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## *The Isle of Sacred Coconuts* (*Niuatoputapu*, 1976)

I never intended to go to the “Isle of Sacred Coconuts.” My plan was to return to Futuna. News of my Futunan archaeological discoveries—especially the pottery site at Tavai—had created a stir among French archaeologists. Daniel Frimigacci of the Office de la Recherche Scientifique et Technique de l’Outre-Mer, or ORSTOM (the ponderous name of the French overseas research agency), contacted me at the Bishop Museum about my plans for further work in Wallis and Futuna. Frimigacci agreed to a loose collaboration in which I would concentrate on Futuna while he and a French colleague, Jean-Pierre Maître, would work on ‘Uvea. They assured me that the Noumea office of ORSTOM would coordinate all necessary research permits.

On May 5, 1976, after weeks of hectic preparations I boarded a Pan American Airlines flight to Nandi, Fiji, and then connected with an Air Pacific flight to Noumea. Accompanying me as a research assistant was Tom Dye, a young photographer with archaeological experience in Hawai‘i. Jean-Pierre Maître greeted us as we stepped off the plane at Tontouta Airport. The frown on his face signaled that something was amiss.

“Qu’est-ce qui se passe, Jean-Pierre,” I asked. “What’s up?”

“The l’Administrateur Supérieur has telegraphed that our project has been denied permission.”

I could not believe what I was hearing: “That’s not possible—you and Daniel told me you had all the permits arranged.”

Unfortunately, it was true. The reasons given by the “l’Ad Sup” (as the administrator was known) were vague but stemmed from problems caused by an ORSTOM oceanographic team that had recently visited the island. The next ten days passed in a succession of futile efforts to get the “l’Ad Sup” to reverse his decision.

Soon after our arrival, I began to set an alternative plan in motion. I had contacts at the South Pacific Commission dating to my first visit to Noumea with Kondo in 1968. The administrative officer, Sione Kite, was a Tongan sympathetic to my research. Kite thought the Kingdom of Tonga might grant me a research

permit and urged me to send a letter of inquiry to Dr. Langi Kavaliku, Tonga's minister of education.

The National Science Foundation (NSF) had approved my research for Futuna, not Tonga. But I was aware that a small island in the far north of the Tongan archipelago, Niuatoputapu, offered conditions suiting my research objectives. Garth Rogers, a cultural anthropologist from the University of Auckland, had reported pottery sites and stone monuments on the island.<sup>1</sup> I dashed off a telegram (this being well before the age of email) to the NSF's Anthropology Program, requesting permission to change research localities. Within a week the NSF program officer telegraphed back her approval.

After ten days of hopelessly fighting the French bureaucracy, Dye and I returned to Fiji. My request to the Tongan government had been hand-carried to Nuku'alofa. Now we would sit out the next week or so in Fiji waiting to hear whether His Tongan Majesty's government would be amenable to my proposal.

We explored Viti Levu's southern coast including the famous dune site of Sigatoka, where Lawrence and Helen Birks had excavated Lapita pottery in the 1960s. After several days we arrived in Fiji's capital of Suva. I nervously telephoned the Tongan prime minister's office. The voice at the other end of the line identified himself in impeccable British English as Tofa Tuita, chief secretary to the prime minister. My research application was still on Dr. Kavaliku's desk, but Tuita thought that it would be favorably received, and he suggested that we proceed to Tongatapu.

Not much had changed since I had visited the Tongan capital in 1968 on my way back from my land snail collecting expedition with Yoshio Kondo. The dusty port town's most interesting building was the palace, a Victorian gingerbread structure topped with a cupola and surrounded by a low coral-lime mortar wall that kept the royal family's famous pet—a 100-plus-year-old Galapagos tortoise—from roaming outside the palace grounds. Dye and I took up rooms in the venerable old Beach House—the perfect setting for a Somerset Maugham short story—on the waterfront past Queen Salote Wharf. High tea was set every afternoon punctually at 3:00 o'clock on the veranda while dinner was served *en famille* around a huge old table in the Victorian parlor.

Soon after our arrival, Tofa Tuita informed me that the cabinet had formally approved my research; we could now proceed to Niuatoputapu with the full support of His Majesty's government. The challenge was how to get there.

