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Archaeological and Anthropological Survey of Jabat Island

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The following monograph is the result of research conducted July 3, 1998 at Jabat Island, Republic of the Marshall Islands. The research consisted of non-intrusive, terrestrial archaeological reconnaissance survey. The project was sponsored by the Republic of the Marshall Islands Historic Preservation Office and funded by the Historic Preservation Fund, National Park Service, Department of the Interior.

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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 Jabat Island, Marshall Islands on July 3, 1998 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.

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 note, 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. A site was considered very significant if it met at least one of the Marshall Islands' formal criteria [RMI Historic Preservation Legislation, "Regulations Governing Land Modification Activities, Section 6(2)(a)]:

(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.

As the survey was designed to be intensive and 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. For example, the first abbreviation identifies the site as located in the Marshall Islands (MI), the second is the atoll, Jabat (JA), and in this case as Jabat is a single island, there is no third abbreviation for the islet. Therefore the site MI-JA-001 is the first site identified on the island of Jabat.

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; Staff Ethnographer, Donna K. Stone; and Video Technician, Ninbo Frank.

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-informants[1] were the elders of the community, who as custom dictates were also the government leaders, and so were the 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 the island. When informants or guides could not lead the team to the potential sites 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 left out due to the lack of appropriate clearing tool (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

[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.

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 Jabat Island. In accordance to the Historic Preservation Office's survey and inventory program area, Jabat Island was selected to be surveyed by the HPO staff. Unfortunately, Jabat Island is serviced by air only once every two weeks. Therefore, the team arrived at the island by hired sailed boat.

Although no previous research had been conducted on Jabat Island, previous researchers have included 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: 3.3-3. 21). The comprehensive study carried out under the leadership of Paul H. Rosendahl (1979, 1987) during March-June 1977 did not include Jabat. 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.

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, 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 Enewetok 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 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 *Scarbough*, 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 Eniwetok. 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, the British snow *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 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 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 defeat a powerful southern Ratak chief and thus, it was said, become chief of all Ratak. Kotzebue declined the offer. Kotzebue 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. LeMari troops used these new weapons to defeat the powerful Majuro chiefs 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 (1970) 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, and 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 outsiders gradually increased as

whalers concentrated their activities. They were hunting to provide lamp oil to meet European and American demand. With the whalers, a disruptive and intolerant group 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 cut off by the Marshallese and the crews killed, brutal retaliations followed, and the mood of contact in the first half of the 19th century was one of brutal 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 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 cut off and the entire crew killed) (Hezel 1979). 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 through the southern atolls, until 1880, when the station was removed to Kusaie in the eastern Carolines.

Changes in the Marshallese way of life had been rapid and extensive. For half a century 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 them. Instead the missionaries were "not only indifferent, but supremely scornful of the religious beliefs [of the Marshallese]. They try to extinguish them completely and destroy every trace of them" (Knappe 1888). The German ethnography summarized by Erdland (1914) and Kramer and Nevermann (1938) coincided with major structural changes in Marshallese way of life. These changes had been rapid and extensive. 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 were of course also effective in 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 empire 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 Jaluit Gesellschaft, a trading company, from 1887 on. This firm, which resulted from a merger of companies active in the area, Robertson and Hernsheim, 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 between the *Irooj* (Hiery 1995).

Warfare between island chiefs was eliminated, an act which froze the relative social positions of the chiefs and their clans 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, Japan succeeded the Germans in control of the Marshall Islands. They shifted to a system of virtual 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 ethnographic research however most of this material has yet to be translated.

The Japanese military, through the South Seas Defense Corps, governed the Marshalls until 1918. From 1918 until 1922, a combined civilian and military government was in charge. In 1922, 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), and 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. The Japanese were offered a school system identical to the one in Japan; the Marshallese received three years of primary education consisting mostly of Japanese language instruction and ethics classes, with an additional two years for the promising students (Hezel 1995).

The Japanese administration also attempted to make a number of changes in the Marshallese social and political organization. They appointed Marshallese leaders, 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 patrilineality, more like their own system, with little success.

In early 1930s, Japan began to construct fortifications on Kwajalein, Jaluit, Wotje, Mili, and Maloelap. Marshallese were conscripted to labor on these buildings and were resettled on other atolls (Peattie 1988). World War II started in 1941. In 1944, U.S. forces concentrated on gaining supremacy in the Pacific. Kwajalein, Majuro, and Enewetak 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 Enewetak 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 Jabat Island

~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 among the Marshalls (Sharp 1960, Levesque 1992a).

1566 Jabot Island is believed to have been first sited by the crew of the *San Jerónimo* which was originally commanded by Pedro Sánchez Pericón and piloted by Lope Martin until mutineers killed Pericón and took over the ship on June 3, 1566 (Levesque 1992b, Sharp 1960). .

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).

1797 Thomas Dennet, commander of the British vessel *Britannia,* made the first firm report of Ailinglapalap and Jabat naming the islands Lambert (Sharp 1960).

