AN ARCHAEOLOGICAL RECONNAISSANCE OF
THE MANU'A ISLANDS,
AMERICAN SAMOA

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INTRODUCTION

The Samoan Archipelago, along with Tonga and several smaller islands (Futuna, Uvea, Niufo'ou, Niutoputapu, and Niue), comprises the region known to anthropologists as Western Polynesia. Substantial archaeological, linguistic, and anthropological research has now shown that this region was the Polynesian "homeland," where a unique Ancestral Polynesian Culture developed out of an earlier Lapita Cultural Complex (Green 1981; Kirch 1982, 1984; Kirch and Green, in press). The archaeology and prehistory of Samoa is thus of significance not only for an understanding of the historical development of Samoan culture, but for the whole of Polynesia.

As a legacy of colonial history, the Samoan archipelago is politically divided into the independent state of Western Samoa (Samoa i Sisifo), comprising the two large islands of Upolu and Savai'i, and American Samoa, comprising Tutuila, Aunu'u, the Manu'a Group, and the diminutive outliers of Rose and Swains Islands. Extensive archaeological work in Western Samoa, beginning during the Polynesian Culture History Program of the 1960s, has produced a wealth of data as well as the outline of a three-millennium long prehistory beginning with Early Eastern Lapita pottery and progressing through the development of uniquely Samoan cultural traits (Green and Davidson 1969, 1974; Jennings et al. 1976, 1980; Davidson 1979). In contrast, the archaeology of American Samoa is poorly known, and it has remained impossible to outline a local cultural sequence. Yet there is no reason to expect that the archaeological resources of American Samoa are any less abundant or significant than those of Western Samoa, or that the eastern islands have been occupied for a shorter period. The problem is simply that of a scarcity of archaeological exploration and study.

From the perspective of cultural resource management, the absence of an adequate data base on Samoan archaeological sites is exacerbated by the pace of current economic development which threatens to destroy significant sites before they are even known. As documented in the Atlas of American Samoa (University of Hawaii 1981), the past decade has witnessed numerous developments in infrastructure (airfields, roads, transmission lines, harbors), as well as general population growth. Given the present lack of archaeological data, the impact on cultural resources cannot even be evaluated, let alone averted or lessened through adequate planning.

The project reported here is part of a long-term, intensive and comprehensive archaeological survey of American Samoa, designed to alleviate the situation just described. This survey has been initiated under the auspices of the Historic Preservation Office and the American Samoan Department of Parks and Recreation, with cost-sharing contracts for archaeological study arranged with several American and New Zealand university scholars. The immediate goal is to provide an inventory of archaeological resources which may be used by the Historic Preservation Office of American Samoa for effective planning purposes. Additional benefits are also anticipated, however, including the
stimulation of archaeological and prehistorical research. As in other Pacific Islands, the old colonial perspective that 'history' began with the arrival of European explorers and missionaries will only be completely dispelled when the islanders' own past is exposed through prehistorical research (which includes not only archaeology, but oral traditions and linguistic studies). The results of such research into the indigenous Samoan past will surely have important positive effects which in the long run are perhaps even more important than governmental planning considerations.

BACKGROUND TO SAMOAN ARCHAEOLOGY

Although Buck (1930) had reported on stonework and adzes, the first modern archaeological effort in Samoa was that of Goldon (n.d., 1962) in 1957, resulting not only in a general account of the range of field monuments, but in the discovery of pottery at Vailele, Upolu, dated to the first century A.D. The latter discovery was particularly significant in the then-emerging picture of Polynesian origins as rooted in an earlier Melanesian ceramic complex beginning to be known by the term "Lapita" (Suggs 1961; Goldon 1971). Following on Goldon's lead, a major archaeological program was organized for Western Samoa under the direction of Roger C. Green (University of Auckland), with funding provided through the Bishop Museum's Polynesian Culture History Program. Between 1962 and 1967, this project brought 17 archaeologists from nine institutions to Western Samoa for a coordinated series of investigations including surface surveys, and excavation of sites spanning initial settlement to the historic period. Published in two large volumes (Green and Davidson 1969, 1974), the results of this project remain a landmark in Polynesian archaeology.

Subsequent to the conclusion of the Western Samoa project in 1967, but in time to be incorporated in the second volume of results (Green and Davidson 1974), an accidental discovery of classically-decorated Lapita pottery at Mulifanua, Upolu, extended the Samoan sequence back to the beginning of the first millennium B.C. Further, the geomorphological context of this find—a submerged occupation deposit capped by nearly one meter of reef rock—demonstrated that tectonically-induced changes in the Samoan landscape could have significant implications for regional prehistory. More recently, a project headed by J. Jennings of the University of Utah completed two seasons on Upolu Island and the adjacent small islet of Manono, concentrating on settlement pattern surveys and excavation of both plain ware and aceramic sites (Jennings et al. 1976; Jennings and Holmer 1980). Of particular interest is their work on settlement patterns, developing the concept of the "household unit" as a key analytical category (Jennings et al. 1982).

As a result of these various projects, the outline of a prehistoric cultural sequence for Western Samoa is well known (Davidson 1979). In skeletal terms, such a sequence commences with the
occupation of the archipelago about 1,000 B.C. by makers of classic, dentate-stamped Lapita pottery (witnessed by the presently submerged "Ferry-Berth Site" at Mulifanua). The first millennium B.C. witnessed a gradual change in the composition of Samoan ceramic assemblages, with the loss of decoration and more complex vessel shapes, ending with Polynesian Plain Ware assemblages around the time of Christ. Adzes and other aspects of material culture changed along with the pottery, and the sequence as a whole is viewed as documenting the development of an Ancestral Polynesian Culture out of an older Eastern Lapita ancestral culture. Ceramics as a whole ceased to be manufactured much after about A.D. 300, and the paucity of archaeological materials during the next thousand years or so has prompted Davidson (1979) to term this the "Dark Ages" of Western Polynesian prehistory. In the final millennium of the Samoan sequence, however, a number of new developments are witnessed in the archaeological record, especially the construction of several new forms of field monuments, such as the star mound and fortifications. These large constructions are believed to evidence the rise of powerful chiefdoms competing for land and resources. For a more detailed discussion of Western Samoa prehistory, the reader is referred to Green and Davidson (1974) and Davidson (1979).

The first modern archaeological survey in American Samoa was carried out by Kikuchi (1963, 1964) on Tutuila and Aunu'u in 1961-62. Kikuchi's work, still the most extensive yet conducted in the territory, gives a good overview of the main types of surface site, but is neither intensive nor systematic in its coverage. In 1962, Kikuchi and Sinoto extended the survey to Manu'a, and conducted minor test excavations on Ta'u and Tutuila. Disappointed by the initial results, Sinoto abandoned the Samoan project and shifted his site of field work to the Marquesas Islands (Emory and Sinoto 1965). Until recently, the only other major field project conducted in American Samoa was that of Janet Frost (1978), who excavated at seven sites on Tutuila.

In addition to the above projects, there have been a number of limited cultural resource surveys, carried out under contract to the National Park Service and the U.S. Army Corps of Engineers (Ladd and Morris 1970; Kikuchi, Silva, and Palama 1975; Silva and Palama 1975; McCoy 1977). In 1980, Clark compiled a summary of all recorded archaeological sites for the American Samoa Historic Preservation Commission, and spent three weeks in the field checking the locations and status of many of these (Clark 1980).

Clark summed up the status of archaeological survey in American Samoa as of 1980 in these words: "the amount of land that has been intensively and systematically covered is small indeed" (1980:11). Under the auspices of the American Samoa Historic Preservation Officer, opportunities for renewed archaeological work in American Samoa have dramatically improved under the past two years, and five separate teams have recently completed field studies (H. Leach, Otago University; R. Gould, Brown University; W. Ayres, University of Oregon; J. Clark, North Dakota State University; P. Kirch, University of Washington). Reports for these projects are only now being
completed, but preliminary accounts indicate that the results will vastly improve our understanding of the archaeology and prehistory of the eastern portion of the Samoan archipelago.

THE MANU'A PROJECT

The 1986 Manu'a Project was carried out under the auspices of the Burke Museum of the University of Washington, with funding and additional field support provided by the Historic Preservation Section of the American Samoa Department of Parks and Recreation, and by the Coastal Zone Management Office. P. V. Kirch was Principal Investigator, while T. L. Hunt was primarily responsible for carrying out the fieldwork portions of the project. Kirch and Hunt jointly commenced the fieldwork on 2 June 1986, spending the first week in necessary political formalities in Pago Pago, and proceeding to Ta’u Island for an initial reconnaissance. Having decided on the particulars of field strategy, Kirch then departed Samoa, and Hunt carried out the survey and test excavations on Ta’u, Ofu, and Olosegag throughout June and into mid-August. In this work he was substantially assisted by Ms. Epi Suafo’a and Mr. Taulaga Sualevai.

The selection of the Manu’a Group as the focus of our project was motivated by several factors. First, the larger island of Tutuila was already receiving substantial attention from several other archaeological field teams, leaving Manu’a as a continuing lacuna. Second, as a major goal of our work was to seek ceramic-bearing sites dating to the first third of Samoan prehistory, we preferred to concentrate on several smaller islands where survey could be concentrated on likely areas of early occupation. Third, as the most easterly and somewhat isolated section of the Samoan archipelago, the prehistory and archaeology of Manu’a could conceivably exhibit significant differences from that of Tutuila, Upolu, and Savai‘i; while such differences were predictable, primary fieldwork would be necessary for their documentation.

Seven specific objectives were enumerated at the commencement of the Manu’a Project: (1) Through intensive surface survey, compile a catalog of prehistoric and protohistoric surface archaeological remains. This objective was seen as especially important for the American Samoa Government in their planning and land use considerations. (2) Through the use of systematic test excavations, locate and delineate major areas of subsurface archaeological deposits. (3) Determine the relationship of subsurface archaeological resources with local geomorphological features and processes. As work elsewhere in the western Pacific has demonstrated (Green and Davidson 1974; Kirch and Yen 1982; Kirch 1983), active geomorphic processes of various kinds can substantially affect the archaeological record, and indeed, as some of these processes themselves result from human actions (e.g., active erosion and coastal deposition), they may provide important evidence on former man-land relationships. (4) Generate a predictive model of the number and extent of
undiscovered subsurface deposits, on the basis of results from objectives 2 and 3. Evaluate the significance of archaeological resources for their research value and for interpretive potential. Prepare for the nomination of significant sites to the National Register of Historic Places. Enhance the local understanding and appreciation of archaeology and historic preservation through the training of local personnel and through a range of public activities (public lectures, use of radio and other media, etc.). The extent to which we have been able to meet these objectives is reviewed in the Conclusion to this report.

THE ENVIRONMENTAL SETTING

The Manu'a Islands of Ofu, Olosega, and Ta'u form a separate cluster at the eastern end of the Samoan Archipelago. Mutually invisible, they are separated from Tutuila to the west by 100 km of often turbulent ocean which reduced the frequency of voyaging contacts with the larger islands. Perhaps because of this isolation, the occupants of Manu'a were regarded as being in some respects different and distinctive from other Samoans. In her monograph on Manu'an social organization, Mead (1930:9) commented on these distinctions, such as the lack of emphasis on "war, its paraphernalia, its ritual, and its gods," in contrast to the situation in Western Samoa. Mead commented that "the chief historical value of Manu'a lies in her easterly and isolated position, offering a valuable check upon cultural traits which are intrusive in western Samoa," a point especially relevant to prehistory and archaeology. The easterly position of Manu'a may also prove to be significant in the overall picture of Polynesian settlement, for these islands lie along a possible path for voyages of colonization bound for Eastern Polynesia (Finney 1985; Kirch 1986).

Ofu, Olosega, and Ta'u are remarkable in their striking topography: steep sided, majestic volcanic cones thrust out of the turbulent waters, with summits often shrouded in clouds. They are the smallest of the principal Samoan islands (see Table 1 for key environmental statistics), and with their steep topography, offer relatively little land area suitable for settlements and gardens. Much of their coastlines are also rock bound or with only narrow fringing reefs, restricting the possibilities of marine subsistence exploitation. Nonetheless, the resources of land and sea are sufficient to support some 1,700 persons at present, and it is certain that the late prehistoric population was several times greater than this figure.

