**SITE NO.:** State: 13374 [**P**] PHRI: T-157

**SITE TYPE:** Complex (2 Features)

ELEVATION: c. 238 feet

FUNCTIONAL INTERPRETATION: Agriculture/land

division

**DESCRIPTION:** Two walls are present at this site. One is C-shaped and oriented E-W. The other wall is 5.00 m long, 1.50 m wide and 0.50 m high. It is also oriented E-W. Additional agricultural features are undoubtedly in the vicinity.

**SITE NO.:** State: 13375 [P] PHRI: T-158

**SITE TYPE:** Complex (3 Features)

ELEVATION: c. 240 feet

FUNCTIONAL INTERPRETATION: Agriculture/

habitation

**DESCRIPTION:** Two platforms and a terrace were identified at this site. One platform is 3.00 m square and 1.20 m high. The second platform is 6.00 by 5.00 m and 1.00 m high. Mounds and small walls are also in the vicinity.

**SITE NO.:** State: 13376 [P] PHRI: T-159

SITE TYPE: Platform ELEVATION: c. 240 feet

FUNCTIONAL INTERPRETATION: Habitation/possible

burial

**DIMENSIONS:** 7.00 m by 5.00 m by 1.20 m

**DESCRIPTION:** The platform is roughly paved and

faced on all sides.

SITE NO.: State: 13377 PHRI: T-160 SITE TYPE: Complex (3 Features)

TOPOGRAPHY: Smooth pahoehoe ledge and surface

flow

VEGETATION: Lantana, laua'e, koa-haole, Christmas-

berry, kiawe, and fountain grass.

ELEVATION: c. 232 feet CONDITION: Fair-good

INTEGRITY: Unaltered-possibly altered

PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Habitation-burial

**DESCRIPTION:** The overall complex area measures 13.70 m at 34 degrees Az. by 7.50 m. The site consists of three lava tube caves (Features A-C).

FEATURE A: Lava tube cave FUNCTION: Habitation

**DIMENSIONS:** 68.35 m by 10.35 m by 2.80 m

**DESCRIPTION:** A blister type shelter cave with surface collapse. It is oriented NE-SW with a modified entrance and a cairn in the chamber. The entrance is 1.20 m by 1.10 m with a paved surface under the opening into the southwest chamber.

The southwest chamber appears to be modified with boulder and cobbles and pebbles as fill. There are two levels of paving. The first level is 0.38 m in height and measures 5.0 m by 2.9 m. Immediately northwest and below is the second level which is 0.51 m in height and measures 2.80 m by 0.73 m, and is built up on natural bedrock. There is a single course alignment of cobbles that surrounds this second level area.

Northeast of the first level area at 9.0 m is a cairn with a piece of coral on the southwest side. The cairn is 1.25 m in height and is stacked four courses high with boulders at the base and cobbles stacked on the top. There is another piece of coral 4.35 m northeast of the cairn.

FEATURE B: Lava tube cave (Figure A-38)

**FUNCTION:** Burial

**DIMENSIONS:** 40.00 m by 9.00 m by 1.90 m

**DESCRIPTION:** Feature B is 13.0 m at 20 degrees Az. from Feature A. The lava tube is oriented southwest 200 degrees Az. The opening measures 4.55 m wide by 1.47 m in height. The entry is very wide and narrowing midway with natural collapse at the mouth of the cave.

A possible hearth is situated 8.95 m from the cave opening. It consists of an ash deposit and bits of charcoal. One piece of coral is present 30.45 m from the opening into the southwest chamber.

The remains of a human burial is located 39.95 m in from the cave opening. The identified remains include a rib, incisor, molar and scattered fragments. Charcoal surrounds the burial.

