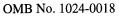
NPS Form 10-900 (Rev. 10-90)

United States Department of the Interior National Park Service

NATIONAL REGISTER OF HISTORIC PLACES REGISTRATION FORM





This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property
historic name Likinlulem
other names/site number Ko-D17-1
2. Location
street & number N/A not for publication city or town Walung, Tafunsak (Likinlulem Facl) vicinity state Federated States of Micronesia code FM county Kosrae code 005 zip code 96944
3. State/Federal Agency Certification
As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this X nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property _X meets does not meet the National Register Criteria. I recommend that this property be considered significant _X nationally _X statewide locally. (See continuation sheet for additional comments.) Berlin Signal
In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional comments.)
N/A Signature of commenting or other official Date
N/A State or Federal agency and bureau

Likinlulem Kosrae, Federated States of Micronesia

4. National Park Service Certification
I, hereby certify that this property is:
entered in the National Register See continuation sheet. determined eligible for the National Register See continuation sheet.
see continuation sheet determined not eligible for the National Register removed from the National Register
other (explain): Granture of Keeper Other (explain): U//4/64 Date of Action
5. Classification
Ownership of Property (Check as many boxes as apply) _X_ private public-local public-State public-Federal Category of Property (Check only one box) building(s)
district site structure object
Number of Resources within Property
Contributing Noncontributing buildings sites structures objects
Number of contributing resources previously listed in the National Register0_
Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.) N/A

6. Function or Use		
Historic Functions (Enter categories from Cat: Domestic Government Commerce/Trade Transportation Culture Social	instructions) Sub: Village Site Capital/Administrative Center Trade (archaeology) Water-related Oral History	
Current Functions (Enter categories from Cat: Vacant/Not in Use S		
======================================		=======================================
Architectural Classification (Enter catego N/A	ries from instructions)	
Materials (Enter categories from instruction foundation N/A N/A walls N/A		
other N/A		

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

See attached continuation sheets.

Likinlulem	NRHP Registration Form erated States of Micronesia
8. Statement	t of Significance
	National Register Criteria (Mark "x" in one or more boxes for the criteria qualifying the property for National ing)
A	Property is associated with events that have made a significant contribution to the broad patterns of our history.
B	Property is associated with the lives of persons significant in our past.
C	Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
_X_D	Property has yielded, or is likely to yield information important in prehistory or history.
Criteria Cor	nsiderations (Mark "X" in all the boxes that apply.)
A	owned by a religious institution or used for religious purposes.
B	removed from its original location.
C	a birthplace or a grave.
D	a cemetery.
E	a reconstructed building, object, or structure.
F	a commemorative property.
G	less than 50 years of age or achieved significance within the past 50 years.
	gnificance (Enter categories from instructions) Prehistoric Archaeology Ethnic Heritage:Pacific Islander Maritime History: Micronesia Social History Politics/Government ignificance A.D. 1200 - 1800
Significant	Dates N/A Cultural Affiliation Micronesian

Narrative Statement of Significance (Explain the significance of the property on one or more continuation sheets.)

N/A

Significant Person (Complete if Criterion B is marked above)

Architect/Builder N/A

USDI/NPS NRHP Registration Form Likinlulem Kosrae, Federated States of Micronesia 9. Major Bibliographical References _____ (Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.) Previous documentation on file (NPS) ____ preliminary determination of individual listing (36 CFR 67) has been requested. ___ previously listed in the National Register ___ previously determined eligible by the National Register ____ designated a National Historic Landmark recorded by Historic American Buildings Survey #_____ recorded by Historic American Engineering Record #_____ Primary Location of Additional Data X State Historic Preservation Office ___ Other State agency ___ Federal agency ___ Local government ___ University Other Name of repository: 10. Geographical Data Acreage of Property 7.4 acres UTM References (Place additional UTM references on a continuation sheet) Zone Easting Northing Zone Easting Northing 1 <u>58 268 390 585 220</u> 3 2 <u>58 268 500 585 370</u> 4 _____ See continuation sheet. Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.) Boundary Justification (Explain why the boundaries were selected on a continuation sheet.) 11. Form Prepared By name/title Dr. Felicia R. Beardsley (email: beardsley@gnet.com)

telephone_909-787-5524___

organization Dept of Anthropology date 3 May 2003

city or town Riverside state CA zip code 92521

street & number_University of California

USDI/NPS NRHP Registration Form Likinlulem
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Additional Documentation
Submit the following items with the completed form:
Continuation Sheets
Maps A USGS map (7.5 or 15 minute series) indicating the property's location. A sketch map for historic districts and properties having large acreage or numerous resources.
Photographs Representative black and white photographs of the property.
Additional items (Check with the SHPO or FPO for any additional items)
Property Owner
(Complete this item at the request of the SHPO or FPO.)
name
street & numbertelephone
city or town Tafansak, Kosrae state FM zip code 96944

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.0. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Project (1024-0018), Washington, DC 20503.

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7. Narrative Description

At its most basic, Likinlulem is described as an architectural complex of nine large enclosures with internal features such as pavements and earthen platforms, a canoe landing, a channelized stream, and an open-air platform that is inundated during high tide. The complex covers an area that runs roughly 150 meters inland from the mangroves to the mountains and stretches along some 200 meters of shoreline (on both sides of Likinlulem Stream). But, this description does not do justice to the site. Likinlulem is considered one of the most significant historical sites within the archaeological record of Kosrae. All the important oral histories on Kosrae refer back to Likinlulem, which is said to have been occupied 'before time began' or 'before the before.' The site played a key role in the legendary histories of the island, including the mythical histories detailing the formation of various geographical features that make up the island of Kosrae. It was also the place from which the traditional titles originated, and is said to have housed the island's highest chiefs with the oldest lineages, at least until about AD 1400 when the rival site of Leluh became the seat of the paramountcy and ushered in a new era of political complexity.

Likinlulem is an exceptional site in Kosrae's history, with its primary contribution made during the island's formative era when political and social complexity were increasing amid developing rivalries between regional centers. Likinlulem, however, continued to retain its position as highest ranking among all political centers, in part because it was dominated by the oldest lineages. Archaeological investigations date occupation to at least AD 1200 to 1800; with one part of the site dating to AD 1000, and the likelihood of still earlier dates pending. Comparisons to other regional centers vying for control over resources during this period in Kosrae's history demonstrate Likinlulem to be an almost sprawling compound with multiple enclosures, each defined by multicourse walls of basalt boulders. Passage between enclosures on either side of the streams that course their way through the site was made possible by local bridges that made use of a succession of boulders laid out in stepping stone fashion (this was a common design found throughout the region). Formal entry to the site was made possible by a paved canoe landing that extended into the mangrove channel. From here, access to the complex was through one of several openings in the enclosures lining the channel, including one enclosure which contained a sweeping stone stairway.

