

PROPERTY OF THE TRUST TERRITORY  
OF THE PACIFIC ISLANDS

**THE ECONOMIC ORGANIZATION OF THE  
MARSHALL ISLANDERS**

**By**

**Leonard E. Mason**

**U. S. Commercial Company, Economic Survey  
Honolulu, April 1947**

## TABLE OF CONTENTS

	Page
<b>PREFACE</b>	vi
<b>I. THE LAND</b>	1
<b>A. CLIMATE</b>	1
1. Summary of Pertinent Data	1
2. Appraisal of Climate in Relation to	1
a. Effectiveness of manpower	1
b. Production	2
c. Resources	2
<b>B. TOPOGRAPHY</b>	2
1. Descriptive Summary	2
2. Summary of Resources	4
3. Relation of Geographical Factors to	4
a. Production	4
b. Transportation	5
c. Effectiveness of manpower	5
<b>II. THE PEOPLE</b>	6
<b>A. POPULATION</b>	6
1. Historical Background	6
a. Political history	7
b. Economic development	8
c. Missions	9
2. Population Statistics	9
a. By nationality	9
b. By locality	10
c. By age group and sex	13
3. Chief Health Factors	14
<b>B. CULTURAL DATA</b>	15
1. Kinship Organization	15
a. The family	15
b. The clan	21
2. Territorial Organization	26
a. The settlement	26
b. The atoll	28
3. Occupational Organization	31
4. Associations	33
5. Rank and Status Organization	34
a. Marshallese	34
b. Half-castes	39
6. Comprehensive	41

	Page
<b>III. CONSUMPTION AND REQUIREMENTS</b>	<b>42</b>
<b>A. NATIVE CONSUMPTION PATTERN</b>	<b>42</b>
1. Consumers' Goods	42
a. Food	42
b. Clothing and accessories	49
2. Capital Goods	51
a. Tools and implements	51
b. Machines and apparatus	52
c. Vehicles	52
d. Water craft	53
3. Shelter	56
4. Services	58
a. Transportation	58
b. Communication	61
c. Distribution of trade goods	62
d. Savings and credit	64
e. Vocational education	65
f. Social welfare	66
<b>B. NATIVE REQUIREMENTS</b>	<b>67</b>
1. Principles	67
2. Specific Needs	68
a. Food	68
b. Clothing	70
c. Tools	72
d. Machines	73
e. Vehicles	74
f. Water craft	74
g. Shelter	76
h. Transportation	77
i. Communication	80
j. Distribution of trade goods	82
k. Savings and credit	83
l. Vocational education	83
m. Social welfare	84
<b>C. UNITED STATES MILITARY REQUIREMENTS</b>	<b>85</b>
<b>D. NATIVE CONSUMPTION VS. REQUIREMENTS</b>	<b>85</b>
<b>IV. PROPERTY</b>	<b>86</b>
<b>A. LAND TENURE</b>	<b>86</b>
1. Native Land System	86
2. Changes Under German Administration	88

	Page
3. Changes Under Japanese Administration	89
4. Conditions Under American Administration	90
a. History of land administration in Radak	90
b. History of land administration in Balik	96
c. History of the Likiep property	99
<b>B. MOVABLE AND INTANGIBLE PROPERTY</b>	<b>101</b>
1. Ownership and Inheritance	101
2. Tribute and Taxation	102
3. Alienation by Gift	105
<b>C. RECOMMENDATIONS</b>	<b>107</b>
<b>V. LABOR</b>	<b>109</b>
<b>A. WAGE LABOR</b>	<b>109</b>
1. Categories of Work	109
2. Availability of Labor	110
3. Conditions of Labor	112
<b>B. OTHER FORMS OF LABOR</b>	<b>114</b>
1. Cooperation and Group Participation	114
2. Specialization	115
3. Copra Labor Unrest at Likiep	117
a. Recommendations	123
<b>VI. RESOURCES</b>	<b>126</b>
<b>A. COPRA PRODUCTION</b>	<b>126</b>
1. Conditions of Coconut Cultivation	126
2. Commercial Development under German Direction	127
3. Japanese Stimulation of the Industry	127
4. Native Methods of Processing Copra	128
5. Marketing of Copra by Natives	129
6. Post-war Rehabilitation of the Copra Industry	130
<b>B. HANDICRAFT PRODUCTION</b>	<b>131</b>
1. Japanese Organisation of Handicraft Production	131
2. American Support of Handicraft Industry	132
3. Processes and Techniques of Production	133
a. Coconut leaf	133
b. Pandanus leaf	134
c. Hibiscus bark	135

135°

140°

145°

150°

### BONIN (OGASAWARA) ISLANDS

- Rosario I. (Nishino)     : PARRY Group (Mukoshima Retto)
- : BEECHEY Group (Chichishima Retto)
- : BAILEY or COFFIN Group (Hahashima Retto)

