

IV. Ethnohistory

The word 'ethnohistory' refers to the reconstruction of past lifeways. Ethnohistory also investigates how indigenous cultures changed during the early period of contact with the West. For several reasons, it is difficult to reconstruct the ethnohistory of the precise areas and locations now lying within the National Park of American Samoa. As noted above, the ethnohistorical literature is more informative for the Western isles than for Eastern Samoa. Early Western visitors were often imprecise on Samoan place names, and in any case were not likely to visit the remote lands that make up most of the National Park. We will begin with Samoan oral traditions relating to the mythical origins of Eastern Samoa. Most of these were recorded in the nineteenth century by missionaries and folklorists. We then provide some brief historical background on Tutuila and Manu'a, for larger political events and administrative changes have affected settlement patterns and resource use in the areas that now comprise the Park. This is a selective historical overview, however; no attempt is made to cover the history of the archipelago as a whole, nor do we give a comprehensive history of Pago Pago Bay and its environs. We will then review nineteenth- and early twentieth-century accounts that appear to pertain specifically to areas that now lie within the Park.

Incidentally, we presume that the reader of this report is familiar with basic Samoan social institutions, and we do not undertake to explain the meanings of such common terms as matai, 'aumaga, taupou, and the like. Where our research has uncovered special customs and variations occurring in National Park areas, we so note those details.

Myths and Legends Relevant to the National Park.

According to oral traditions of Manu'a the Creator god, Tagaloalagi, created Ta'u island first. When he struck the newly formed island a piece fell away; this was the island of Ofu. Tagaloa went on to create Fiji, Tonga, and rest of the Samoan islands (Kramer 1994: 536). According to a legend published by Fraser (1892: 180), after the creation Tagaloa said, "Always show respect to Manu'a; if any one do not, he will be overtaken by calamity; but let each one do as he likes with his own lands." The name Ofu is said to commemorate the clothing of the child of Tagaloa's daughter, Faleilelagi (Kramer 1994: 506; Turner 1884: 226). The god Fuailagi created Olosega later by digging up land on Ta'u belonging to a chief named Niuleamoa (Turner 1884: 225). Niuleamoa pushed the land into the sea as a floating island, and took his followers in search of a resting place. The island floated to Tonga and then returned to Samoa, where it came to rest between Ta'u and Ofu. From this vantage point Niuleamoa

could fight with the people on either side of him. The Ofu chief Sega went to visit the new island and later married a woman named Olo, who had been traveling with Niulemoa. They joined their names and called the island Olosega. In another story Olosega is said to mean literally 'parrot fort' or the refuge of parrots, from some parrots who flew ashore there from a Fijian canoe (Turner 1884: 226).

Turner relates other accounts explaining place names of Eastern Samoa and is an earlier source than Kramer, who cites Turner frequently. One legend says that the rocks and the earth married and had a child which was born covered with wounds, 'manu'a,' whence the name of the eastern islands (1884: 223). A great warrior named Fitiaumua 'Fiji the foremost' came from the east, conquered the western isles, and then lived at Manu'a: "All Samoa took tribute to him, and hence the place was called the 'Great Manu'a'" [Manu'a-tele] (1884: 224). The people of Pulotu, in the west, were waging war with the people of Papatea, in the east. When the Pulotu people went to attack Papatea, two Papateans--a man named Tutu and his wife Ila--escaped to the island that now bears their names (1884: 223). In another version, Tutu and Ila bore a daughter named Salaia or Sagaia. Their dying request was that their names be remembered, and after their deaths their daughter named the island after them (1884: 226).

Many legends of Manu'a center around Tagaloa and the exploits of his semi-divine family, whose earthly home was at Lefaga, near Fitiuta. The versions recorded by ethnohistorical observers tend to intertwine and overlap, and it is difficult to disentangle the myths as if they were separate narratives. Interpretation is complicated by the fact that Tagaloa is both the name of the creator god, identified with the Sun, and of his earthly offspring who was born at Saua, near Fitiuta (see Map 2), and who established the foundations of Manu'an political structure. The name of the island and village of Ta'u is attributed to the god Tagaloa's daughter Faleilelagi 'house roofed by the heavens,' referring to an ancient time when people had no houses. Faleilelagi had a daughter who could not speak, and named the island after that child, who could only make the unintelligible sound 'u' (Turner 1884: 224). Referring to the missionary Pratt as his source, Kramer (1994: 506) recounts that Faleilelagi married Faia and one of their children was named Faleasao or Tausao 'hard to reach,' referring to the Analuma caves along the steep cliffs.

The village of Fitiuta 'inland Fiji' was once named Aga'e 'breathing hard,' from the hard breathing when it was born as the child of the rocks and the earth (Turner 1884: 224). Kramer (1994: 510) states that Fitiuta was formerly divided into two sections, Aga'euta and Aga'etai. The latter was deserted in

Kramer's time, and he identifies Fitiuta's sections (probably pitonu'u) as Maia and Usoali'i. People in Fitiuta today continue to use these section names. Another daughter of Tagaloa, Moiuuolepai, married the king of Fiji but he treated her badly and sent her "to the backwoods of Fiji" (Turner 1884: 224). Her brother Taeotagaloa went to Fiji and turned her barren place of exile into a yam and banana plantation. When the king of Fiji heard of this, he reconciled with her because he wanted the yams, and named the fertile place Fitiuta. When Taeotagaloa returned to Manu'a he changed the village's name to Fitiuta (see also Kramer 1994: 510, 569). This tala fa'aanamua, like many Samoan origin tales, explains the source of a Samoan proverb, "Do you call them friends who are but friendly to the yam?" On the other side of the island, at Luma, is a place where souls of the departed were said to have begun their journey to Puluotu, the netherworld. To'aga, the coastal strip on the south side of Ofu (see Map 3), was reputed to be the home of malevolent spirits and has been the site of ghostly happenings even in modern times (Holmes 1974: 64).

Tagaloa brought the first Samoan fale to Ta'u. Called the Fale'ula or 'red house', it was originally the "abode of the gods on earth" (Kramer 1994: 528) but later the house of the Tui Manu'a. In the myths the Fale'ula is literally a house; later the name applied more figuratively to the family dynasty of the Tui Manu'a. Many legends recount aspects of Tagaloa's creative work--how he founded the Tui Manu'a line of sacred high chiefs and celebrated the first 'ava ceremony (see Kramer 1994: 555-57). Versions of the story of the first 'ava ceremony were told to us by Fitiuta residents, who also recounted the legend of the brother and sister Lua and Ui (Kramer 1994: 551-52; but see also 555-57). The sister allowed the Sun god (Tagaloa) to impregnate her in order to stop him from killing people. The two then swam away, taking with them the shell trumpet and a sultana bird. They swam to the reef at Saua, but Lua died before reaching the shore and sank with the shell. In Kramer's version, Ui reached the shore with the bird and gave birth to a boy, Tagaloa-a-Ui. The golden plover (tuli) came and gave the boy the names of its limbs. The miti came and sucked 'miti' the boy's nose to give it breath.

