

AN ARCHAEOLOGICAL SURVEY IN PORTIONS OF WAIKOLOA, PU'UKAPU
AND OULI, DISTRICT OF SOUTH KOHALA, HAWAII

by

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prepared for

MAUNA LANI RESORTS



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Title page photograph is a view of area I-II, site 8809. Looking westward.

FORWARD

Five years ago, while reporting the results of an archaeological reconnaissance survey in the Puna District of Hawaii I appended a statement for informational as well as rational reasons. If it was worth the addition of a page of type then, how much more so today, half a decade later. I therefore begin this report with the following thoughts.

Always there is a need to record the pertinent data that eventually must find its way into the recommendations that most certainly must be part of an archaeological survey like the one which follows. What of archaeological significance is in the area? What recommendation on clearance or additional archaeological investigation is to be made? What pre-historic and historic, or perhaps I should say cultural heritage, protection for the public or larger community should outweigh the rights, privileges and values that may be held by the individual or property owner in our society? What changes should be recommended in the procedure for clearance?

The whole concept and process that supports the *raison d'etre* of an archaeological survey and a clearance procedure is not, and should not be, taken or held lightly, for only when we see that the cultural heritage of a people is synonymous with the cultural integrity of that group, only then will we understand cultural and social relationships of a pluralistic society, as is the case of Hawaii.

The above statements and questions are far from frivolous ones. But then too, so is the planning for a future society and community a serious occupation. The prime reason for an archaeological survey and its recommendations is an essential part of our planning process. We must know, we must be aware of what is significant, of what is of value, of concern, of what effect results from what action; in short, we must be knowledgeable of the past, not for its debris or its relics, although sometimes they are of interest, but for the information and insight of the past that will aid us in our present and future course of action for our collective well being. We do not want to allow the recurrence of past debacles and catastrophes in our ongoing cultural evolution. We must therefore preserve some of the more significant symbols, objects and artifacts of our heritage, so that, rather than stopping or perhaps I should say slowing the ongoing process of evolution, we alternately are constantly reminded, through the paraphernalia of the past, that we change, that we can appreciate the varied forms of life and its expressions, that variability in itself is to be valued for its aid and assistance in social change and interaction, and above all, that we need not renew our mistakes and wrongs through each generation of our ongoing cultural evolution.

In other words, we need not justify a requirement for the study of the past. Rather, we must look to the past. Without this repository of knowledge we are but that of the newly born. Shorn of this protection of experience our society is forever set on a path of repetition of the inadequacies of the unenlightened (Bonk, 1980.)

INTRODUCTION

Toward the end of 1984 I received a letter from Mr. Roger Harris, Project Planner for Mauna Lani Resort, Inc, of South Kohala, Hawaii. I was asked to submit a proposal for an archaeological reconnaissance survey for four areas in the Waimea region of Hawaii (See Figure 1.) All four areas are portions of larger parcels of land belonging to Parker Ranch, with Mauna Lani assisting in the master planning and in the preliminary development approval requirements made necessary by agencies of the State and County governments.

Through a letter dated November 9, 1984 I agreed to take on the project and submitted a proposal for consideration. By the end of January I was contacted by telephone with a "go-ahead" agreement and by early February I had a written statement supporting the verbal one.

A little over sixteen hours were expended in the process of field investigation, with three separate periods taking up the bulk of the field time. An additional return trip of short duration was also determined necessary for some final checking and review. Most of one day was consumed by a walk-through of areas I and II (See Figure 2.) Approximately four hours allowed for the coverage of area III, and the remainder of the field time was employed in the walk-through of area IV.

The following pages of this report provide the details of the survey, as well as my recommendations resulting from the reconnaissance.

