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MINISTRY OF INTERNAL AFFAIRS
HISTORIC PRESERVATION OFFICE

Anthropological Survey of Namu Atoll

Richard V. Williamson and Donna K. Stone

HPO Report 2001/11

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Majuro Atoll, 2001

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Forward

The following monograph is the result of research conducted between October 6-13, 2000 at Namu Atoll, Republic of the Marshall Islands. The research consisted of non-intrusive, terrestrial archaeological reconnaissance survey and the collection of traditional stories. The projects were all sponsored by the Republic of the Marshall Island's Historic Preservation Office and funded by the Historic Preservation Fund, National Park Service, Department of the Interior.

Our thanks go to our colleagues at the National Park Service, Paula Falk Creech, Mark Rudo, and David Look for their assistance and guidance. We could not have performed the survey without the assistance of many individuals at the Historic Preservation Office and Alele Museum. Most especially, Hemley Benjamin, Assistant Archaeologist and the individual who assisted the actual survey; Ninbo Frank, Alele's video technician and the individual who collected and translated the traditional stories; Terry Mote, Alele's Historic Preservation Specialist; and Taro Bero, Namu's Cultural Resource Officer. Clary Makroro, the Deputy HPO, and Benice Joash, Executive Director at Alele, assisted in logistics and library research. Our further thanks go to the Minister of Internal Affairs and Chairman of the RMI Advisory Council for Historic Preservation, the Hon. Nidel Loak, as well as the Secretary of Internal Affairs and Historic Preservation Officer, Mr. Frederick deBrum. Finally, our deepest thanks goes to the people of Namu Atoll.

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Majuro Atoll, Marshall Islands
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I. Introduction

This report represents the results of archaeological and anthropological research conducted on Namu Atoll, Marshall Islands from October 6 – 13, 2000 by the Historic Preservation Office, Majuro, Marshall Islands. All field documents, including completed site survey forms, field notes, maps, photographs are housed at Historic Preservation Office, Majuro Atoll, Republic of the Marshall Islands. No artifacts or food remains were collected. The US National Park Service Historic Preservation Fund grant provided funding.

1.1 Project Objectives

The purpose of the survey was two-fold. The first was to identify, record, and evaluate the historic, prehistoric, and traditional sites located on the atoll in accordance with the survey and inventory program area of the Historic Preservation Office. The second was to educate the inhabitants of the atoll on the importance of protecting and preserving the sites that the team identified. As such, the Historic Preservation Office made every effort to include the local population, their elected officials, and traditional chiefs and landowners in every step of the research. Local informants and guides were used throughout the research and formal and informal lectures covering the activities of HPO staff were conducted at the schools, town halls, and churches of each island that was visited.

1.2 Evaluation of Research Design and Methods Used

A) “Non-intrusive” reconnaissance survey

The research conducted was a “non-intrusive” reconnaissance survey. The team did not remove any artifacts and/or food remains. The sites were identified through either a walking survey or from knowledge of local guides. The sites were recorded using a Geographical Position System (GPS) unit and that data was entered into ArcView Geographical Information System (GIS) software to generate maps. Information for Site Survey Forms was entered into the GPS unit in the field and was transferred into the database software that is contained in the ArcView program. Slide photographs as well as digital photos of all sites were taken. All notes, survey forms, GPS data, and photographs are housed at the Historic Preservation Office, Majuro Atoll, Republic of the Marshall Islands.

Evaluation was based upon the Republic of the Marshall Islands site significance levels established by the RMI Historic Preservation legislation of 1992. Determining the definition of significance varies if the site is prehistoric, historic, or traditional. All traditional sites are determined as significant. Prehistoric or historic sites can be evaluated as being “very significant,” “significant,” “less significant,” insignificant,” or

“undetermined significant” [RMI Historic Preservation Legislation, Regulations Governing Land Modification Activities, Section 6.]

A Prehistoric site was considered “very significant” if it met at least one of the Marshall Islands’ formal criteria:

- (i) the resource is the only one of its kind known on the atoll concerned; or
- (ii) the resource is part of an ensemble of sites, even if the individual sites as such would not be considered to be very significant; or
- (iii) the resource is rich in cultural artifacts and undisturbed by construction activities; or
- (iv) the resource is particularly well preserved; or
- (v) the resource is connected with oral traditions important beyond the limits of the individual atoll on which the resource is located.

A Prehistoric site was considered “significant” if it met at least one of the Marshall Islands’ formal criteria:

- (i) the resource is the only one of its kind known on the islet concerned; or
- (ii) the resource is rich in cultural artifacts and undisturbed by construction activities; or
- (iii) the resource is well preserved; or
- (iv) the resource is connected with oral traditions.

An historic site was considered “very significant” if it met at least one of the Marshall Islands’ formal criteria:

- (i) the resource is the only one of its kind known in the Republic; or
- (ii) the resource is part of an ensemble of sites, even if the individual sites as such would not be considered to be very significant; or
- (iii) the resource is considered to be a prime example of the workmanship of a particular architect, builder or craftsman; or
- (iv) the resource is rich in cultural artifacts and undisturbed by construction activities; or
- (v) the resource is particularly well preserved and shows little or no alterations to the original appearance of the structure; or
- (vi) the resource is connected with historic events or persons or oral traditions important beyond the limits of the individual atoll on which the resource is located.

An historic site was considered “significant” if it met at least one of the Marshall Islands’ formal criteria:

- (i) the resource is the only one of its kind known on the atoll concerned; or
- (ii) the resource is considered to be a good example of the workmanship of a particular architect, builder or craftsman; or
- (iii) the resource is rich in cultural artifacts and relatively undisturbed by construction activities; or
- (iv) the resource is well preserved and shows only limited alterations to the appearance of the original structure; or

- (v) the resource is connected with historic events or persons or oral traditions important for the individual atoll on which the resource is located.

As the survey was designed to be non-intrusive, no test excavations were conducted and no artifacts were collected. The purpose of the survey was purely to identify and record the sites in order to allow evaluation of each site's significance level, which will be used to establish eligibility for inclusion on the RMI National Register. Future researchers can use this information in assessing which sites are deemed significant enough to warrant further research, analysis, interpretation, and/or protection and restoration. The survey followed the standards and guidelines of the grantor, the United States Department of Interior National Park Service Historic Preservation Fund.

B) Nomenclature

In assigning sites, the system used in the Marshall Islands includes three two-letter abbreviations and then a site number. The first abbreviation identifies the site as located in the Marshall Islands (MI), the second is the atoll, Namu (NA), the third the islet, Namu (NA). Therefore the site MI-NA-NA-001 is the first site identified on the islet of Namu in the Namu Atoll.

C) Survey Equipment and Team Members

The following equipment was used in the survey:

- 1 Trimble GPS unit with Pathfinder Office 2.02 software
- ArcView 3.0a GIS software
- 1 Sony Mavica MVC-FD83 digital camera
- 1 Canon EOS Rebel 2000 SLR camera with slide film
- 2 5m metal tape measures
- 1 30m cloth tape measure
- 1 roll of flagging tape
- Notebooks, pens and pencils
- 1 compass

Field team members included Staff Archaeologist, Richard Williamson; Assistant Archaeologist, Hemley Benjamin; Video Technician, Langinbo Frank; and Historic Preservation Specialist, Terry Mote. Donna K. Stone, Staff ethnographer, provided historical background.

D) Informants/Guides

Fieldwork relied heavily on informants and guides. The informants provided information on the location and history of sites, while the guides, if not the informants themselves, lead the team to the sites. Key-informants¹ were the elders of the community, who as custom dictates were also the government leaders, and so were the

¹ Ethnographically defined as individuals who have been interviewed intensively or over an extensive period of time for the purpose of providing a relatively complete ethnographic description of the social and cultural patterns of the group. In the present case "key-informant" refers to those individuals who provided general and specific information on almost every site investigated.

most knowledgeable about atoll history. They provided a never exhausting pool of knowledge to be further investigated ethnographically. Since precisely locating sites on the various islets was problematic the use of guides was essential. Information was obtained in casual meetings throughout the duration of the fieldwork; no formal questionnaire was developed.

E) Survey Methods

The survey did not include the total landmass of each islet visited. When informants or guides could not lead the team to the potential sites on the islets the following method was applied. The crew was distributed at five to eight meter intervals and surveyed the islets from north to south or east to west. Areas of the extremely dense vegetation were not surveyed due to the lack of appropriate clearing tools (machetes). When a site was noted, a site number was assigned, a GPS position was taken, the area was photographed, and site survey forms were filled out. In areas of dense vegetation, the GPS position was sometimes taken several meters away from the site itself.

1.3 Limitations of Research

Although the purpose of the survey was to identify potentially significant sites, it must be remembered that the survey was non-intrusive. Shovel test pits were not conducted and given time and money constraints, much of the survey relied heavily upon the local informants and their knowledge of historic sites. The survey attempted to be as extensive as possible, but included no follow-up intensive research. As such, this report should be considered preliminary and only includes those sites readily identified either visibly or with the aid of an informant. Given previous research in the Marshall Islands that has included either shovel test pits or more intensive excavations, it is apparent that prehistoric archaeological sites in this type of non-intrusive reconnaissance survey will be highly underrepresented. This is especially true in the Marshall Islands where the lack of durable artifacts such as ceramics is lacking.

A further limitation was encountered with the generation of maps using the GPS unit and ArcView GIS software. Problems encountered were two-fold. First, it was impossible to remove the selective availability that the US Department of Defense uses to “scramble” GPS coordinates, thus giving some error in the recording of exact locations of the sites. Second, the digitized map of the Marshall Islands used by the HPO is one that was originally made by the Japanese during their administration of the Republic. The map was updated by the U.S. during the Trust Territory of the Pacific Islands administration, but still prone to many errors. While most of these errors were external, there were instances of internal inaccuracies. Unfortunately, this was still the most up-to-date map available at the time of the research. However, in recording the GPS readings in the field, the GPS unit that was used did allow for the recording of a series of readings (120 points were recorded) that averaged out to one reading per site. This should remove some of the inaccuracy caused by the selective availability. Regarding the maps, as the data is stored electronically in ArcView GIS software, when an updated map of the Marshall Islands is available, the new digitized map can be replaced for the older version. For the purpose of this report, the maps cannot give much more than a “general” location

of each site. However, in the section describing the sites, the GPS coordinates for each site are provided.

1.4 Previous Research

The lack of previous research conducted was one, if not the main, criteria for the selection of Namu Atoll. In accordance to the Historic Preservation Office's survey and inventory program area, Namu Atoll was selected to be surveyed by the HPO staff.

The first scientific exploration of the Marshalls was conducted by the Russian, Otto von Kotzebue in 1816-17 and 1824. It is during this time that first significant contact between Europeans and the Marshallese was made. Von Kotzebue and his crew spent several months in the Ratak islands in 1817 and 1824, specifically Wotje, Maloelap, and Aur Atolls. Kotzebue described the biology, animals, and plants of the atoll as well as ethnography (Kotzebue 1821, 1830; Chamisso 1986).

The comprehensive study carried out under the leadership of Paul H. Rosendahl (1979, 1987) during March-June 1977 included Mae Islet and Leuen Islet on Namu Atoll. That expedition, which became known as the "Louis L. Kelton-Bishop Museum Expedition to Eastern Micronesia," covered parts of Majuro, Mili, Arno, Aur, Maloelap, Wotje, Likiep, Wotho, Lae, Namu, Ailinglaplap, and Ebon Atoll, as well as, Lib Island in the Marshall Islands. One site was found on Mae Island. This consisted of subsurface cultural deposit of undetermined extent, located at the edge of the lagoon. No artifacts were found, but the deposit did contain a shell midden (Rosendahl 1987).

Previous researchers of other Marshall Island atolls have included general overviews of the history and prehistory of the Marshall Islands. Some of the better overviews include Beardsley's 1994 report (1994: 1-28) and the Historic Preservation Plan United States Army Kwajalein Atoll (1996).

1.5 A Brief History of the Marshall Islands

The people of the Marshall Islands refer to their parallel-chained archipelago as *Aelon Kein*, "these atolls." According to folklore, the first discoverers and settlers of the Islands were a handful of wayfarers seeking an uninhabited autonomous area where they could live (Hart 1992). What little we know about early Marshallese comes from oral history and early accounts by explorers.

Marshallese autonomy was threatened as early as 1526 when the first of eight known Spanish ships passed through the area. The first recorded sighting, probably Bokak Atoll, was made by Alonso de Salazar, commanding the *Santa Maria de la Victoria*, but no contact was made (Levesque 1992a, Sharp 1960). In 1529 contact was made by Alvaro de Saavedra of the *Florida* which laid anchor to take on provisions at Eniwetak or Bikini and stayed for eight days. He also discovered Utirik, Taka, Ujelang, and made landings at Rongelap and Ailinginae. The Spanish flagship *Santiago* and five other ships in the expedition under Ruy Lopez de Villalobos is credited for the western discovery of Wotje, Erikub, Maloelap, Likiep, Kwajalein, Lae, Ujae, and Wotho, landings were made on some of the islands. (Levesque 1992a, Sharp 1960).

In 1565, Alonso de Arellano of the Legaspi expedition sighted Likiep, Kwajalein, and an island thought to be Lib (Sharp 1960) while Legaspi himself is credited with sighting Mejit, Ailuk, and Jemo. Some trading was done at Mejit. The following year the mutineer Lope Martin commanding the *San Jeronimo* made several sightings and was eventually stranded in the Marshalls, probably on Ujelang. Two years later the Spanish ships *Los Reyes* and *Todos Santos*, under Alvaro de Mendana went ashore at what is probably Ujelang. Namu was also thought to be sighted. (Levesque 1992b)

Fifty seven years passed before another vessel is reported to pass through the Marshalls. The Dutch ship *Eendracht* and ten other vessels of the Nassau Fleet, commanded by Admiral Gheen Schapenham sighted Bokak (Hezel 1979). In spite of Spain's annexation of the Marshall Islands in 1686, the Spanish established no trading posts, trade routes, or left any lasting influence.

In 1767 Captain Samuel Wallis of the British ship *Dolphin* sighted what is thought to be Rongerik and Rongelap (Sharp 1960, Hezel 1979). Even though the Spanish were the first known westerners to see the Marshall Islands credit is given to Captain William Marshall, commander of the *Scarborough*, who together with Thomas Gilbert of the *Charlotte* for the discovery or more appropriately, the rediscovery of the Marshall Islands in 1788. Marshall and Gilbert mapped these island groups and traded with the various atolls. They are the first westerners to sight Mili, Arno, Majuro, Aur, and Nadidik (Sharp 1960). They also sighted the previously discovered Wotje, Erikub, Maloelap, and Ailuk.

Captain Henry Bond aboard the British merchantman vessel *Royal Admiral* sighted Namorik and Namu in 1792. Two years later The British ship *Walpole*, under the command of Captain Thomas Butler sighted Eniwetak. Thomas Dennet was the first westerner to sight Kili as well as reporting on Ailinglapalap, Lib, and doing some trading on Namu in 1797. Other vessels sailed through the area including the British ship *Hunter*, the British brig *Nautilus*, the ship *Ann & Hope* of Providence, *Ocean*, *Herald*, and *HMS Cornwallis*, to name a few. These ships sighted atolls and islands that had been previously reported but did not stop and trade. Jaluit was sighted by the *Rolla* in 1803 and again in 1808 by Captain Patterson of the British merchant brig *Elizabeth* both of which landed and did some trading (Sharp 1960, Hezel 1979, 1983).

The first scientific exploration of the Marshalls was conducted by a Russian, Otto von Kotzebue, in 1816-17 and 1824. It is during this time that first significant contact between Europeans and the Marshallese was made. Von Kotzebue and his crew spent several months in the Ratak islands in 1817 and 1824, specifically Wotje, Maloelap, and Aur Atolls (Kotzebue 1821, 1830; Chamisso 1986).

The account left by this expedition provides the first early ethnographic material, including an interesting description of how Kotzebue was urged to help Lomade defeat Latete, a powerful southern Ratak *Irooj*, and become *Irooj* of all Ratak. Although Kotzebue declined the offer his influence was noted. Traditional warfare practices began to change soon after Kotzebue's first visit. Metal hatchets given as gifts were attached to wooden poles. Lomade's troops used these new weapons to defeat the powerful Majuro

Irooj and establish control over the Ratak Chain (Erdland 1914, Kramer and Nevermann 1938).