Today, Likinlulem stands abandoned, nearly hidden in a thick jungled vegetation. Few visited the site during the modern era, as access was difficult; one had to either follow foot trails across rugged terrain or access the site by water, through the mangrove channels. Such inaccessibility proved beneficial as it preserved the site, keeping it intact and virtually untouched by materials scavengers and others. With the recent (2002-3) construction of the circumferential road segment through Walung, however, access to the site has been eased. The road was constructed just upslope from the site in an effort to avoid any impacts to the site. However, this measure was not enough; Likinlulem was still affected as road fill spilled onto and over the northern edge of the site, while Likinlulem Stream was further constricted by the construction of a culvert passing under the road and along the stream's central course. And, with increased access also comes increased pride. Local Kosraeans are visiting the site in increasing numbers, in part because this is the site from which their history and traditions originated, but also because of their concern about its preservation and the integrity of its condition. As such, the site has taken on a new, almost reverential aire; this is afterall, the site of Kosrae's founding ancesters (both spirit and human). Archaeological investigations too have demonstrated a relatively rich, intact subsurface deposit that will likely yield a great deal more information on early settlement and other associated activities.

Environmental Setting

At 5 degrees north latitude and 163 degrees east longitude, Kosrae is a solitary volcanic island in a region dominated by low-lying coral atolls. It is located at the easternmost end of the Caroline chain in the western Pacific, one of four States in the Federated States of Micronesia. Kosrae is a geologically young island that has no outer islands of its own, and only a narrow lagoon bound by a fringing reef with short spans of a barrier reef. The island is roughly triangular in shape with an interior characterized by high, steep, rugged mountains covered with a thick, lush tropical jungle. Several mountain peaks reach an elevation of 600 meters above mean sea level. At the foot of the mountains is a narrow coastal plain that is characterized by

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Narrative Description (continued)

alluvial fans, nearly level slopes, mangrove swamps and sandy coastal strands. According to the USDA Soil Survey, the mountainous areas comprise about 70 percent of the island, with foot slopes and alluvial fans forming roughly 15 percent of land area, and the mangrove swamps and coastal strands making up the remaining 15 percent.

The climate is characterized by high rainfall, high temperatures, and high humidity. Average annual rainfall is about 500 centimeters, with rainfall in the higher elevations estimated at 750 centimeters annually. The average annual temperature is 27 degrees C, with a variance of about 1 degree on a month to month basis. The storm track in this part of the Pacific generally forms between Kosrae and Chuuk, to the west; few major storms ever his the island.

Long ranging sea birds also inhabit the island seasonally, with nesting sites occupied a short time each year. Marine fauna includes the full variety of species that occupy both shallow and deep waters, within and outside the reef; shellfish, crustaceans, turtles, marine mammals, reef fish, flying fish, and pelagic fish appear at various times of the year in the waters surrounding Kosrae. The limited range of native terrestrial fauna includes birds, fruit bats, and various reptiles and insects. Floral and faunal species introduced by the founding population and subsequent waves of prehistoric and traditional era settlers include (but are not limited to) pigs, chickens, dogs, cats, monitor lizards, taro, yams, bananas, breadfruit, and many medicinal plants. Coconut and citrus also occur on the island and play a major role in local subsistence, but their presence as either native or introduced species remains a controversial topic of discussion.

Likinlulem is located in Walung, Tafunsak, on the southwest coast of the island. It occupies a stretch of the narrow, but level coastal plain at the foot of the steep mountainous terrain that defines the island's interior. Its seaward edge is dominated by the mangrove swamp that forms a transitional environment between land and sea. Fresh water from the mountains drains into the mangroves through several stream channels that cut through the site. Likinlulem lies at the transition between Sonahnpil silty clays (most commonly found on flood plains and alluvial fans) and Naniak mucky silt loams (common to coastal tidal marshes), at an elevation of about 8 meters above mean sea level. Coconuts, breadfruit, pandanus, papaya, banyon, hibiscus, limes, oranges, bananas, taro, a variety of medicinal plants, and plants used for purposes such as ornaments and firewood appear within and immediately outside the limits of the site. Herons, fruit doves, pigs, land crabs, monitor lizards, and insects were noted in the site area.

Physical Characteristics

Likinlulem occupies an area roughly 200 meters by 150 meters, and is located on the narrow coastal plain bounded by the mangroves on one side, the mountains on the other, and dry streambeds at either end of the site. A perennial stream, Likinlulem Stream, bisects the site as it drains off the mountains and cuts across the coastal plain and empties into the mangrove swamp. This stream was artificially straightened (channelized) for about 65 meters across the site, from the eastern edge to the center of the site. The site itself contains 9 walled enclosures or compounds, some of which are now used to grow taro, a canoe landing, the channelized stream, and an open platform without any walls surrounding it. All walls in the site are unmortared multiple course constructions built with basalt boulders, many of which appear to be water-rolled and rounded materials derived from the local streambeds, and filled with smaller basalt rubble (cobbles and boulders) as needed. Structurally, the walls are complex features consisting of a double retaining wall supported by a rubble-filled core. Today, the compound walls have remained standing, with little collapse in evidence.

Inside various compounds, platforms and pavements are the most common architectural features observed. The platforms consist of raised earthen features, sometimes with a single course of stone paving covering the surface. Pavements consist of waterworn boulders set into the soil surface, and artificially leveled. These are simple features, often partially buried by soil

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Narrative Description (continued)

and sediments, as well as vegetation growth. Other features within the compounds include areas of fire-cracked rock, and in at least one, a sweeping stairway with flat-faced boulder treads.

<u>Compound 1</u>: a generalized area defined by two walls, one of which is shared with Compound 2. The northern wall forms one of the artificial, channelized boundaries of Likinlulem Stream. Within this compound there is a small pavement in the northeast quarter, adjacent to this is a sweeping stone stairway that provides passage into Compound 2. Excavations within the compound exposed a buried pebble lens that is similar to pavements commonly associated with cooking hourses.

<u>Compound 2</u>: a fully enclosed compound with a rock and earthen platform in its northeast corner, the remnant of a paved area in the northwest corner, and a food pounding stone located on the platform. The northern wall forms one of the artificial, channelized boundaries of Likinlulem Stream.

Compound 3: a fully enclosed compound that shares one wall with Compound 2. The walls are low, two boulders wide on the lowest course with a single boulder in the upper course. There are no surface features within this compound. Excavations indicate that Compound 2 is older than Compound 3; a rock surface encountered at a depth of 70 to 83 cmbs is likely a streambed deposit.

<u>Compound 4</u>: a semi-enclosed compound where the east boundary is formed by a cliff face on the ridge forming one of the inland boundaries of the site; the north wall is shared with Compound 5. A *seka* pounding stone was located in the center of the compound, while concentrations of fire-cracked rock are located in the northwest and southeast corners of the compound. No platforms or pavements were visible.