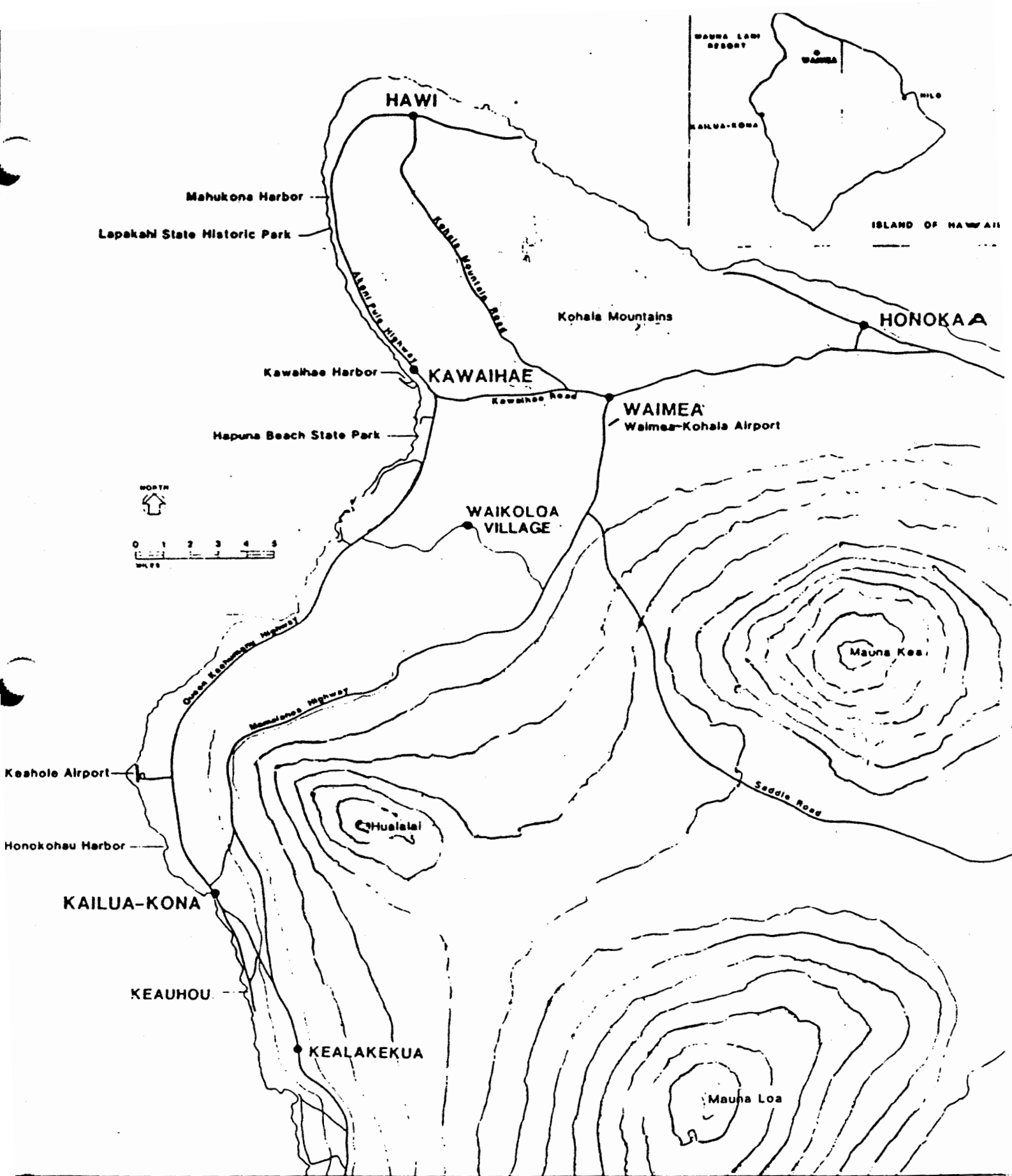
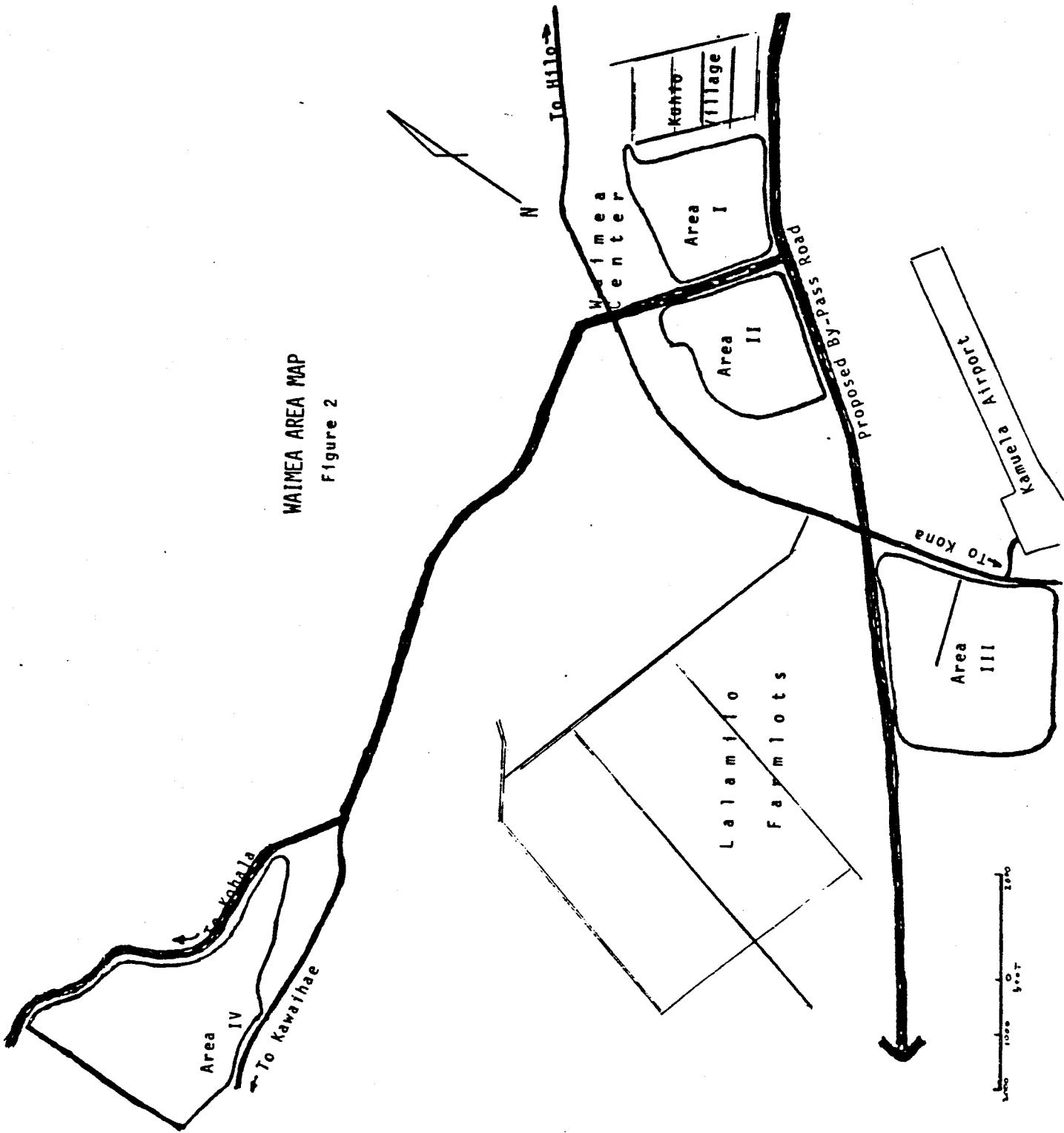