DAITO SHIMA

• Kita Iwo Shima

• Iwo Shima

• Minami Iwo Shima

### VOLCANO (KAZAN) ISLAND

• Uracas or Farallon de Pajaros

• Maug

• Asuncion

### MARIANA

• Agrihan

• Pagan

• Alamagan

• Guguan

• Sarigan

• Anotohan

• Farallon de Medinilla

### ISLANDS

Tinian • Saipan

• Aguijan

• Rota

• Guam

• Santa Rosa Reef

25°

20°

15°

10°

5°

0°

Kayangel  
PALAU • Babelthuap  
Angaur

• Sonsorol  
• Pulo Anna  
• Merir

Tobi  
• Helen Reef

Mapia

New Guinea

• Ngulu

Ulithi  
• Fais

• Sorol

Eauripik

Woleai

• Olimarao

• Ifalik

• Gaferut

• Faraulep

• West Fayu

• Elato

• Satawal

• Lamotrek

• Puluwat

• Pulap

• Pulusuk

Namonuito

• Pikelot

• East Fayu

• Kuop

• Namoluk

• Et Sataw

HAL  
Mu  
Nomwi

TRUK  
N

• Namoluk

• Et Sataw

### C A R O L I N E

### ADMIRALTY ISLANDS

Hollandia

Manus

Mussau

New Hanover

135°

140°

145°

150°

## PREFACE

This study of the economic organization of the Marshall Islanders was undertaken as one part of a survey of American Micronesia; this survey was conducted by the U. S. Commercial Company, a government agency operating within the framework of the Reconstruction Finance Corporation. The U. S. Commercial Company, cooperating with the Military Government Section of the Navy Department, is directly responsible for economic developments among the peoples of Guam and the former Japanese Mandated Islands. This economic survey, carried out during the summer of 1946, was considered essential for planning future economic development of the island area.

For purposes of the survey the writer was loaned to the U. S. Commercial Company by the Department of State, where he had been engaged in research on the Pacific Islands. After being assigned to the Marshall Islands area and briefed on the nature and extent of the proposed survey, he left Honolulu for the Marshalls in April 1946. The following four months were characterized by almost constant contact with Marshallese communities located in representative atolls of the archipelago. The Marshallese people everywhere proved most cooperative and hospitable, rendering considerable service in the accumulation of data and making the writer's visit an enjoyable personal experience as well. Communication with the Marshallese was achieved generally by the use of English-speaking natives or half-castes, to whom a special debt of gratitude is due -- to Fredy Narrahn, Carl Donnack, Dwight Heine, Mike Madison, Herman Schmidt, Bourn Heine, Kabua, and others. Housing accommodations, meals, and transportation were graciously provided in every community, thus establishing another debt which the writer will never be able to repay in kind; individuals who will be remembered particularly in this connection are Anton De Brum and his family, Raymond De Brum, Carl Hahn, Tomcing, Fredy Capelle, Robert Reimers, Bourn Heine, Kabua, Jitiam, Lainglen, Lajibli, Obit, Laben, and others. Assistance was also rendered in no small measure by American personnel attached to Military Government and to U. S. Commercial Company, such as Mr. Gerald Foley (senior USCC representative in the Marshalls), Mr. Earl Bledgett (USCC representative at Majuro), Commodore Ben Wyatt (Commandant, Marshalls sub-area), Lt. (j.g.) Hector Cyr (Military Government Officer, Kwajalein), and Cmdr. Pugh (skipper of VPB-32 at Ebeye).

Despite the relatively short duration of the writer's contact with the Marshallese people, their cooperative and friendly attitude made it possible to acquire a considerable understanding of their economic problems. In this report, the writer hopes that he has been able to express those problems in terms which will be appreciated by those Americans who are charged with the economic rehabilitation of the Marshallese people. The islanders themselves are looking toward the future with great hopes for a better deal than they received from the Japanese. If this report can contribute in some measure to the realization of that hope, the writer will be satisfied that personal hardships undergone in the course of the field work were not in vain.

Any criticism of American administrative and other personnel is not to be construed as personal, but rather as illustrative of the problems which arise in the administration of native affairs and of the implications and repercussions which result from certain administrative actions. In this report, no brief is held for the administration of the native population by any one U. S. agency in contrast to another -- the brief which is held is the more important one of the natives' welfare.

Leonard Mason

## I. THE LAND

### A. CLIMATE

#### 1. Summary of Pertinent Data

The climate of the Marshall Islands, because of their position near the equator and their small land area in the midst of vast expanses of ocean, is characterized by high and uniform temperatures, high humidity, and generally heavy rainfall. Temperature remains around 80° F., with only slight diurnal variation (the heat of the day is just after noon, the coolest time just before dawn) and a seasonal variation from the annual mean of no more than one degree in any one month. The humidity, which rises during the night to 85 and 90, drops to 75 and 80 in the early afternoon. With regard to rainfall, there is considerable variation in the precipitation pattern as one travels from south to north within the archipelago. The southern atolls (like Majuro, Arne, Ebon, and Jaluit) receive an annual rainfall of about 160 inches, which is distributed fairly uniformly throughout the year. The northern islands (like Eniwetok, Rongerik, and Utirik) receive only half as much rain, with greater seasonal variation and near-drought conditions occurring in the winter months of January, February, and March.

The general effect of the climate in the Marshall Islands is pleasant. The air is less humid than that encountered in the high islands farther west; strong cooling breezes from the sea moderate the tropical heat of the area; and the rainfall is generally not heavy enough to interfere seriously with ordinary human activities. Significant seasonal variations in climate are restricted to rainfall and wind. The northeast trade winds predominate from December to April and, in the northern Marshalls, usually bring fine weather. The wind blows strongest at the height of the northeast trades. In the southern atolls, the trade winds are less apparent, being replaced by more moderate east and southeast breezes. During summer and autumn the winds decrease appreciably in intensity and often yield to temporary periods of calm.