Other ethnographic observations come from Lay and Hussey (1828) who survived the *Globe* mutiny at Mili Atoll and Paulding (1831) a U.S. Navy lieutenant who helped to retrieve Lay and Hussey. These early observers published accounts which give us an insight to traditional personal appearance, manners, food, dwellings, and in a lesser extent, facets of political and social organization reflecting traditional practices.

The prospects of profitable trade lured the German entrepreneurs into the Marshalls in the latter part of the 19th century. Subsequent contact with Europeans gradually increased as whalers concentrated their activities. They were hunting to provide lamp oil to meet European and American demand. With the disruptive and intolerant whalers, as well as the English blackbirders in search of cheap labor to work the mines and plantations in the New World and Australia, encounters turned hostile. Numerous ships were attacked by the Marshallese and the crews killed; brutal retaliations followed. The mood of contact in the first half of the 19th century was one of confrontation (Hezel 1979, 1983; Dye 1987)

The treacherous reefs, small number of whales, and the new methods of distillation of kerosene from crude oil soon put the whalers out of business. The blackbirders, however, continued their raids until the 1870's.

In 1857 two American missionaries from the American Board of Commissioners for Foreign Missions, Congregationalists from the New England area, succeeded in setting up operations on Ebon (where as recently as 1852 a ship from San Francisco had been attacked and the entire crew killed) (Hezel 1979). The Marshallese *Irooj* opposed the missionaries and the establishment of new congregations throughout the 1860s because it eroded their power. This loss of power was somewhat alleviated by establishment of permanent trading stations as the demand for copra rapidly increased. The chiefly power base gradually shifted from control over the land to control over the trade between the Marshallese and foreigners (Dye 1987). Ebon remained the mission center, from which occasional trips were made throughout the southern atolls, until 1880, when the station was moved to Kosrae in the eastern Carolines.

Changes in the Marshallese way of life had been rapid and extensive. The dominant contact with the outside world had been through missionaries sent or trained by the American Board. Yet virtually no ethnographic description is to be found among the voluminous records kept by the missionaries. Instead, they were "not only indifferent, but supremely scornful of the religious beliefs [of the Marshallese]. They tried to extinguish them completely and destroy every trace of them" (Knappe 1888). The ethnography summarized by the Germans, Erdland (1914) and Kramer and Nevermann (1938), coincided with major structural changes in Marshallese way of life. Writing in about 1905, the German ethnographer and priest Erdland commented, "the present generation no longer has any exact knowledge of the inner coherence of the ancient traditions" (1914:307).

Other factors also influenced these changes. The copra trade dates from about 1860 in the Marshalls and American, Australian, and German firms often had resident

traders on the various atolls. Beachcombers added to the resident white population, often filling the role of trader as well.

European political empires reached into the Pacific in the 1880s and German traders were exercising increasing influence in the Marshalls. In 1885, the Marshall Islands became a protectorate of Germany, as “the Marshall islands were not under the sovereignty of any civilized state” (Pauwels 1936). During the German era, which lasted until 1914, the atolls were visited regularly by traders, missionaries, and administrative officials. Administration of the area was carried out by the German trading company, Jaluit *Gesellschaft*. This firm, which resulted from a merger of companies active in the area, Robertson and Hensheim, and *Deutsches Handels- und Plantagen-Gesellschaft* (D.H.P.G.) (formerly Johann Godeffroy und Sohn), had exclusive trading rights in the Marshalls. Despite complaints about this monopoly by the Australian firm, Burns, Philip and Co., the New Zealand company, Henderson and MacFarlane, and others, the German government continued to act on the advice of the Jaluit *Gesellschaft* until 1902 when it assumed direct administration of Micronesia (Hezel 1983).

This form of administration, with primarily an economic focus, had little impact on the health and educational level of the Marshallese. In this regard, the missionaries were of greater importance. Select groups of Marshallese were educated in the German language to serve as interpreters and the services of a doctor were available on occasion. Copra was the main product of the Marshalls and production was stimulated by taxes assessed through the traditional leaders as well as through the availability of Western goods. This form of indirect rule strengthened the traditional political organization of the Marshallese, while the German administration dealt mostly with conflicts between foreigners and the *Irooj* (Hiery 1995).

Warfare between the islands *Irooj* was eliminated, an act which froze the relative social positions of the *Irooj* and their *jowi* (clan) and created a condition of inflexibility in the social system; in addition it allowed increased trading and missionary activity and thus contributed to more rapid cultural change (Spoehr 1949). German ethnographers were active in this period and it is largely through their efforts, especially in the many volumes published on Micronesia by the German South Sea Expedition of 1908-1910, that much is known of the traditional way of life (Kramer and Nevermann 1938 is a result of this expedition).

In 1914, at the conclusion of World War I, the Marshalls were taken from Germany by Japan. They shifted to a system of direct rule through a set of community officials and greatly expanded the administrative staff. Traders of other nationalities were excluded and the Japanese attempted to expand copra production. Protestant and Catholic missionary activity was allowed to continue unhampered, and in general the Marshallese appear to have gotten on well with the Japanese (Spoehr 1949). The Japanese did conduct ethnographic research, however most of this material has yet to be translated into English.

The Japanese military, through the South Seas Defense Corps, governed the Marshalls until 1918. From 1918 until 1920, a combined civilian and military government was in charge. In 1920 Japan was awarded Micronesia as a Class ‘C’ mandate by the League of Nations. The terms of the mandate were upheld until 1933

when Japan withdrew from the League of Nations (although they continued to submit annual reports through 1937). After 1933, the Japanese considered the Marshalls and the rest of their Micronesian mandate, an integral part of the Japanese Empire (Peattie 1988).

During the Japanese era, the administration had several goals; the economic development of Micronesia, the use of the islands as an immigrant settlement for Japan's rapidly increasing population, the Japanization of the islanders through education, language training, and enforced cultural change, and eventually, the use of the islands for military bases in anticipation of World War II (Peattie 1988).

For the Marshallese, improvements in health and sanitation were minimal. The "availability of adequate medical care was directly related to one's ability to pay" and despite a sliding fee scale, "the poorer and generally unhealthier native received less care" (Shuster 1978).

Education was also segregated and of differential quality. Ethnic Japanese were offered a school system identical to the one in Japan; while the Marshallese received three years of primary education consisting mostly of Japanese language instruction and ethics classes, with an additional two years for the more promising students (Hezel 1995).

The Japanese administration also attempted to make a number of changes in the Marshallese social and political organization. They appointed non-*Irooj* Marshallese leaders, which was contrary to the existing political structure, thus weakening the position of the traditional leader (Bryan 1972). The Japanese also attempted to change the Marshallese social organization of matrilineality to conform to the Japanese system of patrilineality, more like their own system, with little success.

In early 1930s, Japan began to construct fortifications on Kwajalein, Eniwetak, Jaluit, Wotje, Mili, and Maloelap. Marshallese were conscripted to labor on these buildings and were resettled (Peattie 1988). World War II started in 1941. In 1944, U.S. forces concentrated on gaining supremacy in the Pacific. Kwajalein, Majuro, and Eniwetak were captured within one month. All of the other atolls except Wotje, Maloelap, Mili, and Jaluit were checked for Japanese in the next two months. In those bypassed atolls, the Marshallese escaped or were removed under cover of night and resettled temporarily on Majuro, Arno, or Aur atolls (Smith 1955). The U.S. fortified Eniwetak and Kwajalein atolls as military bases.

After World War II, the United States took over trusteeship of the Marshall Islands. Beginning with Spoehr's work on village life in Majuro (1949), ethnographers have concentrated on community studies. The primary sources are Mason (1947, 1954) whose focus is economic organization; Kiste (1967, 1974) who deals with resettlement issues; and Davenport (1952, 1953) and Chambers (1969, 1972) concentrating on oral traditions.

1.6 Important Historical Events for Namu Atoll

~500 BC - 2000 BC The first Micronesian navigators arrive in the Marshalls, calling the atolls *Aelon Kein Ad* (our islands). Dates and origins of the settlers are still uncertain. Relatively little is known about the prehistory of the people. They are thought, like other Pacific Islanders, to have originated in Southeast Asia

and to have established themselves on their scattered islands centuries before European voyagers reached this area. Early accounts depict Marshallese society as having much in common with other Micronesian Islands, such as the Carolines. Chieftainship was strong and material culture, given the paucity of natural resources, was relatively advanced. Early Marshallese were regarded as superb canoe builders.

- 1494 The Treaty of Tordesillas cedes ownership of all of Micronesia to Spain.
- 1527 Three ships under Alvaro de Saavedra, sent from Mexico to seek news in the Moluccas of the Magellan and Loaisa expeditions are sent to the area of the Marshalls (Sharp 1960, Levesque 1992a).
- 1568 An expedition of Alvaro de Mendaña left Peru on 19 November 1567 with two ships, the *Los Reyes* and the *Todos Santos*. During the voyage, on 17 September 1568, they came upon some islets they named San Mateo Shoals. The islands numbered more than twenty. There were many houses. A landing party found a chisel made of a nail, and pieces of rope. The description of these islands show that they were Namu Atoll (Sharp 1960, Levesque 1992b). The chisel made of a nail were possibly left by the *San Jeronimo* on 1 July 1566, or relics of Villalobos's expedition brought from Kwajalein.
- 1788 The *Scarborough* (Captain John Marshall) and *Charlotte* (Captain Thomas Gilbert) sight Mili, Arno, Majuro, Aur, Maloelap, Erikub and Wotje Atolls while proceeding to China from Botany Bay. The name Marshall Islands is later applied to the group as a whole by Russian hydrographer A. J. Krusenstern (Sharp 1960).
- 1792 16 December Captain Essex Henry Bond sights Namu in the British ship *Royal Admiral*. He calls it the Muskilllo Islands (Sharp 1960).
- 1797 20 September Thomas Dennet, of the British vessel *Britannia*, sites Namu named by him Ross Islands. Several islanders came out while the ship stood off for a short time. They traded mats and skirts for iron hoops. They tried to knock off the rudder chains and one tore off a gallery rail (Hezel 1979, Sharp 1960).
- 1800 Wotje, Utrik, Mejit, Maloelap are allied with Aur and *Irooj* Lomade against Arno, Majuro, etc. (Chamisso 1986). Lomade inherited his position as *Irooj* from his great-great-grandmother Litarau matrilineally through Legerinoa, Leom, and Limidjoa (Kramer and Nevermann 1938).
- 1804 November 25, the British merchant ship *Ocean* under the command of John Mertho visits Namu (Hezel 1979).
- 1809 In 1809 Captain Patterson of the British vessel *Elizabeth* encounters Namu and names it Patterson's Islands (Hezel 1979).
- 1817 Kotzebue met up with *Irooj* Lomade and was told he was about 30 years old; he was a native of Arno who had gained his power by murdering all of the *Irooj* of Aur, Maloelap, and Utrik (Chamisso 1986). The Ratak islands that did not belong to Lomade (Majuro, Arno, and Mille), belonged at that time to the *Irooj*

- Lathethe, against whom Lomade was waging war (Kramer and Nevermann 1938).
- 1817 Lomade, the Iroojlaplap over Aur, Maloelap, and Wotje, desired to attack his enemies of Majuro, Arno, and Milli under Latete. Captain von Kotzebue gave him some lances and grappling hooks, for which he received in return six bundles of preserved pandanus. The new weapons put an end to the war in six days. Of the several hundred persons engaged only five had fallen. When Kotzebue visited the second time in 1824, he found Wotje was again at war, occasioned by disputes among the chiefs, whose armed forces the common people had to join (Finsch 1893).
- 1820 American whalers seeking food and water begin visiting the Marshall Islands. Some of these occasionally leave men ashore who become beachcombers and, later, traders (Hezel 1983).
- 1823 *Irooj* Lomade Juen, of the clan Rimwejoo, conquered all the islands of the Ratak and ultimately conquered Kwajalein, Lae, Ujae, Wotho, Rongelap, Bikini, Eniwetak, and Ujelang in the northern Ralik (Kramer and Neverman 1938, RMI Ministry of Education 1996).
- 1840 Kaibuke had become the second-highest chief of the southern Ralik after he married the daughter of the paramount chief. Kaibuke was feared on account of his attacks on foreign ships. He attacked Kili and Jaluit and brought them under his rule (Kramer and Nevermann 1938).
- 1842 Kaiboke Lobadeo of Ebon assumes power as the *Iroojlaplap* of the southern part of the Ralik chain (Kramer and Nevermann 1938, RMI Ministry of Education 1996).
- 1851 70 people of Ebon (including Kaiboke's brother) are killed when an American whaleship fires at their canoes in revenge for a trader's murder. Kaiboke swears to kill all whites in revenge for his brother's murder by the whalers (Erdland 1914).
- 1857 Rev. Hiram Bingham, Jr. of the American Board of Commissioners for Foreign Missions (ABCFM) creates missionary outpost on Ebon. Kaiboke supports their work (Hezel 1983).
- 1857 August 29, the mission ship *Morning Star* under the command of S.G. Moore runs close to shore of Namu for two days. Islanders on shore danced when they saw the ship. Canoes came alongside, but they could not be persuaded to come aboard (Hezel 1979).
- 1860s American and Hawaiian Protestant missionaries arrive, sent by the Hawaiian Evangelical Association, an auxiliary of the American Board of Commissioners for Foreign Missions. About this time, J. C. Godeffroy und Sohn, of Samoa, establishes trading stations on Mili, Aur, Jaluit, Ebon and Namorik. A few years later, two other German companies, Hensheim & Co. and A. Capelle & Co., are also in business there. Copra is their principal interest (Hezel 1983).

- 1860 April 11, the whaler ship *Corinthian* under the command of Velentine Lewis, visits Namu (Hezel 1979).
- 1860 Namu's population is 50 (Bryan 1972).
- 1863 Kaiboke dies of typhoid fever (Kramer and Nevermann 1938).
- 1870 After Kaiboke death, Kabua (Lebon) a *leadakkad* of Rongelap, becomes *Irooj* when he marries Limokoa, the widow of the Kaiboke of Ebon (Kramer and Neverman 1938, Erdland 1914).
- 1876 Loeak and Kabua fight about who should be *Iroojlaplap*. Loeak chases Kabua from Ebon (Kramer and Nevermann 1938).
- 1878 Germany enters into a treaty with inhabitants of the Ralik chain, granting special trade privileges. Kabua (Lebon) presents himself to the German government as the *Iroojlaplap*. Kabua, Lagajimi, Nelu, Loeak and Launa all sign the treaty (Kramer and Nevermann 1938)
- 1880 Loeak goes to Jaluit from Ebon to challenge Kabua in battle. After a bloodless fight, Loeak returns to Ebon (Kramer and Nevermann 1938).
- 1880 Namu's population is 150 (Bryan 1972).
- 1884 September, the British merchant ship *Ada* visits Namu (Hezel 1979).
- 1885 Under mediation of Pope Leo XIII, German government annexes the Marshalls.
- 1885 Loeke is the dominant chief in southern Ralik. Murjil, *Irooj* of Aur, controls northern Ratak. In northern Ralik and southern Ratak, individual atolls are in most instances ruled by independent local *Irooj* (Kramer and Nevermann 1938).
- 1886 By agreement with Great Britain, the Marshall Islands became a German protectorate.
- 1887 Germans form the Jaluit Company (*Jaluit Gesellschaft*), an entity entrusted with governance of the Marshalls. It buys out two foreign competitors based in San Francisco and Auckland. However, Burns, Philp & Co. of Sydney, which has been trading in the group for some years, continues to do so and remains until World War I (Hezel 1995).
- 1888 Mission station established on Namu (Bryan 1972).
- 1910 Kabua dies (Kramer and Nevermann 1938).
- 1914 The Marshalls are captured from Germany by Japan.
- 1920 Marshall Islands are mandated to Japan by the League of Nations, together with the other occupied islands. The group is administered as a separate district. The Marshallese are given little voice in their own government, but the copra industry is left in their hands. But copra has to be exported to Japan at a price fixed by the Japanese (Hezel 1995).
- 1920 Namu's population is 190 (Bryan 1972).
- 1921 The Japanese take over the copra industry from the Germans, replacing the Jaluit *Gesellschaft* with *Nanyo Boeki Kaisha* (Peattie 1988).