Compound 5: a fully enclosed compound with walls about 50 cm high on the inside of the compound, but 1.5 m high on the outside. The northern wall forms one of the artificial, channelized boundaries of Likinlulem Stream. A raised earthen platform abuts the east wall. The compound is one of the later structures built on the site; however, a subsurface pavement roughly 40-60 cmbs predates both the compound walls and the earthen platform.

Compound 6: an enclosed compound with taro pits inside (they have 'always been there' according to local information) and a pavement that abuts the wall of Compound 7, which is also located within this compound. A buried A-horizon below this pavement returned one of the earlier dates in this site, A.D. 1035 to 1325. However, there is an even earlier pavement below this A-horizon; unfortunately this pavement was not dated. The southern wall of the compound forms one of the artificial, channelized boundaries of Likinlulem Stream.

Compound 7: the fully enlosed northwest corner of Compound 6.

Compound 8: a partially enclosed compound with an earthen platform extending from the east wall. Two food pounding stones were located on this platform, along with a buried charcoal lens that predates the platform (the lens dates from about AD1490 to 1670). The southern wall of this compound forms one of the artificial, channelized boundaries of Likinlulem Stream.

<u>Compound 9</u>: this fully enclosed compound stands at the southern boundary of the site. It is somewhat isolated from the rest of the site, with four low but massive walls. The interior contains a fire pit.

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Narrative Description (continued)

Area 10: canoe landing, which provides the terminus for a foot path through the site. Remnants of a stone pavement are visible, though much of it is buried as the area is the recipient of continuous sedimenation and tidal flows.

Area 11: an open-air platform with remnants of a stone pavement visible; a continuous pavement is visible at 10 cmbs. The area is flooded at high tide.

Today the jungle has engulfed Likinlulem, which has at least in part protected it from the sundry forces of degradation. But it also means that many plants, particularly fast growing viney plants common as pioneering species in rocky terrain, have taken root in the walls. Their occupation of the rocky interstices is very slowly distorting these architectural features, shifting the constituent stones out of alignment and causing the walls to gradually settle in a pudding-like formation (i.e., swelling and expanding at the bases while narrowing and rounding at the tops). As the ground cover in the jungle presents a dense mat of verdure, it also decreases site visibility. Ground surfaces are hidden, many if not most standing features remain obscured. During a 2003 condition inspection of the site, many of the pavements and platforms described above were shrouded by vegetation. Only segments of the walls and interior features were exposed by manually removing narrow swaths of the vegetation. This same condition is reported in the 1983 excavation report, which suggests that there may be other architectural features (most likely low platforms and pavements) present within the compounds. Soil development and siltation is another factor which has played a role in burying various low laying features of the site, especially the pavements.

Functions or activies carried out within compounds remain undetermined. Few artifacts were recovered during the 1983 excavations, and of these, only food pounders and *seka* stones infer at least one category of activity—food preparation and feasting. The presence of fire-cracked rock concentrations also suggest food preparation on-site. But many other questions remain to be addressed: which compounds were used for sleeping quarters? did the overall site complex house a single extended family, or several? did the site complex encompass specialized production areas?

Period of Occupation

Radiocarbon dates processed from charcoal samples recovered throughout the site and from varying depths returned a range of absolute dates. The majority of dates fall between AD 1200 and 1800, with a scattering of dates extending to about AD 1000. The earliest dates were derived from a buried A-horizon associated with traditional material culture, yet site occupation is likely earlier than this as a buried (but undated) pavement was observed below the A-horizon.

From the standpoint of local and oral history, this is a site beyond the limits of oral history, or in the vernacular, it is a place before time, 'before the before.'

Identity of Site Occupants

The site was occupied by a Micronesian population ancestral to the current inhabitants of Kosrae. Information on specific lineage ties to modern families remains unknown.

Likely Appearance of Site during Period of Occupation

Likinlulem was a self-contained community. Its presence in many of the more important oral histories on the island (formation of geographic features, the home of Kosrae's traditional hero), as well as its role in the development of the island's political system (providing traditional titles, harboring the oldest chiefly lineages), emphasizes and reinforces its special place in

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Narrative Description (continued)

Kosrae's history. This site is one of the centers of Kosraean tradition, and perhaps may have even provided the foundation of the island's traditions. Results of the 1983 excavations presented a developmental sequence for the site (both culturally and environmentally), demonstrating occupation prior to AD 1200, with the majority of site construction and occupation taking place between AD 1400 and 1700. During the major episode of occupation, as the population reached its peak and the site continued to expand, a significant amount of modification also occurred in the landscape, namely channelizing the main stream and moving substantial amounts of earth to build up compound platforms.

The following is the construction/developmental sequence outlined in the 1983 excavation report:

Episode 1: prior to AD 1200. Streams at the site are not yet downcut and several more streams criss-cross the site than are in evidence during later periods. At least one pavement is present in the Compound 6 area (at 106 to 135 cmbs); there are no indications of multiple compounds, pavements or walls. The shoreline is about 20 meters east of its present position, and the large taro patch is, at this time, an embayment.

Episode 2: about AD 1200. Alluviation deposits soils over the Compound 6 area pavement, burying it. A new pavement is laid in this same area. Shoreline progradation is turning the embayment into a marshland. An earthen embankment is constructed near the Compound 6 area pavement to provide a canoe landing/mooring facility. Streams continue to downcut, with at least one stream in the center of the site cut off by another.

Episode 3: about AD 1300. Agricultural activities in the uplands above the site initiates erosion of upland soils. Colluvial and alluvial deposition accelerates, with a concomitant increase in stream downcutting. The new pavement of the preceding development episode is buried. A wall is constructed along the shoreline to trap sediments, perhaps to expand the available living surface of the site. The practice of making 'new land' is common throughout this part of the Pacific and usually involves construction of a wall just off the shoreline, in order to trap sediments for the creation of a newly expanded landbase. The platform in Area 11 is constructed, but not yet paved. The canoe landing starts to silt up, as it is deprived of the flushing action of a fresh water source.

Episode 4: about AD 1400 to 1500. A pebble floor in the Compound 8 area is constructed, and other pebble floors seem to apprear in Compound 6 and another in Compound 8. The stream that defines the northern site boundary carves a new channel further north, while another stream is diverted (human action is indicated) to bring water to a former marsh now turned taro patch. A relict swamp develops in the location of the earliest canoe landing; a new canoe landing is constructed into the mangrove west of Compound 6. Channelization begins on the stream that passes through the center of the site. Compound 6 and 8 walls are completed; Compound 2 is constructed, with it east and north walls elongated. Area 11 platform is paved and another pavement is constructed in Compound 5. Shoreline progradation continues on the south side of the site, but not on the north.