FEATURE C: Lava tube cave FUNCTION: Habitation

**DIMENSIONS:** 10.60 m by 4.50 m by 1.90 m

**DESCRIPTION**: The cave extends southwest with a paved area consisting of cobbles and pebbles. This paved area

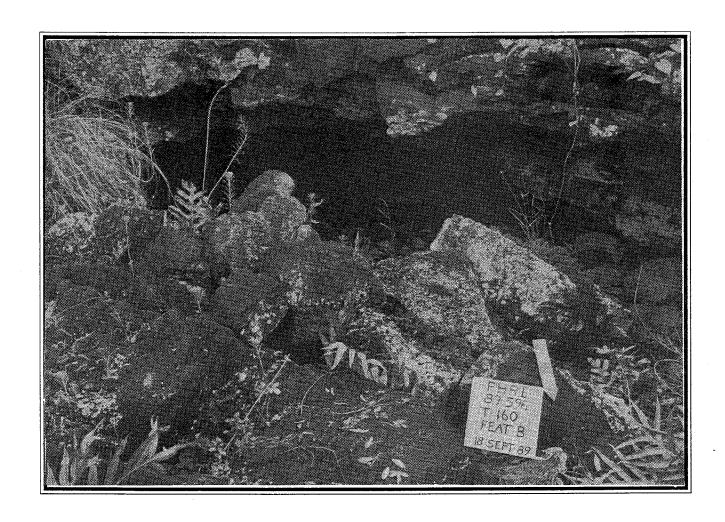


Figure A-38. SITE 13377, FEATURE B. View to Southwest (PHRI Neg. 1249-28)

measures 8.60 m by 5.22 m. Prior to entering the chamber, there is a wall. It measures 4.90 m in length and 2.0 m in height. The wall is constructed with boulders and cobbles stacked five courses high. Portable remains observed in the cave include a piece of coral on the paved area, 2-3 beverage bottles (Kona Bottling Works) and plywood.

SITE NO.: State: 13378 PHRI: T-161 SITE TYPE: Complex (2 Features)

TOPOGRAPHY: Pahoehoe flow adjacent to an aa flow.

**VEGETATION:** Christmas-berry and grass.

ELEVATION: c. 267 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture

**DESCRIPTION:** The overall complex area measures 14.0 m at 251 degrees Az. by 1.5 m. The site consists of two pahoehoe excavations. One is an excavated blister with the mined blocks haphazardly thrown. Small cobbles line the bottom of the excavation. The other is an excavated pahoehoe ledge that is backfilled with basalt blocks.

SITE NO.: State: 13379 PHRI: T-162 SITE TYPE: Complex (8+ Features)

TOPOGRAPHY: Pahoehoe outcrops are scattered

throughout the area.

VEGETATION: Very dense koa-haole, various grasses,

Christmas-berry, lantana, noni, and vines.

ELEVATION: c. 260-268 feet

CONDITION: Fair INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture

**DESCRIPTION:** The overall complex area measures 71.0 m at 34 degrees Az. by 65.0 m. It consists of two modified outcrops (Features A and C), two pahoehoe excavations (Features B and E), three terraces (Features D and G), an alignment (Feature F), and a wall (Feature H). Temporary Site T-169 was combined with this site complex.

FEATURE A: Modified outcrop FUNCTION: Agriculture

**DIMENSIONS:** 38.00 m by 12.20 m

**DESCRIPTION:** A horseshoe-shaped pahoehoe outcrop (possible the edge of a collapsed blister) and another large pahoehoe outcrop situated to the northeast side of the horseshoe shape. There is paving in between the two outcrops consisting of small pahoehoe boulders and pebbles.

An oval shaped alignment is near the center of the outcrop. It measures 4.0 by 1.50 m. The alignment is constructed with boulders and cobble size pahoehoe.

FEATURE B: Pahoehoe excavation

**FUNCTION:** Agriculture

**DIMENSIONS:** 9.60 m by 6.20 m by 1.20 m

**DESCRIPTION:** Feature B is a pahoehoe excavation quarried from a blister on the south and southwest face of an outcrop. The excavated material is piled in a rubble mound adjacent to the excavation. It is located 5.50 m southwest from Feature A.

FEATURE C: Modified outcrop

FUNCTION: Agriculture

**DIMENSIONS:** 5.30 m by 5.15 m by 0.60 m

**DESCRIPTION:** A modified outcrop with a pahoehoe excavation and an alignment abutting the outcrop along the south side, is located 5.00 m east form Feature A. The alignment forms a small roughly circular enclosure. It is constructed with small pebble to large cobble sized basalt blocks. The interior of the circular shaped enclosure is paved with large pebbles and small cobbles.