Niuatoputapu lies at the northern extremity of the Tongan Kingdom. In 1976 there was no airfield; a small ship named the *Pakeina* voyaged back and forth between Niuatoputapu and Vava'u roughly every two to three weeks. But Vava'u itself is nearly 180 miles north of Tongatapu. We could fly to Vava'u in a small

plane, but that would mean leaving all of our surveying and digging equipment behind. I canvassed the waterfront docks, inquiring about any boats that might be heading north. After several days I was told that a steel-hulled fishing boat, the *Ata*, would sail for Vava'u via Ha'apai. With our essential cargo we boarded the *Ata* on Monday, June 14.

Arriving in the quaint town of Neiafu in Vava'u after two nights and a day at sea, I tried to get information on the whereabouts of the elusive *Pakeina*. Some told me that the ship had mechanical problems and would have to return to Nuku'alofa for repairs; others indicated that it might be coming down from Niuatoputapu in a few days. In the meantime we found lodging in a little "motel" run by a Tongan family struggling to make a business out of the occasional tourists who found their way to Vava'u.

Determined not to waste our time in Vava'u, we spent the days surveying some large stone-faced burial mounds.<sup>2</sup> More importantly, we intensively studied the Tongan language using an excellent textbook that had been prepared for the Peace Corps. My prior efforts at learning Futunan were paying off, as I now had a large base vocabulary of Polynesian words; about 70 percent of Tongan words are shared with Futunan. I was already speaking in simple Tongan phrases, and my comprehension increased daily.

It would be another three weeks before the *Pakeina* finally appeared and we could make the last 200-mile leg of what seemed like an interminable odyssey to get to the "Isle of Sacred Coconuts." ("Niua" signifies a place with *niu*, coconuts, whereas *toputapu* is the reduplicated form of *tapu*, "sacred.") Walking down to the wharf to have a look at the ship I was appalled. Seventy-three feet from stem to stern, its white hull streaked with rust, the *Pakeina* was one of the filthiest ships I had ever seen. The one lifeboat had a sizable hole in the bottom, and there were no life preservers. Worse still, I was told that the radio was out of commission. The sole navigational instrument was the ancient compass binnacle in the wheelhouse.

Despite the risks, there was no choice if we were ever going to get to Niuatoputapu. I purchased two tickets, consigning our freight (now consisting of twenty-one crates and boxes of food and supplies, plus kerosene drums for months of anticipated fieldwork) to the supercargo. Dye and I commandeered a bit of space on the afterdeck where we would not be swamped by waves in a heavy sea, lashing our packs to the rails. I had not counted on the thick black smoke that came belching out of *Pakeina*'s smokestack, engulfing us as we got underway.

The overnight voyage to Niuatoputapu was largely uneventful, although the *Pakeina* rolled heavily in the long swell, causing the Tongan girl next to me to throw

up all night. The captain, Tolati, consulted the ship's compass from time to time, but in the old tradition of Polynesian navigators relied more upon his knowledge of the stars, the winds, and the ocean swells to guide his little ship from island to island.

The Tongans had once been famed seafarers and navigators, sailing in impressive double-hulled canoes carrying cargoes of whale's teeth to Fiji, bringing back precious red parrot feathers, then trading the feathers to Samoa, and returning with fine mats to Tonga. They had been masters of what has been called the "Tongan Maritime Empire," ruling from the royal seat of the Tu'i Tonga or sacred kings at Mu'a on Tongatapu.<sup>3</sup> Niuatoputapu and 'Uvea had once been a part of this far-flung "empire."