Figure 1
REGIONAL MAP

Kohala and Kona, Hawaii

WAINEA AREA MAP

Figure 2



AREA

Four specific locations are contained within the study and scope of this archaeological survey (See Figure 2.) Areas I and II are adjacent to each other and for archaeological purposes can best be included together as one contiguous entity. They make up about 300 acres of land lying between 2640 and 2740 feet in elevation. They are a portion of Tax Map parcel 6-7-02:17. Here the 'ahupua'a of Pu'ukapu and Waikoloa verge on each other and nearby, and to the northwest, the 'ahupua'a boundary between Waikoloa and Lalamilo bisects the village center of Waimea.

Area I is just southeast of the community center. To the northeast is Kuhio Village, a housing development initiated by and under the control of the Hawaiian Homes Commission. South of Waimea Elementary and Intermediate School and abutting area I on its western border is the area designated as area II. It is southeast of a large rectangular reservoir and east of the racetrack with its outbuildings and a surrounding grove of trees (See Figure 3a and 3b.)

Along the southern boundary of both I and II is the proposed right-of-way for the new by-pass addition of the Hawaii Belt Road. Beyond, and to the slopes of Mauna Kea, this region to the south consists basically of pasture land, broken up here and there by fencing, water tanks, and other paraphernalia of the Parker Ranch. In this pasture land, approximately 0.5 mile to the south of area II, is the northern half of the Kamuela airport runway.

Area III is west of the Mamalahoa highway and the Kamuela airport, and south of the proposed by-pass road and the abandoned Waimea airport (See Figure 2.) Ranging in elevation from 2560 to 2640 feet above sea level, this area contains 140[±] acres of land. It is within the 'ahupua'a of Waikoloa, and is identified as being part of the Tax Map Key 6-8-01:3.

Area IV is an elongated but irregular shaped parcel of land which lies between the Kawaihae-Waimea road on the south and the Kohala-Waimea road on the north. It is less than 0.5 mile west of the Waiaka intersection (See Figure 2.) The land slopes steeply to the south from the Kohala mountains to the north. From a maximum elevation of 2770 feet in the northwest corner of area IV, the land drops as much as 570 feet as one moves southward the 0.75 mile it takes to reach the southern border of the area (See Figure 4.)

The eastern boundary of the area follows the western boundary of the urban district line which is adjacent and to the east. For part of its distance this boundary also follows Lanikepu stream which flows



Figure 3a

A portion of Site 8805 in the foreground and the grove of trees near the racetrack outbuildings in the background.



Figure 3b

Racetrack outbuildings and surrounding grove of trees.

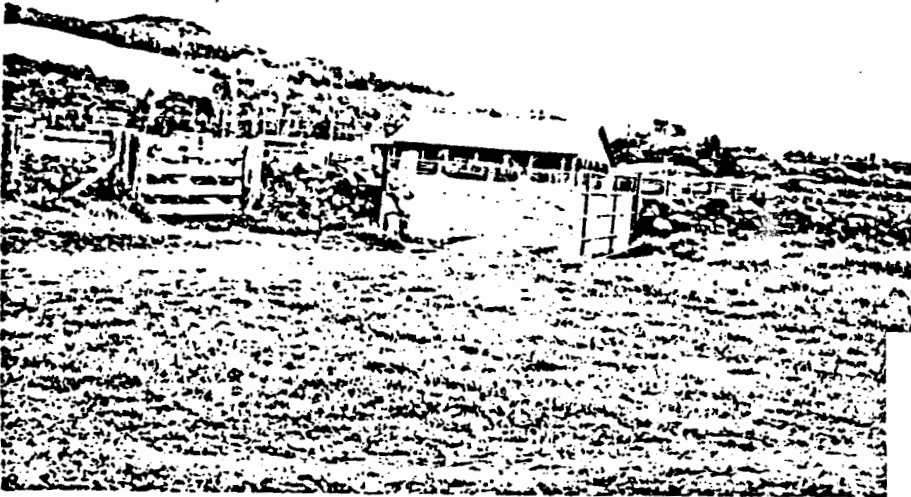


Figure 3c

Looking toward the northeastern portion of the study area, showing Parker Ranch barn and enclosures. Northeast of 8812

Figure 3d

Looking eastward toward Parker Ranch compounds with an old historic cobble road showing through the recent gravel.