In terms of basal geology, the Manu'a Islands consist of shield volcanoes of Pliocene and Pleistocene age which rise abruptly along a linear fissure or fracture zone in the Pacific Plate (Stice and McCoy 1968). On Ta'u, summit collapse to the south exposed the caldera, creating the spectacular semicircular array of fault cliffs descending from Lata Mountain. Subsequent Late Pleistocene and even Holocene volcanic activity on Ta'u has created such features as the Fiti'uta lava
bench (an important area of human settlement), and the pyroclastic crater formations at Faleasao. Ofu and Olosega are slightly older than Ta'u, and are constructed from at least six coalescing volcanic cones. On all three islands, the range of rocks which could have been exploited for artifacts is limited to dense flow basalt/hawaiite, or to dike stone which outcrops at various points. These dense basaltic rocks may have provided suitable stone for adz manufacture, or for use as hammerstones, grindstones, and other artifacts. There is no known source of obsidian or other highly isotropic stone in the Manu'a group.

Because of their youthful geologic structure, the Manu'a Islands are characterized above all else by their steep topography (Table 1). Consequently, slopes are generally unstable when cleared of vegetation, and erosional fans and scree slopes are common where the narrow coastal plains meet the steep volcanic slopes. The coastal plains themselves, the main locus of human settlement and thus an important environment for archaeological study, are constructed either of volcanic sediments (clay and larger angular clastics) eroded from the higher slopes, or of calcareous sediments (sand and larger coral cobbles and reef detritus deposited by high energy storms) of coral reef origin. Not infrequently, stream-cut sections through coastal terrace reveal sedimentary sequences reflecting both terrestrial and marine sediment sources in alternating series of depositional events. For the archaeologist, a critical aspect of this coastal geomorphology is its instability, with coastal flats subject to burial from mass wasting of the steep slopes immediately inland, or to removal and redeposition of sediments by high-energy surf during cyclonic storms. All of these active processes have doubtless affected the archaeological record of human settlement.

Coulter (1941:8) succinctly describes the climate of Samoa: "one of high temperature and heavy rainfall; the daily range of temperature is small and there is little variation from day to day." The average annual rainfall at Pago Pago is about 4980 mm (196 inches), and while there is considerable local variation due to orographic effects, this figure can be taken as characteristic. As throughout Western Polynesia, there is a distinct seasonality to both rainfall and wind regime, with a wet season from November to March (also marked by variable winds, with northwest storms), and a less wet season from April to October, also marked by the prevailing southeast trades. Tropical cyclones are a recurring hazard in Samoa, with potential to devastate fruit trees and gardens as well as villages. Kirch (1984:127-35) discusses the role of such environmental hazards in traditional Polynesian societies.

The soils of American Samoa have been mapped in detail by the U. S. Soil Conservation Service (Soil Survey of American Samoa 1984), and are summarized in the Atlas of American Samoa. On Ofu and Olosega, most of the terrain, including that used for subsistence gardening, consists of deep, well-drained "Ofu silty clays." On Ta'u, most of the interior consists of the Olotania family of soils developed on volcanic ash under forest cover, or of a rock
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<th>TAU</th>
<th>OLOSEGA</th>
<th>OFU</th>
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<td>Area (km²)</td>
<td>28.5</td>
<td>4.5</td>
<td>3.4</td>
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<tr>
<td>Highest Point (m)</td>
<td>965</td>
<td>494</td>
<td>638</td>
</tr>
<tr>
<td>Area &lt; 30% slope</td>
<td>41%</td>
<td>10%</td>
<td>9%</td>
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<td>Coastline (km)</td>
<td>32.5</td>
<td>13.3</td>
<td>10.4</td>
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<td>Population (1980)</td>
<td>1,146</td>
<td>340</td>
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Table 1. Environmental characteristics of the Manu'a Islands.
outcrop-Hydrandepts-Dystrandepts association. In the vicinity of Ta' u and Faleasao villages, however, are a complex of silty clays and stony clay loams which are highly productive for shifting cultivations and arboriculture. Similarly, on the plateau inland of Fiti'uta Village is an extensive zone of Pavaiai stony clay loam which also supports subsistence gardens.

The vegetation of the Manu'a Islands shows clear zonation, with a dominantly concentric pattern reflecting areas of intensive subsistence production and forest exploitation surrounding the primary settlements. The pattern is especially marked on Ta' u Island (Fig.#2) where "managed land" and "disturbed forest" form two extensive zones extending inland from the principal settlements at Ta' u-Faleasao and at Fiti'uta. Inland of the disturbed forest lie zones of montane forest and cloud forest, rarely penetrated by humans (for pig or bird hunting, or gathering of wild plant resources). The zones of managed vegetation consist of a complex mosaic of shifting cultivations, secondary growth, and stands of economic trees (especially breadfruit, coconut, and other fruit trees). These zones probably reflect centuries of continuous land manipulation, and not surprisingly, contain the majority of archaeological sites outside of the immediate village areas.

The indigenous terrestrial fauna of Manu'a, like that throughout Samoa, is restricted primarily to a variety of land and sea birds, one species of fruit bat (name), several geckos and skinks, and land crabs. Pigs, introduced by early Polynesians, are feral in the interior portions of the islands. In the traditional subsistence regime, most of the protein in the Samoan diet was provided by an extensive variety of reef and shore fishes, captured by a wide array of strategies and associated gear (Buck 1930), and by shellfish gathered from reefs and rocky shores. Today, with lowered population pressure due to emigration, the Manu'a islands support high biomass levels of fish and shellfish. We had the pleasure of sampling such delicacies as raw *Tridacna maxima* clam retractor muscle, and the meat of the *Turbo setosus* gastropod, quite abundant on the reefs of Ta' u island.

Contemporary settlement patterns in the Manu'a Group, although superficially modified through the addition of paved roads, a boat harbor, airfields, and the like, have in their broad features changed very little during the past century, and indeed, in many respects are a continuation of prehistoric settlement patterns. In part, this conservatism in patterns of land use reflects the substantial constraints imposed by the very steep volcanic landscape of these islands. Modern settlements, and the majority of archaeological indications of former occupation, are all concentrated on the relatively narrow strips of flat coastal land. On Ta' u Island, one main zone of settlement is at the NW corner of the island, with Luma and Si'ufaga villages occupying a broad calcareous dune ridge (with a highly productive, hydromorphic taro ground inland), and Faleasao Village sited on a beach terrace along the inner shore of a sea-breach volcanic cone. The second major concentration of settlement is at Fiti'uta on the NE tip of the island, where a broad, flat bench of lava provides suitable terrain for a village.
On Olosega Island settlement is centered on the broad coastal flat of the western shore. This setting comprises a calcareous sand dune ridge bordered inland by a large marsh that provides an extremely productive zone for hydromorphic taro cultivation. Adjacent to this marsh are steep cliffs of exposed basalt bedrock. A second, minor settlement of a dispersed arrangement of households is located along the narrow coastal flats of Olosega's north shore where the hamlets of Lalomoana and Fai'ava collectively come under the name of Sili.

Ofu Island has one major settlement on its westernmost shore. Ofu and Alaualau form a near continuous zone of households positioned on a broadly sloping coastal flat where calcareous and alluvial/colluvial sediments meet. Above this settlement are numerous swidden gardens that continue to make an important contribution to local subsistence.

The villages of Manu'a, while relatively nucleated, comprise near linear arrangements of domestic compounds that have two or more houses. These structures are commonly of traditional Samoan form and function, although most are now constructed largely of European introduced materials.
ARCHAEOLOGICAL RECONNAISSANCE

Field Methods

The Samoan landscape is one shaped by a long history of human settlement. Evidence of settlement and land use both past and present is distributed more-or-less continuously across this landscape. Isolated artifacts, features, sites and site complexes cover much of the Samoan Islands, and really vary only in relative density. For archaeologists this means a task of documenting the distributional patterns of material culture in space. This approach has proven useful elsewhere in Oceania where the vestige of entire settlement-subsistence patterns have been documented. Ideally, entire archaeological landscapes (spatial patterns) must be recorded in detail, although this ultimate objective must usually be met through the gradual accumulation of survey data over many years of effort. As the first step toward such a goal for American Samoa, the reconnaissance level survey reported here aimed at discovering in a preliminary way the variety and temporal-spatial pattern of archaeological remains across the landscape of the Manu'a Islands.

Our archaeological survey of the Manu'a Group was accomplished using one of two field strategies: walk-through assessment or systematic reconnaissance. Walk-through assessments involved unsystematic pedestrian inspection (often of large, heavily vegetated areas) to search for isolated and/or previously known sites; to ascertain site distribution patterns over the landscape; to record the variety or kinds of sites present; and to collect information on site/feature complex densities preliminary to more intensive reconnaissance level survey (including systematic coverage). Many of the sites and features described in this report were discovered, mapped by tape and compass method (to scale) and recorded in detail as part of this extensive walk-through level strategy. Systematic reconnaissance was undertaken in settings where dense and complex archaeological remains could not be fully recorded given the limitations of our initial, extensive coverage of Manu'a. A systematic strategy provides a means to record, in some detail, the spatial pattern and variety of archaeological remains while creating an informative, albeit partial, picture of the broader archaeological landscape.

Sites described in this report are designated with numbers that continue the system used by Clark (1980) in his compilation of known sites. In this system, American Samoa is denoted by "AS", with Ta'u (11), Olosega (12) and Ofu (13) Islands by number, while the final number in the sequence is that of the individual site or site complex.

TA'U ISLAND

AS-11-1 Faga Site Complex

The area known as Faga is located on the central north coast of Ta'u Island (Fig. 1). This approximate 1300 by 250 meter area comprises a coastal flat of extremely cobbly sand and stony clay
loam with slopes ranging from 0 to 12 percent. Two intermittent streams cross the area. Vegetation cover at Faga is composed primarily of subsistence gardens and associated stages of secondary regrowth. The archaeological remains of Faga are numerous and appear nearly continuous, representing a prehistoric and historic settlement zone of great significance.

A reconnaissance strategy of systematic survey transects was chosen so as to provide an accurate sample of the general distribution of archaeological features over this large site complex. Systematic survey transects were placed at every 146 meters (Hunt’s 200 paces) with three crew members walking a 40 meter wide area from the coastal road (east-west baseline) inland to the boulder talus associated with the steep cliffs above. Features or feature complexes discovered along each of these transects were cleared of most vegetation, described, photographed and mapped. As a result, the overall spatial structure and variety of archaeological remains has been recorded in a preliminary fashion.

Feature complex A is located on the first transect at 146 meters west of the intermittent stream bed on the western edge of the coastal flat that comprises Faga. A very high energy beach (pebble and cobble-sized sediments) lies 35 meters north, while just 20 meters south (inland) and just 15 meters to the east are massive boulders and flows of colluvial sediments. The most specific place name for this area is Vaietea. This complex (Fig. 3) is situated amongst banana, pandanus and coconut trees, with a heavy groundcover of vines that hampered visibility of the surface. The main feature of complex A is an oval alignment (6.2 by 3.8 m maximal dimensions) of water-rounded vesicular basalt boulders embedded in the ground and filled with waterworn coral and basalt pebbles (ili ili) which forms a slightly raised (30 cm) surface. The platform created by this construction provides a relatively level surface upon which a pole and thatch construction must have been situated. Apparently associated with the oval alignment are loose arrangements of similar boulders that may well mark as many as five graves (Fig. 3). The seaward, or north edge of this complex of features is marked by a single coarse of basalt boulders, some of which are embedded and placed upright, while others are loose. This alignment might be interpreted as a wall remnant or simply some form of land boundary marker.

While no shell or bone midden or artifacts were observed in association with Complex A, disturbance appears minimal and the sedimentary context suggests that excavation would yield additional valuable information.

Complex B was discovered in the same transect as Complex A, situated 22.45 meters from the western edge of the oval alignment described above. Feature Complex B lies approximately 40 meters from the shoreline and is bounded on its inland side by massive talus boulders with the steep slope above. Complex B is also covered in creeping vines, banana, coconut and pandanus trees. The local place name of Vaietea applies here as well. Complex B is comprised of three terraces constructed
3. Faga (AS-11-1) Feature Complex A.
by retaining walls along a gentle portion of the colluvial slope (Fig. 4). These terraces are covered in waterworn coral and basalt pebbles (ʻiliʻili) and are shaped by waterworn basalt boulders embedded in the ground to form rounded alignments. These features in association appear to represent the remains of residential areas.

Our observation of the ground surface did not reveal any artifacts or midden of shell or bone. However, disturbance of the area appears minimal and excavation would likely yield buried deposits associated with occupation the features described.