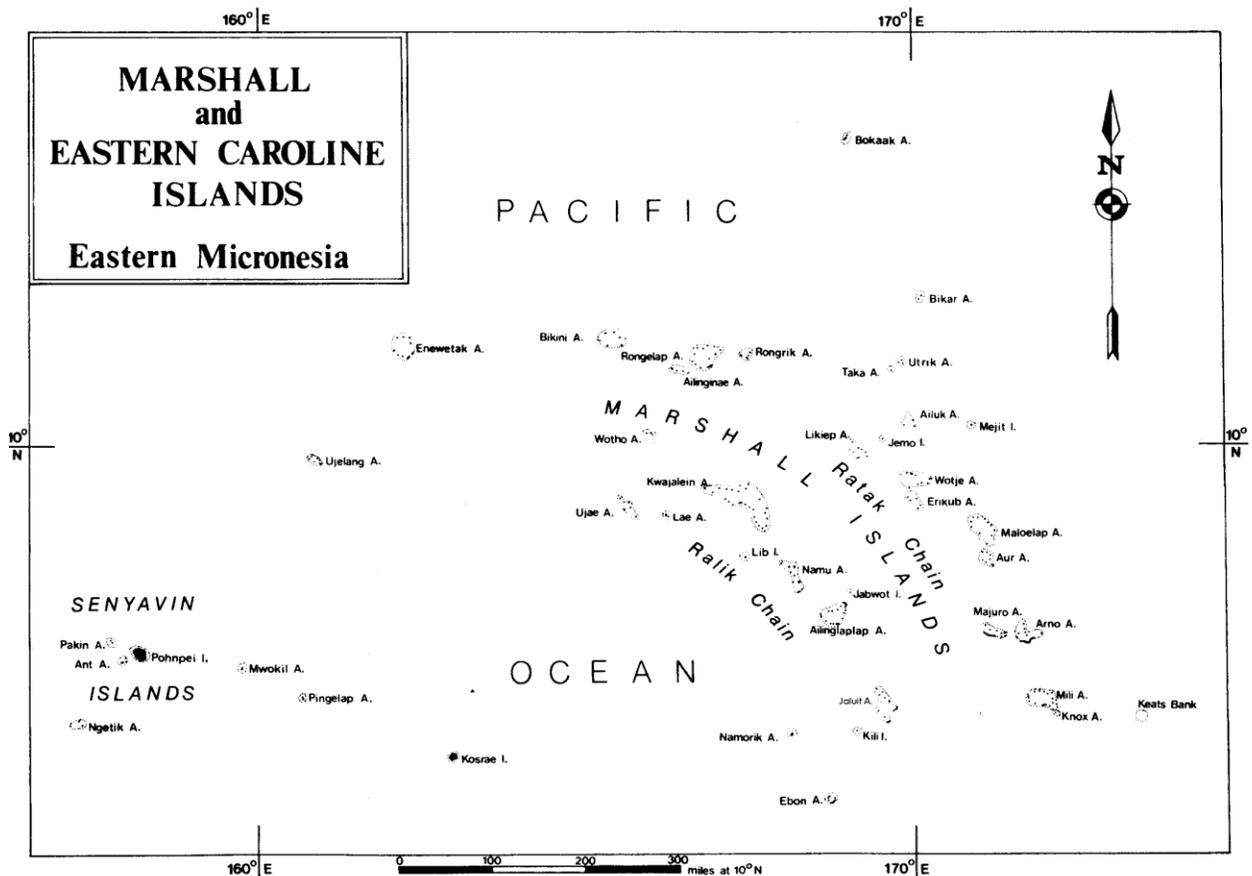
- 1934 Japan withdraws from the League, but retains possession of the Marshalls. Fortification of the Marshall Islands begins as Japan prepares for war. The Japanese military begins building airstrips, power plants, and bunkers on Wotje, Eniwetak, Jaluit, Milli, Maloelap, and Kwajalein (Peattie 1988).
- 1935 Namu's population is 276 (Bryan 1972).
- 1939 World War II begins in Europe.
- 1944 24 March, as part of the mop-up campaign, the marines landed on Namu Atoll without opposition. They find seven Japanese including one policeman, one school teacher, his wife, and four children, all voluntarily surrender (Heinl 1954, Smith 1955).
- 1945 End of World War II grants effective control of the Marshalls to the U.S.
- 1945 Namu's population is 287 (Bryan 1972).
- 1946 U.S. begins its nuclear testing program in the Marshalls. Bikini atoll is evacuated to Rongerik for first tests under Operation Crossroads.
- 1951 US Department of the Interior assumes responsibility within US Government for the TTPI from the Department of the Navy.
- 1952 The first hydrogen device (Operation Ivy) under the US testing program in the Marshalls is fired on Eniwetak on 1 March. The Eniwetak people who live on Ujelang temporarily stay on a U.S. Navy ship. The ship takes them to a point 100 miles farther away from Eniwetak (Deines et al. 1990).
- 1954 US nuclear testing program detonates Bravo, the most powerful hydrogen bomb ever tested by the U.S., on Bikini atoll. Radiation from the test forces evacuation of Marshallese and U.S. Military personnel on Rongelap, Rongerik, Utirik and Ailinginae (Deines et al. 1990).
- 1959 Namu's population is 483 (Bryan 1972).
- 1961 Namu's population is 559 (Bryan 1972).
- 1963 December 19-22, Typhoon Susan hits Namu (Spennemen and Marschner 1994-2000).
- 1965 The Congress of Micronesia is formed, with representatives from all of the TTPI islands. It is created by the U.S. administration in preparation for greater self-governance by Micronesians.
- 1970 Namu's population is 967 (Bryan 1972).
- 1979 Amata Kabua is selected as the first president of the Marshall Islands.
- 1979 Government of the Marshall Islands officially established, and country becomes self-governing.
- 1979 Typhoon Alice comes through the Namu from January 2-6 (Spennemen and Marschner 1994-2000).
- 1981 Typhoon Freda hits Namu from 11-15 March (Spennemen and Marschner 1994-2000).

- 1982 Official name changed to the Republic of the Marshall Islands (RMI).
- 1982 Typhoon Pamela hits Namu in 25-28 November (Spennemen and Marschner 1994-2000).
- 1983 Amata Kabua selected second time as president.
- 1983 Voters in the RMI approve the Compact of Free Association with the United States.
- 1986 U.S. Congress approves the Compact, resulting in its entry into force. The Compact grants the RMI its sovereignty and provides for aid and US defense of the islands in exchange for continued US military use of the missile testing range at Kwajalein Atoll.
- 1987 In third election, Amata Kabua is selected as president.
- 1990s Settlement of compensation claims as a result of the US nuclear testing in the Marshalls still proceeds, and is associated with various agreements being made as part of the Compact of Free Association package. There are also outstanding court cases. Almost 5000 Islanders had sought compensation from the Nuclear Claims Tribunal and, up to September 1993, some 380 had been granted compensation totaling about \$14 million, only a quarter of which had been paid (Deines et al. 1990).
- 1990 UN Security Council terminates the RMI's Trusteeship status.
- 1991 In fourth election, Amata Kabua is selected as president.
- 1991 RMI joins the United Nations.
- 1991 From November 28 to December 2, a severe tropical storm, which later developed into Typhoon Zelda, moves through Namu (Spennemen and Marschner 1994-2000).
- 1994 The U.S. Department of Energy begins releasing thousands of previously classified nuclear test era documents, many of which confirm the wider extent of the fallout contamination in the Marshall Islands.
- 1996 In fifth election, Amata Kabua is selected as president.
- 1996 Amata Kabua dies.
- 1997 Imata Kabua selected to finish the late Amata Kabua's term.
- 2000 Kessai Hesa Note selected as president.
- 2001 Current Compact of Free Association expires.

II. Environmental Settings

2.1 Physiographic and Biological Setting

Located in the central Pacific between 4° and 14° north latitude and 160° and 173° east longitude, the Republic of the Marshall Islands consists of 29 low-lying coral atolls and five coral islands (Map 1). Twenty-two of the atolls and four of the islands inhabited. The atolls and islands are situated in two almost parallel chain-like formations. The eastern group is the Ratak (Sunrise) Chain and the western is the Ralik (Sunset) Chain; together they extend about 700 miles (1130 km) north to south and approximately 800 miles (1290 km) east to west. Isolated by ocean, the Republic is more than 2,000 miles (3230 km) from the nearest trading centers, Honolulu and Tokyo. It's nearest neighbors are Kiribati to the south and the Federated States of Micronesia to the west.



Map 1. Republic of the Marshall Islands

There are approximately 1,225 islets spread across an area of over 750,000 square miles (1.2 million square km). With a total land area of 70 square miles (110 square kilometers), a mean height above sea level of about 7 feet (2 meters) above sea level, and soils which are nutrient poor, the nation's agricultural base is limited. The marine

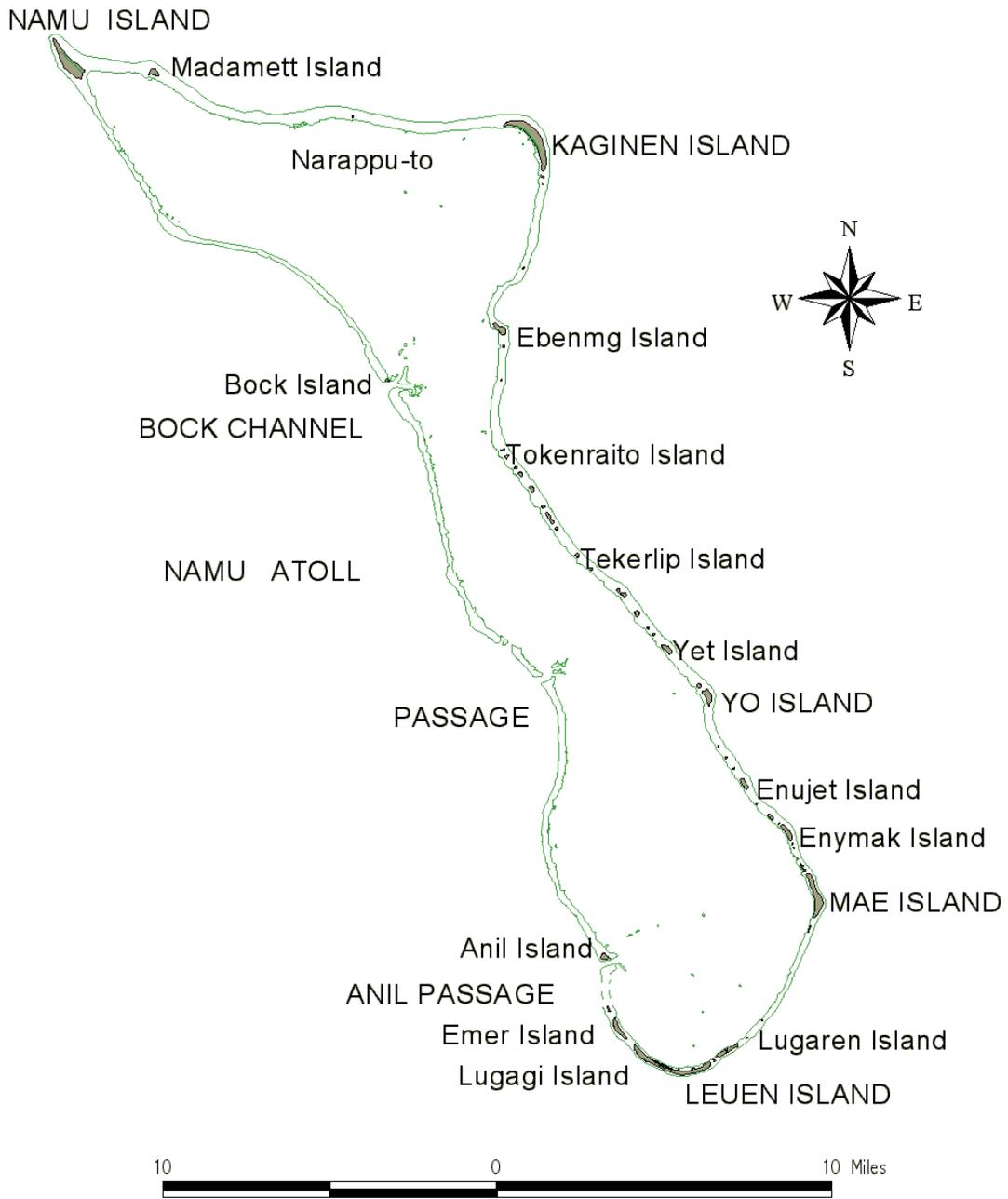
resource base is extensive, however. The combined lagoon area totals 4,037 square miles (6511 square km). Coral reefs fringe the atolls and serve as the only defense against the ocean surge. The clearance over the reef in the sections that are covered by water is usually no more than a couple of feet (Permanent Mission of the Republic of the Marshall Islands to the United Nations, 1992).

Generally speaking, an atoll consists of a series of low-lying islets and submerged reefs arranged about a central lagoon, which mixes with the open ocean via one or more channels and/or shallow passes. In the Marshall Islands, the islets composing an atoll usually form an oval shape around a central lagoon of 150 feet (45 m) average depth. The surrounding ocean depth plunges to over 5,000 feet (1525 m) within two miles (3 km), and to 10,000 feet (3050 m) within ten miles (16 km) of the typical atoll (Fosberg 1990; Wiens 1962).

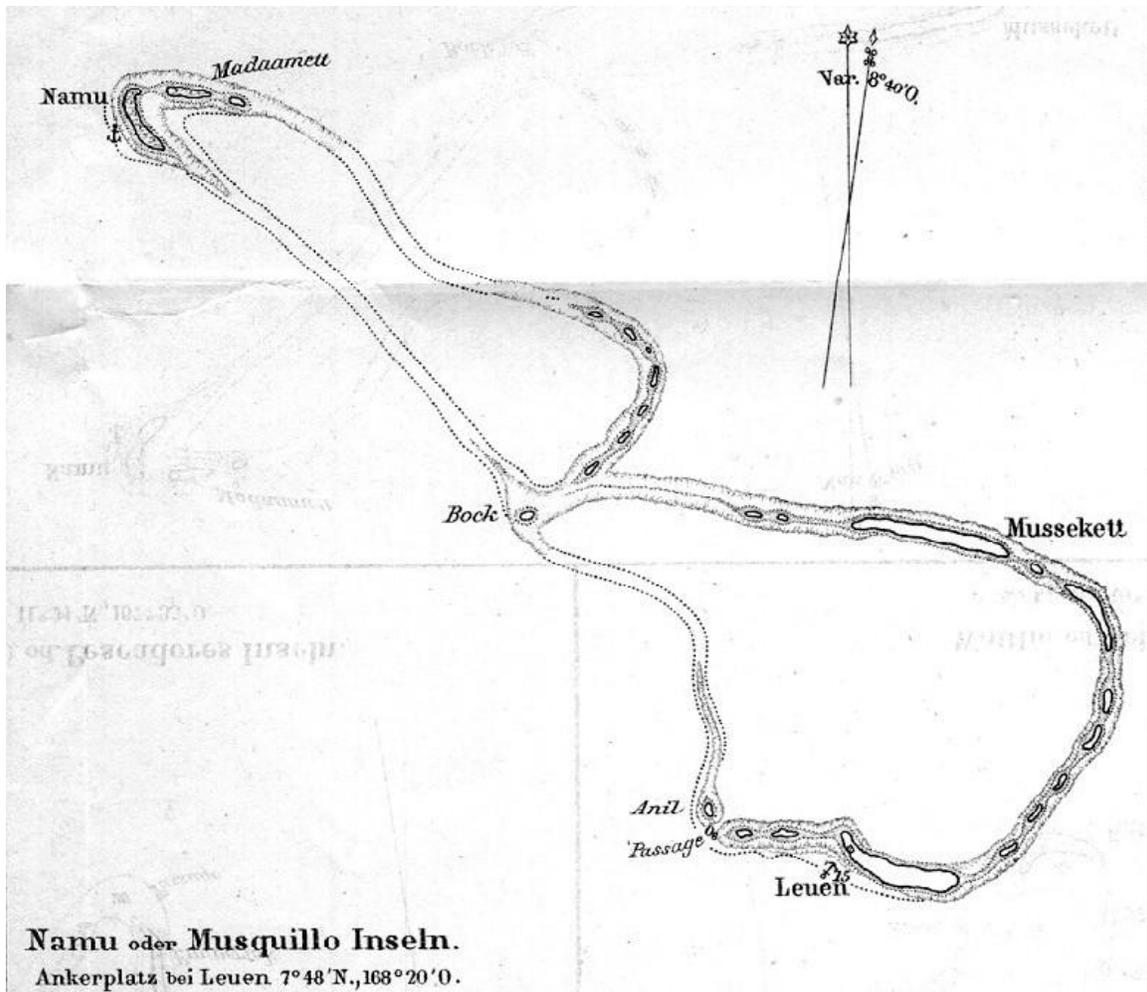
Dye (1987) suggests a probable development history for the Marshall Islands. He states that approximately 70 million years ago the volcanic cores of the Marshall Island atolls erupted forming new volcanic islands. The islands, slowly subsiding but standing above sea level, were colonized by species of reef-building corals, and the process of reef flat construction began (approximately 40 million years ago).