FEATURE D: Terrace (2) FUNCTION: Agriculture

**DIMENSIONS:** 6.00 m by 4.00 m by 1.50 m

DESCRIPTION: Feature D is 12.00 m southeast from Feature C. It consists of an upper and lower terrace that utilizes the pahoehoe outcrop for the base of the upper terrace. The lower terrace is located at the base of the outcrop. The terraces are raised on the southeast side. Portions of the outcrop have been excavated, then paved with pebble to cobble size basalt. The southern end has a small wall built up between the bedrock outcrops. It is possible that this wall may have encircled the paved area at one time but is presently collapsed.

FEATURE E: Pahoehoe excavation

**FUNCTION:** Agriculture

**DIMENSIONS:** 5.00 m by 1.80 m by 0.00 m

**DESCRIPTION:** A pahoehoe excavation that is filled in with boulder to pebble size pahoehoe basalt. It is situated along the same pahoehoe outcrop as the upper terrace in Feature D, 10.00 m to the northeast. The outcrop is narrow with the center portion excavated and filled. The northern portion of the filled excavation appears to be more placed and slightly paved. The southern end is Feature D terrace. North of Feature E 2.0 m is another outcrop with a large crevice. A Cypraeidae shell was found in the crevice along with cobble and pebble size rocks.

FEATURE F: Alignment

**FUNCTION:** Agriculture/indeterminate **DIMENSIONS:** 2.40 m by 1.70 m by 0.60 m

**DESCRIPTION:** Oval shape in plan, it is constructed with large pebble and cobble sized basalt blocks. Generally it is

single course in construction although one section is three courses high. The central portion of the feature is hollow. It is situated on top of the highest outcrop of pahoehoe within the area, 8.40 m south from Feature E.

FEATURE G: Terrace FUNCTION: Agriculture

**DIMENSIONS:** 3.20 m by 3.30 m by 0.00 m

**DESCRIPTION:** The terrace is raised on the northwest side and is constructed off the side of a pahoehoe bedrock facing. It is built with small boulder to cobble size rocks. It is located 8.50 m northwest from Feature B.

Additional features are in the immediate area consisting of a paving, a filled depression and a mound. The paving surrounds Feature G but dense vegetation makes it impossible to determine a boundary. To the south is a depression filled and paved with pebble to cobble size pahoehoe rocks. West of Feature G 3.5 m is an agricultural mound.

FEATURE H: Wall

**FUNCTION:** Indeterminate/possible boundary **DIMENSIONS:** 22.50 m by 1.50 m by 1.50 m

**DESCRIPTION:** The wall is oriented 319 degrees Az.; it is bifaced and core filled with cobble-size rubble. The wall is constructed with basalt boulders and cobbles. A probable pavement is situated downslope to the northeast; it is presently covered with heavy vegetation.

**SITE NO.:** State: 13380 [**P**] PHRI: T-163

SITE TYPE: Complex (5 Features)

**ELEVATION:** c. 264 feet

FUNCTIONAL INTERPRETATION: Agriculturehabitation

**DESCRIPTION:** The site consists of a platform, three walls and a cave. The platform is 6.00 m square and is connected to a wall that is 1.00-2.00 m high. One of the walls is 26.0 m long. The cave has a cleared floor and a thick cultural deposit.

**SITE NO.:** State: 13381 [P] PHRI: T-164

SITE TYPE: Enclosure ELEVATION: c. 263 feet

FUNCTIONAL INTERPRETATION: Agriculture

**DIMENSIONS:** 4.00 m by 3.00 m by 1.00 m

**DESCRIPTION:** The enclosure is rectangular in plan.

**SITE NO.:** State: 13382 [P] PHRI: T-165

SITE TYPE: Enclosure ELEVATION: c. 263 feet

FUNCTIONAL INTERPRETATION: Agriculture

**DIMENSIONS:** 7.00 m by 3.00 m by 0.75 m

**SITE NO.:** State: 13383 [P] PHRI: T-166

**SITE TYPE:** Complex (3 Features)

ELEVATION: c. 285 feet

FUNCTIONAL INTERPRETATION: Habitation/

agriculture

**DESCRIPTION:** The site consists of a platform, an enclosure and a wall. The wall is oriented E-W and is c. 15.00 m long.