In interviews, informants mentioned the brother's death, the birth at Saua, the tuli, the miti, and two landmark rocks offshore called Lua and Ma'a (literally 'two rocks'; see Map 2). The Luama'a do not appear in Kramer's narrative, which continues with the tale of the first 'ava ceremony. Nevertheless, the story of Tagaloa's birth at Luama'a was told to us by several informants, and is very significant to modern Fitiuta villagers. In the version most frequently related, neither sibling reached the beach. The farther rock, about fifty yards offshore, is the brother, called Puai'ilama. The closer rock, about fifteen yards

out, is the sister, Sina (slide 1). We were told that the fetus floated on to the beach at a place called 'oneone le tanumia, a patch of sand that remains uncovered by rocks because it is sacred (see Map 2).

Tagaloa's founding of the Fale'ula, which Kramer (1994: 528) describes as 'the royal house of the Tui Manu'a,' involves several locations within the National Park. The Fale'ula came down from heaven, arrived at Fatufatumealuga, and was then carried to Folauga; Kramer identifies those two place names as "rest places on the Ta'u mountain." For many years people tried to move the house but could not. Pili, Tagaloa's son by the daughter of the Tui Manu'a, came to Laufuti in a ship, brought the ship's mast up the mountain, and brought the house down. The Fale'ula was later brought to Lefaga, near Fitiuta but outside the Park, and became the house of the Tui Manu'a (Kramer 1994: 536).

Samoa oral history relates that the Tui Manu'a was senior to the chiefly lines of other islands. Whether his position was one of actual political rule or only ceremonial precedence, this special authority was interrupted by the Tongan conquest, ca. 1200-1400 A.D., which Samoans call a time of pologa 'bondage.' It is said that Ta'u alone remained apart from Tongan rule. After the expulsion of the Tongans, certain chiefly titles of Upolu and Savai'i rose in prominence to eclipse the Tui Manu'a in Samoan political affairs; Tui A'ana, Tui Atua, Gato'aitele, and Tamasoali'i became the four components of the Tafa'ifa, the ceremonial headship of all Samoa. In the nineteenth century the Malietoa and Tupua families emerged as the political powers and produced the active contenders for the European-influenced 'kingship.'

The European Contact Period.

At the time of European contact Tutuila was subordinate to the Atua District of Upolu. As a result, many chiefly titles of Eastern Samoa are offshoots of Upolu titles. The highest titles of Manu'a, however, are believed to be very ancient. Because of Manu'a's place in Samoan legendary history and because of the special status of the Tui Manu'a, certain special political customs are observed there. The tulafale 'talking chiefs, orators' are locally referred to as to'oto'o, the word for the orator's staff of office. The Fale Tolu 'House of Three,' the Tui Manu'a's talking chiefs, were so powerful that they effectively selected the Tui Manu'a. A special vocabulary is also observed, whereby polite synonyms are used in the place of common words for animals and objects associated with the Tui Manu'a (see Kramer 1994: 518). The person and possessions of the Tui Manu'a were considered sacred and he was hedged with various personal taboos. The Tui Manu'a resided in Luma, a pitonu'u or

subdivision of Ta'u Village. Nearly as high in status was the high chief Tufele, whose homeland was at Fitiuta. The fa'alupega or honorific greeting for Manu'a cites the other major titles: the Tui Olosega; Misa, high chief of Ofu; Laolagi, the high chief of Sili on Olosega; the Vaimegalo, referring to high chiefs Sotoa of Luma and Lefiti of Siufaga; and the To'oto'o, referring to the 'House of Three.'

At the time of Western contact Tutuila was divided into two political groupings, the eastern district, comprising the 'counties' of Sua ma Vaifanua, and the western, called Fofu ma Aitulagi. The National Park lands on Tutuila fall into Sua ma Vaifanua. Lei'ato, which Kramer considered the senior title in Tutuila, resided at Fagaitua and was chief over Sua ma Vaifanua, which included Pago Pago, Vatia, and Afono villages. However, the high chief Mauga was the principal authority in the Pago Pago Bay area during the mid-nineteenth century. He was an active intermediary and negotiator and is prominently featured in ethnohistorical accounts. Mauga was the first listed signer of the Deed of Cession to the United States, followed by Lei'ato, Faumuina of Aunu'u, Pere of Lauli'i, and, fourthly, Masani (Masani'ai), one of the high talking chiefs of Vatia, followed by other chiefs of Sua ma Vaifanua and Fofu ma Aitulagi.

The Dutch explorer Jacob Roggeveen, believed to be the first European to visit Samoa, made brief contact with Manu'ans when he passed by the islands in 1722. Roggeveen's (Sharp 1970) account is very sparse. There were a few exchanges with people off Ta'u, and the high chief of Ofu sought to trade with the foreigners, gesturing to a blue necklace worn by a girl in his party. Europeans did not touch at Samoa again until 1768, when the Frenchman de Bougainville (1967[1772]) bartered for supplies with the people of Ofu and Olosega. It was Bougainville who dubbed Samoa "the Navigator Islands," by which they were known well into the nineteenth century. The ill-fated French explorer La Perouse (1969[1799]) is believed to be the first European to disembark at Samoa. In 1787 he passed by the north coast of Ta'u, bartered with the people of Olosega, and anchored at Fagasa Bay, on the north shore of Tutuila. Fagasa lies just west of the National Park boundary (see Map 1). The next village to the west, A'asu, was the site of an unfortunate encounter that gave Samoans a warlike reputation among Europeans. A watering party led by the expedition's second-in-command was attacked and eleven Frenchmen were killed. Tutuilans told later visitors that a party from Atua District in Upolu was responsible for the killings (see Murray 1876: 105-107), but it is said that the event deterred European shippers from stopping at Samoa for decades.

In 1791 the British ship Pandora, in pursuit of the Bounty mutineers, conducted some barter exchanges with the people of Tutuila (Edwards and Hamilton 1915). The ship was attacked off

Upolu, however, and the incident reinforced European opinion that Samoa was a place to be avoided. The era of frequent Western visits began in 1830 with John Williams' conversion of the Savai'i chief Malietoa Vai'inupo. The indigenous Samoan religion was relatively decentralized in comparison with, for example, the Hawaiian religion. There were no monumental temples and no powerful priesthood such as found in Hawaii and Tahiti. Aside from a few major gods such as Tagaloa, there were many minor deities associated with particular families, individuals, villages, and places. Worship was conducted by chiefs and heads of families rather than by full-time priests. Many scholars believe that Christianity succeeded in Samoa in part because the native religion was not centralized and was not the conceptual foundation of matai authority (see Gilson 1970).

Williams was affiliated with the London Missionary Society, and in the decades to follow the L.M.S. sent more missionaries to Samoa than any other Christian organization. Ta'u had been exposed to Christianity even before Williams came to Samoa, however. In the 1820s a Tahitian convert named Hura was shipwrecked on the island and began to instruct the people in Christianity with the aid of a fragmentary Tahitian Bible. John Williams met Hura on Ta'u in October 1832 during his return visit to Samoa (Williams 1984[1832]: 217). At the time Williams estimated the population of Ta'u at two to three thousand people, and reported that the Ofu people had nearly all been destroyed in battles with "Orosegna." The formal missionization of Tutuila and Manu'a began in earnest in 1836, when an L.M.S. ship brought Rev. A. W. Murray, among others. Murray remained on Tutuila until 1849, and then served on Manono and in Apia. He celebrated his last sabbath on Tutuila around 1857 but continued to work in Western Samoa. Murray's *Forty Years Mission Work* (1876) is a valuable ethnohistorical account of Eastern Samoa in the 1830s and '40s. Murray resided at Leone and Pago Pago, however, and it is likely that he rarely ventured into the areas that now lie within the National Park.