The second lateral (shoreline to inland) transect was placed 292 meters west of the intermittent stream bed along the coastal road baseline. Survey revealed Complex C situated 18 meters inland from a cobble/pebble and calcareous sand beach. The relatively level ground surface is shaded by large trees, including coconut, with a sparse groundcover of ferns. The local place name given for this area is Siaulii. Complex C comprises an oval alignment constructed with waterworn basalt boulders embedded in the ground and filled with waterworn coral and basalt pebbles (ʻiliʻili) to form a raised area (ca. 20 cm) (Fig. 5). Toward the western end of the oval alignment are four large basalt boulders placed upright to form a hearth that was filled with what was easily recognized as carbonized coconut endocarp. Pebble paving (ʻiliʻili) extends beyond the confines of the alignment. This feature can be interpreted as the remains of a habitation, probably one of pole and thatch construction in a round-ended form. Along the seaward (north) edge of Complex C is an alignment of loosely stacked basalt and coral slab boulders which does not articulate with any other alignments of the complex. A heap (ca. 80-90 cm high) of basalt and coral slab boulders is located to the west of the main structure of Complex C. To the east of Complex C (20.45 meters) is a loosely constructed, three to four course alignment of basalt and coral slab boulders that runs from the modern coastal road inland to the boulder talus and steep slopes that rise above Faga. This feature probably served as a land division boundary marker (and may still continue to serve that function).

While no midden or artifactual remains were observed on surface inspection of Complex C, excavation would no doubt yield materials associated with occupation. Disturbance of the archaeological remains here appears minimal.

Complex D is located 34 meters to the west of Complex C, and was not discovered through transect survey, but was known by Okene Taofi (one of our crew from Fitiʻuta Village). The north (seaward) wall of Complex D (Fig. 6) lies just 16 meters from a cobble and calcareous sand beach. Feature Complex D itself is known to local residents as Faletele (a term used for the large round houses used ethnographically for entertaining visitors and holding meetings), while this general area of Faga is known as Suaaloa. Vegetation here is relatively open and includes ornamentals (historically-introduced) such as a large plumeria tree and croton shrubs. The area is maintained for
reasons of cultural importance. Feature Complex D is defined by a square enclosure built of waterworn basalt boulders stacked in one to four courses in height (60 cm maximal height) and surrounds three graves and a large (partially-complete) round alignment of basalt and coral slab boulders. Much of the area enclosed by these four walls is covered in a deposit of waterworn coral and basalt pebbles ("iliili"). Two of the three graves of Complex D are marked by stacked basalt boulder construction that forms raised and filled platforms. The third grave is a simple outline formed by coral slabs embedded in the ground and placed end-to-end (Fig. 6). The rounded alignment of boulders gives the location its local referent of Faletele, and indeed probably served as the foundation for a large rounded pole and thatch building in the not-too-distant past (probably historic and perhaps extending into the late prehistoric period). Okene Taofi, whose family owns this land, believes that members of his grandparents generation are buried in the graves at Complex D. A second line of evidence is the presence of historic ornamental plants and the continued maintenance of these immediate grounds.

No shell or bone midden, prehistoric or early historic artifacts were observed with the surface inspection of this complex. Excavation of these relatively undisturbed remains would provide valuable data on the associated material culture and chronology of Complex D.

Complex E was recorded with the survey of the third lateral transect made at 438 meters west of the intermittent stream bed of the eastern end of Faga. This transect is near the broadest area of land that comprises the coastal flat of Faga and is known by the local place name of Sina. The adjacent beach at this portion of Faga is broad and sandy. Unlike areas of Faga to the east and farther west, relatively well-sorted sand (enriched with additions of organic matter) is the predominant sediment. The area is generally flat and vegetated in banana, breadfruit, coconut and a heavy groundcover of creeping vines. Complex E (ca. 50 m from the shoreline) comprises a single rectangular alignment of basalt boulders that appears to represent a grave, a diffuse area of coral and basalt pebble paving ("iliili"), and an alignment of basalt boulders that is rounded (incomplete) in form. These features are enclosed within a rectangular area (52.7 m east-west, 34 m north-south) formed by a wall constructed of one to three courses of basalt and coral slab boulders (75 cm maximal height).

Complex E appears to have undergone some degree of disturbance (displacement of surface structural remains), but nonetheless the potential of excavation for yielding valuable information of the cultural materials and chronology of occupation in this area of Faga remains high. In fact, the predominantly sandy sediment (probably of wind-deposited origin) of this area may hold the promise of well-buried stratified cultural deposits that date much earlier than the surface features visible today.

Feature Complex F was discovered with survey of the lateral transect made at 584 meters along the coast road baseline. Complex F is situated along a narrow north-south trending ridge with a
FAGA COMPLEX D (SUALOA) "FALETELE"

6. Faga (AS-11-1)  Feature Complex D.
stony clay loam substrate and covered with pandanus, banana, breadfruit and a thick groundcover of creeping vines. The complex's seaward edge is just 28 meters from the shoreline. This complex includes retaining walls and alignments of waterworn basalt boulders associated with level terraced areas as well as pebble paving ('ili'ili) (Fig. 7). The complex appears to have had terraces that would have accommodated perhaps as many as six structures. Three of these terraces actually revealed embedded boulder alignments of oval form that can be interpreted as structural foundations (Fig. 7: 1, 2 & 3). A fractured grindstone (such as those associated with the final phases of adze manufacture) was recorded adjacent to the terrace near the center of the complex.

Shell midden is present (especially Turbo spp.) and is scattered over much of the complex. No artifacts, other than the grindstone, were observed. Excavation of these relatively undisturbed features would doubtless provide information on their cultural content and occupation chronology.

Survey of the lateral transect at 730 meters along the coastal road baseline revealed a crude (or poorly preserved) terrace (8 by 5 m) formed by an alignment of loose and scattered basalt boulders. A sparse cover of predominantly coral pebble paving ('ili'ili) is associated with the terrace identified. This feature is located 28 meters from the shoreline in the area known locally as Tuama'alao. Extremely thick groundcover of creeping vines made most of the ground surface impossible to see. It is quite possible that this poor visibility precluded the discovery of additional archaeological features which might otherwise be visible.

Survey transects made at 876, 1022 and 1168 meters met with a similar problem of extremely poor surface visibility due to the extensive growth of creeping vine groundcover. No archaeological features were observed, but may well exist. Survey of these areas must await clearing of large tracts, perhaps forthcoming with gardening activities.

Site AS-11-1 covering much of the coastal flat of Faga comprises a dense and nearly continuous distribution of archaeological features, demonstrated by our walk-through survey of areas not covered in systematic transects. Thus, numerous complexes at Faga were not mapped or described in detail--this awaits a intensive overall survey of the site. The features recorded at Faga include forms that can be interpreted as the remains of habitation structures (round-ended, pebble-paved pole and thatch houses), associated terraced areas, graves, and minor territorial markers and boundaries (walls, enclosures and alignments). A redundant pattern of these forms in association (e.g. feature complexes mapped) suggests that settlement was organized on the basis of common descent groups occupying domestic compounds. Clearly, the dense and numerous archaeological remains at Faga represent the vestige of a large dispersed settlement of substantial historical and cultural significance. The antiquity of this settlement remains unknown, and must await the results of excavation and radiometric dating.
AS-11-2 Saua Site Complex

Saua holds great significance in local Samoan tradition. Included in stories about Saua are creation accounts and the first kava ceremony. These stories are not recounted here, and the reader should refer to Mead (1930).

The area known as Saua is located along the east coast of Ta'u, adjacent to Fiti'u Village and continuing to Tafu Point and Si'u on the southeastern corner of the island (Fig. 1). The landscape of Saua can be described as a coastal flat of stony clay loam (near Fiti'u—a major gardening zone) in addition to an extensive area of extremely cobby sand with massive coral slab boulders covering the ground surface. A few intermittent stream beds traverse the coastal lands. The shoreline of Saua varies from high energy environments with coral cobbles and boulders to beaches of calcareous sand. Rising steeply above the coastal flat are cliffs of exposed basalt. The areas of Saua with coral slab boulder substrate are covered in large hardwood trees, while areas of stony clay loam (colluvial and alluvial in origin) are under cultivation primarily in taro, banana, yam, and pandanus.

This large area (ca. 3.6 by 0.2-0.5 km), designated as a single site by Clark (1980:16-19), is not a near continuous distribution of archaeological remains, but includes large areas where no features are evident on the surface. In particular, the large area (primarily to the south) strewn with coral slab boulders contained only one kind of observable archaeological feature, constructed wells. An interview conducted by Epi Safo'a (in Samoan) with Chief Tupuola (aged 70) revealed that the coral slab boulder rubble that covers so much of the eastern coastal flats of Ta'u may be of relatively recent origin. Tupuola described the devastating hurricane of 1916 as depositing the beachrock over large areas of the coastal flat (reaching all the way inland to the steep cliffs) that were once sandy and occupied by a substantial settlement with numerous people. Following the destruction of settlements along the eastern flats of Saua, population shifted to the present locality of Fiti'u, where few people had previously lived. The areas of stony clay loam of the northern end of Saua, presently under garden cultivation, had features much the same as those described for Faga and according to Tupuola were not ravaged by the 1916 storm.

Our survey coverage of the large area of Saua was unsystematic in that features known by local informants were visited, and other large areas where inspected with walk-through coverage. Walk-through coverage, however, was probably quite productive in that areas where surface features would be visible where searched more intensively than those areas where beachrock boulders covered the presumably once sandy substrate (areas where previous surface evidence of human occupation was obliterated by very high energy storm deposition).

Near Fiti'u Village, at the northern end of the area known as Saua and along Matasaua Road
is a dense basalt boulder with four ground/worn depressions known as Poaga O Na (Lae’s grindstone). On the inland side of the road are terraces and a round-ended alignment of waterworn basalt boulders. This complex is said to have been the house of Chief Lae.

This northern area of Saua contains well-constructed, free standing walls that parallel both sides of the road. Our guides informed us that these walls were of recent origin and served to contain pig herds held by people of Filita. Walk-through survey revealed terraced areas with round-ended alignments as well as crude terraced features that appear to serve contemporary agricultural functions.

Complex A is located near the northern end of the larger area referred to as Saua (Fig. 1). This feature complex lies 440 meters from the adjacent beach and is currently under cultivation with taro, banana and a scattering of tall coconut trees. The complex (Fig. 8) comprises a rectangular enclosure constructed of coral slab and basalt boulders stacked in four courses (reaching 60 cm height) within which lies rounded alignments of embedded boulders with associated coral and basalt pebble paving (ili ili). The offset pattern of these now incomplete alignments suggests either two phases of construction are represented, or that the structure had an inner and outer ring of foundation stones. A small ring of stones forms a hearth situated on the interior of the foundation alignment(s).

Only modern artifacts (tin cans, etc.) were observed at Complex A. A sparse scatter of shell, primarily Turbo sp., represents the only midden noted. Excavation would yield valuable information concerning the chronology and cultural content of this complex.

Complex B is located adjacent to the northernmost intermittent stream bed of Saua (Fig. 1) and approximately 153 meters north of Complex A. It is vegetated by banana, arrowroot and ferns. This feature complex (Fig. 9) comprises a low alignment of waterworn basalt boulders that partially encloses two round-ended alignments and a continuous scatter of coral and basalt pebble paving (ili ili). Remains of two hearths and probably an earthoven (numerous fire-cracked rocks within) were also recorded.

A butt fragment of an adze was collected from Complex B. No other artifacts or midden remains were observed. Excavation in this setting of alluvial sediments would no doubt yield buried strata relevant to understanding the chronology and cultural content of this complex.

Our local guides, High Chief Paopao and Chief Tupaola led us to record four constructed wells: Vai O Saua, Taratoto, Vai O Tufu and Vai Salasa’a. Each of these well constructed features has legendary significance.

Vai O Saua Well, located 10 meters from the shoreline (Fig. 1), comprises a simple rounded construction of coral slab boulders that form a retaining wall for coral and basalt pebble paving (ili ili) along the well’s upper edge (Fig. 10). Within this outer alignment is a second, partial alignment that also serves as a retaining wall. The main excavated shaft of the well is lined with stacked coral
boulders and reaches a maximum depth of three meters. This well is under bush and has apparently not been as cared for as the other wells of Saau.

Tatatoto Well (Figs. 1 and 11), 16 meters from the shoreline along Matasaua Road, is a comparatively elaborate construction of predominantly coral slab boulders arranged in a continuous paved and stepped area of circular form. The outermost circular alignment of boulders is carefully stacked up to four courses, with the eastern (seaward) edge opened with stairsteps of boulder construction. A boulder slab paving extends (3.75 m) toward the east and is 6 meters in width. The main excavated shaft of the well is lined with stacked boulders and reaches a maximum depth of 2.05 meters. This well is in excellent condition and some effort must be continually made to keep vegetation from overgrowing the site.