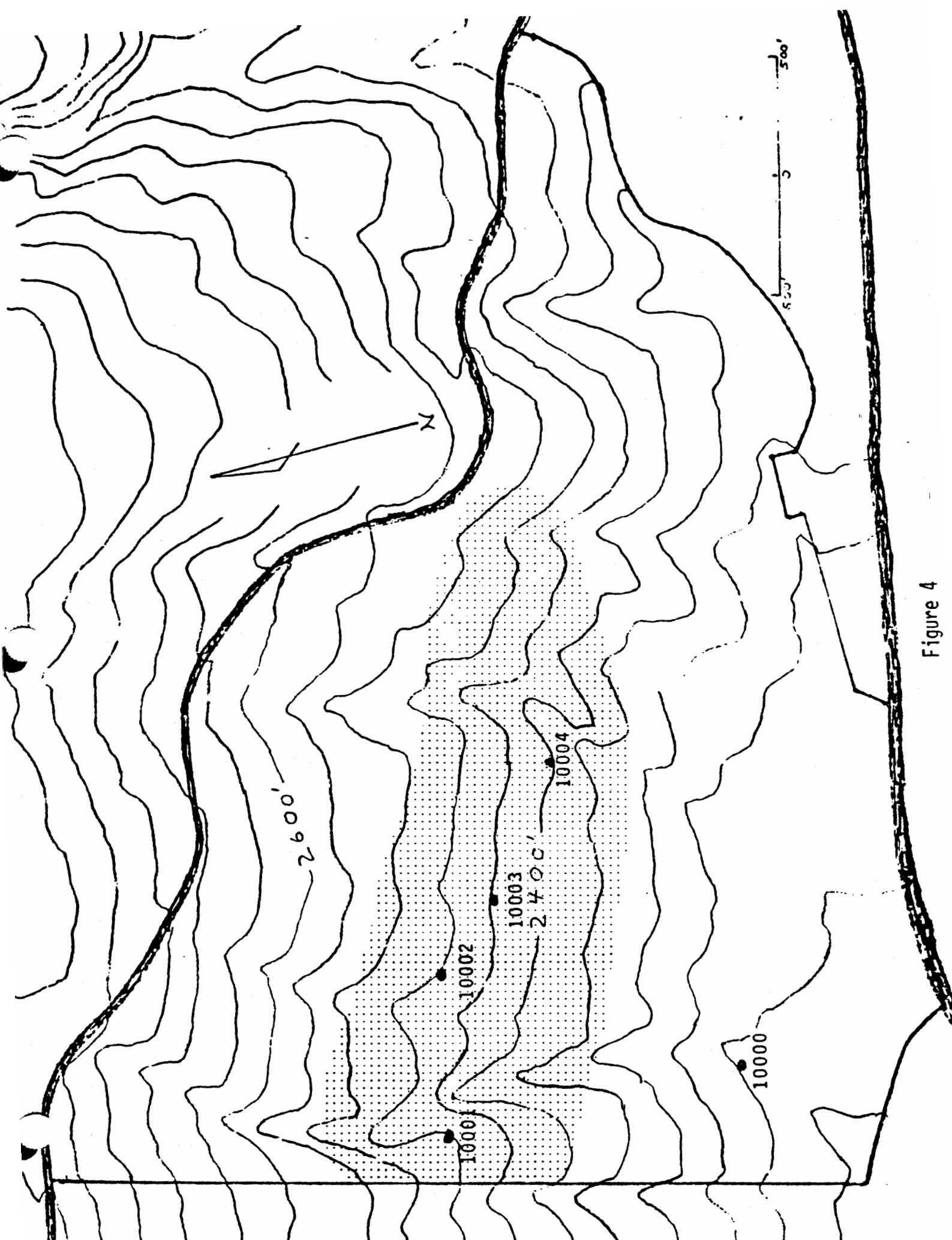


Figure 4

southward out of the gulch with the same name, crosses the Kohala road at the northeast corner of the study area and then shifts its course, first westward and then southwestward, before entering the urban district and crossing under the Kawaihae road. This eastern end of the area is within the southern end of the land of Lanikepu although the major portion of area IV to the west takes in a portion of the southern end of the 'ahupua'a of Ouli. In fact, a point of reference is that of the western boundary line of area IV, which follows the Ouli-Mamoualoa 'ahupua'a division line.

Approximately 210[±] acres of land make up this parcel which at the present time may be identified through its Tax Map parcel numerator: TMK 6-2-01:9.

METHODOLOGY

Basic field data for this project was obtained through a procedure or technique known in archaeological circles as a "walk-through" or reconnaissance survey. This is quite often defined as the initial or preliminary archaeological examination. It would normally include observation and recording while walking over the area to be investigated. It includes note taking, photographs where applicable, may add other illustrative methods of recording data, and always includes recommendations as to archaeological significance of the area. If the survey is being undertaken as a result of a county, state, and/or federal request or requirement, the recommendation may include a statement for archaeological clearance which, if supported by the relevant governmental body or office, would allow the owner or developer to proceed with their planned activity. Another possibility would be a recommendation for additional and more extensive archaeological work, such as a more detailed survey, excavation, or some other investigation prior to full, partial, or other variety of clearance. Finally, there may be, because of great archaeological significance, a recommendation for preservation, along with archaeological-historical development. With the later recommendation, acquisition by a governmental body may normally be in order.

The areas under study were covered with a moderate amount of difficulty. Grass is the dominant vegetation cover in all of the areas examined, so nowhere was movement or visual observation impeded (See Figures 5, 6a-c, 10 and 11,) as is sometimes the case in thick *kiawe* cover or in the deep coastal valleys where a wet environment quite often produces a heavy cover of vegetation.