**SITE NO.:** State: 13384 [**P**] PHRI: T-167

**SITE TYPE:** Complex (3 Features)

**ELEVATION:** c. 295 feet

**FUNCTIONAL INTERPRETATION:** Agriculture **DESCRIPTION:** The site consists of a platform and two walls. The platform is 2.00 by 3.00 and 1.00 m high.

**SITE NO.:** State: 13385 [**P**] PHRI: T-168

SITE TYPE: Wall ELEVATION: c. 295 feet

FUNCTIONAL INTERPRETATION: Land division DESCRIPTION: Oriented NW-SE; it is bifaced and core-

filled.

SITE NO.: State: 13386 PHRI: T-30 SITE TYPE: Complex (49 Features)

TOPOGRAPHY: Uneven pahoehoe flow with small patches

of aa

VEGETATION: Sparse to moderate fountain grass, small

'ilima, lantana, and Christmas-berry trees.

ELEVATION: c. 15 feet CONDITION: Good INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric-early historic FUNCTIONAL INTERPRETATION: Agriculture/

possible habitation

**DESCRIPTION:** The overall complex area measures 90.5 m at 48 degrees Az. by 85.0 m. The site consists of a walled overhang (Feature A), a cave (Feature B), two cairns (Features C and D), a modified blister (Feature E) and 44 pahoehoe excavations (31 in the SE half of the site and 13 in the NW half of the site).

Historic material consisting of pottery and glass sherds and a metal barrel hoop were found within and exterior of Feature A.

FEATURE A: Walled overhang (Figure A-39)

**FUNCTION:** Habitation

**DIMENSIONS:** 7.50 m by 3.50 m by 1.20 m

**DESCRIPTION**: The feature consists of a small enclosure, formed by natural bedrock and a constructed double faced, core filled wall. The wall is oriented NW-SE, parallel to the vertical face of the outcrop, and abuts the outcrop at the

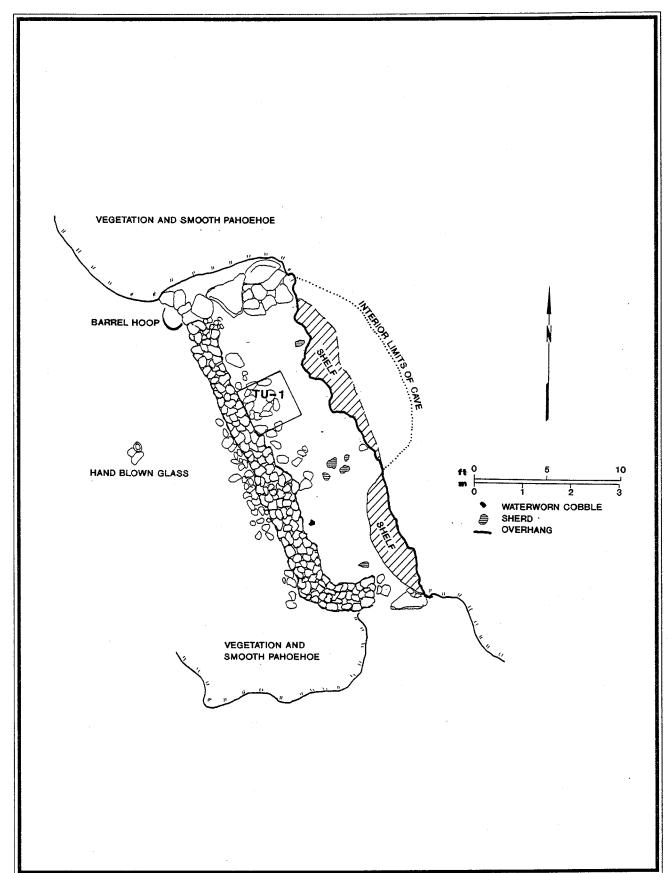


Figure A-39. SITE 13386, FEATURE A

northwest end. It is constructed with boulders and cobbles stacked 3-4 courses (0.44-0.79 m) high and 0.50-0.60 m wide.

There is a narrow opening at the southeast end of the wall, permitting access to the interior. The opening is 1.00 m wide.

There is a small shelf under the overhang that also extends beyond the overhang. At the northern end of the interior of the overhang is a crawlspace between the shelf and the ceiling. It measures 1.6 m wide, 10.0 m deep and with a ceiling height of 0.6 m. The maximum depth of the overhang from the base of the shelf is 0.65 cm in places. There is a circular alignment of cobbles between the wall and the overhang, and two semicircular pockets of pebble fill against the overhang shelf.