Dawn broke clear and bright, but there was no sign of an island. Finally, around 11 a.m. we sighted Tafahi, a cone-shaped volcano a few miles west of Niuatoputapu. Four hours later Tolati steered the *Pakeina* through the narrow pass, and we dropped anchor near the village of Falehau. A whaleboat came out to take us ashore. Climbing up the slippery steps of the stone jetty, filthy with diesel smoke and salt spray, I was greeted by an aristocratic Tongan in his early sixties, dressed impeccably in a black shirt and black cotton kilt, topped off by a finely woven *tao'vala* mat skirt. Two Tongan women, likewise in black, stood at his side. Nikolasi Fonua introduced himself as the *fakafofonga pule'anga* (mouthpiece) of the government. He had received Tuita's cable regarding the two *toketa fakatoto* (literally, "crawling along slowly doctors," what Tongans call researchers). Fonua bid us sit on two chairs while the women held umbrellas over our heads to shade us from the sun. Green coconuts were offered for us to drink. I felt like a colonial "booh-bah," but I knew that we were being shown a great deal of respect.

Nikolasi Fonua, the nephew of Fakafonua, one of Tonga's highest ranking nobles, had a long and distinguished career as a magistrate and was knowledgeable in Tongan history and traditions. He was serving a six-month term as the island's administrator (his word was basically law on the island), living in the government house attended to by the middle-aged women who cooked for him. With his wife remaining in Nuku'alofa, Fonua was lonely. Over the ensuing months I spent many hours conversing with him, gleaned much about Tongan culture and traditions. Before departing at the end of his tour of duty, Fonua bestowed on me the kava name of one of his ancestors, Kinikinilau. It was a great honor from this Tongan aristocrat.

Dye and I moved into a comfortable thatched *fale* with an adjacent cookhouse in Hihifo Village, where most of the island's 1,300 occupants lived. The modest rent I paid for the *fale* hardly made up for the endless gifts of food from our host

Taniele Loholoho and his family. We reciprocated with corned beef and rice from our supplies.

Unlike Futuna, where many aspects of my daily life had been a struggle, everything on Niuatoputapu was beautifully organized for us. Tonga, along with Hawai'i, was one of the most highly stratified of Polynesian societies.<sup>4</sup> At the apex was the king (*tu'i*), followed by the great nobles (*nōpele*), then the ranks of village chiefs (*hou'eiki*), and finally the commoners (*tu'a*). Soon after our arrival Fonua invited me to the weekly *fono* or meeting attended by the heads of households in the island's villages. I explained our project, with Fonua translating. He made it clear to everyone that they should assist us and then dismissed the *fono*. I was getting an inkling of how a stratified chiefdom really worked.

I reconnoitered the island, thinking out a plan of action for our archaeological investigations. In Futuna I had struggled to find pottery-bearing sites; even late-period monumental sites were not common. In contrast, on Niuatoputapu there seemed to be potsherds everywhere; several stone and *Tridacna* shell adzes turned up as I walked along the paths. Large earthen mounds and stone-faced monuments were numerous. The problem here was not finding sites; it was deciding which ones to focus on.

A mere 6.8 kilometers long with a total land area of 15.2 square kilometers, Niuatoputapu is much smaller than Futuna. Dye and I hiked to Fungamuihelu, the rocky summit of the island's central volcanic ridge, from which we had an unobstructed view (Fig. 7.1). To the northwest lay the island's leeward side with the barrier reef protecting a broad lagoon (and the little *motu* of Hakautu'utu'u); in the distance Tafahi stood sentinel. Turning to the southeast we gazed over the windward or *liku* side. Here a broad, flat expanse of low-lying sandy terrain took up about the same area as the leeward lagoon.

Niuatoputapu sits atop the western edge of the Tonga Trench, a deep submarine chasm running all the way from New Zealand, marking the edge of the Pacific Plate. Along this highly active tectonic boundary, the Pacific Plate is "subducting" or plunging down under the adjacent Fiji Plate. This gigantic tectonic engine is gradually pushing Niuatoputapu upward, on a slight northwest to southeast tilt. Thus the island's broad apron of sandy terrain extending from the volcanic ridge out to the *liku* coast is actually the bed of a former lagoon—which a few thousand years ago looked just like the island's present leeward side—that has been raised a few meters above sea level.