#### 2. Appraisal of Climate in Relation to

a. Effectiveness of Manpower. Although the climate is enervating for sustained heavy work, it does not differ much from that encountered in Hawaii or in Washington during the hot humid months. Natives generally take things easy during the hot midday hours, already having accomplished most of their daily work in the period between dawn and noon. The heat and the humidity provoke excessive perspiration, and precautions are necessary to maintain the proper salt balance in the body. Only in the southern islands does rainfall interfere at all with work. Natives adjust their daily routine to changes of weather, working at indoor jobs until any period of rain comes to a close.

b. Production. Rainfall is a deciding factor in the production of certain trees and plants, like bananas, papayas, limes, breadfruit, and taro. As one travels north through the Marshalls the incidence of these crops declines, many disappearing altogether in latitudes north of Kwajalein and Likiep. In the southern islands, rainfall also interferes with the processing of sepra -- a poorer quality being produced because of the need in rainy weather to dry the coconut meat over fires rather than under the hot rays of the sun. This disadvantage of climate offsets the initial advantage of the larger and more abundant coconuts characteristic of trees in the southern Marshalls.

c. Resources. The native water supply is largely dependent on rainfall. Catchment basins and cisterns store up drinking water and supplement the brackish water from shallow wells. In the southern atolls, an adequate water supply for bathing, laundry, and cooking is assured the year round, but in the north, during the months from January to March and April, cisterns often run dry and during that period it is necessary to resort to the saltwater wells. Even then, however, the natives are not particularly concerned about a shortage of drinking water as they depend almost exclusively on the liquid from green coconuts for a thirst quencher. Generally, water shortage means curtailment only of the daily bath.

## B. TOPOGRAPHY

### 1. Descriptive Summary

The Marshall Islands consist of two chains of widely scattered coral atolls and islands in the central Pacific between 4° 30' N. and 14° 45' N. latitude and 160° 50' E. and 172° 10' E. longitude. A sea area, some 150 miles wide, separates the nearly parallel chains, which extend northwest and southeast.

The western chain - Ralik - is composed of fifteen atolls (Eniwetok, Bikini, Rongelap, Rongerik, Ailinginae, Wotho, Ujelang, Kwajalein, Ujae, Lae, Namu, Ailinglapalap, Jaluit, Namorik, and Ebon) and three single islands (Lib, Jabwot, and Kili), most of which are inhabited by natives, who call themselves ri ralik (people of the ~~west~~). The eastern chain - Ratak (Ratak) - comprises fourteen atolls (Pokaakku, Bikar, Utirik, Taka, Ailuk, Likiep, Wotje, Erikub, Maloelap, Aur, Majuro, Arno, Mili, and Knox) and two islands (Mejit and Jeme), most of which are inhabited by ri ratak (people of the east).

Since the natives never had a name for the archipelago as a whole, cartographers have applied to it the name of an early discoverer, Captain Marshall, who visited the area in 1788. The extent of ocean covered by the Marshall Islands is vast; it is nearly 700 miles from Ujelang, near the northwest corner of the group, to the northeastern atoll of Pokaakku, and about the same distance from Pokaakku to Mili in

the southeast. The islands occupy a total sea area of 375,000 square miles, about one and one-half times the size of Texas. By contrast, the total land surface of the archipelago constitutes an area of only 70 square miles, about one-twentieth of the state of Rhode Island.

As one approaches a typical coral atoll from the sea, the islands are first visible at a distance of eight or ten miles -- a thin dark line above the horizon. As the distance diminishes, that thin line becomes recognizable as tops of coconut trees, and soon the white sand and rubble of the outer beach are discernible above the deep blue of the water. When only a couple of miles out, one can see the surf breaking on the outer reef, a hundred yards offshore.

Entrance to the lagoon is generally through one of several passes, some of which are more than twenty fathoms deep, sufficient for large sea-going vessels. Along the lagoon beach the water is calmer, lapping gently at the sandy strand and allowing easy debarkation from an outrigger canoe. The sand beach rises gently (about 10 feet in 50) to a strip of ground creepers and low bush, crowned by tall coconut palms leaning out toward the lagoon. Inland from the beach the ground levels off, providing an excellent site for the settlement which usually skirts the lagoon side of the larger and higher islands.

The atolls and single islands of the Marshalls are formed exclusively of coral, built upward from submerged mountain peaks which at some time in the geologic past rose close to the surface of the sea. There are no volcanic islands. An atoll results from a bed of live coral, in which the coral polyps have built more rapidly at the edges of the bed, particularly to the windward, and form an irregularly circular reef of live coral surrounding a shallow lagoon. The constituent islands of the atoll, formed by wave action, are separated from one another by reefs and passages, and are normally long, narrow, and curved in conformity with the shape of the atoll. The longest island in the Marshalls is Majuro, on the south side of the atoll of the same name; Majuro is about 25 miles long but only a few hundred yards wide in most places. The broadest island in the Marshalls is Wotje (on the east side of Wotje atoll), a mile long and three-quarters of a mile wide at the widest point. The highest elevation in the Marshalls is a sand dune on Likiep Island which rises about 40 feet above sea level.

Lagoons in the Marshalls average about twenty fathoms in depth. Their bottoms are flat and sandy except where cones of live coral, or "coral heads," rise to or near the surface. Some lagoons are relatively free of these obstructions and provide excellent anchorages for large steamers as well as landing places for amphibious planes. The smallest lagoon, at Namorik, is 3.25 square miles in area, while the lagoon at Kwajalein, one of the largest atolls in the world, is over 70 miles long at the widest point and embraces an area of 839.30 square miles.