Underwater maps show that there is also an abundance of underwater seamounts, some of which reach almost to the surface, such as Keats Bank east of Arno Atoll. Most of these guyots are aligned along the same axes as the Ralik and Ratak Chains, so that these underwater features as a whole have recently been termed Ralik and Ratak Ridge (Spennemann 1993).

Namu Atoll is part of the Ralik Group of the archipelago of the Marshall Islands. It is located 8° north latitude and 168° 13' east longitude. The atoll contains approximately 51 islets, mostly scattered along the east reef and around the two ends. It has a land area of 2.4 square miles and the reef encloses an area of 153.5 square miles (Maps 2 and 3).



Map 2. Namu Atoll.



Map 3. 1881 Map of Namu taken from Jakob Witt, 1881, Die Marschall-Gruppe, *Annalen der Hydrographie IX*

2.2 Climate

The climate of the Marshall Islands is predominately a trade-wind climate with the trade winds prevailing throughout the year. Minor storms of the easterly wave type are quite common from March to April and October to November. The islands are not generally considered to be in the typhoon belt, but because they are low with small land masses are easily subject to flooding during storms. Tropical storms are rare but do occur. On December 19-22, 1963, Typhoon Susan hit Namu. Typhoon Alice came through the area from January 2-6, 1979; Typhoon Freda 11-15 March of 1981; and Typhoon Pamela in 25-28 November of 1982. In 1991 from November 28 to December 2, a severe tropical storm, which later developed into Typhoon Zelda, moved through Namu (Spennemen and Marschner 1994-2000).

The only atoll for which complete weather data exists is Majuro, where a U.S. National Oceanic and Atmospheric Administration Weather Station is located. Annual

rainfall varies considerably from north to south; the southern atolls receiving 120-170 inches (300-430 cm), and the northern atolls receiving 40-70 inches (100-175 cm) (NOAA 1989). The highest rainfall generally occurs during the *Anon Rak* season, also known the breadfruit season (June to October). Precipitation is generally of the shower type; however, continuous rain is not uncommon. During the *Anon Ean* season, also known as the pandanus season (January to March), the rainfall decreases with February noted to be the driest month of the year.

One of the outstanding features of the climate is the extremely consistent temperature regime. Daily temperatures recorded for both northern and southern atolls fluctuate between the high seventies and mid eighties with no seasonal variation. The range between the coolest and the warmest months averages less than 1 degree Fahrenheit. Nighttime temperatures are generally 2-4 degrees warmer than the average daily minimum because lowest temperatures usually occur during heavy showers in the daytime. In spite of this, the weather is always hot and humid with the average temperature of 81 degrees Fahrenheit all year around (Permanent Mission of the Republic of the Marshall Islands to the United Nations, 1992).

2.3 Vegetation

There is no written record of the original vegetation of the Marshall Islands. The precise date when plants first occur in the Marshall Island atolls is still debated (Dye 1987). It is possible that 44 species of plants, including various herbaceous species, shrubs, and trees, migrated to the southern Marshalls before the advent of man (Hatheway 1953). The early inhabitants probably altered the vegetation of the atolls by introducing new species. During the twentieth century, coconut plantations developed by the German, Japanese, and American administrations replaced most of the original vegetation of many atolls (Fosberg 1990). Today as much as 60 per cent of the nation's land area is covered with coconut (*Cocos nucifera*) (OPS 1991).

Many areas not dedicated to coconut plantations have been put to other uses such as cultivation of taro and other plants. Species that have been adopted are pioneer species reliant on the presence of humans for propagation (Fosberg 1990)

The vegetation that grows on the Marshall Islands include mixed broadleaf forest composed of a small number of tree species (*Tournefortia argentea*, *Guettarda speciosa*, *Pisonia grandis*, *Pandanus tectorius*, *Allophylus timoriensis*, *Cordia subcordata*, *Hernandia Sonora*); a few shrubs (*Scaevola sericea*, *Suriana maritima*, *Pemphis acidula*, *Tournefortia*); and a layer of ground cover consisting of several species (*Lepturus repens*, *Thuarea involuta*, *Fimbristylis cymosa*, *Polypodium scolopendria*). Several mono-specific forests occur in the Marshall Islands (*Neisosperma*, *Pisonia grandis*, *Tournefortia argentea*) (Fosberg 1990). Shrubs such as *Pemphis acidula*, *Suriana maritima*, and *Scaevola sericea* typically grow along shorelines while herbaceous plants occur mainly under forests. Limited strands of mangroves (*Bruguiera*) are found in swampy areas containing brackish water on several of the larger islands of the wet

southern atolls (Stemmerman 1981). Cultivated plants (*Musa*, *Cocos nucifera*, *Artocarpus altilis*, *Cyrtosperma chamissonis*, *Pandanus tectoris*) are commonly found on the inhabited islets of the Marshalls. These various plants serve as windbreakers, salt spray repellents, food, and are used by locals for weaving and medicinal purposes.

2.4 Sea Level Changes

Due to being so low in elevation, the recent sea level rise caused by global warming or “greenhouse effect” is a critical threat to the Marshall Islands. The rising of the sea during the last two decades has devastated the low-lying atolls economically and culturally. It is estimated that the normal trend for sea level rise has been an approximate 1.3 inch to 3 inch increase over the span of 100 years. However, it is figured that within the next 50 years, there will be a 1.7 inch increase alone. As predicted by scientists (global warming red alert), the islands of the Marshalls is among the Pacific nations that will be affected by the rising of the sea level within the next fifteen to twenty years. Under normal conditions, coral and the other components of the coral reef can maintain a healthy landmass. At present the littoral shrubland along the coastline is visibly eroded. and most of the vegetation growing in this area will soon be washed away by the incoming tide. Any archaeological sites that are located within this area will vanish and their significant historical value will be lost to the tides.

For many years, the Marshall Islands Government has been concerned with the issue of global climate change. As the Marshall Islands lie in open ocean, the islands are very close to sea level. The vulnerability to waves and storm surges is at the best of times precarious. Although the islands have by no means been completely free from weather extremes, they are more frequently referred to in folklore as "*jolel jen anij*" (gifts from god). The sense that Marshall Islands are a god-given sanctuary away from the harshness of other areas is therefore part of the sociocultural identity of the people. When any variation in the weather hits the Marshall Islands, the effects can be severe. When Typhoon Paka passed through Ailinglaplap in late 1997, food crops were severely hard hit and outside food had to be brought. The El Niño induced drought that followed caused the entire Marshall Islands to be declared disaster areas, and emergency water making equipment and food supplies were shipped in from the outsider.

Given the physics of wave formation and the increasing frequency and severity of storms, the Marshall Islands will likely be at even greater risk of total inundation. The relative safety that the islands have historically provided is now in jeopardy. The impacts are not limited to the Marshalls and its immediate neighbors. The Marshall Islands are often referred to as a "front line state" with regard to the climate change issue. It is important to realize that once the potentially catastrophic effects begin to appear, it is likely too late to prevent further warming that will threaten virtually all of the world's coastal regions (Permanent Mission of the Republic of the Marshall Islands to the United Nations, 1992).

III. Land Tenure

Marshallese society is generally matrilineal and is composed of a number of matrilineal clans (*jowi*). The most important descent group is the lineage (*bwij*). The *bwij* is the matrilineal system in which all land rights are passed down through the mother's side. Therefore, the whole group is descended, mother to daughter, from a common ancestor or a *jowi* (clan). There were at least forty-four clans spread over the atolls and though it no one remembers how members of a *jowi* were related by blood, members considered themselves related. The lineage head (*alap*), usually the eldest male of the senior line of the lineage, is steward of the lineage land holdings.

With slightly less than 70 square miles of land in the entire archipelago and prime settlement areas being extremely limited, land has long been the most highly prized possession in the Marshall Islands and control of land is the central theme of Marshallese culture. The basic land division of the Marshall Islands, *weto*, is a strip that runs from the lagoon to the ocean side of an island. One or more *weto* are held and administered by a matrilineage line. Title is divided and shared by several levels of the society. In the pre-Christian era, the Marshallese social system distinguished between two major classes: *irooj* (chiefs) and *kajur* (commoners). The *irooj* hold title over an island or atoll. Among the *irooj*, the *iroojlaplap* (paramount chief) were the ones with the most power while the *iroojerik* or the lesser chiefs, shared the power and many of the privileges, but to a limited degree. Today, the term *kajur* is not used so often as the class has been divided into the *alap* (land managers) and the *rijerbal* (workers). The *alap* organizes and directs lineage activities and allots lands for use to different descent lines within the lineage. The *alap* and the *drijerbal* (workers) make up the subjects or *kajur* (commoners) and render services to the *Irooj* in exchange for land use. The *Irooj* managed the land in a way that not only provided themselves with food but also provided for the *kajur* (*alaps* and *drijerbals*). The *kajur* in return cultivated the land, harvested the waters surrounding the atoll, and performed *ekkan* (tributes) to the *irooj*. The procedure is a cycle that has been repeating for hundreds of years. The common members of a lineage have land rights, although the *alap* and *drijerbal* change land ownership. The *Iroojlaplap* is the only individual with permanent land rights, unless defeated in war.

Historically, one *Iroojlaplap* (paramount chief) was able to extend his control over most of the Ralik Chain (except Eniwetak and Ujelang). Periodically the *Irooj* visited these islands to collect tribute. The Ralik Chain was subsequently divided into two districts, one including Namu and the north islands, the other Jabat, Ailinglaplap, and the islands south. Although all of these islands were owned by the *Iroojlaplap* he rarely visited those further north than Kwajalein and Ujae because they were isolated and somewhat impoverished (Alikire 1977). Within the northern atolls, stratification was less elaborate in comparison to those in the south.

Ratak was likewise structured but far less centralized. The whole chain was never integrated under a single *Iroojlaplap*, although the *Iroojlaplap* of Maloelap was able to put the islands to the north (except for Mejit) under his rule. Majuro and Arno broke away from this union, however, and again became independent political entities. The Ralik and Maloelap associations were unstable and varied in size as local lesser *Irooj*

tested the strength of their islands against that of the *Iroojlaplap*. This trend toward instability encouraged the *Iroojlaplap* to move his residence from island to island to make his control evident to the local lesser *Irooj*.

In the early 1800s, *Irooj* Lomade Juen, of the clan RiMwejoor and an *Irooj* on Aur, conquered all the islands of the Ratak from Mili in the south to Wake Island in the far north. Over one hundred large, swift outrigger canoes transported him and his warriors to the various islands to fight. After he conquered the Ratak Chain, he sailed for Taongi and Wake Islands to gather birds and turtle, which were dried and stored in preparation for sailing to Ralik and fighting the *Irooj* of these islands. He made a brief stop in Utrik on his return from Taongi and Wake Island and while there; Capt. Kotzebue on the boat Rurik arrived. They became friends and spent much time together. Lomade told Kotzebue he was a native of Arno who had gained his power by murdering all of the *Irooj* of Aur, Maloelap, and Utrik (Chamisso 1986). When Kotzebue left, Lomade sailed for the Ralik islands and ultimately conquered Kwajalein, Lae, Ujae, Wotho, Rongelap, Bikini, Enewetak, and Ujelang. He held his power and influence until his death, when his younger brothers took over. They were unable to maintain power over such a vast area, and eventually lost power in the Ralik Chain, but held on in the Ratak Chain. Today, Lomade's descendants are the *Irooj* of the Ratak Chain.

Lomade inherited his position as *Irooj* from his great-great-grandmother Litarau matrilineally through Legerinoa, Leom, and Limidjoa. The following subchiefs were subject to Lomade, Rarik on Wotje, Langemui on Ailuk, Sauraur, Rarik's father, and Tigidien on Aur, Wongusagelig on Likiep, Labeloa, Labadini, and Lebeuliet on Maloelap. The Ratak islands that did not belong to Lomade, Majuro, Arno, and Mille, belonged at that time to the *Irooj* Lathethe, against whom Lomade was waging war. At the time of the annexation of the Ratak group by the German government, Mujil of Maloelap was the most influential *Irooj* (Kramer and Nevermann 1938).

Today, traditional rights of land tenure are unequivocally preserved in the Constitution, and the traditional requirement of consensus decision making, in which all persons with land rights to a certain *weto* must agree on questions of land transfer is retained.

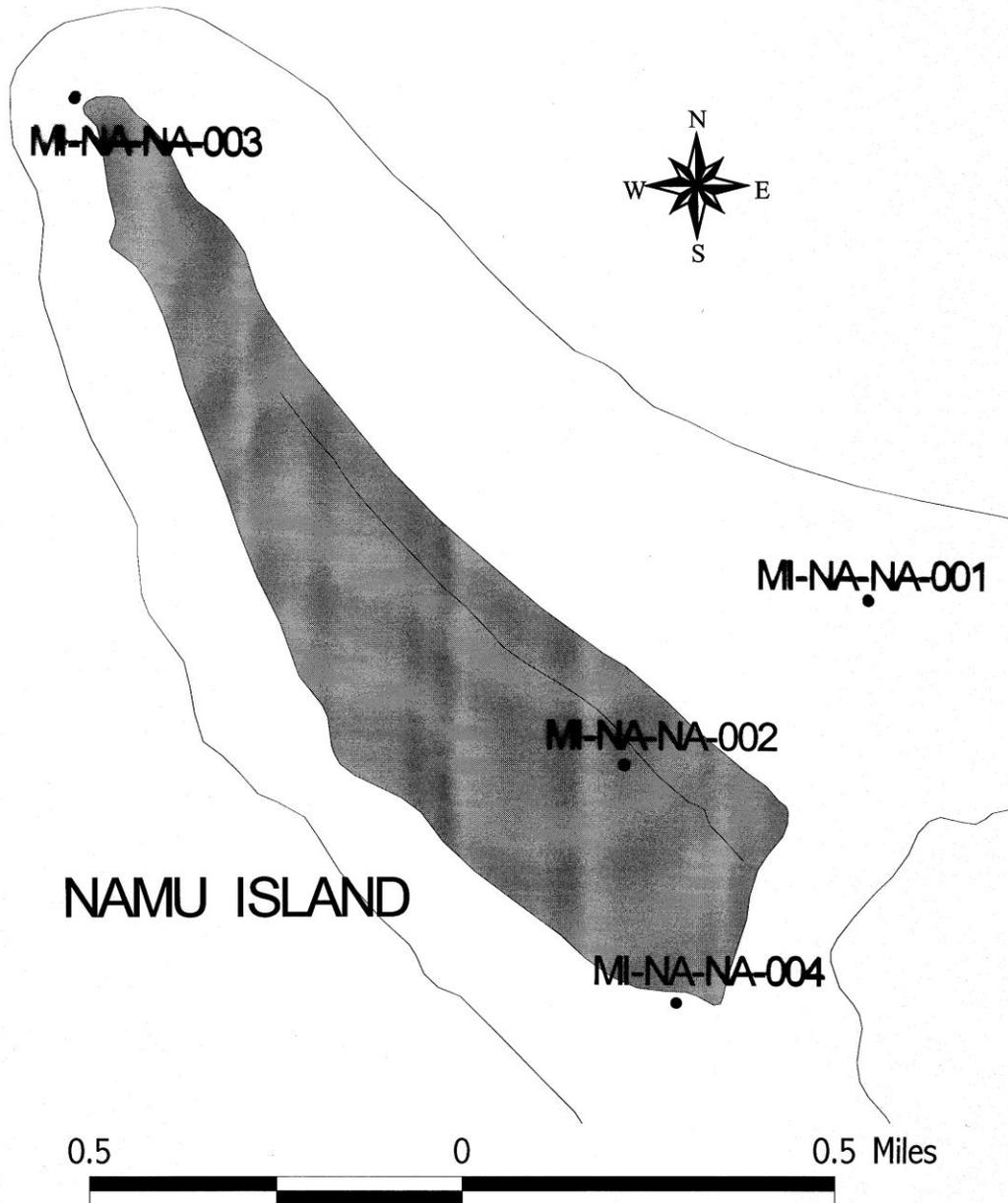
The traditional land tenure system confounds Western-style efforts of historic preservation. Public or government land is non-existent and private landowners are accustomed to exercising ultimate control over land use and access, and are therefore unaccepting of regulations which might restrict the usage of their property (Williamson 2001).