Episode 5: about AD 1600. Further downcutting of the principal stream through the site eliminates another stream. The stream at the southern edge of the site is channelized to divert water into the taro patch. Compound 4 and 5 walls area constructed, and earthen platforms are built in Compounds 5 and 8. The east wall of Compound 8 is constructed, while an earth and rock platform in Compound 2 is raised. The second canoe landing is gradually silting up, so a third canoe landing is constructed. Shoreline progradation finally extends the site into the Compound 9 area.

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Narrative Description (continued)

<u>Episode 6</u>: about AD 1700 to 1800. Compound 7 walls area constructed. Stone and earthen platforms were constructed, along with an earthen platform in Compound 2. Compound 9 is added, and finally, Compound 3 walls are built into Compound 2 walls. A new pavement is constructed in Area 11.

By all appearances, the site was an ever-increasing, active administrative center during its lengthy period of occupation. The presence of a succession of canoe landings and mooring facilities belie high standing and status among contemporaries, as such features were reserved for the highest ranking in society.

Oral History

Oral histories associated with Likinlulem are legion. They cover all manner of traditional custom, political organization, hero stories, and stories detailing the mythic world of spirits and people. Likinlulem was the place from which traditional titles originated; all high ranks and titles were first bestowed here. In fact, the meaning of Likinlulem is "hurl everything from that place." When chiefs with their new titles left to occupy Leluh (the newly emerging administrative center for the island), the people of Likinlulem did not want them to leave. They decided to create their own chiefs once again, with a complete new set of titles. When this happened, the highest chief of Leluh ordered the slaughter of the Likinlulem chiefs, and ordered that everything be thrown out of that place. There are also other stories that feature Likinlulem. One recounts the deeds of Kosrae's hero, Nepartak, a man who was raised at Likinlulem and who led a successful invasion of Pohnpei Island (some 200 miles to the northeast). He is credited with building the great site of Nan Madol on Pohnpei and introducing a new form of political organization on that island. Another tells of a girl who had a pet fish that became the island of Leluh and was instrumental in introducing the Likinlulem titles there. Still another story describes Likinlulem as the place where the nipa palm grows; this palm is the source of thatch used on the houses of the island's high chiefs. Even the mussels in the mangrove channel that flows past Likinlulem are the subject of songs and chants performed all over Kosrae.

One of the most frequently told story is the following (from Bath et al. 1983):

"Once upon a time, a whale came down from heaven to the Tacfout River at Utwa on the island of Kosrae. There she gave birth to a little human daughter whom she called Nahkontawe. As the girl grew up, she became very beautiful.

"One day the whale told Mahkontawe to bathe in the ocean using coconut oil While she was doing so, the king of Likinlulem with his two retainers, Nikuhn and Pahluh, came to fish off the shore of Utwa. Nikuhn noticed oil on the surface of the ocean and said, 'Where is this oil coming from?' Pahluh said, 'Let's go and see.' When they paddled close to the shore, they saw the whale's daughter and thought she was very beautiful. The king liked her so much that he decided to take her back to Likinlulem and marry her.

"The mother whale worried when her daughter did not come back. Following the oil on the water, she found her way to Tukusruc Bay at Likinlulem. There she waited patiently for several years, hoping Nahkontawe would see and come to her.

"The whale's daughter, now the queen of Likinlulem, had a son named Prince Nwelihk. When the prince became a young boy, he asked his father to make him a fine-looking fast canoe all his own. In this he went fishing every day.

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Narrative Description (continued)

"One day when Prince Nwelihk returned from fishing, he was humming a pretty tune. When the queen heard it, she became very excited, saying 'Where did you learn that song, Nwelihk?' He replied, 'Whenever I go out fishing, I see a whale in the bay, and she has taught it to me.' When the queen heard this, she knew at once that her mother was waiting for her because she had been taught that same song as a girl.

"Nahkontawe hurried down to the bay to look for her mother, but when she arrived there, what a sad story she heard! The king's retainers were talking about having killed a whale and cut it up for food. When she found a piece of whale meat on the shore, she burst into tears. She took the piece of whale meat home with her and put it in a basin of sea water.

"Then, a strange thing happened. Every day when she looked into the basin, somehow the piece of meat seemed larger. Finally one day she could see that it had grown into a tiny whale. Secretly she took the basin down to a bay called Sak where the water was very deep and the whale would have room to grow.

"Many days later, the whale had grown back to her original size. Then she said to the queen, 'My daughter, you should escape from Likinlulem and come away with me. Go down to the shore where the canoes are kept and mae a hole in all but one. Leave only the king's canoe.' When the queen had done this, she got on her mother's back and rode out into the bay.

"From the shore, the king's retainers saw Nahkontawe escaping. They hurried to tell the king, who said, "Take your canoes and chase the whale and bring the queen back to me." All the king's retainers hurried to their canoes, but when they paddled out into the bay, water came into every one and they sank. Seeing his own canoe left on the shore, the king jumped into it to chase the whale himself.

"The king's canoe was very swift, and soon he drew close to the whale. The whale said to her daughter, 'Tell the king that if he paddles his canoe near my mouth, I will swallow him.' From the whale's back, Nahkontawe called out to the king, 'Don't come near my mother's head or she will eat you up!' When he heard this, the king paddled up to the whale's tail instead, but suddenly the whale lifted her great tail in the air and smashed the king's canoe.

"The whale and her daughter decided to look for a safe place to live together. They were heading for the Marshall Islands when they met a shark coming from that direction. The shark told them, 'I have just come from the Marshalls. Don't go there because an evil spirit will cause you trouble.'

"The whale and Nahkontawe didn't know what to do. Finally, the whale began to back up and returned to Kosrae tail first. The chieftess Nerai of the Tofol District saw the whale near the shore. She threw a rope made of strong grasses and caught the whale by the tail. Quickly she fastened the rope to a tall tree. In the warm water, the whale came to rest, and then she changed into a tiny island, which the people called Leluh. Nahkontawe decided to live there the rest of her life.

"Several years later, Prince Nwelihk heard that his mother had returned to the other side of the island, and he decided to go to see her. When he arrived thought, he was told she had already died. Hearing this, Nwelihk decided never to return to Likinlulem but to stay in the place his mother had loved best. So he became the first king of Leluh.

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Narrative Description (continued)

"To this day, if you go to Leluh and look very closely, you can still see the whale sleeping in the warm blue sea."

Variations on this story have the whale's daughter turning into the Sleeping Lady on the mountains of Kosrae.