Along the interior side of the wall is a circular stone alignment that was thought to be a possible hearth. A 1.00 by 1.00 m square test unit was excavated over the alignment, in order to determine if datable charcoal remains were present. The unit was found to contain a thin (0.01 m) soil deposit over pahoehoe slabs, with pockets of soil to 0.05 m thick in crevices. No charcoal or ecofactual material was recovered from the screened soil. Soil samples were collected for further analysis.

Several sherd representing a single hand-thrown stoneware vessel (probably a jar) were observed scattered on the interior of the enclosure. These items were collected for reconstruction purposes. Sherds from the same or a matching vessel were recovered from the surface c. 50.00 m to the west of the enclosure. (Further discussed below).

FEATURE B: Cave

FUNCTION: Water catchment

**DIMENSIONS:** 4.50 m by 4.00 m by 1.65 m

**DESCRIPTION:** The cave is located in a small depression of pahoehoe between two large upthrusts of pahoehoe. It appears to fill with water as the tide changes. The water ranges in depth from 0.30 to 1.0 m in depth.

The cave entrance is vertical, measuring 1.65 by 0.56. m and opens to 210 degrees Az. Portions of the cave entrance and floor interior are paved. The interior of the cave measures 4.25 m by 2.6 m.

A small cairn is located directly above the entrance. It is constructed with c. ten pahoehoe rocks, stacked in a circular pattern. The cairn measures 0.60 by 0.50 m and 0.26 m in height. The area of the cave entrance and the cairn measures 3.6 m (NE-SW) by 2.05 m (NW-SE).

**DESCRIPTION:** A pocket of beach sand is present just below the interior of the entrance. Many marine shell fragments in and around the entrance of the cave, mammal bone fragments, basalt hammerstone and some recent refuse.

FEATURE C: Cairn FUNCTION: Marker

**DIMENSIONS:** 0.46 m by 0.40 m by 0.56 m

DESCRIPTION: Feature C consists of two large pahoehoe blocks placed together, one set on end, with two smaller pahoehoe cobbles on top. Irregular shape in plan it probably marks the location for Feature B, Cave. It is 8.55 m at 92 degrees Az. from Feature B. Feature C is c. 9.0 m northeast of Feature D.

FEATURE D: Cairn FUNCTION: Marker

**DIMENSIONS:** 0.66 m by 0.50 m by 0.52 m

**DESCRIPTION:** Roughly rectangular shape in plan it consists of six larger pahoehoe blocks at the base with cobbles and smaller boulders as fill. It is located 9.0 m at 150 degrees azimuth from Feature B and probably marks that feature's location. Feature D is 9.0 m southwest of Feature C.

FEATURE E: Modified blister

**FUNCTION:** Possible water catchment **DIMENSIONS:** 4.20 m by 4.00 m by 1.10 m

**DESCRIPTION:** Feature E is 17.50 m northeast from Feature A. The interior of a collapsed blister has been modified with stacked pahoehoe boulders, 3-4 courses high, forming an enclosure. The portable remains consists of stoneware ceramic sherds and one rusted metal barrel hoop.

Pahoehoe Excavations—The NW half of the site complex consists of 13 pahoehoe excavations. Six are blister excavations and seven are fault excavations. The quarried material are either inside of the excavated area and/or near the edges. The average excavated area measures c. 1.27 m by 0.85 m, with an average pahoehoe thickness of 0.32 m. One to four faces are excavated through the first layer of pahoehoe.

The SE half of the site contains at least 31 pahoehoe excavations. Thirteen are blister excavations, nine crevices and nine faults. The majority are excavated through the first layer of pahoehoe. Some of the excavations have two layers excavated. The average excavated area measures 2.24 m by 1.7 m with an average face thickness of 0.25 m.

Both the NW and SE areas contain a light midden scatter, coral, waterworn basalt pebbles, hammerstones, small basalt flakes and some recent refuse.

SITE NO.: State: 13387 PHRI: T-170 SITE TYPE: Complex (3 Features)

TOPOGRAPHY: Smooth and ropy pahoehoe finger and

surface flows.