1809 In 1809 Captain Patterson of the British vessel Elizabeth encountered Ailinglapalap. It is assumed that he saw Jabat as well (Hezel 1979).

1820s 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 Rimwejoor, conquered all the islands of the Ratak and ultimately conquered Kwajalein, Lae, Ujae, Wotho, Rongelap, Bikini, Eniwetak, and Ujelang in the Ralik (Kramer and Neverman 1938, RMI Ministry of Education1996).

1840 Kaibuke had become the second-highest chief 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).

1855 12 September, the US merchant ship *Dragon*, commanded by Dunn visits Jabat (Hezel 1979).

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).

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, Hernsheim & Co. and A. Capelle & Co., are also in business there. Copra is their principal interest (Hezel 1983).

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).

1870 Kaibuke was *Iroojlaplap* (Kramer and Nevermann 1938).

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)

1878 Jabat's population is 50 (Krämer & 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 Jabat's population is 26 (Spennemann 2000).

1885 Under mediation of Pope Leo XIII, German government annexes the Marshalls.

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).

1905 Jabat's population is ~50 (Spennemann 2000).

1910 Jabat's population is 74 (Spennemann 2000).

1912 Jabat's population is 74 (Spennemann 2000).

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).

1921 The Japanese take over the copra industry from the Germans, replacing the Jaluit *Gesellschaft* with *Nanyo Boeki Kaisha* (Peattie 1988).

1930 Jabat's population is 48 (Spennemann 2000).

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).

1936 Jabat's population is less than 500 (Spennemann 2000).

1939 World War II begins in Europe.

1945 End of World War II grants effective control of the Marshalls to the U.S.

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).

1957 Jabat is struck by Typhoon Mamie.

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 Jabat's population is 93 (Bryan 1972).

1973 Jabat's population is 70 (Spennemann 2000).

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.

1980 Jabat's population is 72 (Spennemann 2000).

1982 Official name changed to the Republic of the Marshall Islands (RMI).

1982 Jabat is struck by Typhoon Pamela

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.

1988 Jabat's population is 112 (Spennemann 2000).

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 Tropical Storm Verne hits Jabat.

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.

1994 Iroojlaplap Kabua Kabua of the Ralik Chain passes away.

1996 Amata Kabua dies.

1996 In fifth election, Amata Kabua is selected as president.

1997 Imata Kabua selected to finish the late Amata Kabua's term.

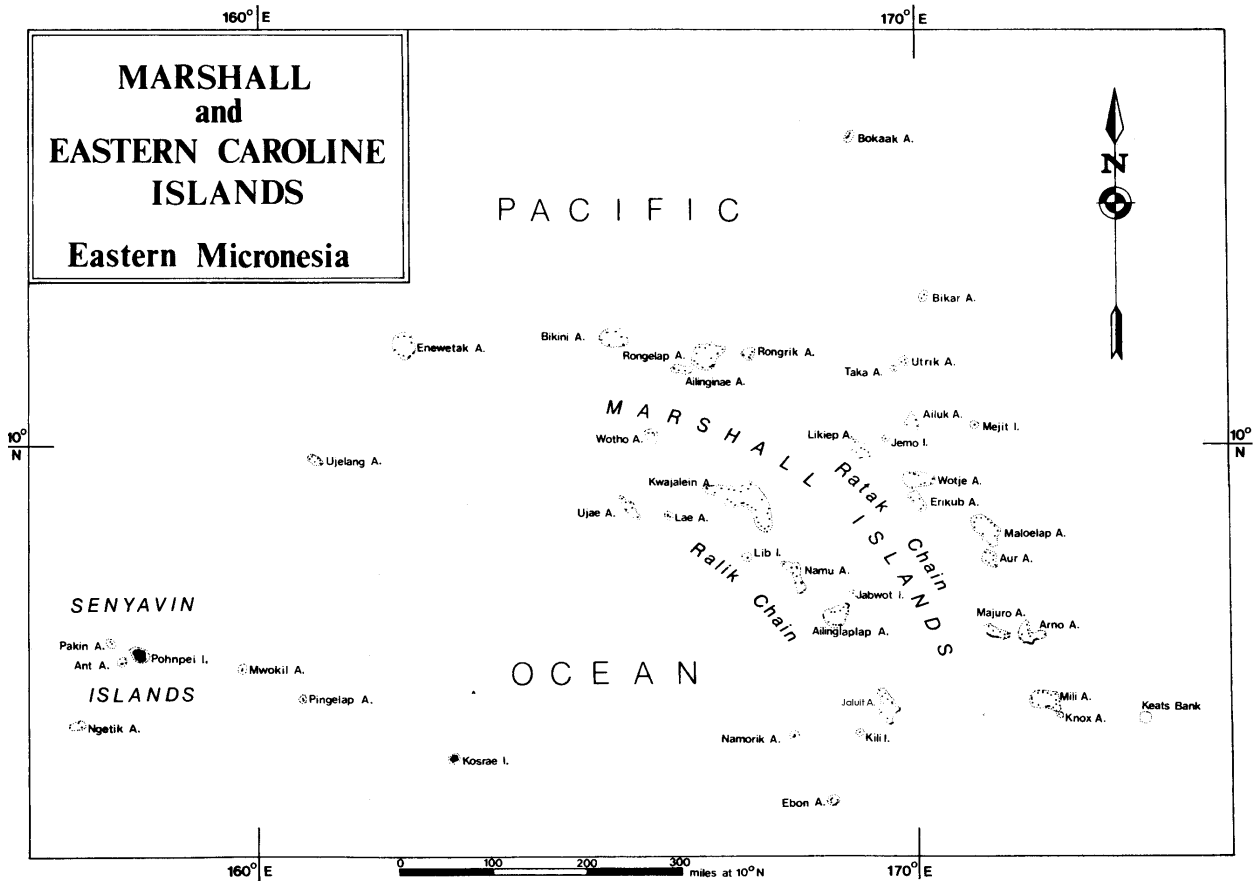
2000 Kessai Hesa Note selected as president.

