FINIAL PROJECT REPORTS

FOR

TULAUTA AND FAGATELE BAY PREHISTORIC VILLAGES AND LEOME BAY PETROGLYPHS

BY

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TULAUTA PREHISTORIC VILLAGE

DESCRIPTION:

The site of Tulauta is located on a coastal plain at the easternmost tip of Tutuila, about 300 meters west of the present coastal village of Tula. The site covers 16,000 square meters, measuring 200 x 80 meters, in what can best be described as a kidney shaped area. To the North, the site is demarcated by a wet taro field and to the West by Lefutu Ridge. The southern site boundary is a United States Government-built dirt road and to the east, a wall marking the yard area of a current Tula resident delineates the boundary. The presence, or absence, of lithic and other visible artifacts marked the boundaries of Tulauta.

The terrain of the site slopes gently down from Lefutu Ridge to one of two dried stream beds that bisect the site. From the stream bed, the site is fairly level east towards Tula. Twenty-six features were recorded at Tulauta, including at least 12 structures. The structures consisted of 8 oval house forms (foundations), 1 raised rectangular platform, 1 three-tiered structure, 2 three sided structures (said to be pgg-pens); and numerous pits, walls, and hearth areas.

The Tulauta complex is recognized as comprising two chronologically distinct areas, the northern probably being the more recent. The structures located to the north are less embedded into the soil, in a better state of repair and quite similar to modern Samoan structures. The southern site area of Tulauta appears to contain both modern and prehistoric structures, but probably was occupied first, as it contains the older structures of the site. Descriptions of each individual feature are provided here to
demonstrate the variety of structures and features at the site (see site map for reference):

Feature 2: Oval structure defined by large rounded basalt curbstones. Interior is bisected, one section marked by a raised platform of basalt pebble pavement. Lithic artifacts associated. (See Photograph)

Features 3 and 4: Distinct cultural soil layers located in Test Trench A. Artifacts present in each layer. (See sketch of Test Trench A.)

Feature 5: Large, three-sided walled structure, built of stone and coral slabs, approximately one meter high. Excellent state of repair with no associated artifacts.

Feature 6: Linear arrangement of basalt stones and coral slabs, with raised basalt pebble pavement, suggesting the remains of an oval structure (although the present state of disrepair prevents any firm conclusions).

Feature 7: Circular arrangement of stones with a central pit containing associated awa stone, sling stone, and lithic artifacts. (See Photograph and Drawing)

Feature 8: Small 2.5 meter (diameter) circular arrangement of stones surrounding a patch of black soil which suggests a hearth. Located within a shallow pit, a three-faceted awa stone and numerous basalt artifacts are associated.
Feature 9: Complex arrangement of basalt curbstones that runs for 20 meters along a dried stream bed. One semi-circular structure is discernible but the rest of the structure arrangements are too disturbed to determine their original dimensions or designs. Lithic artifacts associated.

Feature 10: Oval structure, 5 x 3 meters, defined by basalt curbstones and bisected by a slightly raised platform of basalt pebbles at its north end. Lithic artifacts associated.

Feature 11: Oval structure of basalt curbstones with a bisecting line. The north end of the structure has an attached curbstone platform. Lithic artifacts associated.

Feature 12: Large oval structure, with bisecting line, of basalt curbstones. This feature, due to its possible relationship with Feature 11, may represent a newer structure built on top of older structures. Lithic artifacts associated. (See Photograph)

Feature 13: Triangular area defined by small curbstones and incorporating three trees. The current design is irregular and patchy. Lithic artifacts associated.

Feature 14: Large oval structure made of basalt, lava rock and coral curbstones. The remains suggest a bisecting line and a raised platform of basalt pebbles at the northeast end. Two grinding stones, adzes and modern cultural material is present.
Feature 15: Large, rounded structure with a raised central "patio" defined by large basalt and coral curbstones. The structure appears to have been built into the ridge. The "patio" has a paved curbstone platform with a large diamond shaped ava stone at its apex. Other lithic artifacts also associated. (See Photograph of ava stone)

Feature 16: A smooth basalt stone slab, one meter long, is standing upright and supported on the west side by smaller rocks. The east side has parallel linear markings. No similar feature was noted at this site.