Another story relating to Likinlulem and the formation of the mangrove channels describe a Snake who had given birth to a beautiful daughter. As the story goes, "The king, who lived in Likinlulem, fell in love with the girl and kidnapped her for his bride. Snake looked all over the island for her daughter—to the south, the north, the east and the west. Everywhere Snake traveled, she gouged out a big channel in her track; this is the channel we see today around Kosrae. Finally, Snake found her daughter in Likinlulem. She planned to run away with her daughter, but the king found out. So, he hid the daughter on Leluh, but left some low torches burning in his house in Likinlulem as if the daughter were still there.

"When Snake snuck into the house, she found it empty except for the torches. The king's men ambushed her, killing her by setting her afire. The daughter, in the meantime, saw the smoke and ashes rising from that part of the island and became very concerned. When a spark landed on her arm, she knew instantly that her mother was dead. She escaped from the king's men; they could not hold onto her as her skin was very slippery. And, she ran all the way to the south end of the island, to Likinlulem, and threw herself into the burning house where she died with her mother."

Current and Past Impacts

Likinlulem has remained intact and relatively untouched, languishing in a benign environment since its abandonment. Historical documents make scant reference to the site. Records from the French survey of the island in 1824 list 'no houses' in Likinlulem; although it's place name had been noted. The Russian survey in 1827, however, lists Likinlulem as one of the land divisions (facl) with a population of 14—though these records do not indicate whether these 14 were living within the walls of the site or simply in the general vicinity. By 1870, most of the island was no longer permanently occupied, including Likinlulem. Missionaries had, by then, removed most of the population to burgeoning coastal centers rapidly expanding around newly constructed churches. In 1910, Sarfert states there are no dwellings in Likinlulem.

But, in 1982 that changed. One dwelling is noted within the Likinlulem *facl*, though not within the site itself. Local hunters too speak of passing through the site while tracking wild pigs or hunting pigeons, while fishermen and woodcutters note their own passage by and through the site. Yet, neither the presence of the house or temporary use by local game hunters, fishermen, or woodcutters affected the integrity or nature of the site. Today, however, the site has become the center of a controversy. Construction of the new (2002-3) Utwe-Walung segment of the circumferential road has opened up the area. The road passes nearby the site, almost too near, as it is located just upslope from the site. Its construction required extensive terrain cutting and filling owing to the steep grade of the slope face. The road fill spilled onto and over the northern edge of the site burying walls and sections of their adjoinging compounds. Likinlulem Stream was then confined to a culvert passing under the road, though it at least spills out into its ancient stream course. The boulder 'bridges' or stream crossings nearest the culvert have been disturbed and shifted out of alignment, while debris from road fill and brushing activities lay in the streambed. Forest clearers for the road, as well as construction crews have used those portions of the site nearest the roadbed as a dumping ground for spent 55-gallon fuel drums, trees and other debris cut during clearing activities, and the trash from their daily luncheons and work breaks. Other debris noted on the site are car doors and other car parts, beer cans, soda cans, and odd plastic articles. Some of the stones from one of the walls had been pulled down to form the bounds of a campfire; these stones are blackened and bear the traces of exposure to heat and open flames.

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<u> Likinlulem </u>
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Narrative Description (continued)

The presence of the new road has increased accessibility to Likinlulem, which has actually proven to be a boon. Local Kosraeans are visiting the site in increasing numbers, because this is the site from which their history and traditions originated. Their interest has quickly been translated into a concern for its preservation and the continued integrity of its condition. To them, the site has taken on an almost sacrosanct aire; this is afterall, the site of Kosrae's founding ancesters (both spirit and human). It is this concern that has driven the controversy over the road construction and the perceived damage caused by construction activities.

Previous Investigations

Between 1979 and 1981, large areas of Kosrae were subjected to archaeological reconnaissance surveys by the U.S. Trust Territory Office of Historic Preservation. One of those areas was Likinlulem, surveyed in 1981. The principal purpose of the surveys was simply to record historical sites within selected *facl* (land divisions), all of which were unknown archaeologically and had never been systematically documented. Additional reconnaissance surveys around the island occurred between 1981 and 1982, under the auspices of the Circumferential Road Project. However, these surveys focused on narrow corridors slated for development as part of the road project; a portion of that corridor cut through Likinlulem. In 1983, a small-scale archaeological excavation and exploration of Likinlulem was underway, with the focus of investigations on gathering sufficient information to demonstrate a time depth to and subsurface component within the site. This exercise resulted in the recovery of a range of data that revealed both a cultural and environmental history of the site, complete with a time depth that extended well beyond any other site thus far examined. Much of the information contained in these pages was drawn from that investigation. The latest investigations at Likinlulem were conducted in January 2003, and consisted principally of a condition assessment relative to the effects of road construction.

The 1981 reconnaissance survey of Likinlulem *facl* involved the production of a preliminary map of the Likinlulem site (D17-1), as well as a reconnaissance of the surrounding area. The closest site to the Likinlulem site was a small platform with a wall—a tomb—located at a distance of about 200 meters. Slightly further afield, yet also within the same *facl*, a handful of other sites (platforms and enclosures mainly) were identified, all of which were located on the same coastal plain; the survey did not extend into the upland forest zone. At least one of the newly identified sites (D17-3) incorporated an extensive prismatic basalt outcrop. This was probably a building stone quarry and is associated with a local story that reinforces the position of Likinlulem and its *facl* as an imposing and powerful region that retained its strength as a traditional center even during the rise of another site as the new center of island government. According to this story, when the great walls of Leluh, the new home of the island's paramount chiefs, were raised, the paramount chief called upon all islanders to contribute building stones to this effort. Two men from Likinlulem were slow to respond to this call; the paramount chief, however, did not object. If it were any one from some other place on-island, such a transgression would have been answered with immediate and dire consequences. But they were from Likinlulem, a place with deep roots from which the island's chiefly lines and titles are said to have originated.

In 1983, Likinlulem was systematically excavated, with 17.9 cubic meters of sediments examined from 18 test pits. The excavations revealed intact buried cultural deposits that included stone platforms and pavements, a pebble floor common in cookhouses, concentrations of fire-cracked rock and charcoal lenses. Subsurface artifacts tended to be rare, although a small number of coral fragments were collected from buried contexts, along with two fragments of volcanic glass, basalt fragments with ground surfaces (possible adze preforms?), and a handful of historical materials, namely rusted metal fragments and a clay pipe fragment (from historic era whalers?). A single fish vertebra was also retrieved from an *um* (rock cooking oven); however, no marine shell was recovered. The acidic soils probably complicated recovery of buried cultural materials as anything organic or fragile would not have survived in such a hostile environment. From the surface, food pounding stones with one or two circular depressions or gently concave surfaces and *seka* stones with linear troughs or grooves were collected.