Vai O Tufu Well (Figs. 1 and 12), situated adjacent to Tufu Point, is a relatively elaborate construction of stacked coral slab boulders forming a squared depression with stairsteps leading into it from the east. Within this is a rounded slab-lined shaft extending to 4.70 meters in depth. Gravel and sand, rather than boulder paving, cover the base of the squared area around the well shaft. This well has been excellently maintained and, in fact, Chief Tupuola mentioned extensive reconstruction of this well took place during the construction of the Matasaua Road.

Vai Sa'asa'a Well (Figs. 1 and 13), located at Si'u in the modern park complex maintained by Tupuola, is a simple circular arrangement of coral slab boulders around a small depression that is paved with similar boulders. The hole currently filled with brackish water and in use by Tupuola reaches a maximum depth of only 70 cm.

All four wells are located directly inland from a shoreline characterized by very high energy depositional environments (large coral slab boulders and rounded cobbles). All are along an area of the coast that is relatively flat (and unprotected) with respect to sea level and storm surf. That each of these wells has been largely or thoroughly rebuilt in this century (i.e. following the 1916 hurricane) can be of little doubt. While these wells are certainly of local cultural significance (in terms of folklore and aesthetics), their integrity as prehistoric archaeological features has been compromised. Several artifacts (mostly ground and polished stone adze fragments) were collected from Saau, primarily those exposed in the Matasaua Road. Two additional artifacts, ground and perforated stone objects of coral and basalt (net weights), were discovered at Si'u by Chief Tupuola who donated them for study. Artifacts are described in another section below.

Local reports of burials and artifacts discovered during road construction and other small-scale earthmoving activities suggests the potential of significant subsurface deposits in the Saau area. Further intensive level survey is clearly warranted and some program of systematic test excavations would address this question of significant buried deposits.
13. Vai Sa'asa'a Well, Saua (AS-11-2).
7. Faga (AS-11-1) Feature Complex F.
AS-11.3 Aualuma/AS-11.4 Anapo

Kikuchi (1963:44) reported Aualuma and Anapo as places of refuge both located at some undetermined area inland of Faleasao and Ta'u villages. Clark (1980) did not visit either site, and was unable to obtain new information about these alleged places of refuge. Our questioning of Ta'u and Faleasao informants revealed that these names apply not to specific settlements, but to socio-political confederations that encompassed large blocks of Ta'u Island. As Holmes reported:

According to three accounts given independently by ranking chiefs of Ta'u island, Aualuma and Auapo (sic.) were not actually the names of inland villages but rather the names of chiefdoms. Auapo (sic.) extended from the present village of Luma to the settlement of Amouli. Co-existing chiefdoms were Aualuma, occupying a mountain area between Luma and Fiti'uta, and Faleauta also occupying territory between Luma and Fiti'uta. Many of the boundaries of these ancient states are still marked with rock caims (Holmes 1958:328).

AS-11.5 Faleaupo

Kikuchi reported this "site" on informant's accounts alone. This name is said to be associated with a small refuge-settlement for the people of Ta'u and Faleasao villages. Such a site has not been located (Clark 1980:20) and was unknown to several informants we questioned concerning its existence and whereabouts. A mistake similar to that made with Aualuma and Anapo may have been made, but no additional information bearing on this question has yet been obtained.

AS-11.6 Faleauta

Kikuchi (1963:44) reports that Faleauta was a small, inland place of refuge associated with Ta'u and/or Faleasao villagers, whereas Faleauta is a name that Holmes (1957:328) records as a chiefdom encompassing territory between Luma and Fiti'uta (across the north coast of Ta'u). However, it was the name given to us by local informants for archaeological remains visited on a walk-through survey (Fig. 1) of areas inland of Faleasao Village. The dispersed complex of features recorded is situated to the east of Fale-i-ulu stream bed in an area under cultivation with taro, banana, coconut and breadfruit. A broad terrace (21 meters long) runs perpendicular to the slope and presently functions to retain soil for taro cultivation. Three round-ended alignments of waterworn basalt boulders together with pebble paving (ili'ili ) suggest the remains of a domestic compound. In
addition, two loosely stacked boulder alignments placed approximately 56 meters apart parallel to the slope appear to be evidence for land boundary markers. No evidence of defended occupation (i.e. for refuge) was observed. More intensive survey and detailed recording of this area would add valuable information on settlement pattern and the nature of inland occupations. Excavation potential at Faleauta appears good, and data bearing on associated material culture and chronology could be obtained.

\textbf{AS-11-7 To'a}

To'a Cove, located on the northwest end of Ta'u, has a sandy beach with an adjoining narrow coastal flat. This coastal flat is vegetated in thick scrub and some coconut. Above is a broad slope of silty clay soils with extensive subsistence gardens (belonging to Faleasao villagers) and associated zones of secondary regrowth. A walk-through survey of the site revealed numerous round-ended alignments of embedded waterworn basalt boulders with areas of coral and basalt pebble paving (\textit{tītī}) concentrations.

A dense basaltic rock outcrop along the interior edge of the small coastal flat contains an apparently permanent freshwater spring. The presence of this spring, the productive soils of the area, and the proximity to marine resources suggest To'a (and the present Faleasao Village) may have been a locus for early settlement. Further intensive survey as well as excavation to test for the presence of buried deposits seems warranted.

\textbf{AS-11-8 Fiti'uta Raised Road}

This site comprises a raised walkway constructed of basalt boulders (angular and waterworn present) that is as much as one meter in height in places and is approximately two meters in width. Concrete was added to the surface of the walkway in recent years. Kikuchi (1963:51-55) and Clark (1980:21) describe this site in detail and provide the traditions given for it.

\textbf{AS-11-9, AS-11-10 Fiti'uta Stone Paths}

Kikuchi (1963:55) and Clark (1980:22) describe these sites which were destroyed with the construction of Matasaua road.

\textbf{AS-11-11 Ma'a Lu'u Tupua}

This is a boulder of legendary significance. Kikuchi (1963:87) discusses the tradition associated with it.
AS-11-12 Lua Ma'a

Two naturally occurring boulders in the waters offshore from Saa'a comprise this site of substantial legendary significance. Buck (1930:329) and Kikuchi (1963:87), among others, provide accounts of the tradition associated with these boulders.

AS-11-13 Nu'u O Sina Tupua

This a natural geologic feature that has legendary significance. Kikuchi (1963:87) discusses the tradition associated with it.

AS-11-14 Moega O Uila Tupua

This is a natural geologic feature that has legendary significance. Kikuchi (1963:87) gives the tradition known for this site.

AS-11-15 Ma'api'ilua Tupua

This is a natural geologic feature that has legendary significance. Clark (1980:24) notes the story given for this site.

AS-11-16 Ma'a Fe'e Rock

This is a natural geologic feature that has legendary significance. Kikuchi (1963:87) provides an account of the lore associated with the site.

AS-11-17 Ta'u Bait Cups (1)

Clark (1980:24) describes twelve holes that are located along the shoreline of Ta'u Village. These are believed to have been used for bait processing.

AS-11-18 Ta'u Bait Cups (2)

Clark (1980:25) mentions these features which have been destroyed.

AS-11-19 Umu O Malietoa

Clark (1980:25) describes this site and its ridge-top setting above Fa'asamene Cove. The site was not visited in our work.

AS-11-20 Pa O Vaovasa

This site is located 5.9 meters inland of the main road linking Ta'u and Fiti'uta Villages. The
area is vegetated in ferns and large trees that include breadfruit. The site includes a large retaining wall that reaches nearly 4 meters in height and is over 38 meters in length (Fig. 14). Above the wall are four rounded pits (ranging from 53 to 90 cm in their maximal depths); an alignment of angular basalt boulders that forms the downslope edge of a trail—presumably the trail that served to connect Ta'u and Fiti'uata prior to construction of the road; and a loose stacked (2-3 courses) alignment of angular basalt boulders (C-shaped). While no artifacts or midden remains were observed, excavation may provide a means to assess the chronology of this site, representing the kind of monumental constructions which became an important element in the later periods of Samoan prehistory (Davidson 1974b). Seen in this light, this is a significant site, contrary to Clark's (1980:25) assessment of the site as "marginal" in value.

AS-11-21 Samanu Leaping Place, AS-11-22 Tauga Leaping Place

These are geographical localities with religious or mythical significance. Kikuchi (1963:120) provides some information on the significance of these sites.

✓AS-11-23 Papatea Sacrifice Area

The area known as Papatea is located at the north end of Ta'u Village at the site of the Ta'u Motel. The motel is built on the concrete foundation where a school was previously located. The significance of this site seems to be only legendary (see Kikuchi 1963:127). However, there remains the unexplored possibility that historic or prehistoric burials exist in this area.

✓AS-11-24 Fiti'uata Whetstones

A series of three or four whetstone facets have been reported by Kikuchi (1963:15). This site was not visited.

AS-11-25 Siaga O Ma'ava

This is a large stone of legendary significance. Clark (1980:27) describes what is known of the lore associated with it.

AS-11-26 Tui Manu'a House, AS-11-27 Tui Manu'a Tomb

These significant historic sites have been recorded and described by Clark (1980:27-28), and are not further discussed here.

✓AS-11-28 Fiti'uata Petroglyphs
1. Map of Ta'u Island, showing locations of major sites and areas of prehistoric and contemporary settlement. Contour interval is 200 feet.

2. Map of Ofu and Olasega Islands, showing locations of major sites and areas of prehistoric and contemporary settlement. Contour interval is 200 feet. See Fig. 1 for key to symbols.
Kikuchi (1963:100; 1964) and Emory and Sinoto (1965:44) have described these two petroglyph sets on the coastal lava shelf near Fiti'uta as pecked circular forms and clusters of holes.

\textbf{AS-11-29 Va'atausili Cave}

This small lava tube cave near Fiti'uta has been recorded and described by Clark (1980:29). It was destroyed with construction of Matasaua Road.

\textbf{AS-11-30, -31, -32 Fiti'uta Caves}

Kikuchi reported three caves located in the basalt cliffs that lie directly above Fiti'uta. These caves were not visited.

\textbf{AS-11-33 Auapo Cave}

This cave was reported by Kikuchi (1963:71) solely on the basis of informant information. Neither Kikuchi, Clark (1980:30) nor our crew located the cave for inspection. The site has local legendary significance (see Kikuchi 1963:71).

\textbf{AS-11-34 Mata'ana Cave}

Kikuchi (1963:31), Emory and Sinoto (1965:43) and Clark (1980:31) have reported on this site, and no further discussion is provided here.

\textbf{AS-11-35 Fiti'uta Well}

Kikuchi (1963:80) recorded this well which was subsequently destroyed.

\textbf{AS-11-36 Tui Manu'a, -37, Matamuli, and -38 Matafeli Pools}

These three small pools (made by excavation down to the brackish water of the Gyben-Herzberg aquifer) are located in Ta'u Village and have been recorded and described by Kikuchi (1963:75-76).

\textbf{AS-11-39 Vai O Tuli}

This is a naturally occurring spring on the reef platform at Si'u'faga in Ta'u Village. Kikuchi (1963:77) provides an account of the legend associated with the spring.

\textbf{AS-11-40 Tapana, -41 Utumanu'a and -42 Utusegisegi Pools}
These are freshwater pools reported by Kikuchi (1963:77) to have served as a drinking water sources. Legendary significance is attached to these features.

AS-11-43 Fa'asamene Spring

This is an unmodified spring of freshwater above Fa'asamene Cove. The spring is now the source of piped water for Faleasao Village.

\*AS-11-44 through AS-11-48

Sites 44 through 48 are located in the vicinity of the Ta'u boat harbor and have been recorded and described in detail by Kikuchi, Palama and Silva (1975). Only one of these sites (Ta'u Marsh, AS-11-45, see below) seemed to warrant further investigation in our reconnaissance level survey.

\*AS-11-45 Ta'u Marsh

The Ta'u Marsh is a prominent geographic feature just inland of the sand dune ridge upon which the Luma sector of Ta'u Village is built (Fig. 1). This freshwater marsh has been described in pedologic terms as having a deep, very poorly drained (i.e. mucky) soil formed in fine-textured alluvium and overlying calcareous sand (Soil Survey of American Samoa 1984). Vegetation in this marsh includes cultivated taro and thick stands of tall grasses and sedges. Large portions of the marsh (especially on the southern side) are in use for cultivation of taro, made possible through a system of artificial ditches that drain standing water. In this respect, Ta'u marsh is a contemporary feature of the cultural landscape which must also have a long history of development in terms of agricultural use.