## 2. Summary of Resources

The Marshall Islands have no springs or flowing streams. Pools and marshes are rare. Water for drinking, cooking, washing, and bathing is obtained by collection of rain water in cement cisterns and other containers and by construction of salt water wells to a depth of six to ten feet. These sources of water are generally adequate to the needs of the present population.

The subsoil of the islands is composed of lime slabs, porous coral fragments, shells, and coral sand. In the interior of the islands a shallow topsoil of fine coral sand and humus has accumulated. Only on larger islands, where vegetation is dense and where natives have allowed natural vegetable refuse to rot on the ground, can one find a dark brown humus a few inches to several feet thick. The soil, for the most part, is poor for agriculture.

There are no mineral resources of commercial significance in the islands. Small deposits of phosphate and guano do exist in a few places, like Ebon, Jabwot, and Bikar.

The typical food flora of the southern Marshalls includes coconut, pandanus, breadfruit, papaya, lime, arrowroot, and some taro. In the north, however, only coconut, pandanus, arrowroot, and, to a lesser extent, breadfruit are found to prosper.

Although the Marshalls can claim only one indigenous mammal (the rat), natives now raise chickens, ducks, pigs, some goats, and have dogs and cats as pets. Cows are difficult to maintain due to inadequate pasturage.

The sea provides one of the main sources of food. A great variety of fishes are caught, and clams, crabs, crawfish, giant clams, lobsters, turtles, and occasional octopi lend variety to the daily fare.

## 3. Relation of Geographical Factors to

a. Production. From a production standpoint the Marshalls are poor. Inadequate soil resources restrict the development of agriculture, and while climatic conditions in the south are favorable, they are definitely limiting as regards the atolls in the north. However, food and water resources are generally equal to the needs of the present native population, although the diet is necessarily lacking in variety during each season when breadfruit, pandanus, and arrowroot in turn become the main item of fare. Coconut trees are predominant in the flora of any island, and produce sufficient materials for food, shelter, and handicraft. The pandanus tree is second to the coconut in this respect and, in most islands, occurs in the quantity needed. However, the Marshalls are too poor in resources ever to produce much more than is needed for subsistence. Copra, handicraft, and perhaps fishing are the only industries which offer any possibilities for commercial development.

b. Transportation. Transport in the Marshalls is almost entirely water-borne. There are no roads except the universal village street, a coral-filled walk about eight feet wide which pedestrians have only rarely to share with two-wheeled pushcarts and an occasional bicycle. Traffic across the lagoon, from one island to another, is carried on in paddle canoes or sail-equipped outriggers. The Germans and Japanese both discouraged inter-atoll traffic, and the old Marshallese sailing canoes of pre-European days have been lost to antiquity. Only recently, the long distances across the open sea between atolls again are being traversed during favorable seasons by large outrigger sailing canoes.

c. Effectiveness of manpower. The sparsity of natural resources causes the Marshallese worker to be concerned almost continually with procurement of materials for food, shelter, clothing, and transport. While the natives do not have to work hard, they must always give thought to the needs of the present and rarely have much opportunity to think about the requirements for the future. The effect of this situation on the availability of natives for wage labor is obvious. Only in a few cases do natives find it advantageous to leave their homes and work for wages, since those remaining at home must double up on their work load to make up for the absence of the wage laborer.

## II. THE PEOPLE

### A. POPULATION

#### 1. Historical Background

Prior to 1941 our knowledge of the Marshallese and their customs was derived principally from the accounts of explorers, travelers, traders, missionaries, and administrators, who at one time or another had visited or lived in the Marshall Islands. The atolls were first reported twice in the sixteenth century (in 1526 by the Spaniard, Garcia de Loyasa, and three years later by his fellow countryman, Alvaro de Saavedra). The next contact with the islands occurred over two centuries later when the Englishman, Captain Wallis, touched at the uninhabited atoll of Rongerik in 1767, followed by visits of Captains Marshall and Gilbert in 1788.

No accounts of Marshallese culture appeared, however, until Kotzebue, accompanied by the writer Chamisso, led a Russian expedition into northern Ratak in 1816-1817. German traders, missionaries, and explorers were in close touch with the natives during the period preceding the establishment of a German protectorate in the Marshalls in 1885. After that date, German administrative officials wrote frequently on developments in native economy and changes in social organization. The Hamburg South Sea Expedition in 1909-1910 produced the last German account of Marshallese customs. After the area was occupied by Japan in 1914, research by foreign investigators was discouraged, and contributions by Japanese scientists were generally of little value.

The Marshallese probably migrated from the eastern Carolines to their present habitat at an early date. During the season of the northeast trades, a strong westerly current renders travel by large canoes quite feasible from Ponape and Kusaie to the Ralik atolls. On Namu today stands a large basalt pillar to which the natives annually pay their respects with festivity and ceremonial. Marshallese tradition characterizes this stone as the "mother of the Ralik people." Since basalt is not indigenous to the Marshall Islands, it must be supposed that early migrants from the basalt islands of the Carolines brought their sacred totem with them to Namu. Other similarities of language and culture link the Marshallese with their western neighbors in the high islands of Ponape and Kusaie.