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Narrative Description (continued)

Excavations also resulted in the establishment of a basic relative chronology (in addition to the absolute chronology built on radiocarbon dates), demonstrating which enclosures were earlier, which later, and documenting a succession of canoe landings and mooring facilities. Even the environmental history of the site was revealed, including the shifting, downcutting and channelizing of the main streambed through the site, as well as the progradation of the shoreline and development of the mangrove.

The 2003 condition assessment focused on the effects of road construction. Investigations were limited to the site surface, and were conducted by the Kosrae Office of History and Culture Preservation. They consisted of an intensive examination of the site relative road construction, with the map produced during the 1981 and 1983 investigations serving as a reference for observations. A summary of findings is described above, in <u>Current and Past Impacts section</u>.

8. Statement of Significance

Likinlulem is an exceptional site in the archaeological record of Kosrae. It was continuously occupied from at least AD 1200 to 1600, a period of great importance in the traditional history of the island. But that is not the sole temporal expanse of occupation; radiocarbon dates from Likinlulem indicate occupation well before this and well after (at a minimum, from AD 1000 to 1800). This mid-range period (AD 1200-1600), however, was the formative era, when regional centers were vying for power and control over the island's population and resources. Likinlulem had the advantage over all other regional centers, as it was a prominent feature in the island's oral histories and the place from which the island's traditional titles, political system and chiefly lines originated. Its role in the formation of Kosraean culture was legion, most especially during the formative era in which an atmosphere of increasing social and political complexity was fostered. This was an era when land tenure systems, cultural expectations and societal roles were systematically and routinely becoming more rigidly defined.

Likinlulem itself is characterized by monumental architecture, although it may seem modest by the measure of later sites; but for its place in time, it presented a near-sprawling complex of conjoining enclosures defined by multicoursed walls of streamworn basalt boulders, a paved canoe landing and mooring facility that incorporates the natural slope of the mangrove channel into its expanse, a sweeping staircase that guides the weary traveler into the walled compounds of the site, and channelized streams that demonstrate a mastery and willful control over the local environment. Likinlulem was, for all intents and purposes, the residence of an elite—virtually all the oral histories that reference the site note it as the home of the island's high chiefs, its 'kings.'

Likinlulem also has the benefit of location within the island's history; it stands in the heart of the earliest settled region on the island, a position that reinforced status, prestige, rank, and privilege. Today, the site is a hidden by a thick jungle that obscurs virtually all surface architecture. But beneath that veil, Likinlulem contains a nearly intact network of compounds, with intact subsurface deposits and still earlier buried architectural components. The condition and integrity of the site are good, and were it not for the lack of organic remains, one could imagine the site was just abandoned with residents deciding *en mass* to simply walk away from their centuries' old home.

Relative to National Register Criteria, Likinlulem meets National Register Criterion D as an archaeological site representative of Micronesian heritage and prehistory, that has yielded and will likely yield additional information important to the traditional history of Kosrae and the Pacific.

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Statement of Significance (continued)

Historical Context

Little is known about the history of Kosrae. Information gleaned from scattered oral histories, a small number of historical eyewitness accounts, and the few archaeological investigations that have taken place provides precious little beyond a sketchy outline of events since the arrival of the founding population some 2,000 or more years ago. Most of the archaeological and historical work on the island has concentrated on the monumental site of Leluh, which was home to the paramountcy during the latter part of the prehistoric era, at least until the onset of the post-Contact period in AD 1824. Leluh housed the island's highest chief along with his retinue of regional high chiefs. It was here that each chief maneuvered for position and ranking, and consolidated power and alliances. To the populace at large, Leluh was the symbol of power, authority and island unification; all roads let to Leluh. But what about the period of island history prior to the rise of Leluh as a central power of unification and administration? Additional archaeological work on the island has resulted in the documentation of a series of historical sites located on the coastal plain, circumscribing the perimeter of the island much like a string of pearls. Many of these sites are located at the toe of steep mountain slopes, straddling a narrow coastal shelf and the abrupt drop into the mangrove swamp; others are somewhat inland, yet still retain immediate access to the coast by their proximity to river channels. But, the chronological position of most of these sites as contemporary with or preceding Leluh remains unknown; even their roles as potential regional or administrative centers remains unresolved.

What is known, or rather accepted, is that some 2,000 or more years ago, the founder population landed on the southwest coast of the island. This was where settlement began; this was the place with the longest occupation on the island, and the place from which status and chiefly position was derived. The standing of chiefs in the island-wide system of prestige and the hierarchy of power was reinforced if they could trace their ancestry to this part of the island through a recitation of genealogies. Such was a demonstration of their deep roots in Kosrae, of their connection to the founding population, and of their assumed connection to the ancestors of the founding population. Sites in the southwest region of the island, especially along the southwest coastline, are considered older and more extensive then sites anywhere else on the island.

Likinlulem is one of the few southwest coastal sites that is mentioned in oral histories. This was the place from which Kosraean culture and traditions are said to have originated, including the traditional title system that dominated the chiefly ranks in Leluh. Likinlulem had the advantage over all other sites on the southwest coast, or across the island as a whole; it had an established political and social base that was reinforced by its position in genealogies, oral history, and even the chronology of the island. In fact, there was no other site like it during the formative era, AD 1200 to 1600, an era that has become critical in understanding the pre-Leluh and even the Leluh epoch. It's place in the archaeological sequence of sites suggests it is still earlier, as dates of around AD 1000 have been recovered from buried cultural surfaces, and continued to be occupied until about AD 1800. With less than 0,01 % of the site excavated, the site still harbors a wealth of information, much of which has yet to be recovered.

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10. Verbal Boundary Description

At the terminus of a secondary channel that extends 380 meters eastward from the main channel through the mangrove, Likinlulem is located on a small, slightly elevated alluvial plain that extends from the mangrove to the base of two westward trending ridges. The secondary channel flows into the site's canoe landing, which also serves as the entrance to the site. From here, the site runs along the edge of the mangrove to the north about 75 meters, to a dry streambed. From this point, site boundaries turn inland, toward the east about 150 meters to the base of the mountain slope. Thence, following the toe of the slope generally southward for roughly 200 meters, past the perennial Likinlulem Stream, to another dry streambed. From this

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Boundary Description (continued)

point, the site boundary turns westward, toward the mangrove. The streambed passes to the north of Enclosure 9; however, the site boundary veers to the south of this enclosure (to insure its inclusion in the site) and ends at the edge of the mangrove, roughly 150 meters away. From this point, the site boundary turns northward, following the edge of the mangrove passed Enclosure 9, passed a large taro patch and ends at the canoe landing at a distance of about 125 meters.

Boundary Justification

All boundaries are defined by the limits of visible cultural features, which coincide with distinct natural features. Site boundaries are the points where site features meet the mangroves, dry streambeds, and the toe of the mountain slopes. The site itself is best described as a dry, but narrow coastal plain sandwiched between the mangroves and mountains.