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 independent 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 these two chains 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

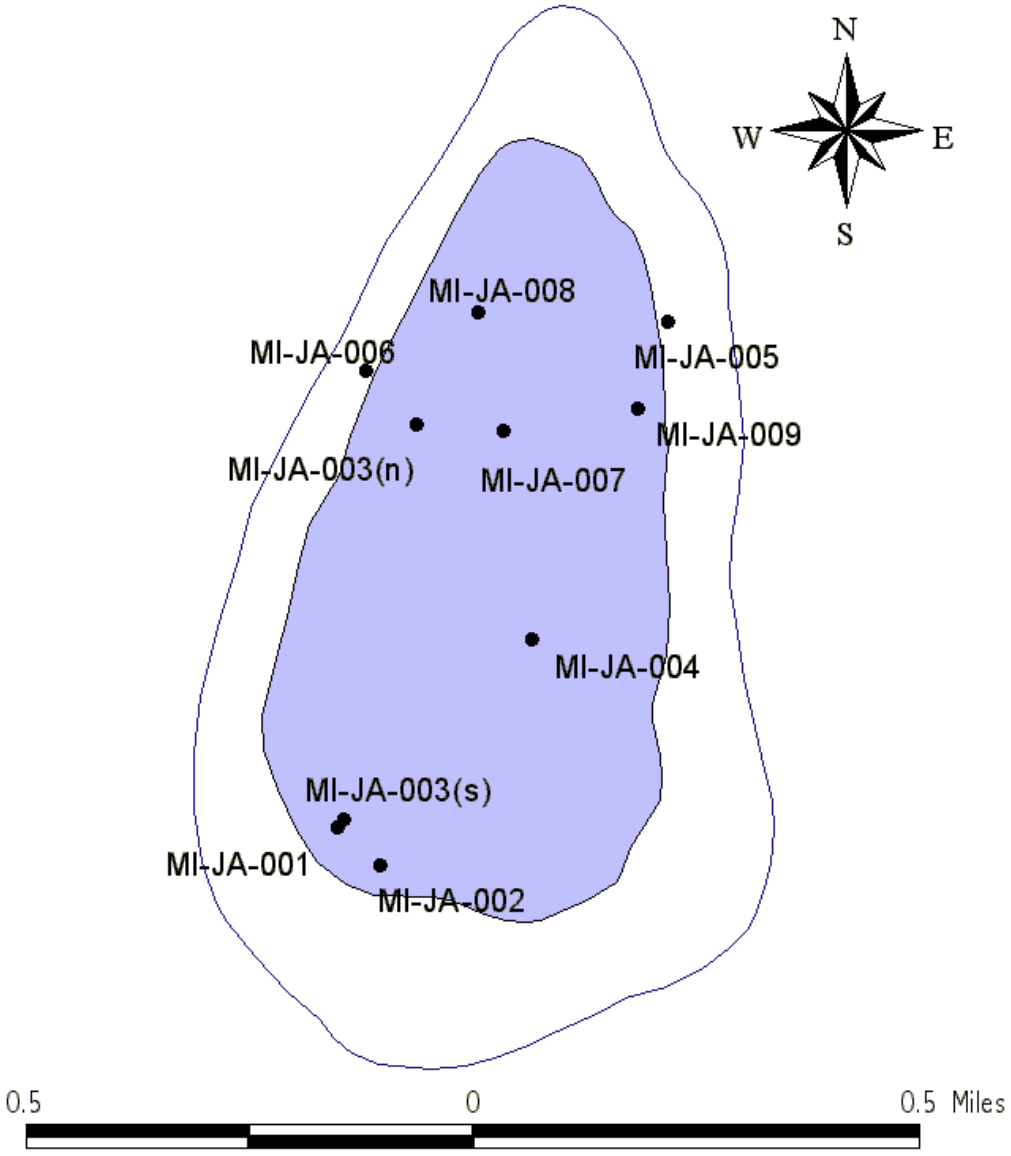
There are approximately 1,225 islets spread across an area of over 750,000 square miles (1.2 million square km). With a total land area of 70 square miles (110 square kilometers), a mean height above sea level of about 7 feet (2 meters) above sea level, and soils which are nutrient poor, the nation's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

Jabat Island is part of the Ralik Group of the archipelago of the Marshall Islands (Map 2). It is located 7^{o} 75' north latitude and 169^{o} east longitude. This small islet is less than a quarter of a square mile. In historic texts it is often referred to as the northernmost island of Ailinglaplap. It has no lagoon or pond and is surrounded by reefs, extending a quarter of a mile from the south and west sides, and three-quarters of a mile from the north and north-east sides.