The Ta'u Marsh is also a potentially significant archaeological site in terms of its sedimentological history. This history relates to both human affects upon, and exploitation of, the local environment over the course of prehistory. For this reason, the Ta'u Marsh was investigated by systematic subsurface coring along a transect positioned from the inland edge (adjacent to the steep cliffs that surround the marsh) across the dune ridge of Luma and on to the present shoreline, thus cross-cutting stratigraphic variation. Shovel tests and deep (ca. 1.6 m) cores provided data still undergoing analysis that suggests fine-textured sediments (colluvial) filled-in a shallow embayment in a relatively rapid span of time. Following the bay in-filling, a prograded barrier of calcareous sand dune ridges developed at the present location of the Luma sector of Ta'u Village. These geomorphic events most likely occurred with human-induced changes in the sediment catchment of what became Ta'u Marsh. Such large-scale landscape changes must have had a long-term effect on prehistoric subsistence and settlement. Further work should be undertaken on this site, with radiocarbon dating
of the basal layers of organic muck to place these posited landscape changes within a chronological framework.

AS-11-49 Ta'u Congregational Church

Clark (1980:37) records this large cement church building as a site of marginal importance on criteria of National Register significance. The church still stands today, but is in a state of disrepair. Our additional documentation of this building, dedicated in 1936, included several photographs showing its present condition.

AS-11-50 Ta'u Naval Dispensary

Clark (1980:38) reported this site which had been destroyed prior to his inventory.

AS-11-51 Ta'u Village (Subsurface)

Our exploratory excavations in two locations revealed that much of the area of Ta'u Village contains buried deposits that vary significantly in age and cultural content. Thus, this site designation is used to denote the subsurface component of Ta'u Village in general. Excavations carried out in Ta'u are discussed elsewhere in this report.

AS-11-52 Amouli

Amouli is located on the southwest coast of Ta'u Island. Our walk-through assessment of this site revealed at least three feature complexes near the northern margins of the site area that included wall alignments (territorial boundaries), round-ended alignments of waterworn coral and basalt boulders associated with pebble paving (ili ili). A bottle base fragment (brown) embossed with "Auckland 1930" corroborates local claims that Amouli was occupied during about the first half of this century. The features of Amouli are in excellent condition and excavation would yield additional information on their chronology and cultural content.

In addition to the surface features at Amouli, we recorded what may well be a significant series of buried strata. The intermittent stream near the center of the coastal flat at Amouli has cut through deposits that reach at least 1.7 meters depth and reveal evidence of intensive human occupation. Figure 15 illustrates one profile exposed by the stream cut that has discrete layers of midden, human bone, charcoal, fire-cracked rock and concentrations of rounded pebbles (presumably paving, ili ili). From the base of this exposure we collected artifacts that included a plano-convex sectioned basalt adze (an early, often ceramic associated form), other basalt adze
fragments, a coral pebble with two grooved lines (a net weight?), and a drilled and apparently polished bone bead. Excavation of this area, where deposits remain intact, would yield valuable information on what may be a long prehistoric sequence with abundant cultural materials.

AS-11-53 Tia Seulupe Fa'atali

Tia Seulupe Fa'atali, located on the steep slopes (positioned on a surface of ca. 35 degrees) above the northern end of Sua, is known traditionally as a pigeon-snaring mound (as the name itself, tia seulupe, connotes). Some areas of this slope are under swidden cultivation, while others such as the locus of this site are under secondary forest cover. The site consists of two large mounds of rough basalt boulders very loosely arranged (Fig. 16). A crudely constructed trail segment appears to lie along the downslope margin of the site, but this alignment did not clearly extend in either direction.

No waterworn boulders or pebbles ("manuports"), midden or artifacts were observed with clearing and mapping operations at the site. These stone mounds are comparable to specialized sites (including the so-called pigeon mounds) described by Davidson (1974) for Western Samoa. Buck (1930:321-22) provides a brief account of their use in ethnographic terms.

AS-11-54 Ali'i Mound

The site designated Ali'i Mound is located near the edge of the shelf above the rugged shoreline of Fiti'uta. Today this zone is under bush and used by Fiti'uta Villagers for pig pens. The site comprises a retaining wall and adjoining fill of rough basalt boulders (Fig. 17). The construction is somewhat crude and in plan view is generally rounded with uneven edges. Near the center of the filled platform is a crude alignment of boulders that serves as a retaining wall. No waterworn boulders, pebble paving, artifacts, or midden were seen during clearing and mapping of the site. While the site was known locally, no particular tradition or stories are associated with its history or use. Given its form, and kind of construction, this site appears to fit within the range of "specialized sites", including star mounds, irregular structures and platforms known from intensive work in Western Samoa (Davidson 1974a:191-195). However, excavations undertaken at this site in 1987 in conjunction with the development of the area for the new Ta'u Airport at Fiti'uta, revealed that the platform was used for occupation in the historic period (see Hunt 1987).

AS-11-55 Li'u Complex

The Li'u Complex is situated along the flanks of the broad Li'u Bench of Ta'u's south coast. This area is predominantly under heavy secondary regrowth with a substrate of stony clay loam. Some areas are under cultivation with taro and banana. Our walk-through assessment revealed three
17. Ali'i stone mound (AS-11-54), shading indicates area excavated.
round-ended alignments of waterworn basalt boulders together with coral and basalt pebble paving (ili'ili) suggestive of domestic habitation. Also recorded were two small (2.2 and 3.3 m in length) oval alignments of basalt boulders that appear to represent graves. These are further distinguished by ornamental plants surrounding them (croton and flowering hibiscus). Five fine-grained basalt grindstones, recognized by their worn depressions, were observed (and photographed). Intensive survey, mapping and excavation would result in greater information pertaining to the cultural content and chronology at Li'iu.

AS-11-56 Li'iu Rockshelter

Li'iu Rockshelter was discovered with our walk-through assessment of Li'iu Complex (described above). This rockshelter consists of a lava overhang forming an interior area of 9.7 meters length, 3.5 meters width and 1.5 meters in height (Fig. 18). The floor of the shelter is covered with a fine dark ash and crushed shell midden. A recently constructed hearth of loosely arranged boulders lies near the eastern side. No artifacts were observed with intensive search over the floor of the shelter. It is difficult to estimate the depth of cultural deposit in this site, and excavation would no doubt produce data on chronology in addition to materials used at the shelter.

AS-11-57 Amouli Coastal Trail

Along the west coast of Ta'u, between Afuli and Fagamalo Coves, are intact sections of a well constructed walkway. This walkway is situated amongst thick vegetation along areas of steep cliff where traversing the rugged shoreline is difficult (and, as we discovered, dangerous during high tide). The walkway is constructed of basalt boulders retaining a fill of gravel paving. Some lengths of the trail are paved with with large flat tabular boulders of basalt and coral. One section of the trail was built to a height of 1.7 meters above contours in the slope. The average width of the trail was 1.6 meters. The trail is in good to excellent condition and compares to constructed forms known elsewhere in Samoa (e.g. Jennings et al. 1976; 1982). Further documentation of trail patterns will inform on traditional Samoan land use and paths of communication.

AS-11-58 Palapala Mound

Palapala refers to the general place name of land once cultivated in taro along the flanks of Tunoa Ridge, above Ta'u Village (Fig. 1). This site was known by Aga and Fagava'a Filoali'i who directed us to it. The area is heavily vegetated by patches of both secondary regrowth and stands of climax forest. The site comprises a massive (17.5 by 13.5 meters) heaped arrangement of rough basalt boulders. The top of the mound contains a small level area measuring 5.6 by 2.5 meters, but
18. Li'u Rockshelter (AS-11-55).
only loosely placed rough boulders are present. The mound is rounded in plan and rises steeply to five meters above the surrounding ground. The site is positioned on a relatively level, yet well elevated part of the immediate topography. In general, while a great investment of labor must have been made, little care appears to have been taken in its construction. This site is comparable to stone mounds common in Western Samoa (e.g. Davidson 1974a). While such a mound may well have been built for the purpose of elaborate burial, the precise function of this site remains unknown.

OLOSEGA ISLAND

AS-12-1 Sili’uta Complex

Sili’uta Complex is located on broad slopes of silty clay above the shoreline cliffs of the eastern side of Olosega (Fig. 2). This is an area with numerous economic plants as well as dense secondary regrowth with stands of forest. Taulaga Sualevai, who guided a walk-through assessment of eastern Olosega, informed us that as recently as 10 to 20 years ago much of the area was under intense use for subsistence gardening at which time numerous archaeological features visible. We observed three well-preserved round-ended alignments of waterworn coral and basalt boulders within which rounded coral cobbles (10-20 cm maximal dimensions) had been placed. Two small (2.3 and 1.8 m lengths) rectangular alignments of waterworn basalt boulders probably mark graves, these placed directly adjacent to one of the round-ended (house) features. A pit, some 3 meters in circumference and 40 cm in depth, had been lined with smooth tabular basalt boulders. This feature is thought to have been used for pit-ensilage and semi-anaerobic fermentation of breadfruit (masi) (Cox 1980). The features comprising the Sili’uta Complex are situated along a north-south trending terrace that is consistently 12 meters in width and is approximately 95 meters long. This appears to be a natural terrace, although human modification of the slope (ranging from 20-30 degrees) cannot be ruled out. Local accounts refer to the defensive position gained with settlement of these upland areas; however, no archaeological evidence of fortification has been reported or observed.

No artifacts or midden were seen in direct association with the features of Sili’uta. However, a program of intensive survey and excavation would produce data on the distribution, content and chronology of these upland remains.

AS-11-2 Tamatupu Complex

Tamatupu Complex is situated on the broad shelf of silty clay that lies above the coastal cliffs of southeastern Olosega (Fig. 2). As with Sili’uta, this is a zone of numerous economic plants amongst secondary regrowth with some swidden gardens presently maintained. Taulaga Sualevai mentioned that this area too was once much more heavily used for subsistence gardening. Our
walk-through assessment revealed a pit feature (1.7 m circumference and 28 cm deep) around which had been loosely stacked boulders of waterworn basalt. This is probably the remains of a pit used for breadfruit fermentation (masi). A second feature recorded was a terrace (15.3 by 16.4 m maximal dimensions) covered in waterworn cobbles with a single alignment of smooth boulders (10.5 m long, 39 cm wide and 82 cm high) adjoining one edge. This feature appears to represent the remains of a habitation.

Numerous other archaeological remains no doubt exist over these broad upland slopes. Intensive survey and a program of test excavations would result in information on distribution, form and cultural content of this site complex.

AS-11-3 Valopi (Olosega Village)

Kikuchi (1963:44) records this site on the basis of tradition which refers to the previous settlement of the area now occupied by Olosega Village. In reference to this site designation, Clark (1980:39) simply suggests that the area may well contain early archaeological deposits. To investigate this supposition and test for early buried deposits (that might contain artifacts of known early age such as ceramics) we undertook subsurface coring along a transect that would cross-cut the sedimentary history of the zone now occupied by Olosega Village. The transect examined was north of the marsh and extended from the talus and colluvial flows of the adjacent cliffs to the present shoreline. The cross-section revealed by our work was that of a mucky to sandy loam overlying a calcareous dune/beach sand with some waterworn coral cobbles. Once a preliminary sedimentological model was produced using coring data, we excavated a one-meter square test pit at a point on the transect where colluvial sediments lay only thinly over buried calcareous sediments. Virtually no artifactual or other cultural remains were recovered and discovery of early deposits now seems unlikely. Instead, field evidence still under study suggests a relatively recent coastal formation of a prograded barrier associated with the origins of Olosega Marsh and beach ridges built along the zone where the village now stands.

AS-12-4 Stone Path

Kikuchi (1963:55) describes the coastal path of basalt and coral boulder paving that once linked Olosega and Sili Village. This site was destroyed with the construction of an unpaved roadway along the same coastline.

AS-12-5 Matavai Well
The Matavai Well is located in Sili and has been described in detail by Kikuchi (1963:80) and Clark (1980:40). Since a piped water system was introduced in 1979, the well has fallen into disuse. Cleaning and maintenance of this feature is necessary for any further investigation as well as its preservation.

**AS-12-6, -7 Lagituaiva Wells**

Clark (1980:40-41) describes these two wells of simple construction that are located in Olosega Village. These wells have undergone rebuilding by the Youth Conservation Corps and are continually maintained, apparently by local landowners.

**AS-12-8 Leaping Place**

Kikuchi (1963) reports this site which has never been precisely placed geographically (cf. Clark 1980:42). This site seems to be of traditional mythical or religious significance only.