Reconnaissance confirmed that pottery sherds were concentrated in a continuous zone encircling the island's central volcanic ridge. This zone coincided with



Figure 7.1. View of the leeward side and lagoon of Niuatoputapu, with Tafahi Island in the distance, taken from Fungamuihelu, the island's highest point.

a slightly elevated terrace of calcareous sands. I recognized it as a former beach ridge, surmising that at the time the first Polynesians settled the island the shoreline had been situated at the base of the ridge. The sandy apron to the southeast would still have been a lagoon. Thus, the island's land area when people first arrived would only have been about five square kilometers, a third of its modern land area. At the same time, this smaller island would have been surrounded on all sides by lagoons full of fish and shellfish.

This pottery zone, which evidently contained the early period of Niuatoputapu's history, ranged in width from about 60 to 150 meters but had a total circumference of 8.4 kilometers, a formidable area to investigate. In the mid-1970s considerable debate raged among archaeologists about how best to design sampling strategies. Earlier generations of fieldworkers, such as Emory and Sinoto, had simply dug where they happened to find lots of artifacts. That kind of "shotgun" approach often missed important deposits and did not lead to representative coverage of the archaeological record. A scientific approach to archaeology, to which I was committed, called for the use of explicit sampling designs.

I decided that the best way to sample the concentric zone of potsherds would be to dig along "transects" that cut perpendicularly across the zone, with test pits

spaced out at ten-meter intervals. After clearing the vegetation along a transect line I would take a series of elevations with my telescopic level. The resulting profiles revealed patterns of undulating old ridges and swales, geomorphological features that developed as the island was pushed upward by tectonic forces and the shoreline steadily shifted seaward. Test pits along the transect revealed stratigraphic variations across the pottery-bearing zone.

To help with the digging I employed a crew of Tongan workmen, starting with four and gradually adding more until our group included ten well-trained assistants. Only my foreman, 'Ofa Halapua, spoke English fluently, giving Dye and me further impetus to improve our Tongan language skills. The crew members became expert diggers, competing with each other to see who could cut the straightest side walls on their test pits. They were fascinated by what we were finding, not only the ubiquitous potsherds but also shell fishhooks and ornaments, abraders of coral and sea-urchin spine, and adzes of stone and *Tridacna* clam shell. They were amazed to learn that their distant ancestors had once made pottery, something that they had thought was a strictly European trait.

Because most of our digging took place some distance from Hihifo Village, I hired our neighbor, Sione "Heke" Hoa, to cook lunch for the crew. The workers arrived in the morning with yams or taro tubers while I provided tinned beef, fish, or sometimes salt mutton. During the morning Heke made an earth oven, baking the tubers and banana-leaf wrapped packets of meat with taro leaves (*lū pulu*). Around noon he saddled up his horse and rode out to wherever we were working, the still-hot meal in saddlebags of coconut leaf baskets. Coconut fronds were laid out as a sort of table, and someone would climb a nearby coconut tree to pick a bunch of green drinking nuts. Following a prayer by one of the men (several were lay ministers of the Free Church of Tonga), we all sat down to a delicious noonday repast. Suitably refreshed, we continued digging until the lengthening shadows of the coconut palms signaled that it was time to head back to the village.

At most of the transects the potsherds consisted of "plainware;" that is, they were from undecorated earthenware vessels, including bowls, jars (some with handles), and cups. But one location, a place called Lolokoka, was special. It was the only place with classic dentate-stamped sherds typical of Lapita pottery. The Lapita people, dating to between about 1300 and 500 BC, had been the first to discover and settle Remote Oceania, the islands and archipelagoes east of the Solomons. I knew it would be important to spend some time carefully investigating the Lolokoka site.

Instead of using a transect, at Lolokoka I laid out a grid over an area of 2,400 square meters, subdividing it into blocks of 100 square meters each. Using a table of random numbers, I then chose a test pit within each sample block. This "stratified



random” method assured a representative sample across the entire area. Once I had finished the random sample pits, I plotted out the density of potsherds on a map of the site. A narrow band through the site had a much higher frequency of sherds and other artifacts. This allowed me to implement the second stage of my strategy, laying out several one-by-two-meter trenches in this band. In these trenches we recovered more sherds with the dentate-stamped decorations characteristic of Lapita. Then, in the third and final sampling stage, we homed in on the area of greatest artifact concentration and opened up a twenty-four-square-meter excavation (Fig. 7.2). It exposed a number of intact features such as earth ovens and trash pits.