Map 2: Jabat Island.

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. Jabat was struck by Typhoon Mamie in 1957 and Typhoon Pamela in 1982, both in late-November. Tropical Storm Verne hit Jabat in November of 1991 (Spennemann 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 (May to November). Precipitation is generally of the shower type; however, continuous rain is not uncommon. During the *Anon Ean* season, also known as the pandanus season (December to April), 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 which 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 maritama, Pemphis acidula, Tournefortia*); and a layer of ground cover consisting of several species (*Lepturus repens, Thuarea involuta, Fimbristylis cymosa, Polypodium scoloprendria*). Several mono-specific forests occur in the Marshall Islands (*Neisosperma, Pisonia grandis, Tournefortia argentea*) (Fosberg 1990). Shrubs such as *Pemphis acidula, Suriana maritama*, 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 altilus, Cyrtosperma chamisonnis, Pandanus tectoris*) are commonly found on the inhabited islets of the Marshalls. These various plants serve as wind breakers, salt spray repellents, food, and are used by locals for weaving and medicinal purposes.

The vegetation on Jabat consists of coconut trees, breadfruit trees, pandanus trees, and papaya trees. There is also *Scaevola, Tournefortia, Thuarea*, and *Guettarda* (Fosberg 1990).

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 "*jolet 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 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). The lineage head (*alab*), usually the eldest male of the senior line of the lineage, is steward of the lineage land holdings.

Control of land is the central most theme of Marshallese culture. The basic land division of the Marshall Islands, weto, is a strip which runs from the lagoon to the ocean side of an island. One or more wetos are held and administered by a matrilineage line. Title is divided and shared by several levels of the society. The *Irooj* (chiefs) hold title over an island or atoll. The *alab* organized and directed lineage activities and allotted lands for use to different descent lines within the lineage. The *alab* 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 them food but also provided for the *kajur* (*alaps* and *drijerbals*). The k*ajur* in return cultivated the land, harvested the waters surrounding the atoll, and performed *ekkan* (tributes) to the chiefs. The procedure is a cycle that has been repeating for hundreds of years. The common members of a lineage have land rights, although the *alab* and *drijerbal* change land ownership. The *Irooj* is the only individual with permanent land rights, unless defeated in war.

Historically an Irooj was able to extend his control over most of the Ralik (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* (paramount chief) he rarely visited those further north than Kwajalein and Ujae because the 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 alliances were unstable and varied in size as local *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 clearly evident to the local *Irooj*.

Jabat belongs to a chiefdom that has ruled parts of the Ralik Chains for hundreds of years. The reigning *Iroijlaplap* (paramount chief) was and still is from the Kabua, family who hold land rights on the atoll. As mentioned above, the three categories of people *(irooj, alab* and *drijerbal* have certain rights to land ownership. This is in accordance with the Marshall Islands' matrilineal society (Tobin 1952) and most people are born with assured land rights. There are cases, however, where people obtain land rights through the patrilineal side or where land is given as gift or payment from the paramount chief. There are a numerous ways a person can inherit or obtain land rights. Nonetheless, the distribution of land is always follows the

matrilineal system. Land given to a commoner by the chief will be inherited by commoner's oldest daughter who in turn will pass it to her oldest daughter and so on.

IV Field Investigation

Jabat Island

A total of nine sites were recorded during the reconnaissance survey; five traditional sites, three prehistoric sites, and one historic site (Map 2).

Site MI-JA 001 (Marshall Islands - Jabat Island - Site No.001)

GPS Coordinates (taken from beach) N: 7°44' 50.76"
E: 168°58' 27.04"

This traditional site is located on the coral flat reef on the southwestern end of the island. We were told there is a hole there, however, we visited during high tide and could not see it (Photo 1). The site is commonly referred to as 'Lijetmoten'. A woman, Lijetmoten, ran to the hole to hid from her husband who was trying to kill her. When the husband found her at this location he killed her. The locals now say that swimming is dangerous here because of this[2].

Photo 1 Location of Traditional Site 'Lijetmoten', a hole in the reef.

[2] There's a story in the oral history section (section 3) that is similar to this one except a woman, Lotilan, is trying to kill a man, Latulon.