VEGETATION: Christmas-berry, lantana, fountain grass,

and kiawe.

ELEVATION: c. 290 feet CONDITION: good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Habitation

**DESCRIPTION:** The overall complex area measures 12.3 m at 240 degrees Az. by 10.0 m. It consists of three caves, all of which are entered from the same collapsed blister formation.

FEATURE A: Cave FUNCTION: Habitation

**DIMENSIONS:** 6.10 m by 5.20 m by 1.50 m

**DESCRIPTION:** Feature A is a blister type cave that is oriented NE-SW. The opening faces southwest and measures 4.60 m wide and 1.30 m high. There is rubble collapse at the entrance and continuing along the interior perimeter.

There is a natural shelf area at the northern end of the cave that measures 6.0 m in length and 1.7 m in width. Directly below the shelf and to the west end of the cave is a hearth. The hearth measures 1.7 m by 1.4 m and contains three Cypraeidae fragments, a waterworn basalt pebble and an ash/charcoal deposit 0.10 m thick. The cave interior contains fragments of mammal bones (possibly dog), Cellana, Echinoidea, Thaididae and kukui nut shell, along with natural rubble and pebble collapse.

FEATURE B: Cave FUNCTION: Habitation

**DIMENSIONS:** 5.50 m by 2.75 m by 1.94 m

**DESCRIPTION:** A blister type cave shelter that is separated from Feature A by ceiling collapse. Feature B is oriented NE-SW with the blister opening to the southwest. The mouth of the chamber is 1.55 m wide and 1.2 m high. There is a natural ledge across the blister opening that measures 1.71 m in height.

In the southeast corner of the chamber is a wall, stacked three courses high on natural collapse. The floor is slightly paved with cobbles and pebbles.

FEATURE C: Cave FUNCTION: Habitation

**DIMENSIONS:** 8.40 m by 1.80 m by 1.20 m

**DESCRIPTION**: Feature C is directly across the collapsed blister from Feature A, and is oriented NE-SW. It contains

a very small opening that measures c. 0.62 m in width and 0.41 m in height with collapse at the opening. Exterior of the blister opening is a paved area that is oriented NE-SW. The paved area is filled with cobbles and pebbles.

A possible stacked wall, five courses high is situated by the southeast corner of the paved area. The wall measures 2.7 m long and 1.35 m in height.

Portable remains observed in the cave include Cellana, Echinoidea and Cypraeidae, <u>kukui</u> nut shell, a waterworn basalt cobble, and charcoal. A midden/soil deposit is present in the southeast corner of the paved area.

SITE NO.: State: 13388 PHRI: T-171 SITE TYPE: Pahoehoe excavation

TOPOGRAPHY: Gently sloping pahoehoe with a western

exposure.

VEGETATION: Christmas-berry, lantana, koa-haole, and

thick grasses.

ELEVATION: c. 291 feet CONDITION: Fair INTEGRITY: Unaltered

PROBABLE AGE: Prehistoric-early historic FUNCTIONAL INTERPRETATION: Agriculture DIMENSIONS: 2.30 m by 1.50 m by 0.00 m

**DESCRIPTION:** This site contains no formal construction. It consists of scattered basalt around the excavated opening. The overall measurement including the scatter is 5.0 m in diameter. There may be other features in the area, however the visibility is very poor.

SITE NO.: State: 13389 PHRI: T-172 SITE TYPE: Complex (2 Features)

TOPOGRAPHY: The terrain consists of smooth and ropy

pahoehoe flow.

VEGETATION: Christmas-berry, lantana, koa-haole, and

fountain grass.

ELEVATION: c. 297 feet CONDITION: Good INTEGRITY: Unaltered PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Agriculture DESCRIPTION: The overall complex area measures

9.50 m by 6.20 m.

**FEATURE -:** Pahoehoe excavation

**FUNCTION:** Agriculture

DIMENSIONS: 5.80 m by 5.00 m

**DESCRIPTION:** The pahoehoe excavation is located in a blister. The quarried material has been removed and cobbles are strewn haphazardly around the blister opening.

FEATURE -: Pahoehoe excavation

**FUNCTION:** Agriculture

**DIMENSIONS:** 5.95 m by 4.68 m

**DESCRIPTION:** The pahoehoe excavation is filled with cobbles. No other modifications or portable remains are

present.