Our excavations produced a large collection of pottery sherds (more than 43,000), artifacts, and faunal materials that would allow me to reconstruct the early history of Polynesian occupation on Niuatoputapu. After returning to the Bishop Museum I obtained radiocarbon dates from charcoal and shell samples recovered in association with the pottery. Lolokoka, with its Lapita style pottery, was indeed the island’s first settlement; a date on a giant clamshell indicated that people might have arrived as early as 1255 to 1085 BC. Other areas such as Pome’e



Figure 7.2. Excavation in progress at the Lolokoka site on Niuatoputapu. Lolokoka is the only location on the island where Early Eastern Lapita pottery was found; it was probably the island’s initial settlement, early in the first millennium BC.

and Lotoa'a that yielded only plainware ceramics dated to later in the first millennium BC or to the early centuries of the Christian era.

As in Futuna, I wanted to complement the archaeological work in Niuatoputapu with ethnoarchaeological studies focused on the island's agriculture and ecology. Because Niuatoputapu lacks flowing streams, all of the cultivation was of the dry-land variety. I took time out from our digging to explore and map the island's gardens and record the traditional cultivation methods. Several of our workers were noted gardeners; at times I would accompany them when they cleared, planted, and harvested their fields. The most important crop was the 'u*fi* or greater yam (*Dioscorea alata*), although other kinds of yams, dry taro, elephant ear taro, bananas, and other crops were also raised. The Niua people kept pigs in pens, but these animals were not nearly so abundant as in Futuna.

What Niuatoputapu lacked in agricultural system diversity it made up for in the realm of fishing. A diversity of rays, sharks, fishes, mollusks, crustaceans, and turtles teemed in Niuatoputapu's sheltered lagoon, surrounded by fringing and barrier reefs equally rich in marine life. Men, women, and children gathered and caught these marine foods using a wide range of techniques. In our excavations we were finding not only fishhooks and net weights but also a large quantity of shellfish and fishbones. I decided to include marine resource exploitation in our ethnoarchaeological studies. By studying the range of traditional methods that people used to obtain fish and shellfish, I thought we could improve our interpretations of the role of marine resources in the past.

Tom Dye wanted to tackle this part of the ethnographic work. So, while I concentrated on agriculture and plant use, Dye spent time with the island's fishermen (and fisherwomen). Some of our workers took Dye along on their fishing sorties. One lanky bachelor in his forties, Vili Talikiha'apai, was renowned for catching large parrotfish that sleep at night in the crevasses of the windward reef crest. This kind of fishing—done only by men—not only requires great skill but also is very dangerous, because the swells surging over the *liku* reef can catch a man unawares and sweep him out to sea. On nights when he judged the sea not to be too rough, Talikiha'apai would venture out to the windward reef carrying a kerosene lantern in his left hand, a three-pronged spear in his right hand. A small sack tied to his waist held dried coconut meat that Talikiha'apai chewed and mixed with his saliva. Approaching a crevasse in the reef, he would spit out a wad of the oily mass, quickly calming a little "window" into the dark water, which allowed the light of his lantern to illuminate the fish below. Taking careful aim he lanced the spear at the two- or three-foot *menenga*, the most prized kind of parrotfish. More often than not the spear found its mark.

Other fishing methods were less dramatic. Women waded in the shallows of the leeward lagoon swishing about small sacks containing the pounded roots of the *futu* tree (*Barringtonia asiatica*); a toxin within the root stupefied the fish, which then floated to the surface and could simply be picked up and placed in their baskets. Other times they used small scoop nets called *kukusi* to catch small fry among the coral heads. Many other fishing methods involved nets, both smaller hand nets and larger seine nets (*kupenga*), primarily in and around the lagoon. To our surprise, fishing with hook and line proved to be less common than netting. Even rarer was trolling for larger game fish such as *'aku* or *'ahi* (tunas) beyond the reef.