Field recording made use of a note pad and clipboard as well as a camera for the taking of photographs. Some use of remote sensing aided in both field and laboratory evaluation of the study areas. In this regard the author of this report feels fortunate to have had initiated a research project in the Lalamilo area of Waimea a few years ago (Bonk, 1980-82.) At that time an accumulation of data was initiated which gradually included aerial photographs, infrared photos, historical documents and maps, as well as field data resulting from survey work, mapping, and excavation. This previous activity in the region was very helpful and the experience allowed for some benefits in carrying out the present project.

Finally, extensive use was made of the recent report by Clark and Kirch (1983.) Their archaeological investigations in the Waimea area were of especial value as supportive of the present field work in areas I and II, and also in the formulation of my recommendations for additional mitigation or clearance.



Figure 6a

View to the northwest
from within area II

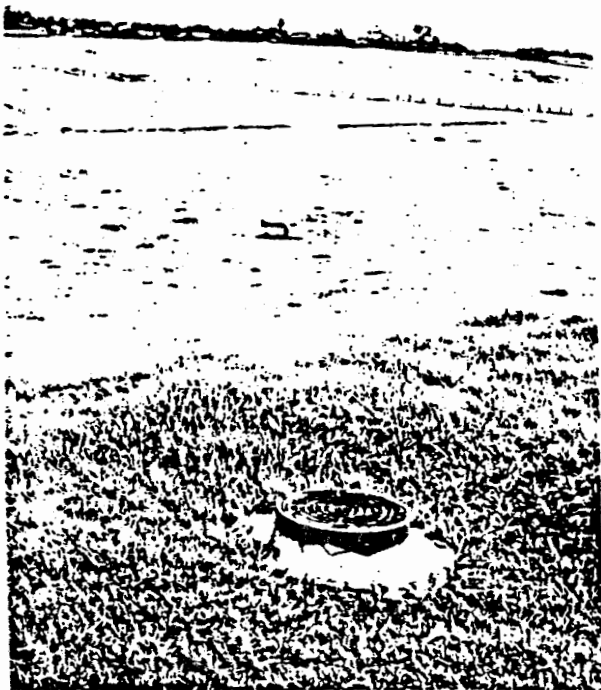


Figure 6b

View to the northeast from
within area II



Figure 6c

View to the southwest from
within area II

REPORT

AREA I-II:

The study area that includes areas I and II consists of an irregular shaped piece of land bordered by the urban district of Waimea, Kuhio Village, the proposed by-pass road, and the reservoir, racetrack and related structures, and grove of trees. The stippled portion of Figure 7 shows the extent of the field investigation. Also located on this map are some of the site and feature locations that Clark (1983) investigated. As these were relocated and evaluated one need only to refer to them by number and location. For a complete description and discussion of the sites covered previously one need refer to Clark (Clark and Kirch, 1983, pp 240-290.)

Site 50-10-06-8803:

Here we have a residential complex located on a low knoll east of 8805 and north of 8809.

Site 50-10-06-8805:

This site consists of agricultural fields, irrigation ditches (*'auwai*), and residential sites. It covers a fairly extensive portion of land at the western end of the study area.

Site 50-10-05-8809:

This is a low wall, broken here and there, and crumbling throughout most of its length (See Title Page.) It marks the boundary between agricultural and habitation zone to the north from the culturally devoid area to the south. In the historic period of the last century, when cattle became "king" in the Waimea region, the zone to the south of this wall was grazing land. Undoubtedly, the wall was constructed to keep cattle out of the cultivated fields to the north of the wall (Clark and Kirch, 1983, pp 284 & 289.)

Site 50-10-06-8810:

This is another residential complex on a low outcrop knoll. It is east of 8803 and north of 8809.

Site 50-10-06-8808:

Located to the north of 8803 and 8810, as well as around the base of the knolls on which they are found, 8808 is a fairly extensive agricultural field system with its *'auwai* feeding mechanism entering the study area from the northeast. The water supply that fed both 8808 and 8805 came off of the Kohala mountains approximately two miles to the east of area I. Here the major stream was Lanimaumau, which from an original southward direction, turned westward immediately after crossing the present Mamalahoa highway. Passing through the present Pu'ukapu homesteads and farmlots before reaching Kuhio Village, the