**SITE NO.:** State: 13390 [P] PHRI: T-173

**SITE TYPE:** Complex (15 Features)

ELEVATION: c. 302 feet

FUNCTIONAL INTERPRETATION: Agriculture-

habitation

**DESCRIPTION:** The site consists of two platforms (Features A and I), an enclosure (Feature B), a wall (Feature C), four terraces (Features D-F and Feature H), four mounds (Feature G) and three linear mounds (Feature J). Measurements are currently available for Features A, D, F, H, and I.

FEATURE A: Platform FUNCTION: Habitation

**DIMENSIONS:** 4.00 m by 3.00 m by 1.00 m **DESCRIPTION:** Feature A is faced on four sides.

FEATURE D: Terrace

FUNCTION: Habitation/agriculture DIMENSIONS: 10.00 m by 5.00 m

FEATURE F: Terrace

FUNCTION: Habitation/agriculture

**DIMENSIONS:** 5.00 m by 3.00 m by 1.00 m

FEATURE H: Terrace

FUNCTION: Habitation/agriculture

**DIMENSIONS:** 8.00 m by 4.00 m by 1.00 m

**DESCRIPTION:** Oriented NE-SW.

FEATURE I: Platform

FUNCTION: Habitation/agriculture

**DIMENSIONS:** 2.00 m by 1.00 m by 1.00 m

**SITE NO.:** State: 13391 [**P**] PHRI: T-174

**SITE TYPE:** Lava tube cave **ELEVATION:** c. 297 feet

**FUNCTIONAL INTERPRETATION: Habitation** 

**SITE NO.:** State: 13392 [P] PHRI: T-175

SITE TYPE: Platform ELEVATION: c. 300 feet

FUNCTIONAL INTERPRETATION: Possible burial

**DIMENSIONS:** 4.50 m by 2.50 m by 1.00 m

**DESCRIPTION:** The surface interior is roughly level.

**SITE NO.:** State: 13393 [P] PHRI: T-176

SITE TYPE: Platform ELEVATION: c. 292 feet

**FUNCTIONAL INTERPRETATION:** Habitation **DIMENSIONS:** 9.00 m by 9.00 m by 1.20 m

**DESCRIPTION:** The platform is roughly paved with cobbles and boulders. There is a hole present in the center

of the platform.

**SITE NO.:** State: 13394 [**P**] PHRI: T-177

SITE TYPE: Alignment ELEVATION: c. 330 feet

FUNCTIONAL INTERPRETATION: Indeterminate

**SITE NO.:** State: 13395 [P] PHRI: T-178

SITE TYPE: Platform ELEVATION: c. 333 feet

FUNCTIONAL INTERPRETATION: Possible burial

**DIMENSIONS:** 3.00 m by 2.50 m by 0.95 m

**SITE NO.:** State: 13396 [P] PHRI: T-179

SITE TYPE: Platform ELEVATION: c. 317 feet

**FUNCTIONAL INTERPRETATION:** Habitation **DIMENSIONS:** 8.00 m by 4.00 m by 1.00 m

**SITE NO.:** State: 13397 [P] PHRI: T-180

SITE TYPE: Complex (5 Features)

ELEVATION: c. 329 feet

FUNCTIONAL INTERPRETATION: Agriculture DESCRIPTION: The site consists of a five terraces, the

largest of which is 8.00 by 4.00 by 0.60 m.

**SITE NO.:** State: 13398 [P] PHRI: T-181

SITE TYPE: Complex (4 Features)

ELEVATION: c. 320 feet

FUNCTIONAL INTERPRETATION: Habitation/

agriculture/possible burial

**DESCRIPTION:** The site consists of a platform (Feature A), a wall (Feature B), and two cairns (Features C and D). Measurements are available for Features A and C.