In 1837 Murray (1876: 71-72) sent two teachers--a Rarotongan and a Tahitian--to found the first formal mission in Manu'a. According to Murray, there was considerable shipping traffic at Pago Pago even during his first year in residence; at times there were six whalers in the bay at one time, "having crews averaging thirty, and all of the baser sort" (1876: 43). Murray worked to suppress night dancing, introduced the practice of family prayer, and in 1838 performed the first Christian marriage on Tutuila. He presided over the "Great Awakening" revival on Tutuila between 1839 and 1842 (1876: 125). Murray's account of early contributions to the mission yields some insight into Samoan productive activities in the 1830s and '40s. The first missionary collection on Tutuila, in May 1840, brought in two thousand pounds of arrowroot (presumably from the masoa plant),

52 pieces of siapo, and twelve fine mats (1876: 154). In the 1840s little money was in circulation in Samoa, and the missionaries therefore solicited donations of coconut oil and arrowroot, which they then sold to traders. In the 1840s coconut oil became the preferred contribution; thousands of gallons were collected through the 1850s, when monetary donations became the norm.

In the 1860s copra began to be an important cash crop for Samoans, and was to remain an economic mainstay of the Samoan Islands for the next century. The trading companies found early on that it was less wasteful and more profitable to collect the dried meat rather than the oil. Captain Wakeman, who visited Tutuila in 1871, reported that a coconut tree would yield a dollar's worth of copra per year for its owner (Wakeman 1878: 348). The copra was supposed to be dried for three days in the sun to prevent spoilage. Traders in the villages weighed the copra and paid the Samoans accordingly. The meat was then shipped to Hamburg or another major port and processed into oil, which was much in demand in Europe for soap and cosmetics. The remaining pulp was made into sweets or cattle feed. For many decades, copra was Samoa's only export.

When the American government took over Eastern Samoa, taxes were assessed and paid in copra, which the government then marketed. In fact, individual Samoans were forbidden to sell copra unless their taxes were paid. In 1903 the fono asked the government to assume the task of marketing all surplus copra, thus eliminating the local trader's role (Croese 1916: 19-20). Market demand and prices have fluctuated throughout the history of the copra trade, however, and profitability has never been assured. Commenting on the government's copra marketing on Tutuila in 1905, the Apia newspaper *Samoanische Zeitung* noted, "There is not a trader on the island that wants to buy any copra and it would be a good thing if this fact was made known to the natives" (Nov. 4, 1905, p.8).

In 1838 the Tutuila chiefs and Captain Bethune of the *Conway* agreed upon the first written code of commercial port regulations for Pago Pago (Murray 1876: 77-78). In 1839 Commander Wilkes of the United States Exploring Expedition visited Manu'a and Tutuila, and was welcomed with great ceremony by the Tui Manu'a (Wilkes 1845, 2: 67). Wilkes reported that settlement on Tutuila was concentrated along the coastline, especially around the southwest end. The hills were too high and rugged to pass over, he claimed, so that inter-village travel was largely by sea (1845, 2: 90). Like John Williams, Wilkes (1845, 2: 89) reported that Ofu had few residents due to past wars with Olosega. He described Olosega as a strip of land about 500 yards wide, covered with breadfruit and coconut "in great profusion and sufficient abundance for all the wants of the natives" (1845, 2:

88). At the time the Tui Manu'a was living on Olosega, a "place of safety," because Ta'u had become "unsettled in consequence of the wars of the Christian and Devil's parties" (Ibid.). Wilkes described Ta'u as "covered with a luxuriant vegetation," with "many cocoa-nut groves on its north-west side," near the island's "principal settlement" and anchorage (1845, 2: 87).

The first systematic ethnographic research on Samoa was conducted by the German scholar Augustin Kramer in the late 1890s. Kramer was a careful and thorough researcher, and his collection of genealogies and oral traditions is a priceless resource for Samoan ethnohistory. Kramer spent six days in Manu'a and recorded a significant amount of material. He apparently spent less time on Tutuila, and his information for that island is less detailed. Kramer's ethnographic material will be referred to below in the context of other discussions, but we note here his description of Samoan settlement patterns. According to Kramer, Samoan villages in the 1890s were always located close to shore, either in small bays or "somewhat elevated" on hillsides. He saw sites apparently of old inland villages, but these were vacated. Kramer lists several place names that lie within the National Park on Ta'u, but notes that most of these are simply location names, not villages. The list includes Fitiuta, Saua, Aufotu, Maefu, Laufuti, Taisamasama, Solotagata, and Lavagia (Kramer 1994: 506).

In 1900, after decades of colonial wrangling and factional warfare, the Samoan Islands were divided between Germany and the United States. Eastern Samoa came under the administration of the Department of the Navy as the U.S. Naval Station, Tutuila. For the United States, the chief attraction was the superb harbor of Pago Pago Bay, where the U.S. had already established a coaling station. The first commandant, Cdr. B. F. Tilley, made a diplomatic voyage to Manu'a, which had remained largely isolated from the nineteenth-century political conflicts. Accompanied by high chiefs of Tutuila, Tilley arrived at Ta'u in 1900. Tui Manu'a Eliasara refused to sign the Deed of Cession and insisted on the autonomy of Manu'a. In the nineteenth century the Manu'ans had emphasized their independence by flying their own flag, which was designed to symbolize the three islands of the group. The Tui Manu'a recognized overall U. S. authority before Tilley left, but he still would not cede sovereignty over his own subject lands.

Manu'a's distinctive political customs became the center of controversy early in the American administration. Cdr. Tilley created three district governorships, to be held by Mauga, Tuitele, and the Tui Manu'a. The Tui Manu'a, however, was of much higher customary standing than the other two titles, and was surrounded with special personal privileges and honors. In Manu'a the word ipu was reserved solely for the 'ava cup of the

Tui Manu'a, and could not be used to refer to anyone else's cup. In 1901 Mauga Moi Moi, on a visit to Ofu, refused the 'ava cup presented to him because the server avoided using the word ipu. In the absence of the High Chief Misa, the lesser Ofu chiefs attempted a compromise by summoning Mauga's cup with the words, "O le ipu o le Kovana" 'the Governor's cup.' These were the words previously used for the cup of Commandant Tilley when he had visited Manu'a.

When the Tui Manu'a heard of the incident, he was outraged. He sent policemen from Ta'u to arrest the three Ofu chiefs who were responsible for the decision and ordered very severe punishment: the banishment of their families, destruction of all their property, and effective execution of the three by setting them adrift on the ocean. Edwin Gurr, Tilley's secretary of native affairs, persuaded the Tui Manu'a to desist and bring the matter to the new government's court system. Thus an issue of Samoan custom came to be adjudicated in a Western-style courtroom. The majority ruling was that the defendants were not guilty, for they had not observed the high ceremony associated with the Tui Manu'a's cup on this occasion. The judges also recommended that the word ipu should be usable by other chiefs who were not from Manu'a.