Site MI-JA 002

GPS Coordinates N: 7°44' 48.62"
E: 168°58' 27.04"

This traditional site is a dead tree stump near the beach on the southern tip of the island. The site is commonly referred to as 'Lajtokrok'. A woman went to Ailinglaplap for food when Jabat was in need.

Photo 2 Lajtokrok, a traditional site.

Site MI-JA 003

GPS Coordinates (south point) N: 7°45' 51.19"
E: 168°58' 27.41"
GPS Coordinates (north point) N: 7°45' 14.37"
E: 168°58' 31.70"

Site MI-JA 003 represents a walkway (Photo 3) which was used during prehistoric times and is still in use today. It runs north-south up the western side of the island. The walkway measures 270cm at its widest and is lined with upright, flat coral slabs (Photo 4).

Photo 3 Walkway, looking south.

Photo 4 Close-up of the Walkway Coral Stones.

Site MI-JA 004

GPS Coordinates N: 7°45' 01.74"
E: 168°58' 38.25"

This traditional site is a coral rock located in the central portion of the island (Photo 5). The rock measures 2m x 75cm. It is commonly known as 'Leonbar'. It was named after a man who drifted to Jabat from Ebon and settled here. He tried to steal everyone's land so he was killed.

Photo 5 Leonbar, a traditional site.

Site MI-JA 005

GPS Coordinates N: 7°45' 20.30"
E: 168°58' 46.13"

This traditional site is located on the northeastern end of the island on the reef. It is a depression in the reef that is shaped like a tail fin (Photo 6). It is commonly referred to as 'Lokaneako'. Lokaneako was a shark who ate the man who killed his wife from the legend of site MI-JA 001. The site is the tail of the shark. There is another site where that man's bottom is located. This site is used to make magic to cause high waves to drive away unwanted boats[3].

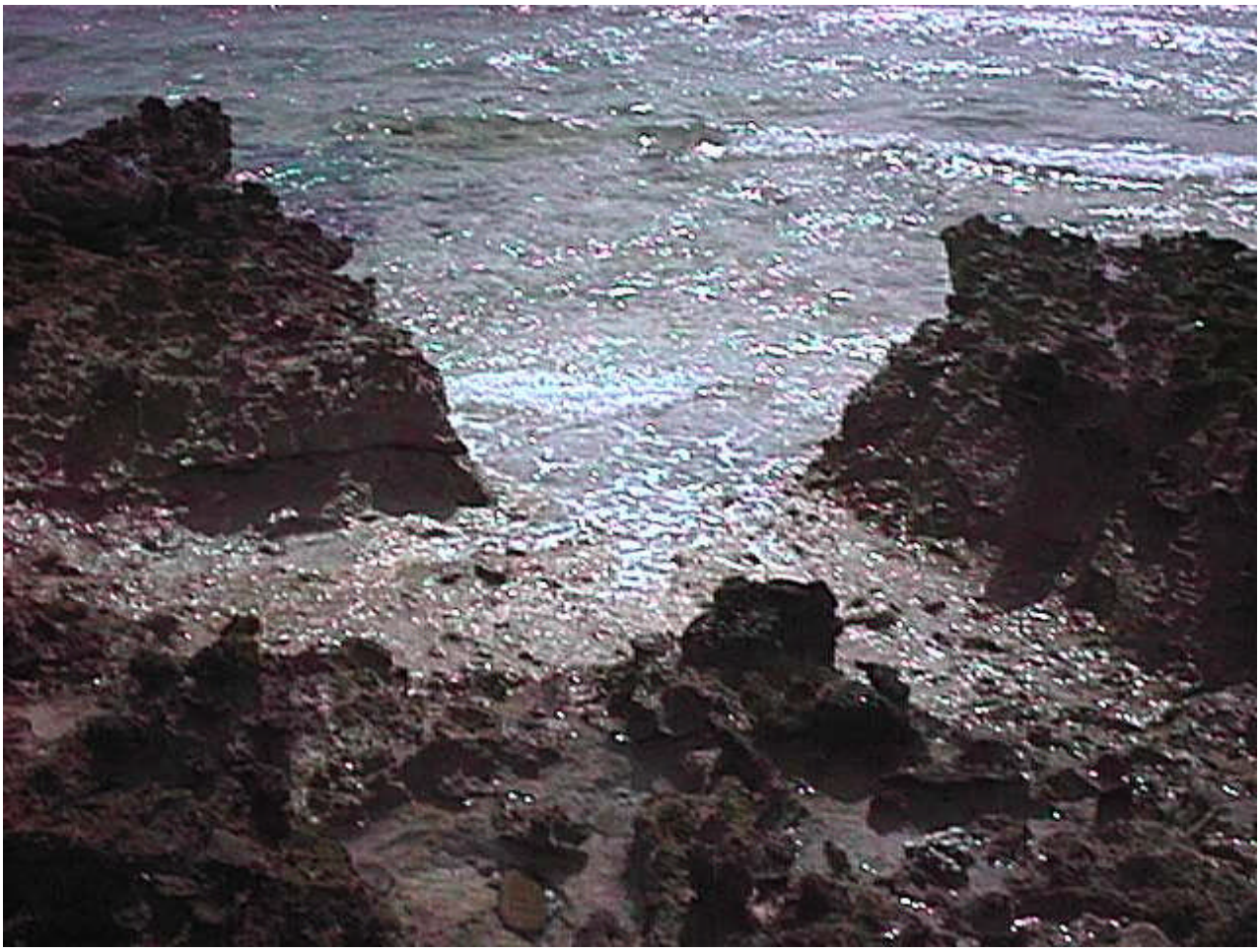


Photo 6 The tail of 'Lokaneako' the shark.