IV Field Investigation

Fourteen sites, three historic and eleven traditional, were documented during the field investigations at Namu Atoll. Sites were recorded at the islands of Namu, Leuen, Lugaren, Mae, Emmal, and Kagenen, as well as within the lagoon.

Namu, Namu

Four traditional sites were recorded on Namu Island (Map 4).



Map 4: Sites located on Namu Island, Namu Atoll.

Site MI-NA-NA-001 (Marshall Islands-Namu Atoll-Namu Island-Site No.)

GPS Coordinates N: 8° 11' 37"

E: 167° 59' 13"

This is a traditional site called *Lijuni* (Photo 1). It is located on the Boken *weto*. It is a rock out on the reef at ocean side approximately 100m off the beach. The legend tells of a big fish eating the local people. An old lady woke up Laijajaj. Laijajaj was an old man but he was very strong. The fish ate all of the land and the people throughout the island until Laijajaj killed the fish with this rock. See Sections 6.1 and 6.2 for associated traditional stories. This traditional site is determined “significant.”



Photo 1: Lijone, Site MI-NA-NA 001

Site MI-NA-NA 002

GPS Coordinates N: 8° 26' 60"

E: 167° 58' 35"

This is a traditional site located on the *weto* Miniem (Photo 2). It is associated with site MI-NA-NA 001. It is the location of the cooked eye of the fish that Laijajaj killed. There are two depressions/holes with a path between them. These are the two big earth-ovens that were used to cook the fish’s eyes. See Sections 6.1 and 6.2 for associated traditional stories. This traditional site is determined “significant.”



Photo 2: Site MI-NA-NA 002

Site MI-NA-NA 003

GPS Coordinates N: 8° 11' 37"

E: 167° 59' 13"

This traditional site is located on the Kwajalein *weto* (Photo 3). The pit surrounded by coral on the far north end of the island is the place where the sun and moon bathe. This traditional site is determined “significant.”



Photo 3: Site MI-NA-NA 003

Site MI-NA-NA 004

GPS Coordinates N: 8° 12' 16.50"

E: 167° 58' 16.48"

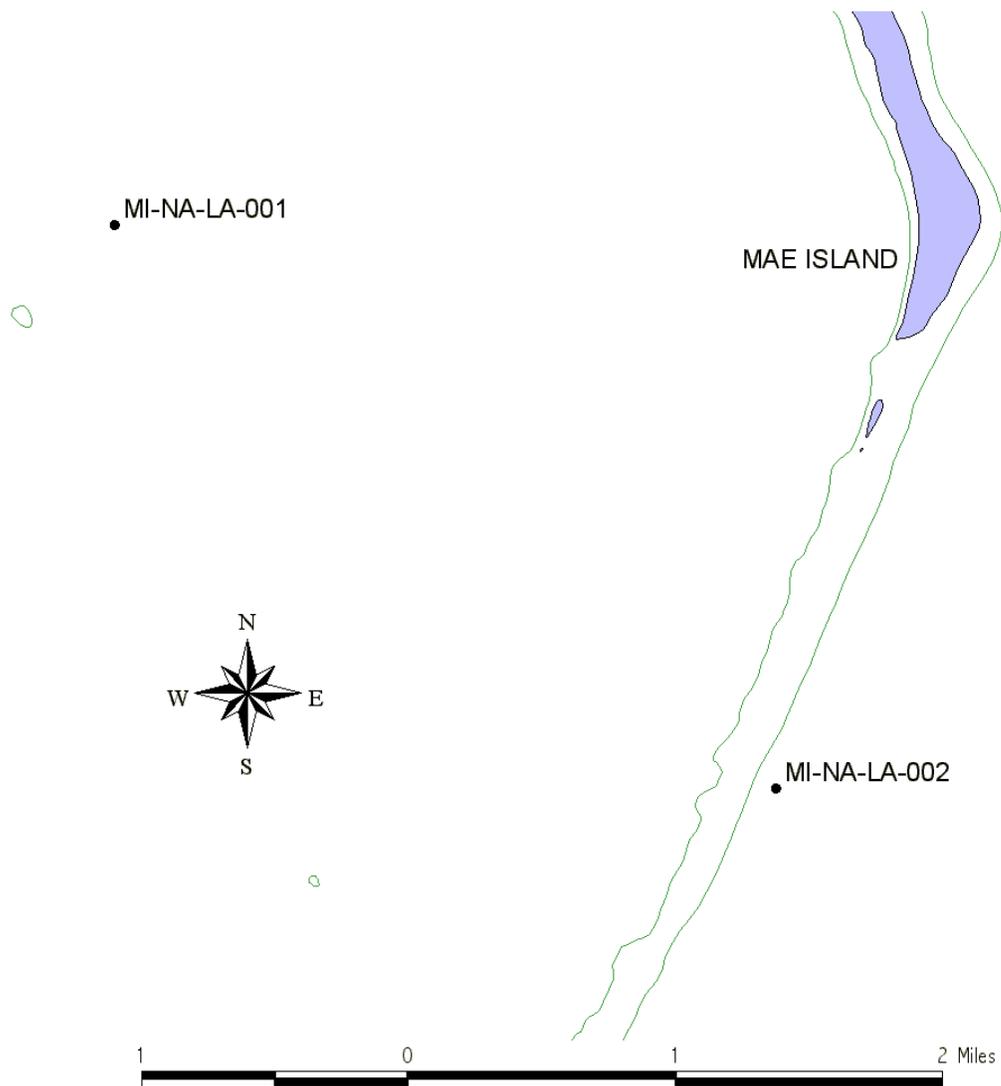
This traditional site is located on the Mokanrok *weto* (Photo 4). It is associated with MI-NA- 001 and 002. It consists of three stones that were used to kill the fish from site MI-NA-NA 001. The rocks are approximately 50m in the lagoon and are not easily visible in the photograph (right-hand side, middle of photograph, near the breaking wave). The GPS reading was taken from the beach. See Sections 6.1 and 6.2 for associated traditional stories. This traditional site is determined “significant.”



Photo 4: Site MI-NA-NA 004

Namu Lagoon, Namu

Two historic and two traditional sites were recorded in the lagoon (Maps 5 & 6).



Map 5: Sites located in the Namu Lagoon, Namu Atoll.

Site MI-NA-LA 001

GPS Coordinates N: 7° 49' 22"
E: 168° 15' 18"

This traditional site, called *Anelaplap*, is located in the Namu Lagoon off of Loen Island (Map 5 and Photo 5). A jellyfish *lerooj* named Loojinanil lives at this rock. She is the mother of the *kuban*. When the moon rises one can see many *kuban* in this area. According to the informant, *kuban* is a reef fish with the white and black stripes. According to the Marshallese-English dictionary (Abo et al 1976) the *kubur* is an unidentifiable fish; the *kubu* is the half beak fish, *kinpan* is a banded surgeonfish; and *kinbo* is a red spot tang fish. The *kuban* could be any one of these fish or some other type. This site is associated with Site MI-NA-LO 001 and Site MI-NA-IR 001. See Section 6.3 for traditional story. This traditional site is determined “significant.”



Photo 5: Site MI-NA-LA 001

Site MI-NA-LA 002

GPS Coordinates N: 7° 47' 32.51"
E: 168° 17' 27.07"

This historic site is a German cargo ship which crashed on the reef about 60-70 years ago (Map 5 and Photo 6). It is located on the reef in the lagoon near Mae Island. This historic site is determined “less significant.”

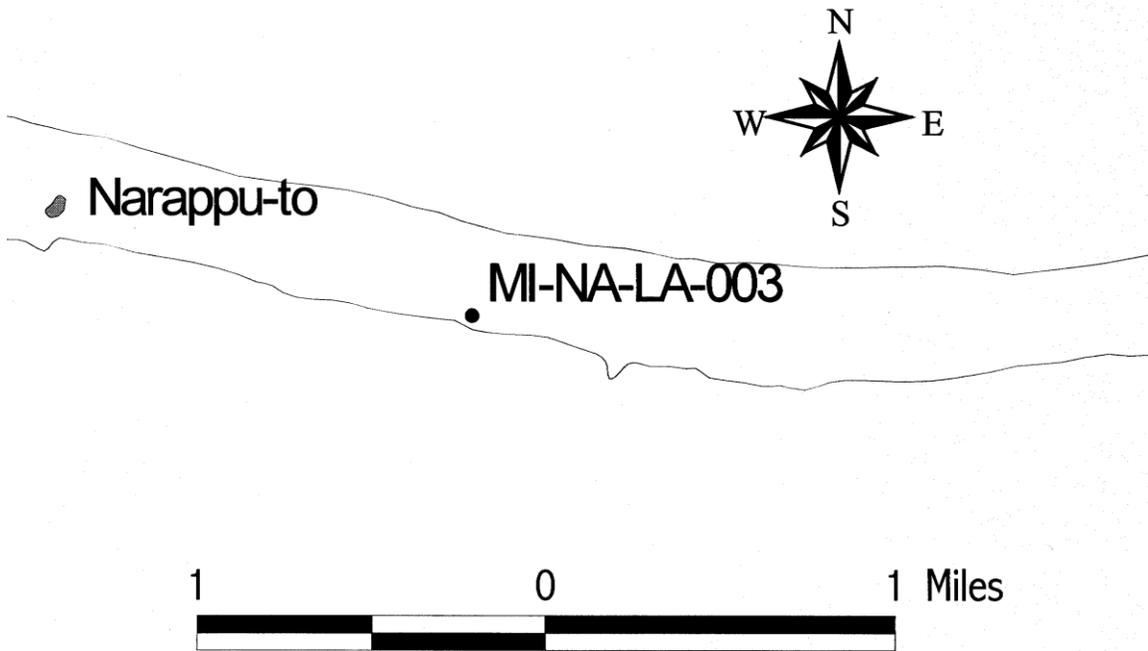


Photo 6: Site MI-NA-LA 002

Site MI-NA-LA 003

GPS Coordinates N: 8° 09' 59.33"
E: 168° 06' 54.32"

This historic site is located in the lagoon (Map 6 and Photo 7). It is a Japanese warship which crashed into the reef during WWII. It had come to tow another Japanese ship off of the reef and when the weather changed, it smashed on the reef. This historic site is determined “significant.”



Map 6: Site located in the Namu Lagoon, Namu Atoll.



Photo 7: Site MI-NA-LA 003

Site MI-NA-LA 004

GPS Coordinates N: 7° 49' 49"
E: 168° 18' 07"

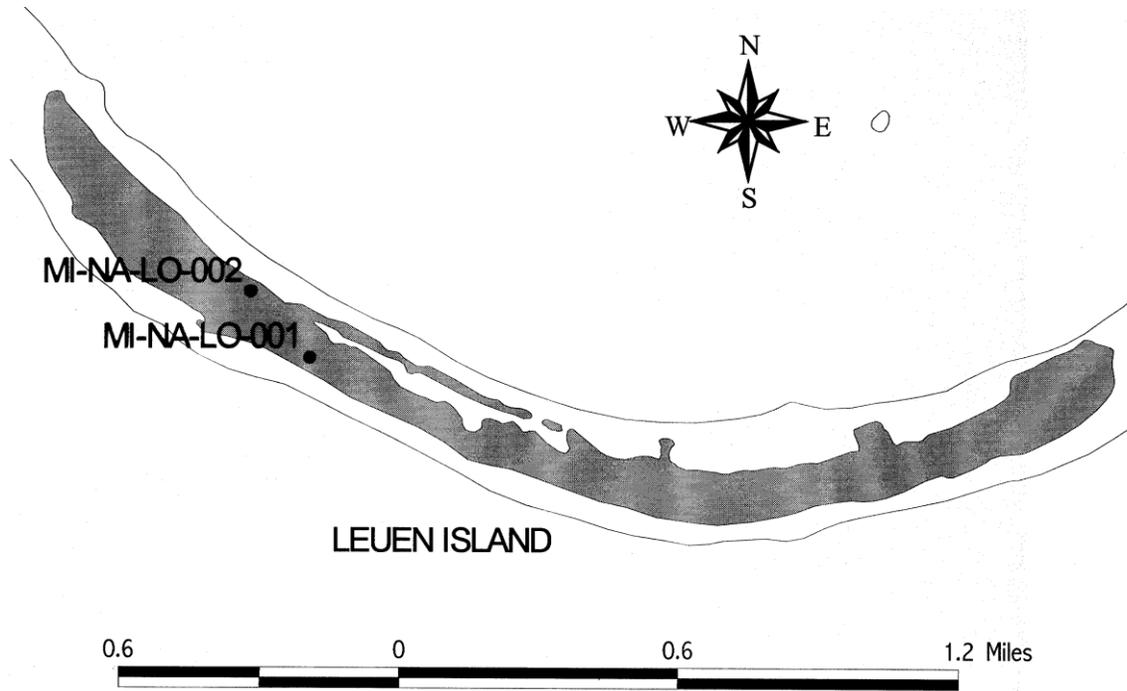
This traditional site is associated with the site MI-NA-MA 001 on Mae Island (Map 9 and Photo 8). According to this story, a man and his wife fought because the wife ate the best part of the fish the man had caught. He ripped off her arm and threw it on the shore where it became the rock *Loioen* (See MI-NA-MA 001). The woman in turn grabbed the husband's penis and threw it into the lagoon where it became a coral head that appears when the tide is low. The Traditional story translation states that the woman ripped off the man's arm. See Section 6.4 for traditional story. This traditional site is determined "significant."



Photo 8: Site MI-NA-LA 004

Leuen, Namu

Two sites, one traditional and one historic, were recorded on Leuen (Loen) Island (Map 7).



Map 7: Sites located on Leuen (Loen) Island, Namu Atoll.

Site MI-NA-LO 001

GPS Coordinates N: 7° 45' 35"
E: 168° 13' 49"

This traditional site is located on Leuen (Loen) Island on the Lomejenkeiuiu *weto* (Photo 9). The site is related to the site in the Lagoon, Site MI-NA-LA 001 and Site MI-NA-IR 001. The young pandanus trees are the pants of the son-in-law of the *Lerooj*. See Section 6.3 for associated traditional story. This traditional site is determined “significant.”



Photo 9: Site MI-NA-LO 001

Site MI-NA-LO 002

GPS Coordinates N: 7° 45' 41.74"

E: 168° 13' 42.10"

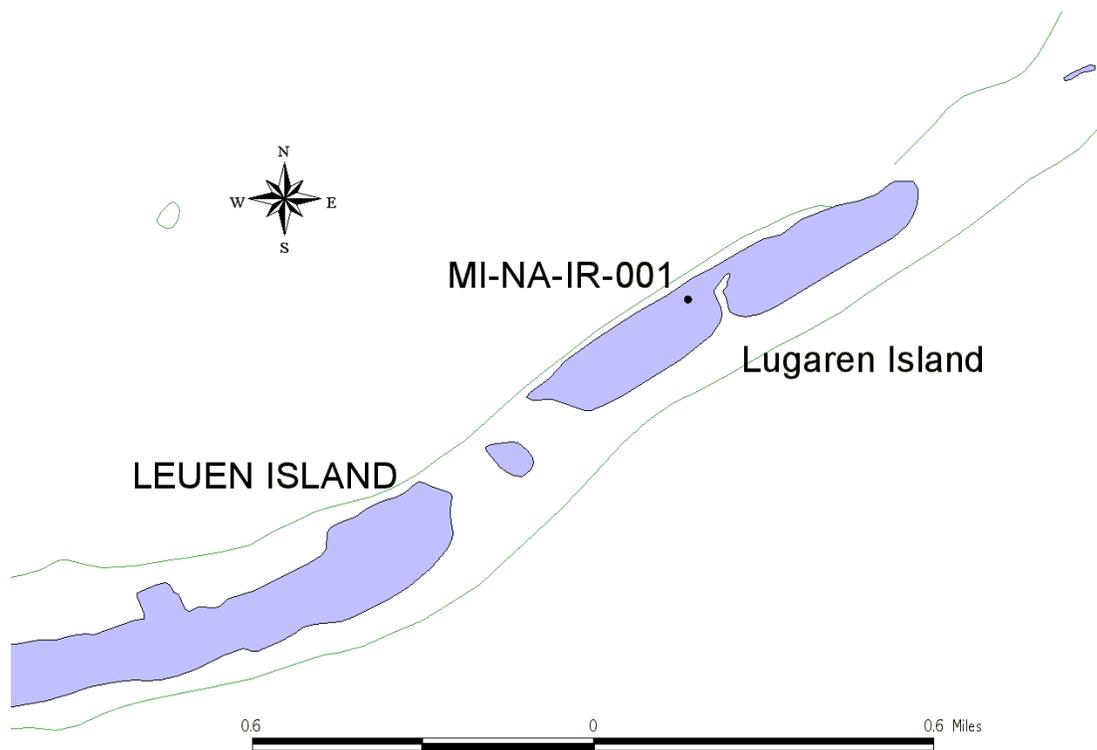
This historic site is located on Lokojbar *weto* (Photo 10). It is a taro patch that is still in use. Its (pre)historic context is unknown. Further investigations are required to determine its context and significance. This site is of “undetermined significance.”