The data we collected on Niuatoputapu fishing changed my ideas about how the ancient Polynesians had exploited the sea. It made me realize that the shell and bone fishhooks often found in Polynesian archaeological sites gave a skewed picture of the importance of hook-and-line fishing. Being made of perishable fiber cordage, nets rarely preserve in the archaeological record (except occasionally in dry rockshelter sites), although we do at times find net weights of shell or stone. But the data from Niuatoputapu showed us that netting, spearing, and fish poisoning were responsible for a greater proportion of the island's total catch than was angling with hooks. In fact, many fish species (such as parrotfish and wrasses) rarely if ever take a hook and must be captured by spearing or netting. The fact that we were finding hundreds of bones of these fishes in our excavations meant that spearing and netting techniques must have been part of the Lapita and early Polynesian fishing repertoire. After we returned to Honolulu, Dye and I coauthored an article in the *Journal of the Polynesian Society* on our findings; it was the first major contribution to an ethnoarchaeology of fishing in the Pacific.<sup>5</sup>

For a third time, I found myself deeply immersed in the daily life of a traditional Polynesian society. Anuta was a tiny society in which the two chiefs mingled freely with the rest of the population, and there were few overt signs of hierarchy. Futuna had two ranks of chiefs (the *sau* and the *aliki* such as Tu'i Sa'avaka), and social stratification and rank were more pronounced, as expressed in the elaborate kava ceremonies. But even though Niuatoputapu was a small and isolated outpost of the Tongan kingdom, it was evident that hierarchy had reached its Western Polynesian apogee in Tonga. The chiefs or *hou'eiki* were accorded considerable status and prestige. Telai, a leading *'eiki* of Hihifo Village, even had the aristocratic habit of speaking about himself in the third person.

Niuatoputapu had once been ruled over by a lineage of high chiefs bearing the title Ma'atu. Eleven generations earlier the founding ancestor, Latumailangi, a collateral relative of the Tu'i Tonga or sacred king of Tongatapu, had arrived on the

island, marrying into an older indigenous chiefly line. Under Latumailangi and successive generations of Ma'atu, Niuatoputapu became part of the far-flung Tongan "maritime empire." Each year the Ma'atu sent canoes south to the capital at Mu'a carrying tribute for the great 'inasi ceremony held on the *malae* fronting the burial mounds of the Tongan kings. When the eleventh title-holder passed away in 1935 without leaving an heir, the title and the Ma'atu estate passed into the hands of the king.

In the highly stratified Tongan kingdom, a class of great chiefs known as *nōpele* (a word borrowed from the English "noble") sits between the king and the lesser village chiefs (such as Telai). Each *nōpele* controls a hereditary estate (*tofi'a*); the households residing on these estates are essentially vassals of their lord, with obligations to provide tribute such as food and pigs for feasts (*katoanga*). After arriving on Niuatoputapu I was told that a *nōpele*, bearing the title Tangipa, resided in the central village of Vaipoa whose surrounding lands constituted his *tofi'a*. Tangipa was reclusive, however, and after several months on the small island I had never met him.

Late one afternoon I was returning to Hihifo along the shady inland trail that skirts the mountain slope, accompanied by Mosese Falala, one of my workmen then in his late forties. At Vaipoa we came across a middle-aged man seated on a log, opening coconuts with his machete and feeding the meat to an excited swarm of pigs. Barefoot, wearing an old pair of trousers and a stained and tattered shirt, he looked like any other island man in old work clothes tending to his chores.

"*Mālō e lelei*," I called out as we approached the seated figure, using the common Tongan greeting. He did not reply, nor did he rise from his seat on the log. Almost immediately it dawned on me that this individual—despite his dress and the fact that he was feeding a herd of pigs—must be none other than the reclusive *nōpele* Tangipa. I was embarrassed because I should have greeted him with the expression *Mālō e laumalie*, which one uses for persons of rank.

Turning to Falala, the *nōpele* quietly said in Tongan, "You there, go and climb one of those coconut trees and fetch some good drinking nuts for our friend." Climbing a coconut palm is strenuous, a task normally left to teenage boys and young men. Falala had probably not climbed a tree in fifteen years. But the *nōpele* had given his command and Falala had no choice. Returning flushed and sweating a few minutes later with a large bunch of green nuts, Falala put them down in front of Tangipa, who opened one for me with his machete. Tangipa then uttered another command: "Husk those nuts and lash them to a carrying pole and take them back to the house of our friend so he will have something to drink later." Falala did as ordered. Shortly we were on our way down the path, my companion

bearing a heavy load of husked coconuts over his shoulder. It was a fascinating lesson in Tongan noblesse oblige.