The Tui Manu'a's orator and several other chiefs appealed, and assemblies were held in Olosega to discuss how the sanctity of the word ipu could be preserved. In 1902 the case was re-heard aboard a ship off the island of Ta'u and the original finding was upheld. Several chiefs of Manu'a publicly defied the order and were brought to trial in Pago Pago later in the year. Although the defendants were convicted and fined, the chiefs and people of Manu'a did not press the matter further and remained obedient to American law. In 1905 the Tui Manu'a at last signed a formal cession of the islands to the United States; the Deed of Cession was also signed by chiefs Tufele of Fitiuta, Misa of Ofu, the Tui Olosega, and Asoau of Faleasao. Some years after the cession of Manu'a, the Navy Department at last allowed the governor to refer to the station more accurately as "American Samoa."

Tui Manu'a Elisara died in 1909, and for fifteen years there was no Tui Manu'a. The District Governor position passed to Tufele Timiali, and after him to his successor Tufele Fa'atoia. In 1924 the Faletolu named an 'afakasi', Chris Young, to the Tui Manu'a title. American officials were worried that the Manu'ans were restoring a "king" who would cause trouble for the administration. Governor Kellogg opposed the bestowal and forced Young to reside in Tutuila. In Western Samoa, this was the period of the Mau rebellion against New Zealand and there were some anti-government meetings and protests in American Samoa. Mau activity in American Samoa peaked around 1930, the year a

fact-finding commission appointed by Congress held hearings in Hawaii and Samoa. After wide-ranging testimony by Samoans, officials, and scholars, the commission recommended an organic act to define American Samoa's relationship to the United States, and citizenship for American Samoans. These measures were not granted until after World War II, however. In 1951 the Department of the Interior took over the administration of American Samoa. With the closing of the Naval Station, approximately ten percent of the population of American Samoa--for the most part Navy personnel and their relatives--migrated to Hawaii with the assistance of the federal government.

Before turning to ethnohistorical descriptions of present-day Park areas, we note other events and population changes that have significantly impacted Tutuila and Manu'a during this century. Cyclones Ofa and Val in 1990 and 1991 were only the most recent Pacific storms to devastate American Samoa. Gray (1960: 186-87) describes the terrible hurricane of 1915, which hit Manu'a particularly hard and washed away the village of Sili, on Olosega. Sili recovered, only to be struck again by Ofa and Val. Only one family now lives there full-time. After 1900 the birth rate in American Samoa increased while the death rate declined dramatically, resulting in a tripling of the population between 1900 and 1950 (Gray 1960: 247). Gray reports an increase in hillside gardening, with resultant erosion, and declines in fishing yields by mid-century.

In Tutuila and Manu'a today it is possible to see many cleared former cultivation areas on what seem to be impossibly steep slopes. Most of these are no longer in productive use, but informants in their '40s and '50s can remember their parents and grandparents working these areas. On Olosega, a resident told us that his father climbed a rope up a nearly-vertical slope to reach a small, somewhat less steep cultivation plot. Though inhabitants of Tutuila and Manu'a have practiced hillside gardening since ancient times because of the islands' topography, it may be that some of the very steep clearings we see today exemplify relatively recent "agricultural intensification" in response to twentieth-century population growth. Emigration to Hawaii and elsewhere in the U.S. has helped to reduce the population density of American Samoa. This and the decline of the subsistence economy in recent decades have resulted in the abandonment of many hillside gardens within a generation.

Western Ethnohistorical and Ethnographic Reports.

In this section we summarize Western ethnohistorical reports pertaining to our primary topics of interest: agriculture and gathered plants, bush flora and fauna, marine resource use, and culturally significant sites within current National Park areas. The ethnohistorical record is a continuum from early postcontact

times to the present. While there is change over time, there is also continuity in many Samoan cultural practices, particularly in the use of natural resources. This continuity is apparent when one compares twentieth-century ethnographic accounts with earlier descriptions. We will therefore consider the early reports here in comparison with later observations by anthropologists such as Mead (working in the 1920s) and Holmes (working primarily in the 1950s and '60s). The work of non-anthropologists such as Coulter on land use (ca. 1940) and Setchell on ethnobotany (based on fieldwork in 1920) will also be considered.

1. Agriculture and Plant Resources. The earliest attempt at a scientific description of Samoan agriculture was probably that of Wilkes, who arrived in Samoa in 1839 as commander of the United States Exploring Expedition. He reported that the Samoans' principal foods were pork, fish, breadfruit, coconuts, bananas, and especially taro (1845, 1: 91). Samoans of all ages, male and female, also enjoyed drinking 'ava. It should be noted that Wilkes' (Ibid.: 104) description was intended to apply to Samoa as a whole; he does not provide data on variations that may have existed between the different islands. Wilkes reported that the cultivated areas tended to lie close to villages, and therefore not far from the coasts. To clear the land, the Samoans burned the bark from the trees, allowed them to dry, and then cut them down to use as fuel.

Among the major productive trees were twenty varieties of breadfruit, the "vi-apple," coconut, and wild orange. Wilkes gives detailed information on the construction of Samoan houses, both residences and chiefly meeting houses. He mentions the use of breadfruit wood for house timbers, thatch of sugar cane or pandanus, and sennit for lashing the house together (1845, 1: 113). Fale built with these materials were common in Western Samoa until perhaps the past two decades; Western construction materials prevailed somewhat earlier in American Samoa. After cyclones Ofa and Val, however, very few Samoan houses were rebuilt by the old methods.

Other cultivated plants and trees noted by Wilkes were ti (*Cordyline*), bananas, taro, paper-mulberry, the arrowroot plant (*masoa*), coffee, sweet potato, pineapple, yams, papaya, and tobacco. At the time of Wilkes' visit limes, lemons, and sweet oranges had also been introduced. Wild-growing and semi-cultivated plants noted by Wilkes include bamboo, wild sugar cane, wild nutmeg (*myristica*), pandanus, and several species of palm. In the forests were tree ferns and an enormous species of banyan. "Many of the flowers seen on the ground," Wilkes commented (Ibid.: 104), "were unknown to our botanist, as were several fruits."

Although less botanically precise, the missionary Turner provided somewhat more revealing data on the Samoan diet and food cycle. According to Turner (1884: 107), Samoan families relied on breadfruit for about half the year, and on taro the other half. Bananas and coconut were abundant throughout the year. Turner described the making of masi, fermented breadfruit: families placed surplus breadfruit in a pit lined with banana and coconut leaves and covered with stones. The masi would keep for years, and the older it was, the more it was prized. Masi was baked in cakes during a taro shortage or when breadfruit was not in season. In 1926 Margaret Mead was told that only Ta'u, the Tui Manu'a's home village, had no masi pit, because villagers there received tribute from the island's other communities (1930: 69). Turner noted that serious famine was rare in Samoa because of other preserved foods and wild-growing items such as yams. Indeed, at most times families had more than enough of the staple foods and often sold yams, taro, bananas, pigs, and chickens to ships (1884: 171).