Early contacts between Marshallese and Europeans were of short duration; European brutalities and Marshallese retaliation occurred only too often. The beginnings of trade were established, however, and the natives came to know the vices and virtues of Western civilization through the medium of trader, whaler, and missionary who operated in the archipelago in the middle nineteenth century.

Today the Marshallese are one of the friendliest, most hospitable and courteous people in the world, according to Americans who have had experience with them during and since the war. Their hospitality is strongly rooted in the old culture, and feasts and gifts constantly overwhelm the stranger visiting in the islands. Their courtesy is of the kind which forgives little errors without comment, in order never to embarrass others. Their friendliness is established with the first greeting and handclasp as the stranger disembarks on the shore, and continues unabated until his departure. The people are almost always smiling and joking, and turn work into a playful past-time. There is no task too pressing that a moment cannot be spared for a smoke or a bit of local gossip.

This almost idyllic picture of a so-called "primitive" people begins to fade as one comes to know the Marshallese better. Their attitude and behavior toward strangers remain the same, but one discovers that the little bickerings and antagonisms within the community and the social cliques and economic power groups which are so characteristic of Western society also have their counterparts in the Marshalls. The chiefs are bitter in their rivalries over land holdings; the young people resent the privileges which the chiefs still retain in a society where aristocratic birth counts for less each decade; and jealousies break out suddenly when the effects of native liquor are felt at social gatherings. The Marshallese were taught subservience and submission by the Japanese during thirty years of direct rule, and now - only gradually - the natives are relearning the behavior that goes with the independence of spirit and judgment which was theirs in the days gone by.

a. Political history. The period before 1885, when the Germans created the Marshalls protectorate, saw civil war and intrigue among the native clan chiefs, as each sought to extend his domain at the expense of his neighbors. Strongholds of feudal aristocracy sprang up at Majuro, Arno, Maloelap, Jaluit, and Ailinglapalap. In 1878 "King" Kabua of Ralik, in a treaty with a German naval officer, ceded to the Germans exclusive use of Jaluit harbor and guaranteed protection to German trading companies.

Germany, to strengthen her hand in the Pacific by assertion of sovereignty in an area as yet unclaimed by any Western power, in 1885 caused the German flag to be raised at seven atolls in the Marshalls and concluded treaties with nineteen local chiefs. Jaluit became the center of administration. The German officials supported Marshallese political institutions by dealing with the natives through their traditional chiefs. The latter lost power, however, when many of their autocratic privileges were shorn and their freedom to wage aggressive war was curtailed.

In 1914 the Japanese took military possession of the Marshalls, and interned the German administrators and business men, eventually shipping them back to Germany. The islands were administered by a Japanese naval garrison stationed at Jaluit until 1918, when a civil department of the naval administration was created. At the close of the first World

War, a series of political maneuverings in Europe, between 1917 and 1920, resulted in the confirmation of Japan in her control of the Marshalls (together with the Carolines and the Marianas) as a mandatory of the League of Nations. In 1922 Japan established the South Seas Bureau to govern these islands; headquarters were at Koror (Palau) and the Marshall Islands constituted the Jaluit Branch Bureau, Jaluit continuing as the local administrative center. The Japanese continued to use the native chiefs but, in removing most of their privileges, transformed them into servants of the administration.

The Marshallese today complain little about Japanese rule during the first two decades of its operation. However, in 1937 the Japanese began to fortify the Marshalls and greatly restricted native freedom of movement and civil rights. Some islands were cleared of Marshallese to permit construction of military bases. The government requisitioned native labor for this work in a manner which aggravated an already troubled situation. During the war when the islands were isolated for several years because of Japanese losses of shipping, the depredations of the military garrisons in search of food and favors turned the natives against the Japanese, and converted them into willing helpers for the American invasion forces which gained control of the Marshalls in the decisive attacks on Kwajalein and Majuro in January and February of 1944.

b. Economic development. The Marshallese in aboriginal times had already developed to a high degree the exchange of surplus materials between atolls. Kotzebue's expedition in 1816 initiated European trade, and it was not long before the natives were willing to produce a surplus of copra for the money which would buy cloth, tools, and certain foods which had become necessities.

A German and a Portuguese entered the Marshalls as traders about 1865, established stores, and bought a few islands on which to develop copra plantations. The Marshalls soon became one of the most productive areas for copra in Micronesia. German, American, and British trading companies operated in competition until the Jaluit Company established its monopoly in the 1880's.

When the Japanese succeeded the Germans in 1914, they encouraged the production of copra for export as the backbone of Marshall Islands economy. In the years which followed they also developed subsidiary industries -- fishing and export of the dried product to Japan, pearl culture, sponge fishing, extraction of phosphate, processing of coconut fibre for rope, soap manufacture, and handicraft production. The Marshallese learned more about a Western economy, began to think in terms of yen and kilo, and came to depend heavily on flour and rice, cloth and hardware, as principal imports necessary for normal living. Much of Marshallese technology was forgotten, and some traditions of social behavior and societal organization grew hazy.

c. Missions. In 1852 the Boston Mission (American Board for Foreign Missions) extended its activities to Micronesia from Hawaii, and by 1857 an American missionary couple were set up at Ebon. Branch preaching stations in charge of native evangelists appeared in other atolls, and in 1906 Jaluit became the center for the Mission's work in the Marshalls, with a permanent European resident missionary.