As in Futuna, there were periodic feasts or *katoanga* on the island, each associated with a religious holiday, either of the Catholic Church in Vaipoa (Fig. 7.3) or of one of the Methodist churches such as the Siasi Tonga Tauataina (Free Church of Tonga), which Dye and I attended on Sundays. Formal kava ceremonies accompanied these feasts, with the protocol of the *alofi* semi-circle and formal calling of chiefly titles, much as in Futuna. After the kava and feasting, the afternoons passed in long dance performances.

Informal kava drinking on Niuatoputapu was done in the church parish halls, taking a different form than on Futuna. On Friday and Saturday evenings, Dye and I attended the kava drinking at Hihifo's Methodist church, where most of our workers assembled to imbibe and socialize. Inside the large room with its coral stone walls and tin roof, groups of six to twelve men each sat cross-legged in a circle on woven mats. Each group was attended to by an unmarried young woman (the *tou'a*) whose task it was to prepare and serve the kava in a wooden *tano'a* bowl. Each man paid a small fee, the money going into the church coffers. Sometimes, especially on Friday nights, a large *pola* or platter heaped with cooked yams and taro, baked fish or lobsters, and a suckling pig and topped with two or three cakes



Figure 7.3. Women performing an impromptu *tau'olunga* dance during a *katoanga* at the Catholic Church in Vaipoa Village, Niuatoputapu.

was set up on a low dais at one end of the room. Throughout the night each drinking group would bid money toward the prize; the group that ended up contributing the most stumbled away carrying the *pola*. On more than one occasion our group won, hauling our prize to Heke's cookhouse where we gorged ourselves on pork, yams, and cake before going off to bed just before dawn.

By October, hundreds of sample bags full of potsherds, faunal remains, and other artifacts had piled up in our cookshed. Judging that I now had ample materials with which to reconstruct the earlier period of Polynesian life on Niuatoputapu, I decided to turn my attention to the island's earthen and stone monuments. They would be the most likely source of information on the later time periods, especially after Niuatoputapu became integrated into the Tongan maritime empire.

During our surveys of the island we had recorded ninety-five structures that could be loosely classified as "mound" sites, consisting of artificially heaped-up earth or sand, often surrounded by moats or borrow pits from where the earth to build the mound had been dug. These mounds could be divided into those whose sides were faced with quarried limestone slabs in a rectangular configuration and mounds without facings, usually circular and flat topped. Earlier work by pioneering Bishop Museum archaeologist W. C. McKern in the more southerly Tongan islands had shown that the faced mounds were most likely sepulchers, the burial places of chiefs; in some cases they were where certain lineages had interred their dead.<sup>6</sup> Such burial mounds were known as *fa'itoka* or, in the case of a few mounds with especially impressive, large dressed stone facades, *langi*.

The unfaced mounds could likewise be subdivided into two types. One set had their flat tops paved with fine gravel; informants called these *'esi* and told us that they were sitting platforms for persons of high rank. The other category lacked paving, but often there was a shallow depression, sometimes outlined with stones, in the center of the mound's flat top. Many of the flat-topped unfaced mounds were impressive, ranging from ten to forty meters in diameter and standing three or even four meters above the surrounding ground. The largest mounds incorporated more than two thousand cubic meters of earth, requiring a great deal of labor from people who lacked mechanical digging implements.

The mounds with the central depressions were called *sia heu lupe*, literally "mound for snaring pigeons." *Lupe*, the Pacific pigeon (*Ducula pacifica*), flourishes in areas with *Eugenia* plum trees, whose fruit they consume. McKern described how in pre-European times the Tongan chiefs practiced the sport of pigeon snaring:

The sportsmen occupied the structure, some on the mound surface where they manipulated the heu [net] poles, and some in the pit to take the pigeons



from the snare. Captive pigeons attached to long cords, were allowed to fly among the tree tops above the mound where they served as decoys to attract their wild kin. When the wild pigeons came, the heu manipulators dropped the net over them and brought them down into the pit, where they were caught and disposed of by the men assigned to that task.