In 1956 R. F. Watters of the University of London completed a dissertation reconstructing Samoan agricultural practices from nineteenth-century sources. Watters later published several articles on this research (1958a, 1958b, 1958c, 1960a, 1960b). In addition to the ethnohistorical literature, Watters used contemporary descriptions by Coulter and others to reconstruct Samoan agriculture in some detail. Drawing on Wilkes, he identified the five staple crops as taro, yams, breadfruit, coconuts, and bananas (Watters 1958a: 44). Watters (1956: 203) estimated that taro occupied about 70 percent of Samoan plantations, sometimes interplanted with yams or other cultigens. Taro and yams were grown by a typical Pacific Island form of shifting cultivation, also known as slash-and-burn horticulture. At the end of the rainy season clearings were made in the forest by cutting and burning. Later the soil, fertilized by the ashes, was turned with digging sticks and sprouting pieces of taro and yams were planted at the beginning of the next rainy season. A garden would be used for two to three years before "declining yields and increasing weeds forced the cultivators to abandon the garden to the regenerating forest" (1958a: 44). The fallow period lasted from five to twenty years, with ten years the usual minimum (1956: 208). Watters (1958a: 46) concluded that Samoan cultivation practices were relatively easy on the land.

Drawing on Coulter, Watters argued that Samoans preferred steep nearby slopes to flat land further away for their gardens. But he also reasoned that larger settlements would have been forced to utilize the steep slopes or develop plantations further inland (1956: 199). Fruit trees were generally planted near homes, but coconuts were everywhere in Samoa (1956: 197). They grow well at any elevation, and Watters reported that Samoans

sometimes planted them in "inaccessible spots to mark the successful achievement of a steep, rarely-attempted ascent" (1956: 217). This claim was corroborated by one of our Tutuila informants, who gave this explanation for the coconut trees growing on top of the Polas within the National Park.

Setchell (1978[1924]), an ethnobotanist, visited Tutuila for two months in 1920 and authored an extensive report on plant use. He reported coconut, breadfruit, bananas, and taro as the most common cultivated plants, with more limited occurrence of yam, ta'amu, 'ava, and tobacco (1978: 199). The clearing method was slash-and-burn, as described by Watters. Setchell found yam growing only high in the mountains. Tobacco plantations "were strictly tabu" (1978: 197). Sweet potatoes were not cultivated much, and they too seemed "subject to a very particular tabu at least during the growing season." Setchell (1978: 197) refers to a taro plantation at 300 meters on the slope above Vatia toward Pago Pago Bay, and to other plantations along the Vatia trail.

According to Setchell (1978: 198), nearly every village had some kapok (*Ceiba pentandra*) trees, for by 1920 stuffed pillows were replacing the indigenous bamboo headrests. Some villages were also growing cotton trees (*Gossypium brasiliense*). He describes sugar canes--tolo (*Saccharum officinarum*)--and fiso (*Miscanthus japonicus*) as important crops. The fiso, also referred to as 'ofe (cultivated bamboo), was used for house thatch, and construction might be delayed until enough had been collected. In past times fiso had been used to make knives, flutes, house screens, and other objects that were being made of cultivated bamboo at the time of his visit.

Margaret Mead, who spent six months at Fitiuta in 1926, provides detailed information on the gender division of labor. In her more technical work *Social Organization of Manu'a*, she reports a pattern that is typically Polynesian: heavy outdoor work done by men and lighter, more detailed work done by women. In agriculture, men clear the land and plant; women weed and do light harvesting (Mead 1930: 67). Men work with wood; they also pick breadfruit and husk and cut ripe coconut. However, women are familiar with gardening tasks and are fully capable of managing a plantation if necessary. In the popularly written book *Coming of Age in Samoa*, Mead (1928: 49) writes that women do "heavy routine agricultural work," namely weeding, transplanting, gathering and transporting food. Women plant and care for cloth and mat-making plants such as hibiscus and fala, and also cultivate sugar cane (1928: 84); this is logical since sugar cane leaves were often used for roof thatch, and preparing the lau 'leaves' for thatching is customarily women's work.

In the 1920s on Ta'u the 'aumaga had the duty of planting the village taro gardens, while the taupou was in charge of the

paper mulberry plantations (1930: 14). This division of responsibilities among the young people of the village illustrates the common Polynesian pattern whereby men are primarily responsible for agriculture and women produce cloth and mats (see also 1928: 31-32). Mead reports teenaged girls making long journeys inland to gather high-quality hibiscus bark for weaving (1928: 31). Old men make sennit from coconut husk fiber by rolling it on their thighs when they are seated for an extended period (1928: 48), such as at a meeting of chiefs.

Like other ethnographers, Mead describes the making and ceremonial exchange of fine mats ('ie toga) and tapa cloth (siapo). These cultural valuables continue to be a necessary part of fa'aSamoa public exchanges, and Mead identifies several ritual occasions when they should be presented. Samoan ceremonial exchange shows significant continuity over time, from early ethnohistorical accounts through Holmes' observations of the 1950s and '60s. Mead's account of the production and importance of Samoan cloth wealth accords well with general Samoan ethnography, and for that reason we will not recapitulate her descriptions in this report. As will be discussed further below, we obtained very little information about siapo from our modern respondents, and less than we had expected about fala and mat making. To some extent this may reflect the limited fieldwork time and the preponderance of male informants, but it seems clear that cloth and mat making have declined in recent decades. Informants knew of no u'a (*Broussonetia papyrifera*) growing, and said that women had stopped cultivating it.

Mead (1930: 103-4) gives a detailed account of growing and preparing kava ('ava). Her description reads in part:

[Kava is grown] as a regular part of a plantation. Four small pieces of root about 7 or 8 inches long are planted together in wet ground. They are planted and gathered by men; no incantations or charms are used. When the kava is being dried in the sun and after it is store in the house, care is taken that it is not handled carelessly or touched by children.

Kava could be processed by either boys or girls. In Mead's time the kava was pounded rather than chewed, and she believed this shift to reflect missionary influence. Large, flat stones near the house were used as mortars and a small boulder or piece of iron was used as a pestle. The pounded root was collected in a breadfruit leaf. 'Ava was then and still is an essential part of Samoan political ceremonies; on Ta'u in the 1920s it was also believed that kava was an abortifacient if chewed in large quantities (1930: 87).

Samoans on Ta'u were growing tobacco at the time of Mead's

fieldwork, but they much preferred imported tobacco (1928: 268). Copra was an important commercial crop. The cut copra was stored in sheds in each village until the government ship arrived. Work in the copra sheds and transporting the copra were communal village tasks (1928: 271).