Additional Documentation: Maps, Figures and Photographs

- 1. USGS Map of Kosrae showing location of Likinlulem.
- 2. Plan map of Likinlulem, showing enclosures and location of 1983 excavation units.
- 3. Plan maps of developmental sequence observed at Likinlulem (from Bath et al. 1983): a) prior to AD 1200, b) ca. AD 1200
- 4. Plan maps of developmental sequence observed at Likinlulem (from Bath et al. 1983): a) ca. AD 1300, b) ca. AD 1400
- 5. Plan maps of developmental sequence observed at Likinlulem (from Bath et al. 1983): a) ca. AD 1600, b) ca. AD 1700
- 6. Photographs
 - 1. Opening in wall, Compound 6 (looking west northwest)
 - 2. Wall (looking east)
 - 3. Entrance into site from canoe landing (looking east)
 - 4. Pavement on canoe landing in mangrove channel (looking west)
 - 5. Stone stairway from Compound 1 to Compound 2 (looking east)
 - 6. Wall under road fill (looking north)

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Additional Documentation (continued)

Photograph descriptions:

Photograph 1

- 1. Likinlulem
- 2. Kosrae, Federated States of Micronesia
- 3. F. Beardsley
- 4. January 2003
- 5. Pacific Rim Research Unit University of California, Riverside
- 6. Opening in wall, Compound 6 (looking west northwest) (Photo 20, Roll 10)
- 7. Nr. 1

Photograph 3

- 1. Likinlulem
- 2. Kosrae, Federated States of Micronesia
- 3. F. Beardsley
- 4. January 2003
- 5. Pacific Rim Research Unit University of California, Riverside
- 6. Entrance into site from canoe landing (looking east) (Photo 12, Roll 10)
- 7. Nr. 3

Photograph 5

- 1. Likinlulem
- 2. Kosrae, Federated States of Micronesia
- 3. F. Beardsley
- 4. January 2003
- 5. Pacific Rim Research Unit University of California, Riverside
- 6. Stone stairway from Compound 1 to Compound 2 (looking east) (Photo 36, Roll 11)
- 7. Nr. 5

Photograph 2

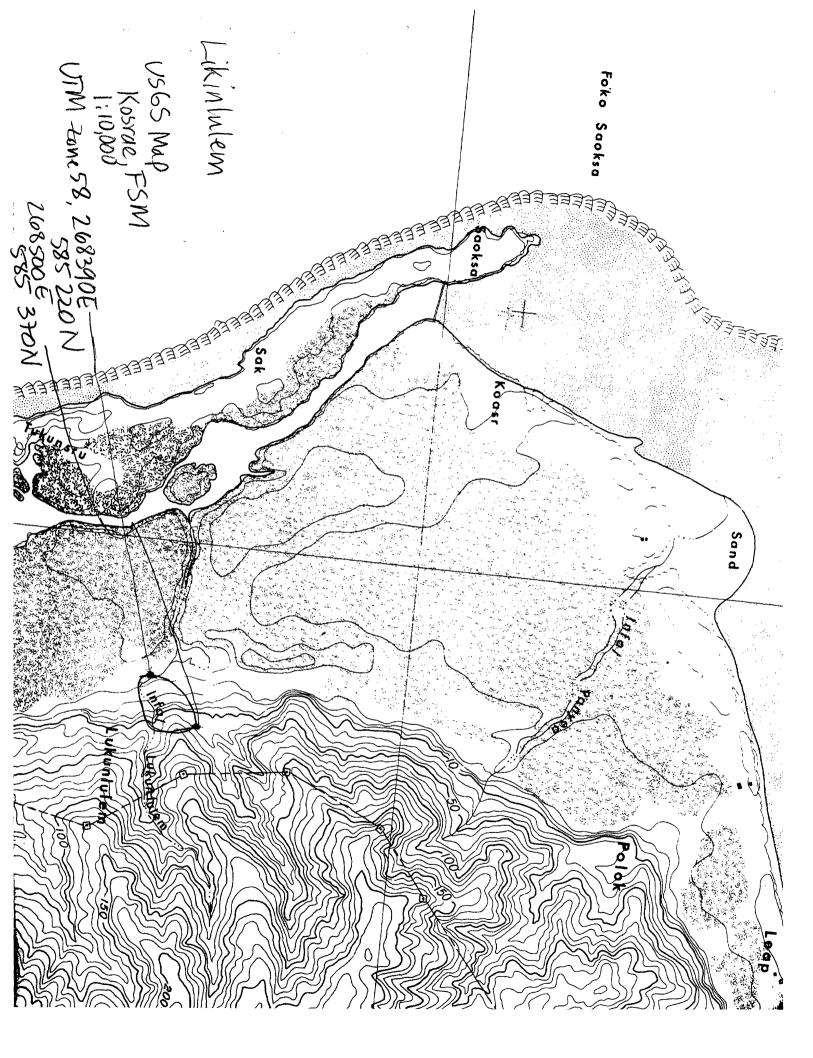
- 1. Likinlulem
- 2. Kosrae, Federated States of Micronesia
- 3. F. Beardsley
- 4. January 2003
- Pacific Rim Research Unit University of California, Riverside
- 6. Wall (looking east) (Photo 31, Roll 11)
- 7. Nr. 2

Photograph 4

- 1. Likinlulem
- 2. Kosrae, Federated States of Micronesia
- 3. F. Beardsley
- 4. January 2003
- 5. Pacific Rim Research Unit University of California, Riverside
- Pavement on canoe landing in mangrove channel (looking west) (Photo 15, Roll 10)
- 7. Nr. 4

Photograph 6

- 1. Likinlulem
- 2. Kosrae, Federated States of Micronesia
- 3. F. Beardsley
- 4. January 2003
- Pacific Rim Research Unit University of California, Riverside
- 6. Wall under road fill (looking north) (Photo 5, Roll 10)
- 7. Nr. 6