[3] The story in Oral History: Section 3 tells that a woman caused sharks to eat the man. They ate all but his rectum which can still be seen today. Bad weather happens if someone touches the 'rectum'.

Site MI-JA 006

GPS Coordinates N: 7°45' 17.27"
E: 168°58' 28.73"

This traditional site is located on the western side of the island. It is a large tree stump which is related to women from the north who fed the island during famine. Photo 7 shows the tree stump.

Photo 7 Traditional Site MI-JA 007

Site MI-JA 007

GPS Coordinates N: 7°45' 13.90"
E: 168°58' 36.69"

This site is a prehistoric taro pit which is still in use today. It measures 30m x 150m and is located in the central portion of the island (Photo 8).

Photo 8 Prehistoric Taro Pit still in use.

Site MI-JA 008

GPS Coordinates N: 7°45' 20.92"
E: 168°58' 35.05"

Site MI-JA 008 represents a historic burial site which is located deep in the forest but nearby the northwestern beach (Photo 9). The site consists of sixteen clearly recognizable graves, with the possibility of still more. All are rectangular, coral lined and have a coral spread in between. They measure on average 2m x 50cm.

Photo 9 Historic Burials

Site MI-JA 009

GPS Coordinates N: 7°45' 15.15"
E: 168°58' 44.25"

Site MI-JA 009 is a historic taro patch. It is located next to MI-JA 007. It also is large and rectangular in shape and measures approximately the same (30m x 150m).

Photo 10 Historic Taro Pit.

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 historic sites of Jabat Island, 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 importance of land rights to individual 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 sites on Jabat Island are valuable resources. As such, they warrant an active preservation effort. Primary concern must be the stabilization of the sites. After successful completion of the physical preservation of archaeological remains, further use of these resources has to be planned. The best move 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. Sites that have potential tourist possibilities should to be selected for restoration and possibly reconstruction. As Jabat contains many traditional sites it is recommended that further research be conducted to add to the information already attained.

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. At those sites where significance could not be ascertained due to the limits of the survey, a more detailed study needs to be executed. Intensive survey, including detailed recording and limited test excavations, are recommended as the most appropriate immediate course of action.

VI. 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.

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, as well as, a critical evaluation of the sources and techniques used.

Part II described the environmental setting of Jabat Island. 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.

Gaining knowledge on land tenure and subsistence strategies was important for evaluating the significance of sites concerning their standing in time and space. Part III also provided valuable information on the artifacts and archaeological data most likely to be uncovered in the field investigations. Although no subsurface testing was conducted, a predictive model could be derived on the basis of this information.

Part IV reported the results of the field investigations. A total of nine sites were recorded during the reconnaissance survey; five traditional sites, three prehistoric sites, and one historic site.

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

Part VII lists the traditional stories associated with Jabat.

VII. Oral Traditions

7.1 Introduction

Traditional sites are natural features in the environment to which oral traditions are attached. Prehistoric Marshallese culture was largely an oral society where information was passed down by word of mouth from generation to generation. Knowledge was embodied in stories and chants.

The themes of Marshallese stories are universal: good versus evil; heroism and success of the underdog; the repercussions for children of disobedience; family respect; and sibling and peer rivalry. They are flavored with demons, ghosts, giants, and personified fish and animals. Supportable historical fact is often combined with mythology in the same story.

In all of the stories, morality prevails, and acceptable behavior and traits of character are exemplified so that they may be passed on from old to young, past to present, and hopefully from generation to generation.

There are many variations in the creation accounts. Regardless, the different versions introduce key characters import 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. The 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: Irojrilik, in the west); (LoKomraan) Lakameran (Daymaker) in the east; (Lorak) Rerek 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 Limdunanij. Limdunanij 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, Iroijrilik 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.' Iroijrilik then spoke, 'Let us go into the hut'. They went into it and three months passed.

When Wulleb had spent some time with Iroijrilik, 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 Jemeliwut, and the younger Letao.

Wulleb sent them to Lijbage (Tortoise woman) on Bikar Island in order to get magical tortoise shell from her. Lijbage – 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, Jemeliwut 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 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 Wullip 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			Limdunanij	
Jemaliwut		Letao			Lanej	Lewoj

From the Ratak chain the cosmogonic genealogy is as follows:

			Wulleb			Lejman
Jemaliwut	Letao	Lanej	Lewoj		Lino	Ni

Other accounts add information, some contradictory. According to Knappe the frist 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. Etau 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 wasn't ashamed at her nakedness but because she had an incestuous relationship with her son.