Mead wrote that "Fitiuta plantations are believed to be the best in Manu'a; the village has a great reputation for a plentiful food supply" (1930: 198). Nevertheless, in the 1920s Manu'an practices still reflected the islands' geographical isolation and vulnerability to natural disasters. Mead reports a number of ritual and customary measures that served to regulate resource use, especially during famines. Breadfruit exploitation was regulated by feasts for each season; no one could eat 'ulu until the village fono held the breadfruit feast (1930: 16). When a bad storm hit the islands, a tapu of the land ('namu le ele'ele') might be declared and prohibitions imposed on coconut, taro, pigs, and/or other resources. The village might even impose very specific prohibitions, such as forbidding a family to prepare palusami (which requires many coconuts) more than once every 7 to 10 days (1930: 16). During the famine spring of 1926, two types of communal ti ovens were made. In one type, all families contributed and shared baked ti roots. In the other, household food baskets were baked together but taken by each family afterwards (1930: 70).

Mead also records customary measures to protect householders' gardens and crops from trespass. Pigs straying onto cultivated lands could be killed on sight, and the owner called to remove the dead animal (Mead 1930: 72). Ta'u informants told Mead of tapui, charms or ritual sanctions, to protect their trees and plots: 1) "A coconut shell or bottle filled with water hung to a tree with a fastening of tapa or cloth" threatens boils for anyone who might disturb the tree; 2) "A woven coconut leaf basket with a piece of stick pushed through it" promises that the trespasser will be speared by a swordfish; 3) "A husked whole coconut" warns of "boils on the buttocks" to any transgressor. On Manu'a our research team saw coconut trees with palm fronds or old lavalavas tied around them. These bindings, which function today as "private property" signs, are historically related to the tapui of times past.

In 1937 John Wesley Coulter conducted research on land use in Tutuila and Ta'u. His technical monograph (Coulter 1941) provides valuable details on crops and cultivation practices, and bridges the time gap between the ethnographic research of Mead and Holmes. Coulter (1941: 26) reported that Samoan taro typically matures in seven to eight months. Taro land was used for about two years, or for three taro crops, before being left to fallow. Ta'amu grew wild in the forests and was cultivated for emergency food or after hurricanes (1941: 21). In comparison

with similar earlier reports and ethnographies, our 1995 research suggests that ta'amū has increased in importance as a cultigen very recently as a result of the taro blight in Samoa. Coulter identified native oranges (moli Samoa [*Citrus hystix*]) growing in lowland forests; in 1937 Samoans still used them for shampoo (1941: 21). He reported that kava was propagated by slips and usually grown in dry, deep soil to enable the roots to develop fully (1941: 21, 27). Cassava (*Manihot esculenta*) and fala were planted in patches near houses (1941: 22). The fala and pāogo varieties of pandanus were used for floor and sleeping mats, while fine mats were made from lau 'ie (1941: 20). Coulter also noted that the land devoted to ufi cultivation had recently increased on Ta'u (1941: 21).

Coulter (1941: 28) reported that the common weeds were vao palagi (*Cenchrus echinatus*) along trails, fue saina (*Mikania micrantha*) in lowland areas, and vailima (*Paspalum conjugatum*). Taro land was only weeded when the crop was young; after that the weeds were left to prevent erosion and keep the soil moist (1941: 26). Samoans also used a mulch to control weeds and conserve moisture around the plants (1941: 23).

In his monograph based on fieldwork on Ta'u in the 1950s, Lowell Holmes (1957b: 313) describes the gender division of labor with great specificity. His lists accord well with nineteenth-century descriptions as well as with modern ethnographies on villages in Western Samoa. This degree of consensus indicates an integral Samoan pattern, and suggests significant continuity over time in the allocation of tasks. According to Holmes, men's tasks include: house and canoe building; making palm-leaf roof thatch and sennit; carving tapa boards and beaters; building and repairing fences; making food-carrying baskets; making fish traps, tackle, and nets; fishing with poles, nets, traps, or spears; fishing from canoes or boats; hunting pigeons; feeding, slaughtering, dressing, and cooking pigs; gathering wood, making the fire, and preparing food for cooking in the umu; picking breadfruit; clearing land and other heavy agricultural work; husking coconuts; carrying loads from the plantation; making Samoan oil; cutting hair; making herbal medicines; serving as spirit mediums and circumcisers.

Holmes' (1957b: 313) list of women's customary tasks include: caring for children; tidying the house; making sugar-cane roof thatch; washing and ironing clothes; making and dyeing tapa; weaving mats and house blinds; preparing dyes; sewing; washing cooking utensils; making mosquito nets; assisting in community fishing; reef gathering and inshore fishing; feeding chickens; preparing and cooking food; weeding the yard; picking breadfruit; wringing kava in the role of taupou; clearing underbrush and performing "light" agricultural work; drying copra; carrying loads from the plantation; making Samoan oil;

preparing flower garlands and making dancing skirts; watching a corpse before burial; hair dressing; making herbal medicines, caring for the sick, and serving as spirit mediums. Holmes' list indicates an apparent overlap in the allocation of cooking tasks. In rural Western Samoa, however, the division of labor in cooking is such that men prepare and cook the umu foods--pig, palusami, and the staple vegetables such as breadfruit and taro--while women prepare and cook fried and Western-style foods, typically over kerosene stoves. Our field research corroborates Holmes' finding that both men and women can be medicinal specialists.

In his published ethnography, which reflects follow-up research in the 1960s, Holmes describes the method of clearing agricultural land near Ta'u village and Fitiuta:

Land is cleared by men using axes to fell the large trees and bushes and bush knives to remove the high grass, ferns, and other scrub vegetation. The plot is then left for a week or more so that the leaves will drop from the trees and the trunks and branches may be more easily cut up for burning. These sections of trees as well as brush are disposed of in controlled bonfires, but land is never burned over. (1974: 43)

Holmes describes coconut as "unquestionably the most useful" of all Samoan agricultural products (1974: 43). The raw kernel and the meat--mature or green--were eaten as snacks. Coconut cream, expressed from the grated meat, remains an essential ingredient in such well-known Samoan dishes as palusami, talo (or any other food) fa'alifu, fai'ai, and miti. The milk of the green nut is a readily available cool drink, and is made into vaisalo, a much prized hot drink and digestible food for invalids. On Manu'a the wood was used for house components, canoes, cricket bats, fuel, and other items. The leaves were made into a variety of woven articles: floor mats, baskets, house blinds (pola), sandals, fans, food serving platters (laulau), and roof thatch, although sugar cane leaves were preferred for the latter. The coconut husk was used to make sennit for house and canoe lashings; sennit twine was the indigenous fastening material before the introduction of iron nails, and continues to be used when Samoans wish to construct a house in the traditional style. Cleaned coconut shells were used for cups, utensils, and craft items, and for bonito hooks.

During the 1950s taro was the preferred food on Manu'a (Holmes 1974: 45). Bananas, usually cooked while green, were another favorite food. Breadfruit, according to Holmes, was eaten more often but was not valued as highly as taro. Holmes (1974: 45) describes breadfruit being buried in masi pits "as insurance against possible future crop failure or other natural disaster." Breadfruit wood was the preferred material for house

construction, but if enough were not available asi wood could be used for the posts and poumuli for the beams (1974: 55). By the 1950s a variety of Western vegetables had been introduced to Manu'a--tomatoes, cabbage, corn, beans, carrots--but were not widely grown (Holmes 1957a: 200).