**OFU ISLAND**

**AS-13-1 To'aga-Muli'ulu (South Coast) Complex**

The entire coastal flat of the south coast of Ofu Island, from To'aga to Fa'ala'aga, appears to have nearly continuous archaeological remains (Fig. 2). The area is bounded by steep cliffs and a shoreline protected by an extensive coral reef. The coastal lands are covered by secondary regrowth as well as numerous subsistence gardens that include a predominance of taro, banana and coconut among other cultigens. Reconnaissance of this large and archaeologically complicated area was accomplished through a systematic transect strategy. A baseline was set out along the coastal road with lateral transects made at every 100 meter interval that were approximately 30 meters wide in coverage. Such an extensive strategy produced detailed information on the form and distribution of archaeological features. We are currently producing a large map of the overall plan of the features recorded along Ofu's south coast. The features recorded include: numerous basalt and coral boulder alignments of round-ended form (house foundations) with coral and basalt pebble paving; numerous small oval or rectangular boulder alignments appear to mark graves; massive, fine-grained boulders of talus origin used as grinding surfaces in several locations; pits with associated boulder slab lining in several places, probably the remains of the production of fermented breadfruit (masi); and long (inland-seaward oriented) single course alignments which appear to have served (and may continue to serve) as land boundary markers. A redundant pattern of features in association which can be
interacted as domestic compounds suggests dispersed settlement organized on the basis of descent groups. This pattern is paralleled in Samoan socio-economic organization as documented ethnographically (e.g. Mend 1930).

A complex that includes the Tui Ofu Well and Tui Ofu Tia (monumental tomb) is located near the eastern end of the coastal flat of southern Ofu (near Fa'ala'aga). These features are traditionally associated with the high ranking title Tui Ofu ("king of Ofu").

The Tui Ofu Well is a relatively elaborate construction of waterworn basalt boulders arranged in a rounded form that includes a sloped concourse as well as a small paved court around the excavated shaft (Fig. 19). The depth of the shaft from the surrounding court is 2.1 meters.

The Tui Ofu Tia (or tomb) comprises a crudely terraced mound of basalt boulders (both rough and waterworn) that is set in against the massive talus and steep slope that rises on the inland side of this area (Fig. 20). A small pit lies among the boulder rubble at the uppermost part of the mound. No artifacts or other cultural materials were observed here, except that ornamentals such as crotons have been planted around the base of the mound.

Earthwork associated with sanitary land-fill at the Ofu Dump, located toward the western end of the south coast complex (at To'aga), revealed buried deposits of calcareous sands and a cultural deposit containing midden (shell and bone) and artifacts. The artifacts recovered from the exposed cultural layer at the Ofu Dump include thick, coarse, undecorated ceramics, two fishhook fragments, a basalt adze as well as a shell adze. This buried deposit is significant in terms of its age (see radiocarbon dates below) and its varied assemblage of artifactual (including prehistoric ceramics) and midden remains. These remains and their stratigraphic context are discussed further below in the sections on excavations and artifacts.

AS-13-2 Mafafa Complex

Mafafa refers to a small coastal flat located on the northeast side of Ofu (Fig. 2). Our walk-through assessment of the area revealed little in the way of archaeological remains visible on the surface. Coral and basalt pebble concentrations near the inland-most part of the coastal flat may indicate the remains of paving material. Excavation could yield evidence of buried cultural remains at Mafafa.

AS-13-3 Fo'isi'a Tupua

This is a natural geologic feature of legendary significance. Herman (1955:76; cited in Kikuchi 1963) provides an account of the lore that surrounds this site.
19. Tui Ofu Well, Muliulu (AS-13-1).
AS-13-4 Pa 'Alou Terrace
Kikuchi (1963:46) and Buck (1930:323) discuss this terrace located inland of Ofu Village.

AS-13-5 Vai'uula Temple
This site of apparently social and traditional religious significance was recorded by Kikuchi (1963:124). The site was subsequently destroyed.

AS-13-6 Vai O Sina Spring
This site comprises a natural freshwater spring which has been recorded by Kikuchi (1963:75).

AS-13-7 Fatuana Rockshelter
This small rockshelter has been recorded and described by Clark (1980:46). This site was not visited during our work.

AS-13-8 To'aga Naval Dispensary
This site, located within the area of site AS-13-1 (Ofu south coast), comprises a cement foundation together with the remains of a cement water tank which Clark (1980:47) describes.

Summary and Overview
The archaeological sites of Manu'a described above can be assigned to broad classes that include domestic or settlement site complexes, "specialized sites" (e.g. mounds, monumental constructions, etc.), wells, constructed walkways, rockshelters, earthen/stone-lined pits, petroglyphs, sites or locations of legendary significance, buried cultural deposits (middens with or without ceramics), sites of human-related geomorphic significance, and historic (post-European) sites. These are among the site classes that have been recognized and described in detail from work in Western Samoa (e.g. Davidson 1974b; Jennings et al. 1982, 1976; Jennings and Holmer 1980). The distribution of the major site classes in the Manu'a Islands is shown in Figs. 1 and 2, and is enumerated in Table 2. These major site classes are discussed in general terms below.

Domestic Site Complexes. Domestic or settlement site complexes comprise the largest continuous and most complex distributions of archaeological surface features recorded in Manu'a. These complexes are the remains of dispersed "villages" or numerous adjoining residential compounds (Wards and Household Units, "TIHU", as Jennings et al. 1982 have called them) distributed with a
<table>
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</tr>
<tr>
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<td>Agricultural/water control</td>
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Table 2. Archaeological sites and features within site complexes recorded for the Manu'a Group Islands.
geographically-delimited space. Alignments of oval plan comprised of basalt and/or coral slabs, together with waterworn pebble paving stones (ili'ili), are among the most common features recorded for domestic site complexes. Some of these features also have a stone-lined hearth situated at one end of the interior area. These oval alignments are undoubtedly foundations remaining from pole-and-thatch dwelling houses. This house form is common, known throughout the ethnographic period in Samoa, and persists today with the use of modern materials (Neich 1985). All complete oval alignments were measured, and total interior area calculated in square meters. Although the Manu'a sample is small (n = 19), the size distribution (Fig. 21) closely resembles those recorded archaeologically (Davidson 1974b) as well as ethnographically from Fa'aala, Western Samoa (Jennings et al. 1982:97). A mode between 20-60 square meters for the Manu'a archaeological foundations fits well within the larger samples of houses recorded at Fa'aala, with two other Manu'a structures of larger size comparable to the ethnographic size classes associated with high-status structures (Jennings et al. 1982:97).

Also associated with several of the complexes are graves marked by boulder alignments or small boulder and pebble fill platforms. Some complexes situated along gradual slopes include terraces constructed of boulder retaining walls which would have provided a relatively level surface for the placement of houses. These associated features are frequently enclosed or partially delimited by stacked boulder walls or low linear alignments of boulders that appear to have served as territorial markers and boundaries. This regular patterned arrangement of surface features occurs over and over again, in a larger redundant pattern, that crosses entire coastal flats as well as broad mountain slopes. The redundant pattern of these residential complexes suggests that settlement was organized on the basis of common descent groups occupying individual, yet adjoining domestic compounds.

Extensive domestic site complexes have been recorded on each of the three islands of Manu'a (Figs. 1 and 2). On Ta'u Island, major complexes are situated along coastal lands at Faga (AS-11-1), Sua (AS-11-2), and Amouli (AS-11-52). Other primary sites for prehistoric and historic settlement on Ta'u undoubtedly include the present day locations of Ta'u, Falasao, and Fid'uta Villages. On Olosega Island, evidence of two dispersed settlement zones (Siti'uta and Tamatupu Complexes, Sites AS-12-1 and -2) are situated on the broad slopes of the island's eastern side. The present day settlements of Olosega and Sili Villages were no doubt also locales for substantial settlement in the historic and prehistoric past. On Ofu Island, Sites AS-13-1 stretching along the coastal lands of the south coast (To'aga, Muli'ulu, Fa'a'alaga) represents the vestige of a dense, continuous settlement zone. The archaeological remains of the Ofu south coast are comparable in their scale, variety and complexity to those of Faga on Ta'u Island.

Associated with these areas of settlement are features that do not fit within the redundant
21. Frequency distribution of interior area (square meters) of archaeological residential structures of round-ended form (n=19).
pattern of domestic complexes identified. In short, these additional features are less common and represent constructions that had a greater communal significance that the household compounds. These include wells, constructed walkways/trails, and specialized sites.

**Specialized Sites.** Stone and earthen mounds, platforms, and monuments that vary greatly in form, size, and degree of invested construction labor have been described under this broad designation (e.g. Davidson 1974a). With the field evidence recorded so far, specialized sites in Manu'a include stacked and heaped stone mound constructions and stone filled platforms. These forms are attributed, both ethnographically and archaeologically, with functions such as burial and pigeon-snaring activities (e.g. Buck 1930:321). Other specialized sites of varying forms are explained (in emic terms) as having legendary origins, but many sites remain unaccounted for in local Samoan ethnography or folklore. For archaeologists, this broad class of sites represents a period of Samoan prehistory during which substantial labor was invested in monumental constructions. The effort expended in construction must have been rationalized in terms of the symbolic significance these forms held to prehistoric Samoans.

On Ta'u Island, specialized sites include the Wall of Vaovasa (AS-11-20), Tia Seulupe Fa'atali Pigeon Mound (AS-11-53), and Palapala Mound (AS-11-58). One specialized site, the Tui Ofu tomb, has been recorded on Ofu Island. No specialized sites have yet been recorded for Olosega Island.

**Wells.** Several wells, made by excavation into the Ghyben-Herzberg aquifer on low coastal lands, have been recorded in Manu'a. Some of these wells are elaborately constructed of slab boulders that form lined shafts with adjoining paved court areas. Four wells along the coastal lands of Sua on the east coast of Ta'u are constructed with coral slab boulders in varying design. Other wells of comparatively simple constructed form are those of Olosega (three wells) and Sili Villages (one well, now in disrepair). The Tui Ofu well on Ofu's south coast is of elaborate construction and remains in good condition. Nearly all of the wells have associated legendary accounts concerning origin, naming, or importance.

**Walkways.** Raised walkways, constructed in the form of retaining or free-standing walls with rubble or cobble fill are common features throughout much of Samoa (e.g. Jennings et al. 1982, 1976; Jennings and Holmer 1980). In the Manu'a Group well preserved examples remain along the west coast of Ta'u (a trail linking Ta'u with Amouli), a raised walkway running the length of present day Fiti'uta Village, and in sections along the east coast of Ta'u (Sua). Simple trails (earthen paths and some stone alignments) are found on all three of the islands and are still in use, linking villages with swidden gardens and hunting zones. On all three islands modern roads appear to have replaced
much of the original trails that once encircled each island.

Other Structural Site Classes. Some significant site classes that have been well
documented in Western Samoa appear to be absent from the archaeological record in the Manu'a Islands. The striking differences include: (1) the absence of the elaborately constructed and
somewhat enigmatic star-mounds known from the islands of Western Samoa (Davidson 1974a,
1974b) and from Tutuila (Kikuchi n.d.; J. Clark, personal communication 1986); and (2) the total
absence of any form of constructed fortifications such as the numerous inland examples from Western
Samoa (Davidson 1974). These site classes appear to be truly absent from Manu'a based on three
observations: (1) local informants who know their island's terrain intimately were not aware of any
sites that fit the descriptions of star mounds or constructed fortifications; (2) archaeological survey
over substantial areas did not reveal such sites, which if present, should be relatively visible; and (3)
the rich local traditions make no reference to elaborate mounds, while mention of warfare and refuge
refers to caves and dispersal of people into upland (forested) areas. The absence of star mounds and
fortifications, so prevalent in the archaeological landscapes of Western Samoa and Tutuila, sets
Manu'a apart.
MANU'A TEST EXCAVATIONS

As noted in the Introduction, several of our objectives required that test excavations be carried out. These objectives included identification and delineation of major subsurface archaeological deposits, as well as determination of the relationship of subsurface deposits with geomorphological patterns. In addition, data produced through excavation would have direct bearing on our evaluation of archaeological resources for their research and interpretive value. Excavations were undertaken at three sites as a means in each case to test for the presence of significant buried deposits. Analysis of materials excavated, including artifacts and midden is reported herein.