Photo 10: Site MI-NA-LO 002

Lugaren, Namu

One traditional site was recorded on Lugaren (Irojeman) Island (Map 8).



Map 8: Sites located on Lugaren (Irojeman) Island, Namu Atoll.

Site MI-NA-IR 001

GPS Coordinates N: 7° 45' 32.41"

E: 168° 15' 32.79"

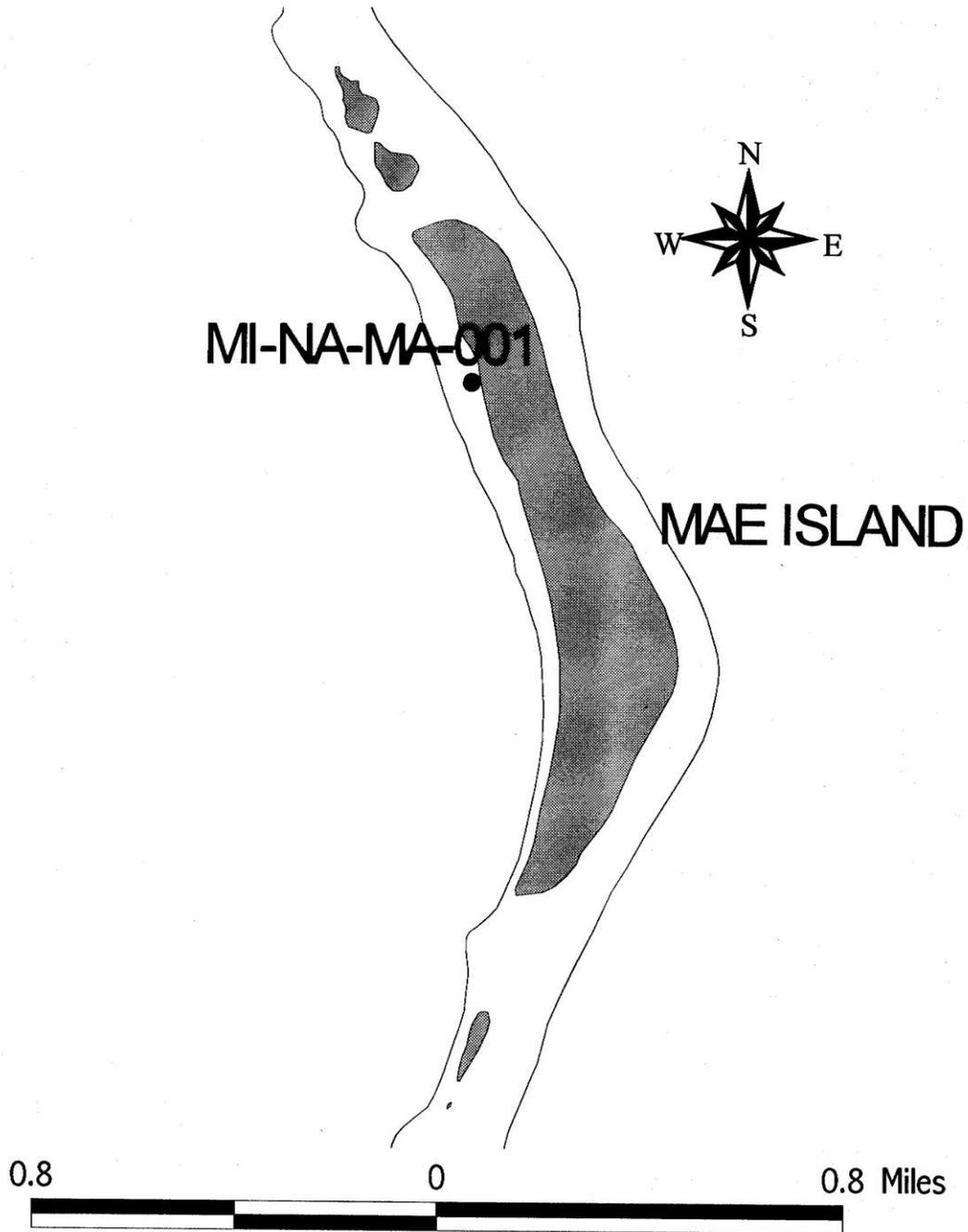
This traditional site is located on the Island of Lugaren (Irojeman) on the Irojeman *weto* (Photo 11). The island is the son-in-law of the traditional story in Section 6.3. It is associated with Sites MI-NA-LA 001 and MI-NA-LO 001. This traditional site is determined “significant.”



Photo 11: Site MI-NA-IR 001

Mae, Namu

One traditional site was recorded on Mae Island (Map 9).



Map 9: Sites located on Mae Island, Namu Atoll.

Site MI-NA-MA 001

GPS Coordinates N: 7° 50' 14.75"

E: 168° 18' 02.37"

This traditional site (Photo 12) is located on Mae Island on the Likjeb *weto* and is associated with Site MI-NA-LA 004. The legend states that a man caught a fish for his wife. When she ate the fish's head, he got upset and they fought. He ripped her arm off and threw it on the beach. Her dismembered arm became this rock outcrop on the lagoonal beach and is called *Loioen*. The story continues with the wife cutting off the husband penis and tossing it into the lagoon. See Section 6.4 for traditional story. This traditional site is determined "significant."



Photo 12: Site MI-NA-MA 001

Emmal, Namu

One traditional site was recorded on Emmal Island.

Site MI-NA-EM 001

GPS Coordinates N: 7° 56' 48.54"

E: 168° 13' 58.80"

This traditional site is located on Emmal Island on the *weto* Emmal (Photo 13). Couples expecting a child come to the coral rock to ask for a boy or a girl. A *Konnat* tree represents a boy; grass represents a girl. See Section 6.5 for associated traditional story. This traditional site is determined “significant.”



Photo 13: Site MI-NA-EM 001

Kaginen, Namu

One traditional site was recorded on Kaginen (Majkin) Island (Map 10).



Map 10: Sites located on Kaginen (Majkin) Island, Namu Atoll.

Site MI-NA-MJ 001

GPS Coordinates N: 8° 09' 10.74"
E: 168° 11' 04.28"

This traditional site is located on Majkin Island on the Lobit *weto* (Photo 14). It is known locally as *Likulili*. The associated story tells of an old woman and her son. The son fished in the ocean and caught a whale. The mother cooks the whale. After dinner the mother cleans the son's teeth while he is napping. Another time the son caught a whale and the mother pounds pandanas leaves. This scares the whale so he goes down and drowns (or takes away) the son. This site is the grove where the woman and son lived. The residents keep trying to fill in the depression but it always stays sunken. See Section 6.6 for the associated story. This traditional site is determined "significant."



Photo 14: Site MI-NA-MJ 001

V. Management Plan

Cultural Resource Management (CRM) in the Republic of the Marshall Islands, while becoming an important part of archaeological work, is still in its infancy. CRM is based on the realization that cultural resources are nonrenewable and that prudent care must be taken to utilize these resources efficiently. While the immediate goal of the HPO survey was to identify the sites of Namu Atoll, the long-term goal should be the education of the local and national population on the importance of preservation of these sites. While the Historic Preservation Legislation of 1992 has codified CRM into law, the cultural traditions of the Marshall Islands, namely the lack of public lands and the importance of land rights to private landowners, makes the practice of CRM difficult to legislate. And while the Act has established that developers are responsible for the costs involved in conducting archaeological investigations prior to the commencement of construction, there is no precedent case for developers being prosecuted due to violations of that law. Therefore, education is still the most important tool that the HPO can use in site management and preservation.

5.1 Long range recommendations

The historic and traditional sites on Namu Atoll are valuable resources. As such, they warrant an active preservation effort. The best strategy for the HPO seems to be raising public awareness and to actively involve local governments in their preservation efforts. Those preservation efforts should also be directed towards possible sources of income for outer island residents through tourism.

As the majority of sites recorded at Namu were traditional sites, eleven of the fourteen, the long term goals should include preserving these sites and recording, in-depth, the associated stories. Unlike atolls in which World War II sites may attract tourism, Namu's tourism potential lies in its traditional Marshallese hospitality and history. An active effort of preserving this history is important.

5.2 Short range recommendations

The primary goal of every preservation action should be the proper stabilization of sites being threatened by natural forces or human impact. This is especially true for sites that have been determined to be of significance to Marshallese history. Of the fourteen sites surveyed, eleven are traditional sites that are automatically determined "significant." The other three sites are historic. Of these three one is determined "significant" (MI-NA-LA-003), one is determined "less significant" (MI-NA-LA-002), and one's significance was undeterminable (MI-NA-LO-002). All the "significant" sites (traditional and historic) should be placed on the RMI National Register of Historic Places. As "significant" sites they all warrant a management plan. As the traditional sites are already stabilized, no preservation effort except simple avoidance is required. The "significant" historic site (MI-NA-LA-003) is a shipwreck on the reef in the lagoon.

Although the site has deteriorated greatly since the initial shipwreck, it has stabilized over the years and without an exuberant project nothing more can be done. Therefore, the same preservation effort of avoidance is also recommended. The “less significant” historic site (MI-NA-LA-002) is also a shipwreck on the reef in the lagoon. As the site was determined “less significant,” no preservation efforts are required. Further investigations are recommended for the historic site in which no significance was determined (MI-NA-LO-002).

VI Oral Traditions

Prior to the introduction of a written language, Marshallese cultural was largely an oral society where information was maintained through oral traditions. Elder generations passed down beliefs, values, and philosophies by telling stories and chants to the younger generations. Many places in the Marshall Islands which have special cultural significance offer a wealth of folklore associated with their pasts. Traditional sites are natural features in the environment to which oral traditions are attached.

McArthur (1995) states that while islanders can usually recall the name and basic events of the demigod of their atoll, very few can identify the names and stories of those from other atolls with the exception of Loktanur and Jebro for Ailinglaplap, Limejokeded, Jemeliut and Letao of Majuro and the female Lijenenbwe of Namu. Loktanur, Limejokedad, and Lijenenbwe are said to be sisters. Lijenenbwe was the 'mother' of Liwatonmour who was believed to have remained at Namu, in the form of a basalt rock, until a missionary had her cast into the sea. Some accounts suggest that she had originally come from the Ratak chain in the east and that one of her sisters, Lidebdebjū, remains as a basalt rock on Aur atoll. The Ijjidik *jowi* were the first descendants of Lijenenbwe to emerge as a clan, and that later the Erroja *jowi* became dominant. Johnson and Johnson (1980) include a story in their collection that claims that the Ralik and Ratak chains were people from basalt pillars, one for each chain of islands. Liwatonmour, a pillar in Namu, supposedly bore the first Ralik chief, and her sister Lidebdebjū, on Aur Atoll, the first Ratak chiefs.

There are many variations in the creation accounts. Regardless, the different versions introduce key characters important to Marshallese cosmology. According to Erdland's sources the Ralik version of creation begins with a being Lowa (or Loa) who lived on the sea, which was bounded by an extensive, low table reef in the south and a swamp in the north. Lowa spoke to the sea, 'See your island reef' and the reef formation appeared. Then he said, 'See your sand', and the earth appeared on the reef. Again he spoke: 'See your plants', and plants were growing. Again he spoke, 'See your birds', and they appeared. One of the birds, a white gull, flew up and, while circling, spread out the sky, like a spider weaving its web between two bushes. When Lowa finally said: 'See your human beings' four human beings appeared, one in each direction: Irojjdrikrik, in the west; LoKomraan or Lakameran (Daymaker) in the east; Lorak or Rerik in the south, Lajiminanmen, Lajbuineamuen, or Lalikian, in the north.

Then a boil grew on the leg of Lowa, from which, when it burst open, emerged Wulleb and Limdunani. Limdunani gave birth to two male beings; Lanej (Master of the Heights), and Lewoj (Master of the Middle of the Island).

Wulleb and his sister's children sat down one day on a stalk of an arrowroot. Which, growing up to the vault of the sky, enabled them to ascend. Their peaceful companionship, however, was of short duration. Soon the brothers plotted to kill their uncle, and Wulleb, Lanej, and Lewoj waged war in the dome of the sky. After they had observed each other mistrustfully for several nights, Wulleb's retina tore, and he fell down from the dome of the sky on Imroj. Thus, matrilinearity begins.

When he sighed aloud as the result of his fall, Iroiiddrikrik awoke, came to him and spoke: ‘Well, this is Wulleb, and he has fallen from the sky!’ Wulleb answered: ‘My nephews and I watched one another by night; then when my retina tore, I fell down.’ Iroiiddrikrik then spoke, ‘Let us go into the hut’. They went into it and three months passed.

When Wulleb had spent some time with Iroiiddrikrik, a large and extremely painful boil developed on the extensor side of his leg. After it became ripe it broke open, two little boys issued from it, the elder of whom was called Jemeliut, and the younger Letao.

Wulleb sent them to Lijebake (Tortoise woman) on Bikar Island in order to get magical tortoise shell from her. Lijebake – who, with her granddaughter Lijwei, had come from the Gilbert Islands – gave Letao a magical potion, which he drank despite all his disgust. By doing so, he became a crafty hero who not only conquered several atolls, but also embittered the life of his brother, Jemeliut that the latter settled on Majuro Atoll, married there, and finally changed into a silver tree. Letao went everywhere seeking adventure and met sudden death in the Gilbert Islands.

According to Reymond (1899) in *Das Weltall*, the Ratak version of creation starts with two serpents (or worms), the male was called Wulleb and the female, Lejman (Woman Rock). They developed into human form in a shell. To make a larger world Wulleb lifted the arch of the shell, using a stick to expand it to the present height of the sky and width of the oceans.

From a boil on Wulleb’s forehead emerged Lewoj and Lanej, who were sent to the sky by Wulleb in order to put up the stars. Lejman also had two female offspring, Lino (tidalwave) and Ni (coconut).

Then Wulleb collected in a coconut shell the blood from a cut on his leg, and from this blood came Letao (one with the white eyebrow, the powerful, the crafty, the favored one) and Jemelud (father of the rainbow). They went out to conquer. Prior to the conquest of the islands they had already ascended to the vault of heaven in order to defeat their older brothers. That their ascent in the north was successful is clearly shown by the fact that the Northern Hemisphere is less inhabited (studded with stars) by far than the Southern Hemisphere. A bird flew to tell one of the sky gods their plans to defeat their brothers. This god captured Letao’s small son, set him impossible tasks, which the son accomplished, then lowering himself to earth on a thread. Letao had settled on Mejit. Bikar was formed by a rock with Letao threw at the bird which had come to spy on him.

For clarification, from the Ralik Chain the cosmological genealogy is as follows:

	Lowa	
Wulleb		Limdunaniij
Jemeliut Letao	Lanej	Lewoj

From the Ratak Chain the cosmological genealogy is as follows:

Wulleb	Lejman
--------	--------

Other accounts add information, some contradictory. According to Knappe the first being was Wulleb who lived with his wife on the invisible island of Eb. One day a tree grew from Wulleb's head, split his skull, and out came Letao and Jemeliut. Letao quarreled with his father and went away, flying through the air with a basket of earth some of which spilled through a hole, so that the islands came into existence in the sea. Then Letao planted the land, created land and sea animals, and married his mother. Then the bird Babuk came with the female sexual organ in his beak. Letao hid it. Lejman found it and put it on. Neither wore clothes at this time but Lejman became ashamed and took two mats as covering (beginning of clothing). From there union came the first people. In this version it is Letao who is credited with creating the animals and plants. According to Knappe (1888) the woman was not ashamed at her nakedness but because she had an incestuous relationship with her son.