Farrell's (1965) report on land use in American Samoa contains statistics that substantiate Holmes' observations and our own findings about the most important crops. Farrell noted that commercial agriculture had little potential because of the islands' topography. In the mid-1960s most of the cropland was devoted to subsistence agriculture; he estimated only a few hundred acres planted in commercial crops (1965: 325). Taro was typically grown "in exceptionally small patches" and occupied "no more than five per cent of crop area" (1965: 324); taro is extremely productive per acre, however, and Farrell's statistic may understate the dietary importance of taro for Samoans. Farrell reported that 85 percent of cultivated land was devoted to intermixed coconuts, bananas, breadfruit, and cocoa:

Only thirteen per cent of the crop area is pure stands of coconut, but if coconut combinations were reduced to a single-crop equivalent they would occupy forty per cent of the land actually in crops. Bananas if calculated the same way would occupy nearly a third of the land in crops. (1965: 324)

In the 1950s copra and cocoa were being grown on Ta'u as cash crops (Holmes 1957b: 306). Government agricultural officials had introduced cocoa to Manu'a in 1951 (1957a: 200), but copra continued to provide most of the cash income through the 1960s (1974: 43). In 1967-68, Manu'a produced 81 percent of the copra purchased by the Copra Board (Hatakeyama 1969: 357). By the 1960s Tutuilans had found other ways to make money, but on Manu'a copra was the only source of income other than schools and temporary construction work (Ibid.). In his recent monograph, updated after a visit in 1988, Holmes reports that the total cultivated land in Manu'a is less than 400 acres, all used for subsistence planting. Copra is no longer profitable, and Manu'ans have largely given up commercial agriculture (1992: 114).

Our research turned up very little ethnohistorical data on medicinal plants and remedies. This is not surprising, for a number of reasons. Short-term foreign visitors would not normally be exposed to this domain of specialized knowledge. If, as is true today, many of the healers were women, the predominantly male observers would be even less likely to investigate and value such activity. Westerners, especially missionaries, also tended to look down on native curing practices and considered them to be unworthy of documentation. Wilkes

(1845, 2: 105-6), however, did report the childhood illness ilamea, as sores particularly affecting the face and head. The treatment was to rub the child with coconut husks, removing the scabs, and then apply a soft preparation of breadfruit. If the breadfruit were out of season, "a decoction of the husk of the coconut is used in its place." Twentieth-century ethnobotanical reports and articles on medicinal plants will be cited below, in the discussion of our interviews on the subject.

2. Marine Resources. The ethnohistorical record offers much less information about Samoan marine species and fishing activities than about agriculture. The material is less detailed and little can be located specifically within National Park areas, except for the ethnographies of Mead and Holmes. We know from the sources that Samoans conducted both inshore and deep-sea fishing. Fish were the most important protein source, and were eaten daily with the vegetable staples; pig was and is a ceremonial food rather than daily fare. Unlike other Polynesian peoples, the Samoans did not dry fish and preferred to cook it fresh (Watters 1958a: 48). Wilkes (1845, 2: 92) reported that the Samoans much enjoyed fishing, and he described net fishing and fish drives. He also noted that mullet was the most frequently caught fish (1845, 2: 93).

Other European observers, such as the missionaries Turner and Stair, were more interested in legends surrounding particular species than in contemporary subsistence fishing. The missionary writers documented various pagan beliefs and taboos. Turner (1884: 19) describes village temples dedicated to deities, and containing objects "treated with superstitious veneration," such as conch shells, stones, and coconut-shell cups. In pre-Christian times certain species were identified with deities; Turner (1884: 35, 40, 50) cites the eel, turtle, sperm whale teeth, and cockle shells as examples of godly embodiments. The octopus ('o le Fe'e) was a war god, according to Turner (1884: 28-29), and was the focus of a number of pre-European legends. Stair (1896: 38) writes that 'Sa-le-fe'e' was the Samoan equivalent of Hell: a "dread place of punishment" and "the much dreaded regions below."

Wilkes (1845, 2: 91) was told of 'aitu embodied in marine species. A chief informed Wilkes that before he converted to Christianity he worshipped an eel, which he fed in a stream near his village. Since the introduction of Christianity, the chief related, all such eels had been caught and destroyed, but in prior times anyone disturbing an eel would have been killed. As late as the 1920s, Margaret Mead (1930: 160) was told that 'o le Fofoa, an Ofu village god, was embodied in the conch shell. She quotes Kramer's account of the people of Olosega worshipping a "poison-toothed eel," which sometimes came up on land (1930: 157). The eels (pusi) were carried on a litter and pigs were

offered to them. Mead was told that the eel was considered an embodiment of the god, that when it came on land it represented "war and misfortune," and that the eel was tapu to the people of Olosega. Mead credits Turner for details of the ancient sanction, whereby anyone who cooked or ate the eel would have "his scalp clubbed and his eyes burned out."

Our modern Tutuila informants related a legend regarding dolphins at Fagasa and the Samoan mythic heroine Sina. Kramer (1994: 482) records a more complete version of the story. Sina came from the east with the traveling party of Li'ava'a. She was the chief's daughter and was sent to get water for kava. When the party put out to sea the chief called for Sina to chew the kava, only to discover that she had been left behind. The chief told the crew to return to the place where she had been left. They took provisions of nonu and banana and changed into dolphins while swimming. Sina stood on the shore waving a white fan. The people of Fagasa came and took the dolphins ashore, and the dolphins cried as they saw the people take sticks to kill them. When they were cut open they were filled with nonu and bananas. Kramer's version says that if dolphins are caught "nowadays," they are held in a rock pond for three months and eaten as needed. Kramer was told that they still come to shore once a year: "And just as once Sina stood at the shore with her white fan so it is still today." In the version told to us by several residents, the crew (as dolphins) chased atule into the bay to provide food for Sina and the village, and they continue to do this once a year.

Nineteenth-century Western observers were fascinated by the annual palolo rising (Wilkes 1845, 2: 93), and visitors described this event more than any other marine activity. Kramer (1942: 313, 725-37) describes palolo scooping "with a piece of European mosquito netting" as well as with the older method using woven baskets. Kramer's (1994: 484-85) account of the timing of the palolo intersects with information provided to our research team by modern informants. As in other areas, Kramer provides more details. A legend, for example, seems to mark the palolo worm as conceptually different from fish and other marine species: on the day the fish and the birds are at war, the fish who will fight are chosen but the palolo are never included. The fish say to the palolo: "Since you are of no use for war, you are of great use for the people." The six-stanza 'Song of the War of the Fishes and the Birds' (Kramer 1994: 495) mentions other species relevant to the present study; among the fish are the ume, tifitifiapata, and mutu, and the 'birds' include the pe'a, manumea, lupe, and fiaui.

The cycle of the palolo was particularly important to the Samoans as a calendrical basis for calculating the year according to lunar months: "They know the day and the month; they know it

to be Taumafamua and Toetaumafa. Even today the people of our generation calculate this" (Kramer 1994: 484). One term for the eighth night after a full moon is masina salefu, because lefu foam appears as a first sign of the palolo. The ninth night after the full moon is masina motusaga, the "second palolo day." These terms were discussed by one of our Fitiuta informants in the context of the palolo.