Ta'u Village Excavations

Test excavations were placed along a transect that was designed to cross-cut stratigraphic variation and thus the depositional history of subsurface deposits of present-day Ta'u Village. The first excavations were undertaken with the permission and assistance of High Chief Nua (County Chief of Ta'u); this transect was named Nua after the landowner. The location was chosen for two reasons: first, this part of the coastal shelf is relatively narrow and we anticipated evidence of the depositional sequence to be contained within a manageable area. Second, the surface find of a single thick coarse Polynesian Plainware rim sherd made this area promising in terms of producing a long cultural sequence that would aid in developing a model of sedimentological history for the broader area, and thus satisfying our objectives outlined above.

Three one-meter square test units were excavated. One of these test units (Nua-1), located along the inland slope of the present calcareous sand dune ridge, produced numerous ceramic sherds and associated material culture (Table 3). A sample of marine shell from the ceramic-bearing layer (stratum D) submitted for radiocarbon age determination yielded an uncorrected date of 2330 ± 50 BP (cal 70 AD). Sediment samples were taken from each natural unit of the stratigraphic column in order to reconstruct the archaeological and depositional context of the material excavated.

The second test unit (Nua-2), while useful in understanding the sedimentological setting, produced little in terms of cultural material. Its position, adjacent to the inland cliffs, apparently did not undergo the same cultural or natural deposition processes as units 1 and 3. Instead, the sediments present included massive slab-shaped beach (waterworn coral) boulders in a matrix of mucky silty clay. These sediments are dramatically bimodal in their size and associated depositional mechanisms. The massive beach boulders must derive from very high energy storm activities (the boulders present along Ta'u's eastern coastal flats of Suaa that were deposited in the storm activities of 1916 of this sort), while the silt and clay component clearly originates from colluvial action from the volcanic precipice directly above.

The third test pit (Nua-3) was positioned on the highest ground of the sand dune ridges occupied by the Siufaga sector of Ta'u Village. This unit revealed a deeply stratified sequence of
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calcareous sand deposits and possible high energy (storm surf) depositional events. The base of the cultural deposit was reached without encountering any pottery. Our preliminary conclusion is that this portion of the sand dune ridge formed after the cessation of pottery manufacture, or sometime less than ca. 2,000 years ago.

Our fourth Ta’u Village test pit was located near the seaward edge of the Ta’u Marsh (see above) and near the cliffs that surround the marsh (Luma sector of Ta’u). High Chief Gooa kindly granted permission and offered assistance in our excavation. We suspected that this could have been a primary zone for early prehistoric settlement given our evidence that Ta’u Marsh was previously an embayment. This unit produced very little in the way of cultural material, and revealed a very shallow deposit of mucky loam that capped calcareous beach sand and coral beach rubble. This evidence suggested that much of the land—including even the area of our test pit—surrounding and lying seaward of the marsh dates to a period after the cessation of pottery production in Samoa (i.e., probably less than 2,000 years old).

While further excavations will be necessary to work out the detailed depositional sequence in the Ta’u coastal plain, these preliminary tests are sufficient to indicate: (1) that ceramic deposits dating to greater than 2,000 years are present on the inner slope of the beach ridge, south of the Ta’u Marsh; and (2) that more recent deposits are present in the seaward portions of the ridge, including that on the seaward side of the Ta’u Marsh. Significantly, the Ta’u tests indicate that further excavations in this area have the potential to reveal a lengthy and detailed stratigraphic sequence encapsulating at least two millennia of Manu’a prehistory.

Ta’u Marsh Coring

As research elsewhere in Oceania has demonstrated, dramatic landscape change is a frequent indirect result of prehistoric human activities (e.g., Kirch and Yen 1982; Kirch 1983; Spriggs 1983). Three marshes, one on each island in Manu’a, appear to reflect the in-filling of former embayments during the course of human occupation. A 0.5 km transect extending from the interior edge of the Ta’u Marsh to the present shoreline was cored in sections at systematic intervals (50 m) in order to reconstruct the geomorphic history of this intensively-cultivated landform. The cores revealed a thick (1.2 to 1.6 m maximal depths) deposit of mucky sandy loam and mucky clay loam overlying coarse calcareous marine sands. Our preliminary, hypothetical interpretation is a sequence that began with the in-filling of a shallow embayment primarily as a consequence of vegetation clearance and increased sedimentation from erosion associated with shifting cultivation on slopes above the embayment. Following in-filling with terrigenous sediments, the coastal dune migrated northward along the seaward edge of the marsh where today the Luma sector of Ta’u Village is situated. This landform is classified as a "prograded barrier" by Reineck and Singh (1980:343). Further coring to obtain organic sediment samples from the base of the terrigenous deposits, enabling radiocarbon
dating and plant macrofossil analyses, is planned for the 1987 field season.

Olosega Village Excavations

A single test unit was excavated in conjunction with our transect of subsurface cores to test for the presence of buried cultural deposits. The unit did not yield much in the way of cultural remains, and as with the evidence the test pit adjacent to the Ta'u Marsh, we concluded that much of the sand dune ridge presently occupied by Olosega Village is of relatively recent origin. Again, our evidence suggests coastal changes that led to a shoal-graded barrier landform.

Ofu Dump Excavations

As mentioned above, earthwork activities associated with sanitary land-fill exposed an early cultural layer at the locality of the recently constructed Ofu Dump. A single test pit was placed adjacent to the dump area where the stratigraphic sequence had not undergone disturbance from the bulldozer. The unit excavated revealed a complex stratigraphic sequence that included the layer previously identified in the bulldozed area. A small quantity of artifactual material was recovered from this pit—most of the Ofu Dump artifacts were collected from one layer unearthed by bulldozer action. The test pit did serve two useful purposes: shell was obtained for radiocarbon analysis, allowing us to date the materials from the ceramic-bearing midden; secondly, it enabled us to record the stratigraphic sequence to be expected for much of the site in this area. Further excavation in undisturbed parts of the site should be undertaken to assess the overall potential and significance of the deposits discovered.

Radiocarbon Dating

Our primary objective was to obtain an initial age estimate for prehistoric ceramics from eastern Samoa. On stylistic and technological criteria, the ceramics recovered from our excavations can be classified as thick-coarse Polynesian Plainware. Based on previous studies in Western Samoa, Polynesian Plainware represents a terminal phase of prehistoric pottery manufacture in the Samoan Islands, believed to date from ca. 200 BC to AD 300 (Green and Davidson 1974).

The samples selected for radiocarbon analysis were collected from secure stratigraphic context (Nua-1 and Ofu Dump test pit, described above) associated with pottery, flaked basalt tools, and food remains represented by bone and artificially fractured marine shell (primarily gastropods). There were no indications of post-depositional disturbance or other factors that might render the shell samples non-contemporaneous with other cultural contents of the strata from which they were collected.

\(^{14}C\) measurements were made by Beta Analytic, Inc., who report pretreatment of the outer
layers of the shell with dilute acid. The benzene syntheses and counting proceeded normally. In addition the $^{13}$C/$^{12}$C ratio was measured to establish a $^{13}$C adjusted age. Corrections for specific $^{14}$C activity, and for the reservoir effect (Stuiver and Polach 1977), taking into account regional ocean variation (Delta-R estimates), as well as calibration for secular effects were made following the recent work of Stuiver, Pearson and Braziunas (1986). These calibrations were made using a FORTRAN program on a floppy disk provided to us by M. Stuiver and P. Reimer (Stuiver and Reimer 1986).

The conventional, or uncorrected ages are: (1) Beta-19,741, Ta’u site, 2330 ± 50; (2) Beta-19,742, Ofu site, 2350 ± 50. Applying the corrections for both ocean reservoir effect and for secular $^{14}$C variation, yields calibrated age ranges at one standard deviation as follows: (1) Ta’u site, AD 0-128; (2) Ofu site, 28 BC-AD 108. These dates for shell are closely comparable to dates obtained from charcoal for very similar thick coarse pottery from Western Samoa (see Hunt and Kirch, in press, a).

These results indicate that by the commencement of the first millennium AD both Ta’u and Ofu Islands were already occupied by makers of Polynesian Plainware. Whether colonization of Manu’a occurred, possibly even a thousand years earlier, by makers of the classic Lapita pottery, remains unknown, and is worthy of further archaeological exploration.
ARTIFACTS AND OTHER CULTURAL MATERIALS

The artifacts described below were collected from the surface of many sites, were brought to us from private collections, or were excavated from one of four transect loci. Counts of artifacts recovered from excavations as well as all artifacts collected from the surface of sites surveyed (including those presented as gifts that are all from known sites) are given in Table 3.

Artifacts

Prehistoric Ceramics. Pottery was recovered through excavation at two localities: the Nua transect in the Si'ufaga sector of Ta'u Village (AS-11-51) and from the Ofu Dump test pit at To'aga (AS-13-1). A total of 115 sherds was recovered from unit 1 on the Nua transect, while 32 sherds came from the test pit excavation and from our collection of artifacts unearthed from a single stratigraphic layer with sanitary fill operations at the Ofu Dump. These are the first prehistoric ceramics from excavated contexts in American Samoa.

All of the sherds recovered are plain (undecorated); no dentate-stamped or other decorative techniques are represented in the two assemblages. Such pottery, usually termed Polynesian Plainware, falls within the Lapitoid tradition of Western Polynesia (Kirch 1982).

The attributes selected for analysis were measured or observed at the level of individual sherds, then expressed as distributions that describe the assemblage as a whole. Thus, the ceramic assemblage serves as the unit with which distributions can be compared. A means for systematic comparison will prove important in documenting the variability of Polynesian Plainware across the Samoan archipelago and beyond.

The Manu'a ceramics are tempered with angular sand grains that are highly variable in size. These grains appear to be ferromagnesian basaltic in origin and are probably comparable in geologic material to those described from Upolu Island in Western Samoa (Dickinson 1969, 1974). A subordinate amount of rounded calcareous grains and tiny shell fragments suggest that sand grains were obtained from a depositional environment such as that at the mouth of a stream. The temper of these sherds imparts a quality of substantial hardness. Prior to a petrographic analysis of the source of temper grains, an elemental analysis of clay mineralogy, a local Manu'a source(s) appears likely.

Colors noted for the uneroded surfaces of the sherds fall within a range of Munsell 5 YR 4/2 to 7.5 YR 7/2. Sherd thickness range from 7.5 to 14.6 mm. Thickness of all sherds with both surfaces intact (uneroded) was calculated as an average of three measurements on each sherd. Mean sherd thickness for the entire Manu'a collection is 10.62 mm, 3.46 variance with a standard deviation
of 1.86 mm. The distribution of mean sherd thickness is shown in Fig. 22,a. Variance in thickness measures was also recorded for each sherd (mean variance = 0.336 mm, s.d. = 0.329 mm) as shown in Fig. 22,b. Paste hardness, recorded on a Mohs hardness scale, ranges from two to four. Temper grains are consistently harder.

The rims and vessel parts present indicate a simple assemblage of large open bowls (Fig. 23,f-h). There are no necks or complex rim forms or carinations indicative of other vessel forms.

**Stone Adzes.** A total of 24 classifiable adzes were obtained during the survey from surface contexts (e.g. Fig. 25). Following the Green and Davidson (1969) classification of Samoan adzes, the types and their frequencies in the Manu'a collection are: Type I, 1; Type III, 13; Type V, 2; Type VI, 2; Type VIII, 1; Type IX, 4; Type X, 1. Green has analyzed both surface collections and excavated assemblages of stone adzes from Western Samoa, and his data provide some interesting contrasts with the Manu'a sample. Most striking is the low frequency of Type I and the absence, thus far, of Type II in the Manu'a collection. In Western Samoa, Types I and II are dominant in general surface and museum collections. Whether this difference simply reflects a bias due to a small size of our Manu'a sample, or a culturally-significant difference can only be determined through enlargement of the Manu'a sample with further field work. Type III is also common in Western Samoa collections, and thus its high frequency in Manu'a is not wholly unexpected. The representation in Manu'a of Types VI, VIII, IX, and X--all of them forms developed in the later phases of Samoan prehistory--is also expected based on a comparison with Western Samoan data. Of particular note is the presence of two examples of Type V, adzes with distinctive plano-convex cross-sections (Fig. 24,b). This type is known to be associated with Leptoid ceramic assemblages not only in Samoa, but elsewhere in Western Samoa (Kirch 1981). The presence of these specimens in Manu'a is thus a further suggestion of sites of ceramic-period occupation in these islands.

A single, small adze of fine-grained basalt was also recovered from the ceramic-bearing deposit at the Ofu Dump site (Fig. 24,a). The adze has a triangular cross-section, and would thus be classified at Type VI in the Green and Davidson (1969) scheme. However, it has been well-ground on the front, removing the original flaked ridge, and thus in some respects resembles a plano-convex section Type V form.