In other writings, there are claims that it was Iroijjdrikrik who married the woman Lijebake of Bikar (Kramer and Nevermann (1938). Erdland (1914) tells of a story in which Jemeliut has an aunt, Limejokeded, who after stealing bananas and being caught by her Jemeliut becomes an ogress and gives birth to mosquitoes, flies, mudfish, and the warrior Toltoliben.

Davenport's version states that Lowa sent a man who put all the islands in a basket and arranged them, first the Carolines, then the two chains of the Marshalls, Namorik was dropped out of order. The basket was eventually thrown down and became Kili.

In several versions, Lowa sent two men to tattoo (on Ailinglaplap) all the living creatures', thus giving them colors and markings (Davenport 1953, Chambers 1969, Buckingham 1949). Lowa sent two men down to Bikini with measurements for the first canoe (Buckingham 1949, Davenport 1953). A woman bore a son and a coconut. At his request she buried the coconut, which grew into the first coconut tree. Again at his request she husked a coconut and the husks floated to Irojirilik, who made sennit with them. The sennit was taken by a bird and flew into the air with the rope making a net and widening and raising the sky, holding it up. Rain is water separated into drops falling through the net (Kramer and Nevermann 1938, Buckingham 1949, Chambers 1969) Everyone went to Namu to honor Liwatonmour, founder of the Irooj clan. From this gathering came all clans, with *Irooj* as the highest (Chambers 1969).

There are many other stories which explain the origin of the sailing canoe (Loktanur and her son's canoe race) (Kramer and Nevermann 1938, Erdland 1914, Buckingham 1949, Davenport 1953), the origin of navigation (Buckingham 1949), origins of animals, breadfruit (Mackenzie 1960), taro (Bikajle 1960).

According to Erdland (1914), Aur means, "narrow hut entrance". Kramer (1938) states that the name probably comes from the island of the Carolines, Aur, Truk. The island was very important, so much so that around 1850 the *Iroojlaplap* lived there. Also there is a *jowi*, Raur, from which the chiefs of Mejit stem (Erdland 1914).

6.1 Lijuni, Laijajaj and The Mao (Parrotfish)

According to the information gathered about this story, the daughters of the chief “Irooj Irilik” went to Namu, Namu and began eating the reef of the island. The people became angry at them and they chased them away. The daughters went to their father and told him what the people did. “Irooj Irilik” was very mad at this treatment of his children. In his anger he sent one of his warriors, a giant of a fish named “Mao”, to kill all the people of the island.

A woman named Lijuni lived on Namu, Namu who had turned into a rock on the lagoon side of Namu. She saw the big fish coming to the island on his deadly mission and she called to Laijajaj to kill the fish. Laijajaj grabbed some big rocks and threw them at the big fish. The fish was so big, it took him a long time to kill the fish. When the fish was killed, Laijajaj went and took out his eyes give them to the woman to cook them. On this island, there are two big earth-ovens that were used to cook the fish’s eyes. Two of the rocks that Laijajaj used to killed the fish with are also at the lagoon side of Namu, Namu.²

6.2 Why Namu has barren reefs in the west: (Kramer and Nevermann version)

Previously Namu had much land and no bare reefs. But two daughters of Irooj Irilik left coconut gratings which they were going to use to oil their hair on two islands, and a large fish came and tried to eat the scrapings. One girl scared off the fish and a man speared him as he passed by Namu, but he’d already eaten all the islands on the west side. The rest were saved (Kramer and Nevermann 1938:41).

6.3 The Story of Anedlaplap

At Loen, Namu Atoll, is a rock located on the lagoon side of the island is called “Anedlaplap”. This rock is the home of a *Lerooj* named Loojinanil. Loojinanil is a *jani* (jellyfish) and she lived at this rock all the time. She had a daughter named Kuban, the fish with the white and black stripes. At the end of each month, the daughter appears near the shore of the island.

The people of the island go there to fish and catch lots of the fish when she appears. She has a husband named Lejello, the people call him “*Irooj im Man*” because he is the husband of the daughter of the *Lerooj*. At Loen, wherever you go, you will [find] a type of pandanus tree called *Wonmaan*. This tree is used for making mats. Lejello uses it for making his *Inin* or pants. There is an island close to Loen that is named after Lejello which is called *Irooj im Maan*. This is where the daughter stays most of the times when she appears at the end of each month. This is where the people make their most catch.³

² Langinbo Frank recorded story and provided the English translation. Site MI-NA-NA 001, MI-NA-NA 002, and MI-NA-NA 004

³ Langinbo Frank recorded story and provided the English translation. See Sites MI-NA-LA 001 , MI-NA-LO 001, and MI-NA-IR 001.

6.4 The Story of Loioen

According to this story, there were two people lived on Mae, Namu Atoll, an old man and his wife. One day, the wife told her husband to go fishing. The husband went and caught a big fish. Then he went back and gave the fish to his wife to cook. When she was finished with her cooking, she went ahead and ate the best part of the fish (from the stomach to the head). When her husband came back and found out that the tasty part was gone, he became very angry. Enraged, he grabbed one of his wife's arms and pulled. He pulled it so hard, the arm came loose. The husband threw the arm away and it landed on the lagoon shore of Mae and became a rock, and it is known as "Loioen".

Angered by this cruel treatment, the wife did the same to her husband, grabbing his arm and pulling. It came loose and she threw it away to the lagoon shore and it became a coral head. You will see this coral head when the tide is low. It is shaped like the part she threw away.⁴

6.5 The Story of the Two Children

This story is about two children who live on a rock at the ocean side of the island of Emmad, Namu Atoll. The name of this rock is not known. The two children are a boy and a girl. The boy is the *Konnat* that are grow on the rock and the girl is the grass growing there as well. *Konnat* is a plant that grows on the beach with bright yellowish-green leaves and stems (?) about 6-10 inches long.

According to the story when a family is childless, but they really want to have children, they come to this island. If they desire a son they call out, "*Labirro, jomam ie ije*" (Son, your father is here). If they desire a daughter the call "*Lijiron, jinom ie ije*". It doesn't matter if you are the father or mother but if you ask, you will get what you ask for. There were some families who went to this island and ask the children and now they are having children.⁵

6.6 The Story Of Likulili and Her Son,

In a grove on the island of Mae, Namu Atoll lived Likulili and her son. Likulili knew how to make everything from handicrafts to black-magic. Her son knew whaling. One day while the boy's mother was making handicrafts, he went whaling and brought the whales he caught to his mother to cook. After she finished cooking the whales, the boy ate them all. Only when he finished eating all the whales, did he go to his mother and allow her to pick the pieces of whale between his teeth and eat them. After this, every time he went whaling he brought back the whale he had caught to his mother to cook. Upon finishing eating, would he allow his mother to pick the pieces between his teeth and eat them.

Then one day he went whaling and brought the whales to his mother to cook. This time the mother became angry with her son about the way he treated her. As she cooked the fish she chanted them so her son would turn into a whale. After she finishes cooking the fish she called to her son and gave him the chanted fish. He took the from his mother and ate them. After a while his body started to change. When he saw that his body was

⁴ Langinbo Frank recorded story and provided the English translation. Site MI-NA-MA 001, Site MI NA-LA 003

⁵ Langinbo Frank recorded story and provided the English translation. Site MI-NA-EM 001

changing, he ran to the ocean, jumped in and swam away. The mother stayed in the grove, her name “Likulili” commemorates the way her son treated her.⁶

6.7 The Origin of the *Irooj* of Ralik

This is the story of the *Irooj*⁷, a now vanished race of kings, whose descendants are still the feudal lords of the Marshall Islands. It is the story of the *Irooj* of Ralik, the western, or ‘Sunset’ chain of the Marshalls. The facts related here were told to the writer from memory by Lokrap, of Ebon Atoll, himself a descendant of the line. It is written here for the first time, and is a story new to Western ears. Indeed it is known to only a very few of the Marshallese themselves, such knowledge having been reserved only for the ears of chiefs.

In Namu the story begins, and its beginning is as misty as the windward beaches of that island. Lijjeleijet and Liwetenmour were sisters but they and their children were to contend in a most un-sisterly fashion for the rule of the islands. Of that struggle a full account will be given. But let it be pointed out in the beginning that a position of importance in this story is given to women. For in the Marshall Islands, the line of succession is through the mother only, and to be of the *Irooj* one must come of a royal mother.

Little is known of these two sisters of Namu Atoll, except that until recent years both were still there. And one is visible even yet, on certain days when the wind blows and the breakers pile foaming on the reef. Lijjeleijet, whose name means “woman of the sea”, was driven by her sister to live in the sea. But she did not die. Nowhere does the surf smoke as on the reefs of Namu. Like the white smoke of a great fire it drifts over the island. The people call this smoke “Idjjeleijet”, but few of them realize that this is the spirit of that ancient woman of the sea returning to her beloved home.

And as for Liwetenmour, although she founded a line of royal kings, her ultimate fate was rather shameful. Her name has a sound like Ratak words meaning “Come from the east to live”. But no matter from whence she came, Liwetenmour stayed on Namu for a long, long time. In fact, she was still there a few years ago, in the form of a certain rock, receiving the worship and gifts of the people, until a missionary named Dr. Rife picked her up and cast her into the sea. He said she was only a stone, and perhaps the good man was right, for Liwetenmour remained where he cast her.

Now the daughter of Liwetenmour was named *Irooj*. She it was who gave her name to the royal descendants of her line. *Irooj*, too, was of the misty past, and may, or perhaps may not have been a person. The word *Irooj* means a “group of people”. It may signify the large retinue of a royal personage, or the large number of his subjects. Although once the title was won by wisdom and courage in battle, the title became hereditary. And now the *Irooj* are gone, and in their descendants the blood of commoners is mixed. But still they are called princes and princesses, and still they are chiefs in their islands and the owners of all land.

⁶ Langinbo Frank recorded story and provided the English translation. Site MI-NA-MJ 001

⁷ From Buckingham’s (n.d.) Manuscript collection of Marshallese Narratives, told by Lokrap of Ebon, circa 1949.]

Only one descendant of Likjjeleijet is remembered, and he because he dared to challenge the rule of the *Irooj*. When he, Jemeliut, was defeated, his family passed into the obscurity which history reserves for defeated aspirants to royal crowns.

After *Irooj*, the daughter of Liwetenmour, we pass from legend into history and meet the first *Irooj* who are known to be real persons. The son of *Irooj* was Lailiju. With Jemeliut, his cousin, Lailiju owned the entire Ralik Chain, except Namorik and Ebon, which were ruled by the Errubra and Erroja Clans, respectively. Marrying the leader of the Erroja Clan, he extended his influence over Ebon. His sister, Litarao, the daughter of *Irooj*, married Lakabuk, leader of the Errubra Clan of Namorik. Thus the family's authority now included all of Ralik.

Lailju divided Ralik equally with his cousin Jemeliut, the son of Lijjeleijet. As subsequent events clearly indicate, Jemeliut must not have been satisfied with the division. Or sles he aspired to rule the entire chain. For soon a blood war broke out (at his instigation) between Jemeliut and the *Irooj*, the children of Literao.

Of the children of Litarao, three are remembered in history – Latalju, the oldest son, Laninni, a younger son, and a daughter whose name is forgotten but who carried on the *Irooj* line through her children.

The great war was launched by Jemeliut on Kwajalein Island in Kwajalein Atoll against the children of Litarao. He killed some of the family in successful battle, and then started out for Ruot (Roi) the home of Latalju, to kill him also. However, a spy warned Latalju, and he escaped in his outrigger canoe, sailing toward Kwajalein close into the Reef of White Foam (Takamoujkon). Jemeliut was heading up the other side of the lagoon with his forces, and was by Enelapkon (Carlos) when he saw Latalju's sail to windward. He began to beat into the wind to catch him, but Latalju ran before the wind through South Pass and escaped.

Latalju sailed through Ailinglaplap, but in his haste he did not stop. He came to Jaluit, entering by Imroj pass, and gathering his people there he took them on to Ebon, where, joining forces with his brother Laninni, he prepared for battle. Lakabuk of Namorik, husband of Litarao and leader of the Errubra Clan, fought also on the side of Latalju. (Lakabuk controlled half of Namorik, and Jemeliut the other half).

Latalju depended greatly upon his younger brother, Laninni. Laninni was very wise and very strong. He was also a skillful maker of *bubu* (magic), knowing how to make the *bubu* come out favorably.

Jemeliut also picked up warriors on Jaluit and Namorik (but most of the Jaluit people followed Latalju and Laninni). Coming on to Ebon, he tied up his fleet to the rock "Lakaja", off the ocean reef at Rube. A boat tied to this rock will never touch the reef, although only a few feet away.

Jemeliut was met by a large force of defenders on the beach at Rube near the great rock called "Borlap. The defenders of Ebon made a fierce appearance as they hurled defiance at the invaders and sang this battle song:

“Ready posed for battle, on Borlap ocean side
Some other brave men are.
Charging and chasing off the horde,

Ebon spears are flying!
He moves, he retreats, he is giving up!”

“All of us were landed and duels were fought in front of both the armies.
Brave was he, Lajulebar, (Lajulebar is another name for Laninni)
In fending, fending off the spears.
Let the *Bwe* be consulted –
Good is the God’s planting,
Annihilation of the tribe is promised,
Let the *Bwe* be consulted.”

Jemeliut soon realized that he could not successfully land at Rube, due to the large members of his opponents and their valiant defense. Had he not delayed at Namorik to try to get more warriors, he might possibly have taken Ebon. But he had lost the advantage of surprise and a hard pushed offensive. He had permitted the enemy to organize for defense, and that was a fatal mistake.

Leaving Rube, Jemeliut led his fleet around the atoll, past the entrance to the lagoon, and landed on a small island called Enekeien. Laninni and Latalju took their army and landed on a small island near by, called Taka. These islands are connected by a reef which is dry at low tide. A tiny island called Dridri, lies in the center between Enekeien and Taka.

Here on the reef the opposing armies fought daily at low tide, retiring as the water rose to bind up their wounds and rest. After a few days Jemeliut began to realize that he could not win this battle of Dridri. The forces of Ebon fought fiercely, and as they fought they sang this song:

“Fighting breast to breast north of Taka and Dridri,
Parties threw spears at you at one and the same time of one hundred and fifty
strong.
Jaluit spears are flying!
Hold fast, these are hitters.
He moves, he retreats, he is giving up!”

So Jemeliut took his people and went sadly back to Namu, preparing to defend himself from the attack he knew must come. Latalju and Laninni followed him there, and on Namu they defeated and killed their ambitious uncle, Jemeliut, but his clan continued.

Before this time, the power over Ralik was shared between the descendants of Lijjelejjet and those of Liwetenmour and her daughter *Irooj*. But now, after defeating Jemeliut, Latalju became king of all the Ralik Chain, from Bikini to Ebon, although because of his wisdom and courage Laninni was the real ruler, the power behind the throne. Both he and Latalju were content to have it so.

6.8 The Irooj of Ralik, Marshall Islands

The Battle of Ballab - (Edward Milne’s version)⁸

⁸This version is a reworking of the story told by Lokrap from Davenport’s (n.d.) manuscripts. It was translated from an account written in Marshallese by Edward Milne

Lijelejjet was the older sister of Liwetenmour, also a woman, both of whom were *anij*, or gods. They came to Namu to live, Liwetenmour gave birth to a daughter Irooj, who became the progenitor of the Irooj clan. Lijelejjet gave birth to a son Jemeliut, who became progenitor of the Jemeliut clan.

Irooj gave birth to three children; a son, Latalju; a daughter; and another son Laninni, these three were the first real people.

Jemeliut and Latalju became supreme chiefs of the Ralik island, excepting Namorik, which was under the chief of the Irrabra clan and Ebon under the chief of the Erroja clan.

Limwijwa, daughter of ? of the Irooj clan was given by Laninni to Laninmillon, chief of the Irrabra clan of Namorik. They had three children: a son, Lomadre; another son, Bouliej; and a daughter, Lolj.