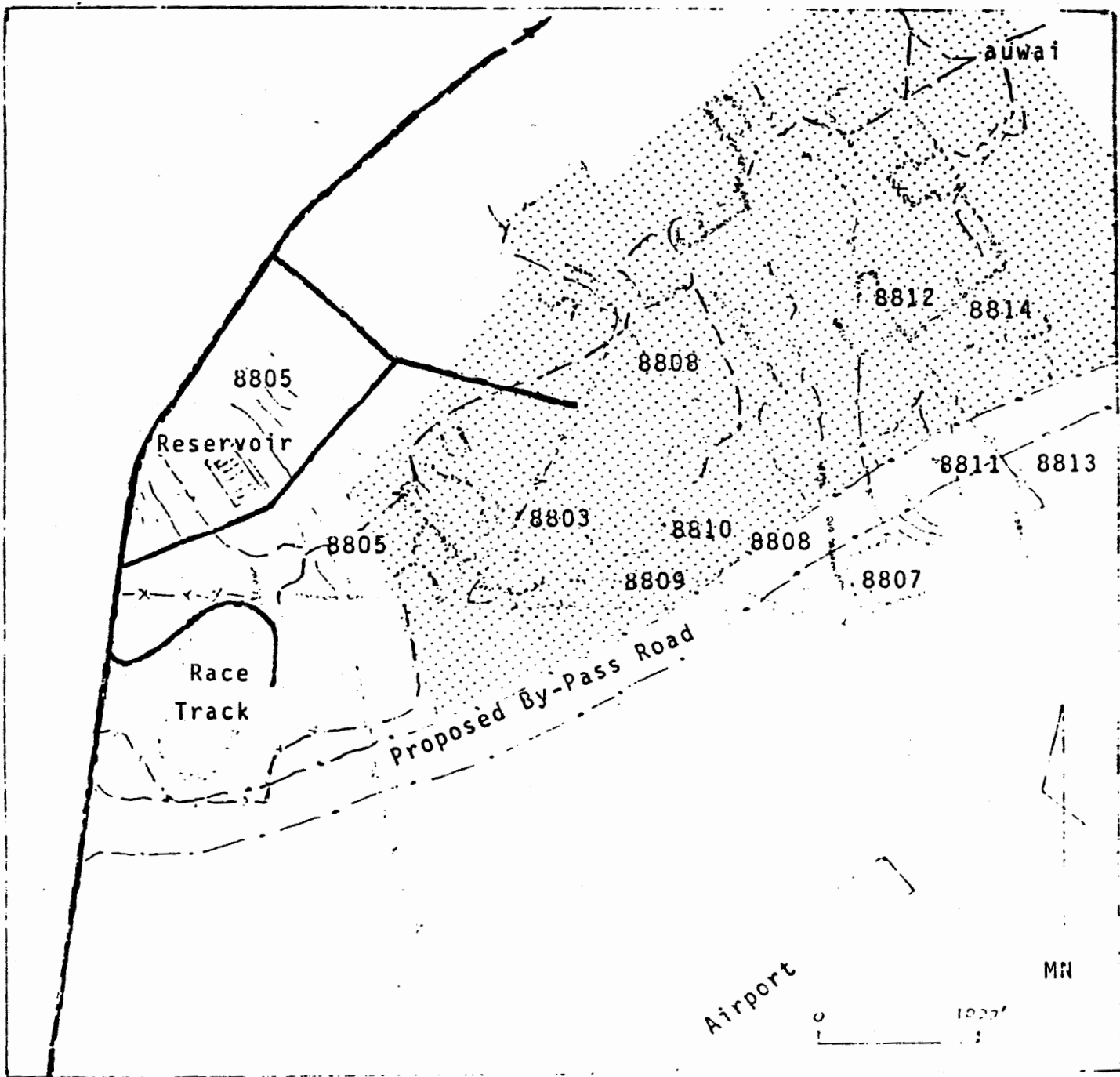


Figure 7
Areas I and II

natural stream eventually changed to an *'auwai* complex (See Figure 8b&c, and Figure 9) as it entered the study area. Further along the system it finally attained its localized goal of water diversion and control into the ridged fields of 8808 and 8805.

Site 50-10-06-8813:

This, like 8809, is the remains of a broken rock wall extending in a north-south direction. Most of it is beyond the border of the study area although the northern end of the wall terminates in a walled enclosure (8814), the remains of an agricultural or cattle activity. 8813 undoubtedly served, like 8809, as a cattle barrier.

Site 50-10-06-8812:

As with 8805, this site is identified through historic data as being a residential site. In contrast to 8803 and 8810, which were abandoned prior to the elimination of farming in this area, 8812 and 8805 survived in use to a later time.

Site 50-10-06-8811:

Most of this site is outside of the study area. Basically we have here some remains of agricultural field ridges, a rock outcrop modification, and perhaps a stone-aligned temporary shelter.

Site 50-10-06-8807

This site is recent, deriving its origination and function from activities surrounding the raising of cattle. It also must be mentioned that this corral is outside of the study area.

Summary of Areas I and II:

Two large agricultural field systems (8805 & 8808) cover a large portion of the land examined. The remains of an *'auwai* system is traceable, as is much of the earth-ridged field structure into which was channelled the water required for the crops. A few residential sites (8803, 8810 and perchance 8811) are found on outcrop knolls, occupied fairly early, and were associated with the development and expansion of agriculture in this area. Both 8803 and 8810 seem to have been abandoned before the demise of the agricultural field system, although at least two other residential sites (8805 and 8812) continue in use to more recent times

Both the agricultural fields and the residential areas were enclosed within a walled area following the introduction of cattle raising to this region within the historic period. These walls (8809 and 8813) also delineate the maximum expansion of agriculture in the historic period.

Figure 8a

Looking north toward the
Waimea village center
From the northwest corner
of area I



Figure 8b

'auwai in the northwest of I
Viewed southwestward



Figure 8c

'auwai in the northwest of I
Viewed northwestward



Figure 9
'auwai in the northwest of I
Viewed westward

AREA III:

Figures 2 and 10a-d give the location as well as show some views of the surface features of this area. Dry land grasses and shrubs, and a few, many introduced, trees are found on this rocky, dry land. Cattle roam most of the area at the present time, although one commercial venture devoted to the repair of automobiles is located here (See Figure 10b.)

Field examination uncovered no artifacts, features, sites, or anything else of archaeological significance.

AREA IV:

Limited test excavation south of the Waimea-Kawaihae road in the 'ahupua'a of Lalamilo by the author was an encouraging and educationally supportive antecedent to the field examination in area IV. Both the nearness as well as the fact that at least one of the streams flows through, or by, both locations allows for a relationship (Bonk, 1980-82.)