Today the Marshallese are outstanding as an example of a people who adopted and maintained a foreign religion through many years of opposition. Under the Japanese, mission work was discouraged and, finally, brought to an end in 1941, but the teaching persisted through the clandestine work of sincere native missionaries. With the occupation of the islands by the Americans, the Mission's activity has been resumed.

Jesuit missionaries worked at Jaluit, Arno, and Likiep during the German regime, but today almost the only Catholics to be found in the Marshalls are those included in the small half-caste population at Likiep.

## 2. Population Statistics

a. By nationality. For the past century the total population of the Marshall Islands has hovered around 10,000. Before the German occupation, the natives were estimated to number between 15,000 and 16,000, but there were no accurate census figures available for those years. During the first decade of German administration the native population was reported at nearly 12,000; in 1913, just before the Germans relinquished their rule to the Japanese, the annual census showed less than 10,000 Marshallese. The decline which took place soon after 1900 was primarily the result of venereal and pulmonary diseases introduced by Europeans. In 1904, an influenza epidemic swept through the islands, killing many natives, and is still remembered by the elders today for the tragedy which accompanied it. A year later, a devastating typhoon and the resultant famine and disease took more lives in the southern atolls.

About 1927 the population began to increase steadily, though slowly, and in 1940 the Japanese reported a total of 10,836 people in the Marshall Islands. The following table gives the totals for the years from 1931, with a breakdown by racial extraction:

Year	Natives	Japanese	Others	Total
1931	10,017	293	17	10,327
1932	9,864	488	11	10,363
1933	9,904	419	10	10,333
1934	9,872	449	11	10,332
1935	9,963	485	2	10,450
1936	10,052	524	12	10,588
1937	10,099	524	12	10,635
1938	10,038	504	4	10,546
1939	10,131	549	4	10,684
1940	10,152	680	4	10,836
1946	9,815	---	3	9,815

In 1940-1941 the Japanese began to impart labor from Japan for the construction of fortifications in some of the atolls, and with the beginning of the war thousands of Japanese troops were poured into the Marshalls. The number of non-natives in the archipelago had always been negligible -- Japanese, Germans, and Americans, resident in the islands as traders, administrators, and missionaries. The number of Japanese had grown steadily since 1914. Non-natives of other nationalities, however, declined in numbers under Japanese administration. Twenty such persons were reported to be living in the Marshalls in 1930, but only four in 1940. By contrast, there were 65 Europeans in Jaluit alone in 1910. Today there are only three non-native residents in the Marshalls, other than American military personnel and government employees -- a German at Likiep, a Chinese at Jaluit, and an American missionary at Majuro. All Japanese military and civilian personnel have been repatriated to Japan.

b. By locality. Before the war, there was relatively little population movement within the Marshalls, except as people left their home islands to visit Jabor, the center of administration under both Germans and Japanese. Each of the chains, Ralik and Radak, supported about 5,000 natives. In the western chain, the people were concentrated in the southern atolls of Ebon, Jaluit, Namorik, and Ailinglapalap (with over 1,000 Marshallese resident on Jaluit). To the north in the same chain, Kwajalein had nearly 1,000 inhabitants scattered throughout its numerous islands. In the Radak chain to the east, over 2,000 natives were concentrated in the Arno-Mili-Majuro area to the south. The other Radak atolls of Aur, Maloelap, Ailuk, Wotje, Likiep, and the island of Mejit each had about 400 inhabitants more or less. Thus, in historic times, the Marshalls were characterized by four principal centers of population: Jaluit, Kwajalein, Aur-Maloelap, and Arno-Mili-Majuro.

With the advent of war, however, the Japanese drafted native men from most of the islands to work on military installations at five principal atolls -- Kwajalein, Jaluit, Wotje, Maloelap, and Mili. At the same time the sites selected for fortification were cleared of native habitation by the Japanese. Thus the population balance maintained for many decades in the Marshalls was upset; during the war this abnormal situation was frozen by the inability of the Japanese to maintain operation of inter-atoll shipping.

When the Americans invaded the Marshalls early in 1944, further population dislocation resulted from the erection of American installations at Kwajalein and Majuro. The remarkable feat of the evacuation of hundreds of fear-ridden Marshallese from by-passed Japanese strongholds at Jaluit, Mili, Maloelap, and Wotje atolls to refuge centers at Arno and Majuro brought about greater concentration of population at the two latter spots. (Majuro had only 700 inhabitants when occupied by the Americans in February 1944; later it became the headquarters for the native hospital and the native teachers' training school. This, together with its use as an evacuation center, soon swelled the native village on Majuro I. (Laura) to well over 1,000. It still boasts 1,410 people).

With the repatriation of all Japanese military and civilians in 1945, the American administration set about to return the Marshallese to their pre-war homes. Most of this has been accomplished, although a few natives still linger in strange atolls, due either to a temporary lack of shipping facilities on the part of the administration or to the natives' desire to tarry awhile longer with friends and relatives on islands which are not their permanent home. The A-bomb experiment has been the last occasion for resettlement; in March 1946 the people of Bikini were transported by naval vessel to Rongerik (both atolls are in the northern Ralik chain), and for the period of the two bomb-tests the natives of Wotho and Rongelap were transferred to Lae and those of Eniwetok to Kwajalein -- all but the Bikini people are now back home.

The most recent figures on the distribution of Marshallese are those gathered by Military Government officials in November 1946. They are compared here with figures of November 1945 (after the surrender of Japan) to show the extent of population movement during the period of repatriation.