Feature 17: Poorly defined, linear arrangement of deeply embedded curbstones that form a rough L-shape. Lithic artifacts associated.

Feature 18: Poorly defined arrangement of rocks which suggest an oval structure. (May be one of the graves indicated by Frost, 1978.) Lithic artifacts associated.

Feature 19: Nearly perfect oval structure with basalt pebble pavement but no bisecting line. Lithic artifacts associated. (See Photograph of Northern End)

Feature 20: Long (16 meters) irregular wall made of both basalt and large coral slabs. It varies in height from 30 cms to 60 cms and is in a generally poor state of repair. Lithic and historic artifacts associated.

Feature 22: Circular arrangement of basalt stone on top of basalt pebble pavement. Lithic artifacts associated.

Feature 23: Large coral and basalt, three-walled structure built into the ridge and called a "pig-pen" (Frost's informant, 1978.)

Feature 24: Large rectangular structure outlined by basalt curbstones (6 x 10 meters). Connected to the southwest edge is a "patio area" of curbstones which forms a pavement similar to that of Features 11, 12, and 15. The interior of the structure is 5-10 cms above the surrounding ground level. Lithic artifacts associated. (See: Photograph)

Feature 25: Large rectangular area marked by embedded basalt curbstones and carpeted with basalt pebbles. Seemingly associated with Feature 24. Lithic artifacts associated.

Feature 26: Large, complex structure with at least three rounded, raised platforms. Each platform is clearly raised 15 cms above the surrounding surface. Surface is basalt pebbles with shell and coral fragments. One stone-lined pit and many lithic artifacts associated.

(Features 24 - 26 appear to be part of a complex of structures.)
Artifacts located on the surface and recovered from the Test Trench include examples from the entire adze manufacturing kit, 3 pestles, a file and a profusion of waste flakes. Also present were at least 3 awe stones, scrapers, a sling stone, teeth (animal, human, and shark) and modern cultural debris.

Length of occupation and use during the prehistoric period of Tulauta remains a mystery. 1985 radiocarbon dates demonstrate that the site was inhabited at least 400 years before European contact and probably has had a long and complex sequence of habitation. Tulauta's prehistoric context appears to have been used as a massive production center for basalt stone tools (mainly adzes), although fishing and agricultural tools would have deteriorated under these geological conditions. A tremendous amount of lithic material was produced over the years of occupation of Tulauta. This was concluded after recording the incredible abundance of artifactual and waste-flake material on both the surface of the site and down to 40 cms below the surface. The sheer quantity of lithic material at Tulauta makes the site one of the largest basalt quarries and lithic or adze manufacturing sites in all of Polynesia.

Located in the valley between a steep ridge and what archaeologically appears to be a former coastline, Tulauta's location is a prime spot for early habitation. Some features suggesting that Tulauta might have been a residential area are: level, fertile land (ideal for both construction and agriculture), an abundant coastal reef system for fishing, and a stream
bringing fresh water from the ridge. The seacliffs, located about 1.1
kms from Tulauta, provided an abundant supply of basalt for the exten-
sive adze manufacturing industry which was present at the site.

Though now an inland-settlement site, Tulauta may previously have
been a coastal settlement. Theories regarding the tectonic movement of
the South Pacific plates suggest that the eastern end of the island has
lifted and the western end has submerged. The density of coral and shell
fragments on the site surface and incorporated in the structures supports
this argument. The eastern site boundary appears to have been, prehistori-
cally, a coastline. Therefore, Tulauta's prehistoric context could be
regarded as revolving around a coastal ecology, thus raising questions
regarding Polynesian prehistory. If there is, in fact, a tectonic movement
acting on Tutuila, there would have probably been a correspondingly larger
coral reef and perhaps a well-protected cove in the area now occupied by
the modern village of Tula.