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 Iroijirilik, 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 Neverman 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 (Liktanur and her son's canoe race) (Kramer and Neverman 1938, Erdland 1914, Buckingham 1949, Davenport 1953), the origin of navigation (Buckingham 1949), origins of animals, breadfruit (Mackenzie 1960); taro (Bikajle 1960).

7.2 The Creation of Jabat

Jabot Island was brought from Lib Island, which made a huge empty space on Lib Island. There was two men who brought Jabot from Lib. They swam with it and headed to the Ratak Chain. On the way there they stopped and rested on a reef also called Jabat. That reef is located near a pass or channel named *To Nam.* The reef is still there today. The two men rested there for two days. Then, they started to swim the next following morning and headed to Ratak Chain. The pond on Lib Island, which they took Jabot from is about the same size as Jabat Island.

However, this time they decided to put Jabat in a woven basket and swim to the Radak Chain. While they were swimming they knew where to put their island [Jabat] and their plan is to pt it near either Likeip or Mejit Atolls. The wind was getting stronger this time, but they never quit, instead they continued to swim toward the direction of the Radak Chain. While they were swimming the Island fell from the basket without their knowledge. When they came close to Likiep Atoll one said to one another that this is where we are going to place our island. Suddenly, when the other opened the basket there was nothing inside it. So he called to the other guy named Letulon and told him that there was nothing inside the basket. They swam back to the direction where they came from. All of a sudden, they found it but when they tried to lift it

up they can't. So, they leave it there and that is why Jabot Island is where it is today. They brought it from Lib Island and it fell from the basket and still is there today[4].

7.3 Earlier Version of Jabat Creation

There is an earlier published version of how Jabat was created. It was complied by Roger Mitchell (1973). According to Mitchell's version, a long time ago in Erlip (today called Lib), there lived a man named Latulon. Latulon was very strong and muscular. He was the care-taker of Erlip. He was so big that he could walk from island to island in the deep sea.

One day, while making a routine check on all the sections of the island, he noticed that the people didn't really care much or give respect for his work as they steal food from any place on this island. There was one particular *weto* in the middle of this island that produced much of the foods. For this reason, he wanted to safeguard the food from those thieves. But the people didn't listen to Latulon. One day, he decided he had an idea that might help alleviate this situation. Because of these people's insistence not to obey him, he decided to put the most productive *weto* inside a large food basket. He put the dirt inside his basket and walked toward the north. On Lib island today there is a round pond shaped like Jabat. This is where Latulon took Jabat from.

Because of his long distance traveling, he got real tired. So inside Ailinglaplap's lagoon. he set his basket down and took a rest. Then he decided to put Jabat right where he set his basket. He named the new island Jabat because it was productive and had the abundance of food. He was pleased because when he looked around, he saw all the islands of Ailinglaplap Atoll surrounding him.

While Latulon was living on this island, he brought his two daughters to live with him. One day Latulon got angry with his two daughters for peeking at him while he was taking a bath. He got very angry and put the whole island in his basket and walked toward the north again. When he was about four miles away from Ailinglaplap, his basket broke and Jabat fell out.

Now inside Ailinglaplap there is a coral head shaped like Jabat. The coral head is located right where Latulon placed his island. The coral head is called Jabat and is one of the best fishing spots inside Ailinglaplap's Lagoon.

Before the basket broke and Jabat fell out, there was a hole at the bottom of the basket and pieces of land were falling out on the way from Jeh. Today Jabat is growing instead of getting smaller from being washed out by the sea. It is believed that all the pieces that were falling out are now drifting back to their original places. This is why Jabat is growing.

Latulon liked his island and he decided to live on it. After the island fell down from his broken basket, he planted it with many kinds of trees. He sent out his two daughters to bring food from the other islands. His daughters were two white birds. These birds are always flying high in the sky and they are always flying together. The girls took lots of food to Jabat and the island became the most beautiful around that area.

[4] This was told by Kuli Manbwij. Langinbo Frnak recorded it and Kenny Paul translated it into English.

Latulon was very proud of his beautiful island and people on Ailinglaplap were very envious. Especially one woman by the name of Lotilan. She had two sons, Jobuk and Joremelim. Today these sons are two large sharks.

One day Lotilan told her sons to wait for her because she was going to Jabat to kill Latulon. She said to her sons "Wait for me and if you see a big smoke on Jabat in a few days, then you both can come.

She turned herself into a big shark and swam to Jabat in a place now named after her. Here she turned herself into a beautiful woman. She was sitting inside a pool on the reef right across from Latulon's house when Latulon came out that morning.