FEATURE A: Platform

**FUNCTION:** Habitation/agriculture/possible burial **DIMENSIONS:** 8.00 m by 7.00 m by 1.50 m

FEATURE C: Cairn
FUNCTION: Indeterminate

**DIMENSIONS:** 1.00 m by 1.00 m by 0.70 m

**SITE NO.:** State: 13395 [P] PHRI: T-178

**SITE TYPE:** Platform **ELEVATION:** c. 333 feet

FUNCTIONAL INTERPRETATION: Possible burial

**DIMENSIONS:** 3.00 m by 2.50 m by 0.95 m

**SITE NO.:** State: 13396 [P]

PHRI: T-179

SITE TYPE: Platform ELEVATION: c. 317 feet

**FUNCTIONAL INTERPRETATION:** Habitation **DIMENSIONS:** 8.00 m by 4.00 m by 1.00 m

**SITE NO.:** State: 13397 [P] PHRI: T-180

**SITE TYPE:** Complex (5 Features)

ELEVATION: c. 329 feet

FUNCTIONAL INTERPRETATION: Agriculture DESCRIPTION: The site consists of a five terraces, the

largest of which is 8.00 by 4.00 by 0.60 m.

**SITE NO.:** State: 13398 [**P**] PHRI: T-181

**SITE TYPE:** Complex (4 Features)

ELEVATION: c. 320 feet

FUNCTIONAL INTERPRETATION: Habitation/

agriculture/possible burial

**DESCRIPTION:** The site consists of a platform (Feature A), a wall (Feature B), and two cairns (Features C and D). Measurements are available for Features A and C.

FEATURE A: Platform

**FUNCTION:** Habitation/agriculture/possible burial **DIMENSIONS:** 8.00 m by 7.00 m by 1.50 m

FEATURE C: Cairn
FUNCTION: Indeterminate

**DIMENSIONS:** 1.00 m by 1.00 m by 0.70 m

**SITE NO.:** State: 13399 [**P**] PHRI: T-182

SITE TYPE: Terrace ELEVATION: c. 329 feet

**FUNCTIONAL INTERPRETATION:** Agriculture **DIMENSIONS:** 5.00 m by 2.00 m by 0.50 m

**SITE NO.:** State: 13400 [P] PHRI: T-183

SITE TYPE: Complex (2 Features)

ELEVATION: c. 319 feet

FUNCTIONAL INTERPRETATION: Agriculture/land

division

**DESCRIPTION:** The site complex consists of a wall and an enclosure. the wall is oriented E-W and has a 90 degree corner, turning to the north. The enclosure is large and located at the end of the wall.

**SITE NO.:** State: 13401 [P] PHRI: T-184

SITE TYPE: Complex (2 Features)

**ELEVATION:** c. 319 feet

FUNCTIONAL INTERPRETATION: Agriculture/land

division

**DESCRIPTION:** The complex consists of a wall (Feature

A) and a terrace (Feature B).

FEATURE A: Wall

FUNCTION: Agriculture/land division

**DIMENSIONS:** 50.00 m long

**DESCRIPTION:** Feature A is a wall with a circular bend

at the end.

FEATURE B: Terrace FUNCTION: Agriculture

**DIMENSIONS:** 8.00 m by 2.00 m by 1.00 m **DESCRIPTION**: Feature B is a faced terrace

**SITE NO.:** State: 13402 [**P**] PHRI: T-185

SITE TYPE: Wall

ELEVATION: c. 317 feet

**FUNCTIONAL INTERPRETATION:** Land division **DESCRIPTION:** The wall is presently collapsed.

SITE NO.: State: 13403 PHRI: T-186

SITE TYPE: Modified cave

TOPOGRAPHY: The terrain consists predominantly of

pahoehoe flows.

VEGETATION: Christmas-berry, noni, kiawe, lantana,

and fountain grass.

ELEVATION: c. 320 feet
CONDITION: Good

INTEGRITY: May be partially altered

PROBABLE AGE: Prehistoric

FUNCTIONAL INTERPRETATION: Habitation

**DIMENSIONS:** 3.70 m by 3.00 m by 1.10 m

**DESCRIPTION:** A large pahoehoe blister that is collapsed at one end and with a terrace wall opposite the blister opening. The blister opening faces northeast and is 3.70 m wide by 1.1 m high. The terrace measures 3.00 m by 0.60-1.00 m wide and 0.60 m in height. It is constructed of pahoehoe boulders and cobbles, 3 to 4 courses high, and is oriented N-S. The south end of the terrace connects with the edge of the tube/blister opening.

Cowrie shell, <u>kukui</u> and faunal remains are present. Site No. 13406 is c. 20.0 m to the east.