Historically, the site has been a plantation area, used for the
cultivation of bananas, breadfruit, taro and coconuts by the villagers of
Tula. The area is also covered by wild "mile-a-minute" vines and other
uncultivated tropical brush. Based on informants' observations, the site
area was inhabited as recently as twenty years ago. The distinctions
between the historic and prehistoric features of Tulauta are based mainly
on oral accounts and archaeological associations. There has been relatively
little archaeological testing at Tulauta, none of which can accurately
verify the contemporaneity of features, the extent of site utilization or
of feature associations and relationships. The most serious threats to the
integrity of the site are the current agricultural practices of the people
from the village of Tula. The maintenance of a banana/breadfruit/coconut
plantation, located directly on top of the site, has damaged the structures
of the site, disturbing the depositional sequence of the archaeological
strata. The wild brush covering this area has no doubt contributed to the
physical survival of Tula; any further road or house construction or
the enlargement of the current plantations would surely result in significant
damage to the site.

SIGNIFICANCE:
The Samoan people have lost much knowledge of their prehistory due to
the effects of forced enculturation over the last two centuries. Further
investigations into significant sites like Tulauta will produce the inform-
ation needed to piece together the facts of Polynesian prehistory. Due to
the preservation qualities of the tropical underbrush, Tulauta has been
maintained in a fair state of preservation. Its size and complexity give
Tulauta high research and interpretive potential, especially regarding the
adze manufacturing process, the association of prehistoric and historic
structures, human behavioral settlement patterns and survival strategies.
Tulauta is a larger and more complex site than Frost's 1978 analysis would
indicate. In particular, Tulauta contains among the largest densities of
lithic debitage and artifact material in Polynesia. Questions regarding
settlement patterns, house forms, and lithic quarrying and manufacturing
could be addressed. The variety of structural remains and their good preservation demand thorough and careful attention. Tulauta may well be the source of important information, viz: 1) Samoan culture history may be approached through the long occupational past of prehistoric Tula; 2) Technological variances within Samoan prehistory may answer queries regarding the exchange of ceramic for lithic or wooden manufacture; 3) Structural patterns of subsistence in this opulent environment may lead modern anthropological studies toward the interpretation of ideological and social development. Due to its fine preservation and relative isolation behind a present village, Tulauta's continued preservation should be encouraged for both historical and anthropological concerns.

FAGATELE BAY PREHISTORIC VILLAGE

DESCRIPTION:

Located just above the beach, in a breached volcanic cone on the south coast of Tutuila, the site at Fagatele Bay is presumed to be a long-occupied fishing site associated with the natural resource-rich bay recently designated as a NOAA National Marine Sanctuary. The site is bounded to the north by a steep slope, to the south by a short cliff drop to Fagatele Bay, and to the east and west where relatively flat, habitable land terminates. The entire site is covered with dense coastal and littoral vegetation, as well as Samoan cultigens. These cultigens do not comprise a plantation per se, but rather seem to be exploited sporadically by individuals using the site for fishing. The presence of a modern fishing shack and accompanying debris indicate intermittent use, although the 200 meter drop to the site has aided in its
isolation and consequent excellent preservation.

The site dimensions are roughly 200 meters east-west and 30 meters north-south. The site consists of 3 levels of land. The widest, most level area is the central area where the fishing shack is located. (See map) The internal composition of the site includes at least eight structures: 3 rectangular and 5 oval, plus at least 2 separate stone-lined paths. The paths, believed relatively modern by their state of repair, are bordered by ti bushes that are certainly a cultural addition.

The Fagatele Bay Complex Consists of 10 features. The complex is recognized as both a residential area and fishing site. Archaeological survey indicates that the site's occupation spans prehistoric into historic times, although recent use has not been intensive. Rather, use of the site appears to be task specific for fishing. A brief description of each feature follows, with features designated on the attached site map:

Feature 2: The remains of this rectangular structure are composed of 3 walls of lava rocks and coral slabs in a poor state of repair. A complete, utilized adze was associated with this structure, indicating a prehistoric context.