I mapped several of these *sia heu lupe* and excavated trenches across a particularly large example at Funga'ana, hoping to find charcoal to radiocarbon date. Unfortunately, the trenches revealed only sandy fill.

It was important, I felt, to get some evidence for the age of mound construction. Excavation of a stone-faced burial mound was the obvious choice but posed ethical issues. Most of the larger *fa'itoka* and *langi* were associated with family lineages or with oral traditions linking them to notable chiefs. We could hardly go about digging up the ancestors of the island's population. However, on the island's *liku* coast at a place called Houmafakalele, I had seen a group with one large and three mid-sized mounds, all faced with cut-and-dressed coral limestone blocks. No one seemed to have any knowledge of who might be interred in these structures; there were no traditions related to the Houmafakalele mound complex.

I asked Telai, the chief of Hihifo, whether it would be permissible for our team to open up an excavation in the main mound at Houmafakalele to see if it did indeed contain burials and, if so, to take a small sample of bone for radiocarbon dating. After consulting with other village elders, Telai agreed to this plan. The work began with a prayer service conducted by one of our workers who was a minister of the Methodist church, asking that we be watched over and that no harm should come to any of us. In a two-by-three-meter excavation in the center of the mound we uncovered three adult skeletons, all lying in extended, supine positions. Dark black stains in the white sand surrounding the skeletons may have derived from the black pigment used to dye barkcloth in which the bodies were wrapped for burial. There were no grave goods or artifacts.

We carefully photographed and mapped the skeletons, making all of our observations without removing the bones from their original position. We took one small sample of bone from one skeleton for radiocarbon dating, which later gave an age of AD 1420–1815, confirming that these formal burial mounds were a late aspect of the island's history. We then respectfully re-covered the skeletons with sand, restoring the mound surface to its original condition.

The work at Houmafakalele took until the middle of November. We had been gone from Honolulu for more than six months; my field funds were starting to run low.

Doug Yen had written from Hawai'i to tell me that the NSF was going to fund a second phase of the Solomon Islands Culture History project. The time had come to close up the Niuatoputapu research. I wanted to have at least a few months' rest in Honolulu before going out on another long expedition to the eastern Solomons.

We packed up the artifacts, pressed plants, and other natural history specimens, along with rolls of mats and barkcloth that I had obtained for the Bishop Museum's ethnology collections. Our friends and workers held a big *kai mavae* or farewell feast and kava drinking on November 22. Two days later the *Pakeina* maneuvered out through the narrow passage with Tolati at the helm, headed for Vava'u. Luck was with me on the return trip; after only four days' wait in Nei'afu the *Olovaha* ferry departed for Nuku'alofa. I spent the first week of December making official rounds in the capital and also visiting Nikolasi Fonua. Returning via Fiji, I arrived home in Honolulu on December 9, 1976.

It would take me twelve years to complete the analysis of all of the materials we excavated in the rich sites of Niuatoputapu. Eventually, in 1988, I published my scientific account of the island's archaeology in a thick monograph titled *Niuatoputapu: The Prehistory of a Polynesian Chiefdom*. With fifty tables of data and illustrated with more than one hundred maps, plans, charts, and photographs, the volume records for posterity the findings of our 1976 expedition.<sup>7</sup>

In *Niuatoputapu* I outlined a sequence of cultural change beginning with Lapita voyagers around 1000 BC and ending with the arrival of the Wesleyan missionaries around AD 1830. In spite of being one of the smallest of the Western Polynesian islands, Niuatoputapu's unbroken cultural sequence encapsulates the emergence of an Ancestral Polynesian culture from earlier Lapita origins. Niuatoputapu and other islands of Western Polynesia such as Futuna, 'Uvea, Samoa, and Tongaputapu were the original *Hawaiki*, the homeland in which early Polynesian language and culture developed. Our months of digging into the middens of Niuatoputapu provided a cornerstone for our understanding of that critical time in the history of the Polynesian peoples.