As mentioned, area IV is between the Kohala and the Kawaihae roads, just west of the Waiaka intersection. Figure 11a, in addition to the contour map of area IV (See Figure 4) gives a good view of this open, sloping, grassy land. Here and there eroded gulches cut the middle and upper portions of the area into wide ribbon-like patches. The lower third of the area is fairly flat and could easily have been watered by the permanent as well as intermittent streams that flowed southward from the Kohala mountains. Some indications of agricultural ridging is noted for this land adjacent to the Kawaihae road (See Figure 11a.)

The lower sloping ground north of the level flats is the location of the highest concentration of archaeological remains (See Figure 4 and Figure 11a.) Stippling on the map attempts to show the area of high incidence of sites as well as some very specific site locations.

Site 50-10-06-10000:

This is a residential site adjacent to a gulch (See Figure 12b-c.) A clearly discernible rectangular hearth is roughly in the middle of a slightly levelled floor (See Figure 12a.)

Site 50-10-06-10001:

Further *mauka*, at approximately the 2480' elevation level, and also on the west side of the same gulch that borders site 10000, is another residential site with a low enclosing rock wall. In the *makai* or south wall is what conceivably might have been an entryway (See Figure 13b.) The surrounding wall is in most places one to two courses high and measuring 0.25 to 1.0 m in height. Within the *mauka* or north wall is an upright rock slab (See Figure 13a.)

Figure 10a

Area III
View southward

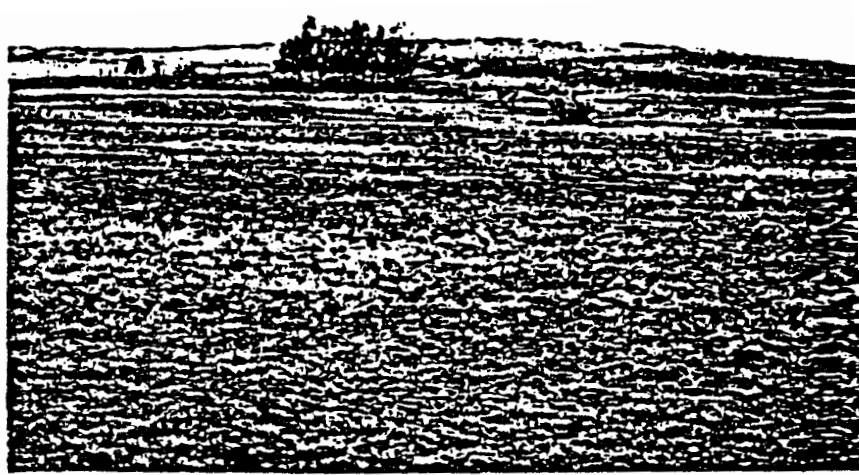


Figure 10b

Area III
View northward toward Gary's
Auto Repair Shop



Figure 10c

Area III
View westward toward *pu'u*



Figure 10d

Area III
View northwestward





Figure 11a
View of area IV. Looking mauka



Figure 11b
View of site 10004. Looking makai



Figure 12a
Area IV
Hearth in site 10000



Figure 12b
West wall of site
10000



Figure 12c
View of site 10000



Figure 13a

Area IV
Upright stone slab in
north wall of site 10001

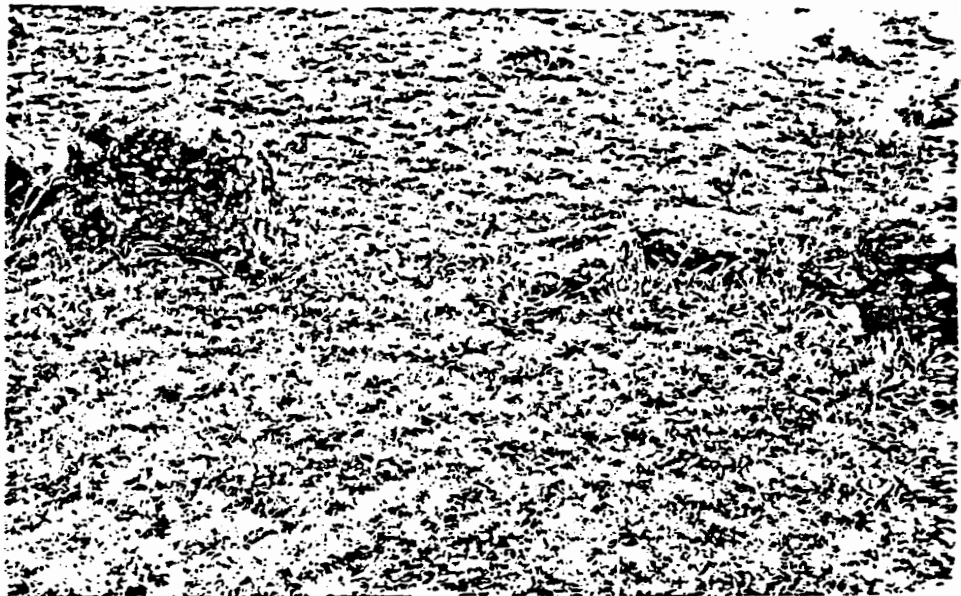


Figure 13b

Area IV
Entryway (?) in south
wall of site 10001

Site 50-10-06-10002:

Also at roughly the same elevation but across the gulch and to the east is what may be another residential site. It consists of a small levelled area and some rocks serving perhaps as a bordering device.