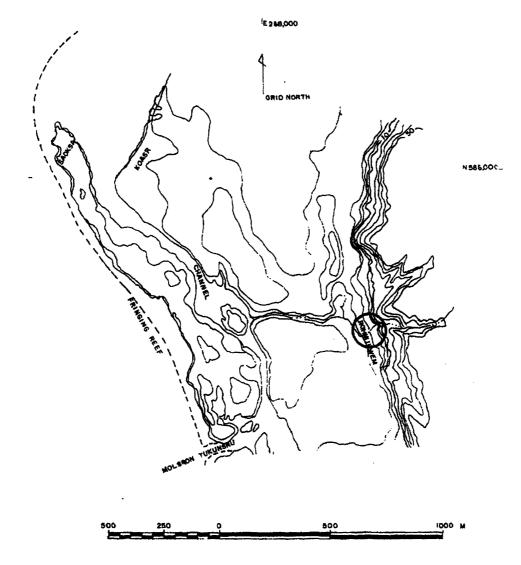


FIGURE I: SITE LOCATION MAP,
WESTERN TIP OF KOSRAE

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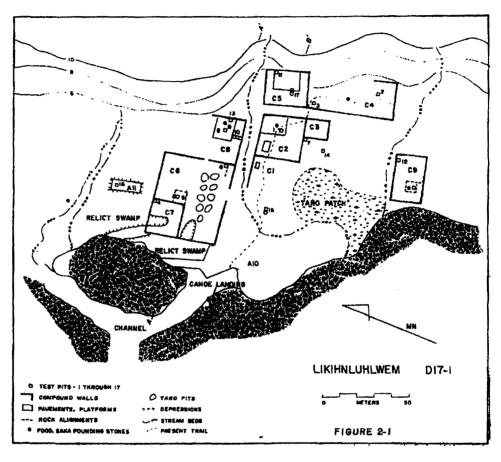
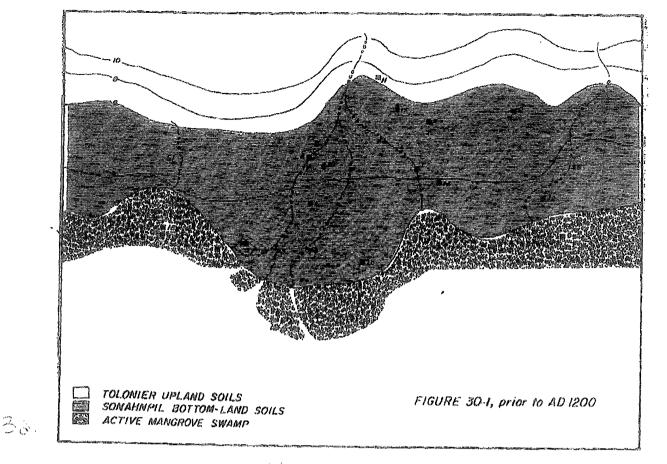


Figure 2-1: Site Map

Likinhulem
Kosrae, Federated States of Micronesia
Rosrae, Federated States of Micronesia
Plan map of site, showing enclosures and location of 1983
excavation units

(from Bath et al. 1983)

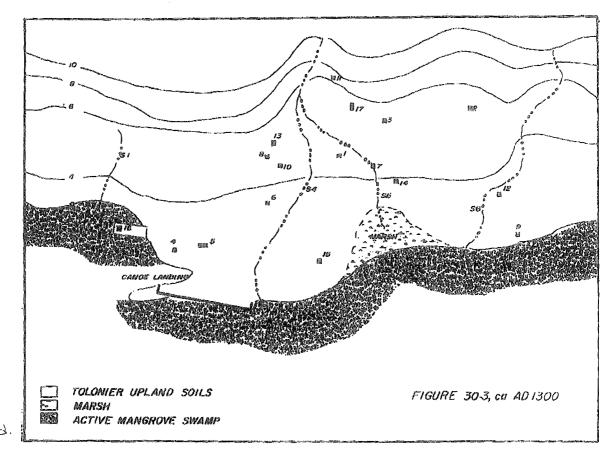


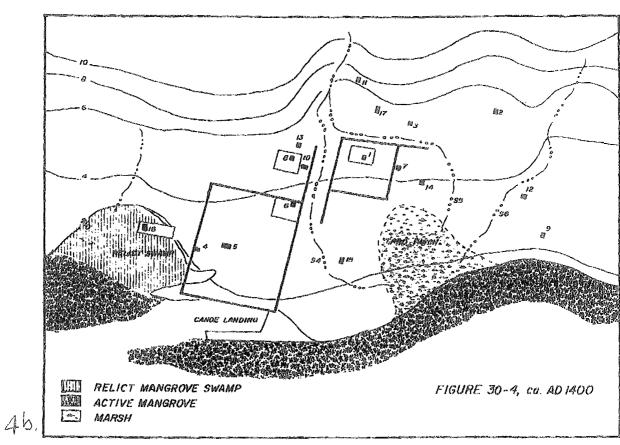
TOLONIER UPLAND SOILS
SONAHIPIL BOTTOM-LAND SOILS
ACTIVE MANGROVE SWAMP
MARSH

FIGURE 30-2, ca. AD 1200

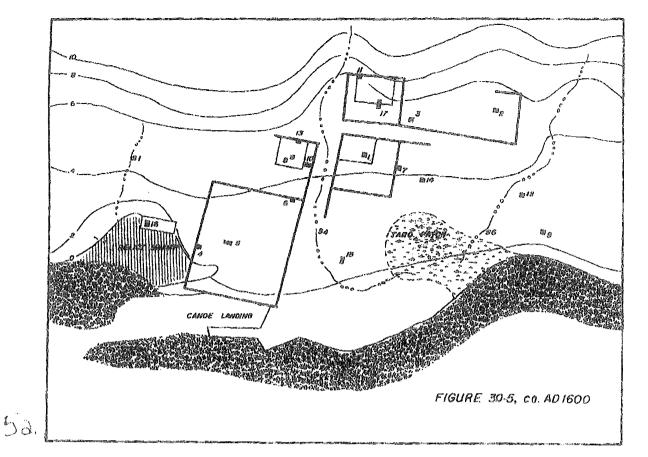
Likiniulem.
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Plan Maps of developmental segmence: a) pror 10AD 1200
(From Bullington Mass) b) of AD 1200

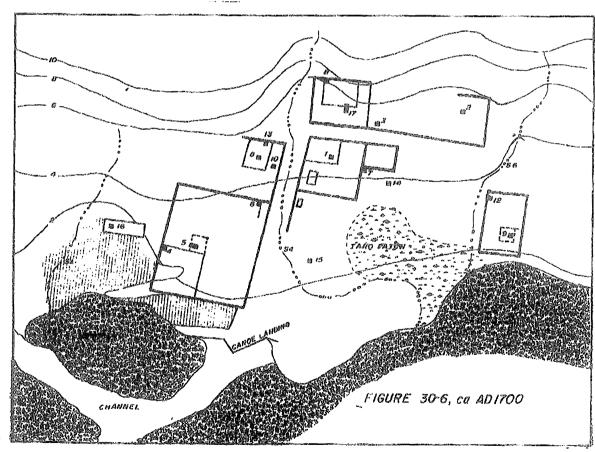
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Kostae, Federaled States of Micropage.
Plan maps of developmental sequence: a) ea AO 1800
(from Bath et al 1983)





Likin lutern

Kostae, Federated States of Micronesia

Plan maps of developmental Dequence: a) ca. AD 1600

(from Bathel at 1983)

(from Bathel at 1983)