Latulon went to the reef and took her to his house and she became his wife. The lived together for a few days and then she became ill. She was not really ill, it was all part of her plan to kill Latulon. She began not to eat for several days. Later she wanted to eat only certain kinds of fish. Latulon began to worry about her. Everything she wanted to eat was very difficult to ge, but Latulon tried his best to get everything she wanted. Everyday she would tell Latulon to get a different kind of fish using a different fishing technique.

One day Latulon asked Lotilan what she wanted to eat and she said, "I want to eat fish caught by *Jabuk* fishing." *Jabuk* fishing is the fishing technique where a fisherman attaches short lines and hooks to coconut floats and swims with them beyond the reef. Once beyond the reef the fisherman becomes vulnerable to sharks. So Latulon prepared all his fishing gear and when he was finished, he took two coconut floats and went fishing. Before he left, he told Lotilan not to touch or pound small pandanus leaves because he could not get back home safely if she did.

Latulon was swimming on the ocean side, far beyond the reef. He started from his place toward a bay near the other end of the island. While he was fishing toward the bay Lotilan was standing on the shore waiting for Latulon to reach the bay. When he reached it, Lotilan took the pandanus leaf and pounded it with a rock. As soon as she did this sharks took Latulon and tore him into pieces. They ate his whole body except his rectum.

Now Latulon was dead, and Lotilan began to gather dry leaves. She put the leaves together on the beach and set them on fire. Her two sons who were waiting on Ailinglaplap saw the big smoke and went to assist their mother.

Now Lotilan and her two sons ruled Jabat after Latulon died. There are remains on Jabat connected with this story. First, Latulon's two daughters are two white birds that are always flying together. It is believed that when people see these birds flying over some island that the birds are stealing food for Jabat.

Latulon's rectum can be seen on the reef. It is like a real rectum. It is read and soft and looks real. People have found out that the rectum can cause some big problems. Bad weather, typhoons and other disasters always occur when someone touches or plays with Latulon's rectum. Latulon's swimming pool is shaped is still on the island. It is shaped like a shark's fin or tail[5].

Jabat was one of the islands that the *Irooj* usually went to pick food from when traveling long distance from island to island. That's how the name "Jabat Kobat" was born because that's

[5] See Site MI-JA 005

where all the food belonging to the Irooj were stored. Even today, when one visits the island of Jabat, one will still find an abundance of food available there (Knappe 1888, Kramer Nevermann 1938).

7.4 Job the fisherman and the noniep

Many years ago there was a good fisherman on the island of Jabat. His name was Job. Jabat is an island with lots of fish around it. It is a good fishing place.

There were two popular types of fishing during those days. The first one was *latippan bwebwe*. This is the kind of fishing that is used to fish tuna. Fishing places are deep and long fishing lines are used in fishing. The second one was *rojep*. This type of fishing is used in fishing for flying fish. Coconut shells are used as floats in this type of fishing.

These were the two most popular kinds of fishing among men during those days. It was like a big competition during fishing times. People made fun of any man who couldn't catch enough fish to load up his canoe during each fishing trip.

Job was a good fisherman. He loved to fish but he wasn't as good as the other men. The people sometimes made fun of him as one of the unlucky fishermen. Job lived alone in his home. He had been living alone for a long time, but one evening a pretty young woman appeared to him. The first night the woman was sitting while Job was sleeping. She was weaving a hat for Job and she told Job that she was a *noniep*. She also said that she was a Lerooj of Bokmeij, a small island at the end of Jeh. The big city for all the *noniep* is located on Bokmej. The second night the *noniep* appeared to Job again. She was like a real human. She told Job that she was from Bokmej and she had come to help him because she knew he was the best fisherman on the island.

Every night the *noniep* was weaving on a hat. She wanted to give the hat to Job. The hat was for him every time he would go fishing. When the hat was completed Job took it and put all of his hooks in it. The next morning he went fishing and everybody was surprised to see Job first to come home. He couldn't stay any longer because his canoe was overloaded. Now with the hat, Job became the luckiest fisherman on Jabat. People were really surprised. They asked him what kind of baits he was using, and he told them that he was using the same kind of baits they were. Now everybody on the island was talking about Job's luck.

One night the *noniep* again appeared to Job. She made him promise not to tell anyone about the hat, and also not to mention that he was living with a *noniep*. She told Job that if he should tell anyone about her and the hat, then he would never see her again. He would also lose the hat. She also told Job that if he would keep it secret, then one day she would become a real human and live with him forever.

Many people began to ask Job why he was so lucky. Every day someone would come to Job and ask him why he was lucky. They also asked him about his bait. People were really curious about Job, and some began to think that Job had some kind of magical power that made him a lucky fisherman.

One day Job got tired of people asking him many kinds of questions, and he decided to tell them about the hat and his wife. He told the people that he had a *noniep* wife and she made him a hat, and the hat, was making him a good fisherman.

When Job returned home after he told the people, he found that his hat was gone. He waited for that night, but his wife never appeared to him. Job was no longer a good fisherman. Until today Job is an unlucky fisherman. He will spend a day fishing and if he is lucky he will catch only a few but usually he gets none (Kramer and Neverman 1938)

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