Feature 3: Rectangular enclosure of small to medium lava curbstones with northeast corner slightly raised, paved with Liiili (waterworn coral fragments) and enclosed by a curbstone wall in poor repair.

Feature 4: A five-tiered oval structure built into the slope of the crater
and bordered by deeply embedded large lava rock and coral curbstones with demarcated central stair on south face. A stone-lined path leads into Feature 4 from the east. (See Photograph)

Feature 5: A four-tiered oval structure built into the slope of the crater, bordered by deeply embedded large lava rock and coral curbstones with top platform thick with Iliili and 7 postholes clearly visible, indicating recent utilization of the area. (See Photograph of Upper Tier, Photograph of Front Steps, and Photograph of Path leading to Feature 4)

Feature 6: Modern wood shack placed atop what appears to be previously existing raised Iliili foundation. Very large, embedded curbstones border this rectangular foundation and appear to be used as a retaining wall north of the shack. (See photograph of modern fishing shack on platform and photograph of associated ava stone)

Feature 7: Oval two-tiered structure; top platform thick with jiliili and lower platform comprised of very large, embedded curbstones. Stone lined pathway leading out of northeast corner to the east.

Feature 8: Stone and ti bush-lined pathway; serves as entrance to otherwise inaccessible site. Fourteen meters long, the path is oriented east-west. (See Photograph)
Feature 9: Oval two-tiered structure of large lava basalt curbstones, filled with jiliili, this structure borders the south edge of the entrance pathway.

Feature 10: Oval two-tiered structure of large lava and basalt curbstones. Filled with jiliili, this structure is located four meters from sharp cliff drop to water.

Feature 11: Very large lava rock retaining-wall running east-west for approximately 30 meters which separates the level land from the sharp slope to the water.

These features, though now largely connected by intermittent paths, are difficult to associate chronologically. Archaeological survey and mapping seem to verify only the similarity of structure styles, but in no way substantiate contemporaneity. Utilization of this site appears to span prehistoric Feature 2, (e.g.) through historic periods.

SIGNIFICANCE:

Due to the recently acquired status of Fagatele Bay as a National Marine Sanctuary, the Fagatele cultural site provides a substantive cultural complement to the natural resources of the Bay. NOAA, in its "Draft Environmental Impact Statement and Management Plan" for Fagatele, claims that "the designation of a national marine sanctuary in these waters would establish a mechanism for assessing the overall impacts of activities in the area. Monitoring of the sanctuary would provide the basis for a greater understanding of the
area's needs and ecological balance..." (p.9) Human interaction with this environment is undoubtedly one of the mechanisms by which we might understand the activities of the Bay. Due to the evident occupation of the site from (at least) late prehistoric through modern times, the connection between Man and his environment is a necessary topic of ecological interest. This site presents the potential to diachronically gauge Man's interaction with the natural environment. Ecological studies may provide a basis upon which more culturally specific questions could be approached. For example, Fagatele appears to be an excellent case in which to study the relationship between subsistence activities and task specific sites. The multi-tiered structures (especially Feature 4) raise questions regarding hierarchy and social structure as well as stylistic evolution. NOAA's interest in designating "ocean waters as marine sanctuaries for the purpose of preserving or restoring their conservation, recreational, ecological, or aesthetic values" (p.4) is incomplete without recognition of the cultural resources historically based at Fagatele Bay.