Site 50-10-06-10003:

Further eastward and slightly lower in elevation is a residential site containing a hearth. Portions of a remaining stone wall partially surround a slightly levelled area that could have held a structure. The site is atop a slightly raised hillock at about the 2440' elevation level.

Site 50-10-06-10004:

This is yet another residential site almost at the midpoint of area IV and roughly 2400' above sea level. It is east of the previously mentioned sites, atop slightly southward sloping ground, and on the west side of a gulch. It is roughly rectangular in shape, rock-walled, and with some fill for ground levelling purposes placed along the south side of the site (See Figure 11b.) The crumbling stone-walled enclosure recorded a maximum height of 1.0 m, but is less in most places. A beautiful view overlooking the agricultural fields of Lalamilo to the south can be seen from this location.

Other Sites:

Finally, numerous stone walls and other sites are seen interspersed with those already mentioned and extending eastward almost to the Kohala road where it swings north-southward and east-westward at the 2540' elevation. This is a zone of sufficient archaeological material to exact further archaeological recording and investigation.

RECOMMENDATIONS

Area I-II:

As the residential sites of 8803 and 8810 are the oldest within this area, dating perhaps to the 13th or 14th century (Clark and Kirch, 1983, p 288,) and as they also predate the development of the agricultural complex in this area, it seems imperative that some further salvage excavation is in order before the finality of destruction takes place with land alteration. These sites were also abandoned before the discontinuance of the irrigated field system that reached its peak development in the mid-1800's. They should show little of the acculturation that is noted for some of the other sites, such as was found at Lalamilo.

As 8803 and 8810 are relatively small sites the necessary salvage excavation could be accomplished with a minimum of time and expense. A recommendation to excavate 10 to 15m² in each of these two sites is therefore predicated at this time.

As Clark (1983) has already tested, through excavation techniques, a number of areas within the agricultural field system 8808, it is therefore recommended that clearance be given to the developer for land alteration.

In the case of the barrier walls (8809 and 8813,) sufficient recovery of data has already taken place through the work of Clark (1983) while undertaking the extensive investigation of the by-pass road corridor. It is therefore recommended that clearance be given for both of these sites.

As site 8811 is outside of the study area, but more importantly as it contains nothing of any perceptible significance (Clark and Kirch, 1983, p 282,) it is also recommended for clearance.

Site 8814 was determined to be a structure lacking in cultural remains, and therefore not a residential site. It may be supportive of either an agricultural or of a ranching activity. As further investigation would not likely provide additional archaeological data, it is recommended for clearance.

Lastly, sites 8805 and 8812 are recommended for additional investigation. Site 8805 is both residential as well as agricultural. The agricultural fields and *'auwai* system should be examined through the use of test pits and perhaps some trenching across an *'auwai* to acquire archaeological data that might be comparative with that gained by Clark for 8808. In addition, the residential locations of both 8805 and 8812 should be tested through excavation. These sites were undoubtedly the last of the occupied sites in this area and may there-

fore give up some data as to the reasons for the demise of agriculture in the area, as well as to the shaping of the cultural changes that took place during the historic period.

Area III:

There is no reason why archaeological clearance should not be granted for area III. Lack of archaeological material and data is in support of this recommendation.

Area IV:

This last area is the most difficult to evaluate at this time. Much more archaeological sites and features were located in the area than was initially expected by the writer of this report. It is therefore recommended that the mid-zone identified by the stippling in Figure 4 be avoided until further archaeological work is accomplished in this area. Additional sites and features undoubtedly will be located and identified in this area. It is also recommended that salvage excavation be part of this further survey of this middle zone. Both sites 10000 through 10004 should be tested through excavation and any additional sites in this zone should likewise go through a similar testing. Perhaps as many as five to ten additional sites or features are in the area to the east of 10004. Most are small, not unlike those already identified and located, and can be recorded and tested through coring and/or excavation.

Finally, some examination of the flat *makai* portion of area IV is in order. It is suggested that coring and some profiles be acquired for the agricultural ridges in this portion of the study area. This would be minimal, in time expenditure, but would gain a great amount of archaeological data for this area.

SUMMARY OF RECOMMENDATIONS

<u>Area</u>	<u>Site</u>	<u>Recommendations</u>
I-II	8803	Additional excavation
	8805	Excavation
	8808	Clearance
	8809	Clearance
	8810	Additional excavation
	8811	Clearance
	8812	Excavation
	8813	Clearance
	8814	Clearance
III		Clearance for the whole area
IV	<i>Mauka</i> one-third	Clearance
	Middle zone	Excavation and additional examination
	<i>Makai</i> one-third	Coring and test excavation

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GLOSSARY OF HAWAIIAN WORDS

<i>'ahupua'a</i>	A land division usually extending from the uplands to the sea, so called because the boundary was marked by a heap (<i>ahu</i>) of stones.
<i>'auwai</i>	Ditch. Irrigation ditch.
<i>kiawe</i>	The algaroba tree (<i>Prosopis</i> sp.)
<i>makai</i>	On the seaside, toward the sea, in the direction of the sea.
<i>mauka</i>	Inland, upland, toward the mountain, uplands.
<i>pu'u</i>	Hill, mound, crater.

EXHIBIT 7

Analysis of Economic and Fiscal Impacts -
Parker Ranch 2020 Development Program by
Natelson, Levander, Whitney
Dated September, 1985