**Basalt scraper.** The Ta'u excavations yielded a scraper made by unifacially retouching a large basalt flake (Fig. 26,a). This tool, similar to one from Western Samoa (Green 1974: Fig. 61m), does not appear to have been hafted. Instead, the thick portion of the flake appears to have been "backed" forming a potential hand grip.

**Shell adze.** A single shell adze (Fig. 23,a) was collected from the ceramic-bearing stratum of the Ofu Dump. It was manufactured from a heavy shell, possibly Cassis sp. Shell adzes remain extremely rare in Samoan archaeological assemblages, and may well be restricted to the earliest periods.
22. Frequency distributions of (a) mean ceramic sherd thickness (mm), and (b) variance in sherd thickness (mm). See text for discussion.
23. Artifacts from Manu'a sites: (a) shell adze; (b,c,d) Turbo shell fishhooks; (e) bone bead of "reel" form; (f,g,h) pottery rim cross-sections.
24. Early type basalt adzes from Manu'a: (a) well-ground, triangular sectioned adze from pottery-bearing context; (b) Type V adze with plano-convex cross-section.
25. Later prehistoric basalt adzes from Manu'a.
26. Artifacts from Manua sites: (a) basalt scraper; (b) coral net weight; (c) basalt net weight.
of prehistory (cf. Jennings and Holmer 1980).

**Fishing gear.** Three one-piece fishhooks (two fragments, one incomplete but whole) made of shell were recovered (Fig. 23, b,c,d). Two fragmented pieces (bend and points) came from the ceramic-bearing midden layer at the Ofu Dump. These hooks may date as early as 2,000 years ago based on their stratigraphic association with pottery and radiocarbon date. The third, nearly complete hook was recovered from excavation of Nua-3 on the crest of the sand dune ridge. This specimen (from 1.85 cm below surface) is of some antiquity, but presumably post-dates pottery. These finds are significant given the paucity of fishing gear recovered from archaeological contexts in Samoa, particularly associated with the earliest periods of prehistory.

Two waterworn tabular-shaped pebbles (one of basalt and one of coral) with perforations ground through the center probably represent net weights (Fig. 26, c). These were collected by Chief Tukuu on his coastal property at Si’u (AS-11-2). Their age and precise archaeological context remain unknown.

Two waterworn tabular-shaped coral pebbles with roughly parallel grooves cut into the surface were recovered (Fig. 26,b). One was found with in the ceramic-bearing stratum of the Nua-1 test pit. A nearly identical form was collected from the stream bank erosional materials at Amouli (AS-11-52). This may well be an early form of net weight, providing evidence for netting as a component of early Samoan marine exploitation.

**Bead.** A polished, drilled bead of elongate, or distinctive "barrel" shape was discovered in the erosional deposits at the Amouli (AS-11-52) stream bed (Fig. 23, e). The bead was found in association with a Type V plano-convex adze, and may suggest an early first millennium A.D. age. The bead is similar in form to what are often called "reel" ornaments from early East Polynesian contexts (Leach et al. 1979). This ornament form is also known from the Polynesian Outliers of Tikopia (Kirch and Yen 1982, fig. 100, f, g) and Taumako (Leach et al. 1979). This is the first archaeological documentation of this bone "reel" style of artifact from Samoa.

**Historic/European artifacts.** Artifacts of historic and modern age include a range of bottle glass, nails, and contemporary garbage. These materials were largely collected through excavation and their presence informs on the age and stratigraphic integrity of particular contexts.

**Faunal Materials**

Bone and shell midden was recovered from all of the test pit excavations. All shell midden was collected, washed, sorted by taxa, identified and discarded in the field. These taxa were quantified by minimum number of individuals (MNI) based on identifiable portions of the shell that occur only once per animal. The predominant shell midden constituents include Turbinidae (especially *Turbo crassus*), Cypraeidae, Trochidae and *Tridacna* species. These taxa inhabit the intertidal reef
platform and reef edge and would have been readily available in marine environments adjacent to the sites from which they were excavated.

Vertebrate faunal remains were recovered throughout excavation at both ceramic sites. The majority of bone comes from fish, which is represented throughout the sequence. Faunal remains that can be securely associated with ceramics at ca. 2,000 years ago include sea turtle, pig, medium mammal (dog?), a Lutjanidae and unidentifiable fish bones. Bone recovered from late excavation contexts include abundant pig, rat (*Rattus* sp. and *Rattus exulans*), a large bird (*Gallus gallus*), possible dog and a single human molar. Fish remains from late contexts indicate the presence of Acanthuridae (cf. *Naso*#), Balistidae, *Pseudobalistes*, Diodontidae (including *Diodon hystrix*#), Elasmobranchii (including one shark tooth), Scaridae (cf. *Calotomus*#), *Monotaxis grandoculis*, Holocentridae, Lutjanidae, and other unidentifiable bone. This range of fish suggests fishing strategies that included exploitation of both inshore and benthic environments. No pelagic fishes are represented.

Faunal sample sizes remain too small to detect any patterns of changing abundance through the prehistoric sequence. The taxa present, however, are comparable to many other faunal prehistoric assemblages. Common among assemblages of the southwestern Pacific is the predominance of inshore fishes, abundant molluscan remains and the presence of pig, dog, chicken, and rat. While the Manua faunal assemblage is small it is noteworthy in several respects. First, pig can be securely associated with ceramic-bearing deposits that presently mark the earliest occupation of the Manua Islands. Second, the faunal data may already suggest that Manua’s economy shifted from a relative emphasis on maritime resources to one more reliant on terrestrial foods, a pattern which should be tested with further excavations. Third, the fish bones display a more diverse taxonomic suite than from other Samoan sites previously excavated, and thus indicate the potential for expanded excavations at these sites to yield important evidence for patterns of Samoan marine exploitation.

**CONCLUSIONS**

While the 1986 excavations and reconnaissance in Manua were limited in scope, nonetheless, there can be little doubt as to the overall success of the Manua project. A wide range of field monuments and structures has been shown to be present on all three islands, as well as the presence of buried, stratified cultural deposits, all of which have the potential to reveal a cultural history of the Manua Islands extending over three millennia. Of particular note was the demonstration that sites containing prehistoric pottery are present on both Ta’u and Ofu Islands. Despite many finds of Samoan pottery in the western islands of Upolu and Savai‘i, this is the first clear archaeological evidence for prehistoric pottery in American Samoa. Also noteworthy was the discovery of three one-piece shell fishhooks, two of these in association with the ceramics. Fishhooks have been very rare occurrences in Western Polynesian archaeological sites, and these finds indicate that Manua
archaeological sites have the potential to yield substantial evidence about ancient Samoan technology and fishing strategies. Further, the large array of stone adzes recovered during survey and excavation includes a variety of forms, some with known early stratigraphic associations. In sum, there can be no question that the archaeology of the Manu'a Group is rich in its diversity and potential to add much new information on the prehistoric culture of Samoa.

In spite of our documentation of at least a 2,000 year prehistoric sequence in Manu'a, the question remains, however, whether the Polynesian Plain Ware horizon marks the initial colonization of the group, or whether the Manu'an sequence will ultimately be extended back another millennium. Given the close proximity of Manu'a to the larger Samoan Islands (Tutuila and Manu'a are said to be intervisible under the best conditions), it is reasonable to expect that early Lapita colonists reached Manu'a. However, the archaeological manifestation of such an early Lapita occupation has not yet been found. For the present, three competing hypotheses are evident: (1) the absence of early Lapita deposits is a problem of archaeological sampling error; (2) small islands such as these with narrow coastal lowlands have undergone repeated exposure to dynamic shoreline processes and catastrophic events such as cyclones that have obliterated traces of early settlement; or (3) Manu'a was indeed not colonized until the beginning of the first millennium A.D. The first hypothesis must be tested by extending the archaeological sample of excavations, a task planned for the 1987 season. Discriminating between the second two hypotheses may prove more challenging.

Most of the data collected in survey bear on the nature of late prehistoric settlement patterns and land use practices, and now permit comparisons with evidence from Western Samoa (Green and Davidson 1969, 1974; Jennings et al. 1976; Jennings and Holmer 1980). In Manu'a virtually all coastal flatlands and the broad upland slopes (generally those less than 30% slope) of these precipitous islands are covered with surface sites and features. In short, it is clear that all areas that could be utilized for occupation were at some point used. However, the Manu'a evidence differs from that of Upolu and Savai'i Islands where continuous distributions of habitation remains extend from the coast well inland up broad slopes (Davidson 1974b). The pattern identified in Western Samoa would be impossible to replicate in Manu'a given geographic constraints alone. Thus, in Manu'a it appears that settlement and other land use of the small coastal lowland areas was of primary importance throughout much, if not all of the prehistoric sequence.

The preliminary geomorphic study of the Ta'u Marsh also suggests that the intensively-cultivated hydromorphic taro swamps found on all three islands of Manu'a may prove to be, at least in part, artificial components of the settlement landscape. Certainly the dynamic nature of the lowland landforms must be taken into account in any attempts to construct a prehistory of the Manu'a Islands.

The classes of prehistoric settlement pattern components in Manu'a are generally typical of
those known from other Samoan Islands. In particular, these include oval or round-ended house foundations, house terraces, low walls, stone pavements, stone-constructed walkways, and simple stacked stone mounds, including those identified by local informants as pigeon-snaring mounds. Manu’a may be unique, however, in the presence of elaborate stone-lined wells and in the absence of two classes of sites common elsewhere in Samoa: star mounds and constructed fortifications. These site classes appear to be truly absent from the record of Manu’a. Such a position is based on three observations: (1) local informants who know their island’s terrain intimately were not aware of any sites that fit the descriptions of star mounds or constructed fortifications; (2) archaeological survey over substantial areas did not reveal these sites that should be relatively visible; and (3) the rich local traditions make no reference to elaborate mounds, while mention of warfare and refuge refers to caves and dispersal of people into upland (forested) areas. The absence of these site forms, prevalent in the archaeological records of both Western Samoa and Tutuila Island, sets Manu’a apart as distinctive in this respect and may have important implications for our understanding of the late prehistoric and early historic socio-political system in Manu’a (Hunt and Kirch in press, b).

To conclude this report of our archaeological reconnaissance, we briefly review the seven objectives set out at the commencement of the project:

1. Our first objective, to compile a catalog of prehistoric and protohistoric surface archaeological remains, has been substantially advanced. While not every archaeological site can now be said to have been recorded, we are confident that the survey is representative of all major classes of archaeological sites in Manu’a, and further, that all major areas of prehistoric site concentration have been identified. These data should aid substantially in making rational land use decisions.

2. Test excavations, while limited in scope, were highly successful in locating several areas with subsurface archaeological deposits, in two cases yielding prehistoric pottery. We are thus confident that a second field project, with greater emphasis on systematic test excavation, will yield results even more revealing of the subsurface archaeological sites undoubtedly present in the Manu’a Islands.

3. As we predicted, the presence of buried archaeological sites is strongly correlated with particular kinds of geomorphological and depositional environments. In some cases, test excavation in these environments (such as the Ta’u Marsh and adjacent dune ridges) may reveal important information on the role of prehistoric people in the development of the present Manu’an landscape.

4. Based on the results of survey and test excavation, it is now possible to generate a predictive model for those local Manu’a environments most likely to contain subsurface archaeological deposits. These zones are ones with active sedimentary environments—be they calcareous or terrigenous in origin. Coastal lowlands, while subject to the greatest impacts of cyclones and shoreline changes, are the zones providing on the one hand, most likely locations for human
settlement, and at the same time, are in environments of active deposition.

5. The significance of Manua's archaeological sites, both for research and for interpretation, has been presented in the descriptions above. Many sites are valuable for legendary reasons alone, while many others show great potential for research and interpretive significance.

6. Sufficient data were obtained in the course of our survey that this objective, to prepare National Register of Historic Places nomination forms for significant sites, can now be met. This task is being coordinated with the American Samoa Historic Preservation Office.

7. Finally, we were determined that our work should enhance local understanding and appreciation of archaeology and historic preservation. This objective was met in several ways: (1) by lengthy explanations and discussions of our work in all villages, with chiefs as well as the general population; (2) by the training of a Samoan assistant, Ms. Epi Suafo'a; (3) by the hiring and further training of several part-time assistants in survey and excavation work; and (4) by an end-of-project public lecture by Hunt in Pago Pago. As the results of laboratory studies are obtained, further efforts will be made to disseminate the significant findings of this project as broadly as possible.
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REFERENCES CITED


Hunt, T.L. and P.V. Kirch in press, a. "Radiocarbon dates from two coastal sites in the Manu'a Group, American Samoa." Radiocarbon 29(3).