Kramer (1942: 741) lists marine animals with their Samoan and scientific names. He also gives the most detailed descriptions available for a number of Samoan fishing activities: spear fishing (315), basket and net fishing (318), using futu and 'ava as poisons (317), fishing for shark with the rattle and noose (357), and 'o le se'e, where women would glide through shallow water to herd the fish. Kramer (1942: 313) describes the method of reef gathering that our research team witnessed on the Ofu reef: women would carry a split stick, a piece of wood, and a fish basket. They poked the wood into holes in the reef, looking for cuttlefish, sugale, ofaofa, and other fish, and then used the stick to dig out their prey.

In Polynesia, men typically do deep-sea fishing and net fishing while women forage on the reef and fish in shallow water; it is rare for a woman to go out in a fishing boat. The Samoan gender division of labor appears to follow the Polynesian pattern. On Ta'u in the 1920s, Margaret Mead (1928: 49) noted that older girls and women do reef fishing for octopus, sea eggs, jellyfish, crabs, and small fish. During Mead's time men still made their own nets and hooks, and wove their own eel traps (1928: 269). Mead (1930: 67) describes the gender division of labor in fishing and marine gathering as follows: men make fishing tackle, lau fala fishing baskets, eel traps, and rope for lassoing sharks. They fish beyond the reef, while women fish within the reef (except for eel fishing). Women help in the communal village fish traps, and both sexes participate in torch fishing. Children gather small land crabs but women usually catch the "great coconut crab."

On Ofu and Olosega during the 1920s, the malauli, ulua, and the turtle were i'a sa, or fish reserved for chiefs only (Mead 1930: 206, 210). Mead (1930: 15-16) reports that a chief could declare the reef and all species in it as tapu, though the decision would be announced as the decision of the village. Such a taboo, called namu le tai, did not affect deep-sea fishing, and appears to be a customary means of conserving inshore marine resources.

Holmes' (1974) descriptions of marine resource activities and the gender division of labor accord well with Mead's account, even though their observations are thirty to forty years apart. According to Holmes, men do ocean fishing while reef gathering--

of crab, lobster, crayfish, squid, and octopus--is conducted "almost entirely by women" (1974: 47). In his updated ethnography, Holmes reports that there is no selling of fish to people outside Manu'a, though local fishermen sometimes sell to local residents (Holmes 1992: 115).

Stokes (1921: 230-1) provides early twentieth-century data on methods of fish poisoning using the seed of the futu plant (*Barringtonia asiatica*). His source was E. J. Mooklar, a chemist who lived on Tutuila from 1901 to 1912. The kernel of the futu was pounded with a stone mortar or grated and thrown into tidal pools. Within minutes the fish were floating on the surface; they were scooped up quickly because it was thought that they would recover if left for any time. People could eat the poisoned fish with no ill effects. Stokes briefly mentions other fish poisons noted in the literature: *Tephrosia piscatoria*, the 'ava sa (Brown 1910: 337) and an unidentified beach vine (Churchill n.d.: 122), which is probably fue o'ona (*Derris trifoliata*). On the basis of his 1920 visit, Setchell (1978: 213) stated that the futu kernel was grated with *Fungia* coral. The gratings were scattered in the water and pressed into balls which were pushed into holes where the fish were likely to hide. When the stunned fish came out of their holes, they were caught by hand or with a net. Although this method was used particularly in shallow pools at low tide, divers also used poison in deep water.

In his list of fishing techniques Holmes (1957: 309) also documents the use of the *Derris trifoliata* root and *Barringtonia asiatica* kernel as fish poisons. During the time of his fieldwork Samoans sometimes used dynamite on the reef to kill a shoal of fish, or during a fish drive, even though it was illegal. Cox (1979: 398) provides more detailed data on fish poisoning, based on observations in Western Samoa in 1978 and 1979. Cox saw futu widely used in tidal pools to kill small fish such as manini (*Acanthurus*), lo (*Siganus*), tu'u'u (*Chromis*), and the genera *Abudefduf* and *Pomacenturus* (which is also called tu'u'u). The futu seed was grated with a lava rock and allowed to run into the pool. The fish would leap out of the water and the fishermen would beat them. Cox's informant told him that, even though the fish were edible, he only used fish caught in this way as bait for atu outside the reef. Futu was only used in tidal pools; at other locations 'avasa was the preferred poison. The roots were pounded at a large rock or piece of coral and the lumps wrapped in fu'afu'a (*Kleinhovia hospital* L.) leaves or lau fatu or lau pata (*Macaranga harveyana* Muell.). Several fishermen surrounded the rock and pounded the water with sticks to drive the fish under the rock. One or two men would dive and shake the poison packet under the rock. After about five minutes the dead fish rose to the surface and were gathered in baskets.

3. Significant Sites. Since most of the National Park lands are remote and have historically been difficult to access, the foreign-authored ethnohistorical literature contains almost no references to sites that can be definitively located within the Park. Samoan legendary material pertaining to culturally significant sites was discussed above in the context of pre-European mythic history. Even by Samoan standards, the Fitiuta side of the Ta'u Unit has historically been difficult to reach. Mead (1930: 198) characterized Fitiuta as the most isolated village in Manu'a because of its "dangerous reef and an unsatisfactory channel." Moreover, many Ta'u people told her that they had never made the journey across the island because the trail was "such a troublesome trail." There is no record in Manu'a of some of the burial methods reported for Western Samoa, such as platform burial, the separate interment of chiefs' skulls, and mummification (Mead 1930). These practices might have been associated with tia or burial mounds.

Holmes (1974: 1) identifies Saua as the place where Tagaloa created the first humans and sent them out to Polynesia, and where he crowned the first Tui Manu'a. Mead (1930: 161) was told of several osoga, "leaping off places for the soul," whence souls leapt to swim across the ocean from this world to the next: one for Ofu and Olosega, "but two in Fitiuta, one for each division of the village." Holmes (1974: 52) recorded a detailed version of Tagaloa building the first Samoan fale on top of Mount Lata (see above for the Kramer version). Since it does pertain to locations within the Park, and mentions species found on the reef at To'aga, we will cite his account in detail:

[The first fale] was built by Tagaloa-Lagi in his heaven on top of the highest mountain on Ta'u island. The family of Tagaloa felt the need for such a shelter, for up to that time people lived only in caves or in the trees. At first they could not decide if they wanted to build a house first or a boat. They settled on a boat but realized that the trees overhead would provide insufficient protection... They finally solved this problem by deciding to build a house first and then build the boat inside the house. Bonito boats are to this day build inside houses... a group of people were instructed to form a circle, thus providing the posts. Others were directed to climb on their shoulders to in order to form the parts of the roof. Tagaloa-Lagi saw that the shape was good but that the house needed more support. The god then brought three fish from the sea, the Falala (filefish), the Fe'e (octopus), and the Lupota (crevally), to serve as center posts... Tagaloa-Lagi saw that the house was now strong and well-shaped but decided that the house should be made of wood rather than people. He called to all the people to come down and go out and find

a kind of wood from which to make the house. Of all the varieties of wood they brought in, only the breadfruit was judged suitable.