Laninni married Liom who belonged to the Erroja clan of Ebon. They had a son, Laukuk. This made Laukuk and Limwijwa cross cousins, so they were married and Laninni moved to Ebon to live. Latalju was living on the main island of Kwajalein Atoll.

Jemeliut didn't like the way things were so he decided to wage war on his cousins Latalju and Laninni. He took his army to the main island of Kwajalein and killed all the *burak* of Latalju, who escaped because he was on Roi in the north when the massacre took place. Jemeliut set sail for Roi to kill Latalju; however, the latter had been warned so he immediately set sail to gather an army and warn Laninni on Ebon.

As Jemeliut sailed up Kwajalein lagoon for Roi, Latalju was sailing southward along the lagoon side of the eastern reef. The two canoes met, Latalju, however being to the windward of Jemeliut.

Latalju altered his course and headed for the south pass on one long tack. Jemeliut, however, had to tack several times to make the pass and as a result lost much distance.

Latalju went out the southern pass and sailed to Namu, with Jemeliut in hot pursuit. When offshore from Namu, Latalju dropped off one of his men and gave him a mat to swim beneath, which would enable him to escape detection from Jemeliut's canoes, and reach shore to warn the people. Latalju did the same at Ailinglapalap, then sailed for Jaluit. He sailed through Imroj pass, and stayed long enough to pick up an army. He then sailed to Namorik to warn Laninmillon and to get more men; then headed for Ebon.

Jemeliut followed Latalju to Jaluit and picked up a few more men himself, then followed again to Namorik, where he was unable to muster more aid, for they had all sailed with Latalju. He then followed to Ebon.

Arriving at Ebon, Jemeliut tied all his canoes off the rock called Lokajaj. Latalju's men together with Laninni's army, all under the leadership of the latter were waiting ashore.

Laninni consulted the *bubu* and was assured of victory that day. Jemeliut's army came ashore from the reef, and the battle started at Laballap.

The battle tide surged one way, then the other until the women of Ebon came up behind and chanted a *drodru*:

“When the two armies throw spears at each other,
Some other brave men pursue and chase the horde.
Ebon’s spears are flying;
Hold (spears) fast, grit your teeth!
They move; retreat; keep moving!

All of us landed; duels were fought.
The man Lajulobar (Laninni), he was brave in fending and parrying spears.
Let the oracle be consulted; victory is promised.
Immutable is God’s planting (of *Irooj* clan) which grows.”

This stirred the men’s souls, and they pushed Jemeliut’s army back. As soon as Jemeliut realized he could not win the encounter he gave a signal to retire to the canoes, and they sailed for Enekoion, an islet in the north of Ebon Atoll.

Laninni pursued overland, but when they reached Toka they could not cross over to Enekoion until low tide. During the night both armies treated their wounds with fire and boiled herbs.

Next morning at low tide the two armies engaged each other on the reef between Drridri (next to Toka) and Enekoion. They retired to their respective camps when the tide came in. Next day the armies met again on the reef. This time, however, the women came up behind the Ebon army to chant a *drodru*:

“Chest to chest, between north of Toka and Dridri,
The parties throw spears at you,
A hundred and a half strong they are hurled at once.
Jaluit spears are flying
Hold it fast, grit you teeth,
They move; they retreat, keep moving”.

“All of us landed; duels were fought.
The man Lajulobar (Laninni), he was brave in fending and parrying spears.
Let the oracle be consulted; victory is promised.
Immutable is God’s planting (of *Irooj* clan) which grows.”

The Ebon army surges ahead now, and Jemeliut realizes he cannot win, so he retreats and disembarks for Namu. Laninni and Latalju follow and kill him there.

Because Lijelejjet’s son lost the battle, Liwetenmour, grandmother of Laninni and Latalju, drown Lijelejjet off the reef at Namu. Occasionally now, when the sea is calm, a fine spray shoots up like smoke and flies over the land, this is Lijelejjet’s spirit.

After this Jemeliut’s clan became the lowest in Ralik. Laninni and Latalju controlled all Ralik, Laninni was the first and last paramount chief to rule all of Ralik at one time.

A black rock on Namu was worshipped as Liwetenmour until Rev. Rife had it thrown into the ocean.

6.9 Origin of the Irooj of Ralik, Marshall Islands (Chamber's Version)

After all the living things on the earth were created and tattooed, everybody left buoj and went to Namu; reason for their going was to *kairoijoj* (pay tribute to *Irooj*). The chief was on Namu. The name of that chief, Liwetenmour. The reason for the *Irooj* in the Marshall Islands, they came from Liwetenmour, it's a custom from old times. The place where Liwetenmour lives on Namu is called Monjalninen ("facing north"). And when these people returned to Namu all of them were staying at Monjalninen. At this time there were only two *jowi* (clans) on earth, the Errubra and Ijjidik. From this gathering on Namu there are now many clans. There appeared Mokauleej, Erroja, RiKwajalein, Rukipinaelonin. This is how these clans were created. And this is why in Marshallese custom the *Irooj* has more power; and it is the reason for *kairoijoj*, because they are following the actions of Liwetenmour.⁹

6.10 Etetal in Bojar (the walking of Bojar)

Bojar is one among the historical places in the Marshalls that everyone might know. Bojar is at Namu. It is the same place that the legendary mother of the first *Irooj* clan of Ralik, the pillar, once stood until Dr. Rife took it away.

This particular place is known for several kinds of special events and stories including legends connected as this places special characteristics.

This story is about a battle that took place here two to three hundred years ago. The war was more like a civil war. This was some what like a dispute between uncle and nephews. It was a ferocious battle. It took one whole day to get the three brothers killed. The chief had troops of more than five hundred warriors against his three nephews.

They fought until late in the evening. In fact, people can hardly recognize one who stood at the pace of 20 feet away. The sun had set when the last nephew was hit. It was very unbelievable, but according to the informants, the three brothers did not fall on the ground. They stood death because they were supported by hundreds and hundreds of spears.

It was after that particular event, the phrase came in to use "*Etetal in Bojar*", although it has been a custom that in the presence of an *Irooj* or member of a royal family and/or even *alaps*, a commoner has been strongly prohibited to stand or walk near by but on this particular place, Bojar, the said custom has not been prohibited. And whenever big gatherings and of a sorts is done on this particular place everyone from the *Irooj* clan and the commoner clan can participate at every possible event without the custom of walking in front of *Irooj* which is respectively observed everywhere in the Marshalls, especially in the Ralik chain.

The reason underlying such particular aspect of not observing this custom on Bojar is not clear at this time, but it is true and everyone should know that there is a place known by the name "Bojar." And everyone, especially the older and the middle

⁹ From Chambers (n.d.) A Preliminary Collection and Study of Marshallese Folklore. Story told by Laibon Jejo, 1967. According to James Milne, who recorded this story, Liwetenmour was an *ekjab*, whose son, *Irooj*, was the progenitor of all the real chiefs from then on. In previous accounts, *Irooj*, was the daughter of Liwetenmour.

generation should know what “*Etetal in Bojar*” means and probably how it came to being.

*According to Erdland (1914) the traces of totemism were almost obliterated when he was there in the late 1800s. The memory of the totem of all the high kin groups was refreshed when two ships were stranded on Namu Atoll. A basalt rock, Liwetenmour (the one who gives long life); was found there, located near the hut Manjenninean in the village of Bojar. Chiefs and subjects gathered annually around this ‘mother of all *jowi*’ sacrificing and practicing magic. A magic formula, for the most part incomprehensible to Erdland, which refers to *Irooj Kabua* (formerly Lebon), asks for an increase of the family, names Lijman and Liolir, and then points to Eonwuj (Majuro, as the island of the handsomest race of people) and Aur, where Liwetenmour’s sister, Lidebdebj, also a basalt rock, lived. The striking thing about the gathering of the natives celebrating at the place of Liwetenmour was that, contrary to the usual custom, the subjects remained erect in the presence of the sitting chief and did not have to go bent over. This walking with the body erect was called *Etetal in Bojar*, the walking of Bojar. Erdland suggests that this indicates the common origin of all the *jowi* and their original equality of rank.

6.11 The Onenak of Namu

Onenak is a very common name for a special kind of ghost through out the Marshalls. At Namu, there had been an *onenak* known to live along the road. The story about the *onenak* was told to the children so that they would not go far away from their homes.

The *onenak* spent most of his time during the day fishing and after he finished usually came back before the sun set. The *onenak* loved to get children. He would look for children and take them to his place under ground. The *onenak*, would raise the children until they grew up and when they reached their teens, he would eat them.

The story of the *onenak* had to be learned and be remembered by the children. During those days, once a child disobeyed his parents, they would say, “you should behave yourself, if not, you will be given to *onenak*”. And once the children asked their parents to go out to play, they would remind them of the *onenak*. The parents used to recite the *onenak* story every day so that the children could live with it as their guide (Alele Files).

6.12 Origin of Taro

Iaraj, or taro, was first introduced into the Marshall Islands from heaven when two brothers descended to earth each carrying a full basket of taro.

The first brother visited the island of Namu where a woman by the name of Liwetenmour lived. His brother joined him. They wished to present the taro to the woman as a gift but she spurned them and their gifts. They then decided to look elsewhere.

Finally they came to Majuro where they planted the taro, and thus Majuro was the first place in both the Ralik and Ratak chains of the Marshall Islands to grow taro.

The younger brother later moved to Aur and introduced taro there (Bikajle 1960:136).

6.13 Chief Kabua and the Two Forest Spirit Daughters¹⁰

Kabua had taken his mother-of-pearl shell, had gone to the lagoon shore, and on the lagoon shore made a fishhook from it. The island was called Ebaden, Kwajalein Atoll, and the hut on the lagoon shore was called Lorrان. He looked toward the east and saw people on the lagoon shore of the little islands Elena, Enerlok, and Ikotair.

The next day he smelled a fragrance and looked toward the east. He went by land and said to his subjects, "Go northward while I go to the south!"

As he was going he caught sight of two young girls walking along the lagoon shore. They stood and danced and said, "Today is a beautiful day, let us stop dancing!" They went into the water and said, "Ray, you, ray, you, cut off your soul on this hook since we have a craving for fish; don not cry, for the crowd of fishermen is approaching!" they looked toward land and said, "Is that not Kabua?" He spoke, "Come, let us go to your mother and to your father to inform them that we want to move on."

The girls tore away a vine and saw the path leading to the huts. The huts of the *nonieb* were invisible, but became visible when the girls tore away a vine. The *nonieb* were little human beings who could easily hid and even make themselves invisible. The girls, of course, were forest spirits. Father and mother said in farewell, "Attend to your bridal presents on all the islands to the southeast!"

The three of them went into the water and traveled to Aoj. They sat down on stone blocks. People brought the women raw parrot fish, and the three went to Kabua's hut. Then they traveled and arrived at the southern part of the lagoon. There people brought them *muelmuel* fish as bridal presents.

So it went on all islands, up to Enebuju, an island south of the southwest passage. From there they traveled to Namu. They landed on the seaward side of Loen, on the land Lomijinkauiu. The stepped out and went on land.

Two boys were playing with canoe models on Kabua's playground. As they were sailing their models, they sand, "Models are our canoes; wind, wind, come, let us climb up; it is Tumur's weather, the pandanus leaf is drifting away!" Kabua went on to the canoe; his soul was stolen, and he died (Erdland 1914:229-231).

6.14 Special Right of the Kin Group Jol to Eat Food from the Chief's Hut¹¹

During the trade wind season and the season of the calms, a woman had beaten out pandanus kernels. When she stood up, she had clothing. Therefore she fetched palm leaf husks for a clothing mat and went away. She took a little Gilbert basket and went away from the southern end of Namu. She was called Mutor.

As she was walking on, she said, "Mutorilin, what are you, ragged woman? I have wept over my child! Inhabitants of this hut, inhabitants of this hut, do you have an

¹⁰ This story was told to Erdland by Loien.

¹¹ This story was told to Erdland by Loien.

old mat for this woman?” The occupants of the hut replied, “Turn to your hand, prize the pandanus kernel! “Why did you not plait mats for yourself with your own hand, and what do you have now as the result of your long work?”

She went away from that hut and went to the chief’s hut. The chief spoke, “Tell her to sit down there, since she is not wearing a mat!” The chief was in the hut called Bojar, on the northern tip of Namu Island. The chief spoke, “Bring here the pressed out coconut palm meat from which my anointing oil has been pressed, for she has come to late to eat; scrapings from the *Truimfetta*, nettles and charcoal and coconut shells and *Boehemeria!*” The woman was allowed to take food from the chief’s hut because she was from the Jol *jowi*¹². The chief spoke, “Bring her two mats so that she may come to this hut” (Erdland 1914:292-293).

6.15 Traditional *ekjab*

The language of the Marshall Islands has four different words to indicate spiritual beings: *jetob*, *anij*, *ekjab*, and *noneip*. The meanings of these are not clear. Knappe (1888) states that a *jetob* is a spirit who had existed somewhere in the universe and to whom one attributes particular supernatural qualities and abilities. An *anij* is an invisible being, which can both help and harm people. An *ekjab* is embodied in natural objects; a tree, a plant, a stone, a reef, an animal, etc. A *noneip* lives by themselves on certain islands of the Marshalls and are invisible to ordinary mortals. Erdland (1914) lists these *ekjab* from Namu.

- Lo-tak-al, the long stretch of reef between Mattamuij and Majkein where there is such a strong surf that the whirling foam looks like smoke from a stone hearth at sea, two golden plovers that always fly toward this reef.
- Roen, an eel on the reef; at sea, a sea serpent near Majkin (northeast). A man killed the eel and then became Majkin Island.
- Modolok-raj, a hut in Majkin; at sea, a school of porpoises. These ten porpoises seem to be competing at diving, as though they were trying to find out which one of them is the most long-winded.
- Loueo, a stone on the north shore of the lagoon of Mae.
- Libadowa, a cliff on the lagoon side of Mae; at sea, a tree trunk standing upright. Loueo and Libadow liked to fish for the preying fish *kuro* and beat on the gills of the fish in order to make the hook fall out quickly. When the islanders there catch these fish, they say, “*Jumae, babmae, je bab in ar in Mae*”, where upon one fish after the other takes the bait.
- Jolo, a hibiscus in Loen
- Iroj-emman, a little island.
- Anel, a chief’s wife for whom several porpoises acted as midwives. “*Lio e mororodak wot eo lio I Loen*, the woman in Loen is in labor”

¹² Ordinary subjects may not enjoy any food that has already been carried by the chief’s wives into the chief’s chamber. This custom is called *kajur ej jure irooj*. The descendants of the *jowi* Jol and Moauleej are exceptions to this rule regarding their chief (of the Ralik group).

- Liwetenmour, a basalt rock in the northwest of Manjennineah.

VII. Summary and Conclusions

As mentioned in the introduction, the objectives of the present project were very clear and focused on site survey and inventory and education. The present work at the HPO is focusing on surveys of all the atolls within the Republic in order to produce a complete site inventory and National Register. Unfortunately, given the limitations of a reconnaissance survey it must be remembered that only visible historic and traditional sites were recorded. A more intensive survey and possibly limited test excavations are still required (See Section 5).

Part I of this report acquainted the reader with the research design, scope of work, and methodology involved in solving the pre-stated problems. It gave information on previously conducted research, a brief history of the Marshall Islands, and important historical events relating to Namu.

Part II described the environmental setting of Namu. Typhoons can drastically alter the landscape of low-lying atolls in the Pacific. Sea level changes pose additional threats to atoll environments. It is predicted that the global warming trend will have a tremendous impact on atoll communities within the next century. Information provided on vegetation and soil types was not only used as necessary background information in order to complete RMI National Register Forms, but also provided clues to the likelihood of areas primarily used for agriculture.

Part III discussed land tenure and subsistence strategies. This is important for evaluating the significance of sites concerning their standing in time and space. How certain areas may provide a better chance of recovering subsurface material in future intensive excavations.

Part IV reported the results of the field investigations. Fourteen sites, three historic and eleven traditional, were documented during the field investigations at Namu Atoll. Sites were recorded at the islands of Namu, Leuen, Lugaren, Mae, Emmal, and Kaginen, as well as within the lagoon.

Part V listed possible long-term and short-term management plans for the preservation of the sites on Namu.

Part VI lists the traditional stories associated with Namu Atoll.

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