**LEONE BAY PETROGLYPHS**

**DESCRIPTION:**

Located on 27 meters of Papaloa Rock 50 meters due south of Leone village, (see Photograph) the Leone Bay Petroglyphs consist of a series of at least 40 carvings of one general motif, that of a hole (or holes) surrounded by a circle of holes and spanning the rock in varying densities. Several of these carvings overlap to share holes with one another. The
outer circle of holes have as few as 5 or as many as 20 surrounding the central hole(s). There are several interpretations regarding the symbolic importance of these carvings (see Significance). Interspersed throughout these prehistoric symbols are intrusive historic graffiti, mostly consisting of Samoan or Anglicized names and symbols. (See map and photographs)

The original site, prior to natural and cultural deterioration, consisted of at least 67 of these circular characters as noted by Kikuchi in 1963. It is reasonable to assume that the original site contained even more than noted by Kikuchi in his MA Thesis for the University of Hawaii. It has been suggested that a geological tilt is acting on Tutuila, causing the eastern end to rise and the western end to submerge. Under these conditions, the petroglyphs are in danger of imminent natural erosion as well as disfiguration caused by modern visitors. Therefore, continued cultural interference and natural erosion seriously threaten the integrity of the site.

**SIGNIFICANCE:**

Petroglyphs are infrequently documented in Polynesian prehistory, and they are usually anthropomorphic representations. The Leone carvings are significant because they are highly symbolic and potentially rich for prehistoric Polynesian studies. The various interpretations, as discussed by Clark: 1980 and Kikuchi: 1963, include: 1) the central hole represents a canoe, with the outer holes signifying crew, or 2) the central hole representing the chief inside a traditional Samoan house which is built by posts arranged in an oval or circle topped by thatch, or 3) the central hole
symbolizing the chief in the center of followers on a journey. Any number of symbolic interpretations are possible which might enhance our understanding of prehistoric Samoan Culture. Further studies of the petroglyphs, based on the types of theories as cited above, could provide information suggestive of prehistoric Samoan navigational methods, social structure, or settlement patterns, and may approach the concepts of time, space and power within the prehistoric Samoan zeitgeist. As a rare manifestation of Polynesian abstraction, the Leone Bay petroglyphs provide insights into the symbolic nature of traditional Samoan culture.
TULAUTA PREHISTORIC VILLAGE

Figure 1. Feature 2

66-21-1
TULAUTA
F.7
7/10/85

Figure 2. Feature 7
Figure 3. Feature 12

Figure 4. Feature 15
Figure 7. Feature 24

SU 2: Very moist, blackish-brown clay soil. Density of basalt flakes increases, as does moisture, toward the gentle westward upslope.

SU 3: Increasingly black and moist. Density of lithics continues to be greater in square 1 although heavy throughout. Root disturbance.

SU 4: End of Feature 3 layer contained high concentration of charcoal. Many microflakes. Still blackish soil.

SU 5: Medium brown dense clay, mottled throughout by decaying basalt and charcoal flakes. Charcoal is abundant, whereas lithic artifacts are infrequent.

SU 6: Same soil as SU 5. A number (6-8) of large (10-20 cm) rocks appear to have been deposited at the same depth at the eastern end of square 2.

Excavation was abandoned at this stage due to land access conflict, despite the fact that the Test Trench had not yet reached sterile soil.
TULAUTA (66-22-1)

1. PESTLE

2. ADZE

SCALE 1:1
TULAUTA (66-22-1)

1. SLING STONE
2. POSSIBLE KNIFE
3. ADZE
4. HAMMERSTONE
5. SCRAPER

SCALE 1:1
FAGATELE BAY PREHISTORIC VILLAGE

Figure 1. Feature 4

Figure 2. Feature 5
Figure 5. Feature 6

Figure 7. Ava stone associated with Feature 6
Figure 8. Feature 8
FAGATELE BAY

1. ADZE
2. ADZE FRAGMENT

SCALE 1:1
TUTUILA, AMERICAN SAMOA 1985
LEONE BAY PETROGLYPHS, PAPALOA ROCK

SCALE
5 meters
LEONE BAY PETROGLYPHS

Figure 1. Detail of Prehistoric Petroglyphs

Figure 2. Intrusive Historic Graffiti
LEONE BAY PETROGLYPHS

Figure 1. Detail of Prehistoric Petroglyphs

Figure 2. Intrusive Historic Graffiti
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