Atoll (* Island)	November 1945	November 1946
Ailinginae	---	---
Ailinglapalap	913	1,183
Ailuk	340	385
Arno	1,017	877
Aur	388	321
Bikar	---	---
Bikini	164	---
Ebon	801	803
Eniwetok	119	135
Erikub	---	---
Jaluit	1,194	847
*Jemo	---	---
*Kili	---	---
Kwajalein	747	755
Lae	101	150
*Lib	64	68
Likiep	505	615
Maloelap	298	378
Majuro	880	1,410
*Mejit	323	379
Mili	294	239
Namorik	327	428
Namu	288	285
Rongelap	100	85
Rongerik	---	167
Taka	---	---
Taongi	---	---
Ujae	122	120
Utirik	166	149
Wotho	40	29
Wotie	329	385
Total	9,520	9,815

The distribution and size of native settlements vary with each atoll. In smaller atolls, like Ujae and Rongerik, all or nearly all of the natives live on the largest island; the other, smaller islands support no permanent residents, but natives from the main island will frequently visit them to collect food, make copra, and catch fish. In larger atolls, like Kwajalein and Wotje, the population will be scattered over a number of islands, although one or two islands will continue to support a great part of the atoll inhabitants. This distribution pattern is shown in the following series of figures from selected atolls (July 1946):

RONGERIK		WOTJE		MAJURO	
<u>Island</u>	<u>Pop.</u>	<u>Island</u>	<u>Pop.</u>	<u>Island</u>	<u>Pop.</u>
Rongerik	159	Akmej	16	Arrak	25
Other islands	---	Bikenkūlange	22	Ajeltake	3
		Enea	14	Jeloklap	7
		Enejeltak	2	Jelte	17
		Iwan	76	Majuro	1,276
		Kimejo	14	Rongrong	45
		Korong	11	Woja	4
		Nebren	6		
		Ormej	98		
		Wotje	---		
<b>Total</b>	<b>159</b>	<b>Total</b>	<b>259</b>	<b>Total</b>	<b>1,377</b>

KWAJALEIN		ARNO		LIKIEP	
Burle	59	Arno	233	Aekne	26
Enelabegan	186	Bikarej	30	Biebe	32
Enemat	93	Eneairik	8	Emijwa	53
Eru	128	Eneren	3	Eniej	10
Kijinea	20	Ine	169	Eodle	31
Kuror	40	Jabo	45	Jaltoniej	15
Nel	27	Jilang	6	Jebal	40
Onemak	116	Kilange	27	Kabinwor	38
Torraj	50	Kilūmūn	4	Killemar	16
Wotje	28	Kajbwe	8	Killi	15
		Kinejong	15	Likiep	117
		Linar	22	Lode	32
		Longar	30	Lukonwor	33
		Lukwoj	39	Maat	41
		Malel	32	Malang	36
		Mangrar	17	Matten	12
		Matolen	92	Najibwil	4
		Miang	37	Tamūl	3
		Takalap	21		
		Tinak	30		
		Tutu	19		
		Ulian	53		
<b>Total</b>	<b>747</b>	<b>Total</b>	<b>940</b>	<b>Total</b>	<b>554</b>

c. By age group and sex. An analysis of population figures available on the distribution by age group and by sex reveals certain patterns and trends. During the Japanese period over 100 persons in the Marshalls were noted as having passed the age of 80; in the few atolls for which figures exist today there are no people that old - probably the rigors of war were too hard for the aged. As compared with Japanese statistics there appears today to be a slump in the relative number of men of the age group 15 to 30; some young men were killed during the war. In general, with the meager sampling available for the contemporary period, it appears that the age group of one to five is much larger than formerly, a healthy sign of an increasing population. On the average, men seem to be more numerous than women, but in some atolls women hold a wide margin in numbers. Indications within communities when they are visited, bear out this preponderance of women, although a false impression is actually given - many young men are away at the labor camps but they are counted in the census of their home atoll.

The following are figures from the South Seas Bureau Statistical Yearbook - 1940, for 1936 and 1940 for the Jaluit Branch, which includes all of the Marshalls except Eniwetok and Ujelang (these two atolls fell within the jurisdiction of the Ponape Branch Bureau):

AGE	1936			1940		
	M	F	TOTAL	M	F	TOTAL
1	58	66	124	98	83	181
2	133	158	288	118	85	203
3	104	90	194	49	44	93
4	87	73	160	75	78	153
5	61	80	141	117	98	215
6-10	558	495	1,053	433	451	884
11-15	496	460	956	556	475	1,031
16-20	507	441	948	492	430	922
21-25	424	444	868	441	432	873
26-30	347	293	640	433	409	842
31-35	408	404	812	339	300	639
36-40	354	367	721	411	401	812
41-45	360	314	674	343	312	655
46-50	255	218	463	332	305	637
51-55	262	222	484	254	186	442
56-60	239	205	444	260	209	469
61-70	320	307	627	310	305	615
71-80	179	182	361	183	203	386
81-90	38	40	78	41	59	100
91-up	2	4	6	---	---	---
<b>Total</b>	<b>5,192</b>	<b>4,860</b>	<b>10,052</b>	<b>5,285</b>	<b>4,867</b>	<b>10,152</b>

Comparable figures from three atolls were gathered by the writer during the summer of 1946, as follows:

AGE	<u>Likiep</u>			<u>Bongerik</u>			<u>Wotje</u>		
	M	F	TOTAL	M	F	TOTAL	M	F	TOTAL
1	8	8	16	1	1	2	2	5	7
2	6	12	18	2	5	7	3	2	5
3	13	7	20	3	1	4	2	5	7
4	9	12	21	-	4	4	1	-	1
5	6	4	10	4	-	4	1	3	4
6-10	38	29	67	9	11	20	8	10	18
11-15	22	24	46	9	15	24	13	9	22
16-20	18	29	47	8	16	24	11	14	25
21-25	19	28	47	8	8	16	4	12	16
26-30	32	26	58	3	9	12	12	12	24
31-35	16	18	34	5	4	9	10	6	16
36-40	9	12	21	3	1	4	4	5	9
41-45	12	16	28	2	4	6	7	13	20
46-50	18	14	32	5	4	9	3	3	6
51-55	15	17	32	3	4	7	5	2	7
56-60	13	8	21	1	-	1	2	9	11
61-70	14	12	26	1	-	1	18	12	30
71-80	10	5	15	1	4	5	4	4	8
<b>TOTAL</b>	<b>278</b>	<b>281</b>	<b>559</b>	<b>68</b>	<b>91</b>	<b>159</b>	<b>110</b>	<b>126</b>	<b>236</b>

### 3. Chief Health Factors

The general health of the natives at the time of occupation by American military forces was poor. Since then, however, the work of medical officers and men attached to Military Government has accomplished much in restoring the population to a fairly sound basis of health. Regular physical examinations were conducted throughout the Marshalls, children and adults were vaccinated against smallpox, periodic injections for yaws, gonorrhea, and syphilis were administered by native medical practitioners. In the villages, cisterns and wells had to be cleaned and covered, collections of rain and brackish water were oiled to prevent mosquito breeding, rubbish was cleared and burned, old Japanese latrines were demolished and new sanitary ones installed, fly sprays were furnished, and fly traps constructed and maintained.

The islands have a long history of skin diseases, generally attributed to a lack of personal cleanliness. Natives now spend much time each day laundering their clothes and bathing in fresh water (soap remains one of the most desirable trade items despite big deliveries in the islands since the war). Some diseases may still be transmitted through the feet, as the people customarily walk about anywhere with no shoes or foot covering. Colds are frequent, accompanied by coughing and headaches,

brought on many times by wearing of damp clothing, after being soaked in salt water while working, or being caught in a rain shower and not changing immediately into dry clothing. Many eye disorders may be noticed, quite a few apparently provoked by the bright glare of white sand beaches and stretches of water. On such occasions the people complain how painful their eyes become; the pain disappears in about twenty-four hours. No protection to the eyes is provided, except the sporadic use of colored sun-glasses purchased from the trade store.

The physique of the people appears to be good. Men are well built, though short in stature, and are well muscled in youth and middle-age. Women lose their youthful figures with the birth of the first child, usually at the age of 18 or 20, and become thick-waisted and flat-chested. Children very often display a "banana belly," characteristic of vitamin deficiencies. The diet of the people is heavy in starch and other carbohydrates, and short on greens and citrus fruits.

Today, the native magistrates are conscientiously carrying out the public health measures dictated by Military Government medical officers, but many atolls are still infested with flies and rats, always potential carriers of disease. Until 1946, officers had been making monthly visits to check the health of atoll populations, but this year a combination of shipping shortage and limited personnel has resulted in the loss of considerable ground in the maintenance of adequate health standards in the islands.

## B. CULTURAL DATA

### 1. Kinship Organization

a. The family. The most significant kin group in Marshallese society is the bwij, which interpreters usually translate as "family." (The same term is also a root word meaning "navel"). While there is some disagreement among Marshallese informants as to the limits of the membership normally constituting the bwij, it appears that basically the bwij is an extended family, a small segment of the Marshallese clan (jowi, or jou -- to be discussed under IIB-1b).

The Marshallese "family" is the unit of representation today in the Atoll Councils; its spokesman, the head of the bwij, is called an alap. The bwij is the social group whose members act as hosts on such occasions as a child's first birthday, a death and the subsequent funeral ceremony, a wedding celebration, or a feast to mark the completion of a new canoe or a new house. This "family" is also very often the work group, when the combined efforts of a number of people are required for a short time, as in fishing, house-building, or preparation for a feast.

The alap, or head of the "family," is usually a man (but may be a woman), who is the oldest or most capable member of the group -- he is generally the oldest in a group of brothers and/or sisters. If a

royal "family" is concerned, the alan is sometimes called ijap instead. In Radak, as distinguished from Malik, the alan may be referred to as wuleben, the kinship term for mother's brother, the most privileged one of the family.

The bwij may or may not occupy a single dwelling unit. If the group comprises only five or ten individuals (a small bwij), it might coincide with a household. On the other hand, a large bwij of 20 or 25 natives would probably involve three or four households. These households may be located adjacent to one another in the same community, or they may be separated as much as the distance between atells. One informant described the bwij as "when you can go to another island and find someone there of your own family to take you in."

In the narrowest sense of the word, the bwij comprises:

- the alan (usually the oldest sibling)
- the alan's brothers and sisters
- the alan's own children (if the alan is a woman)
- the alan's sisters' children (but not brothers' children, who belong to the bwij of their mothers)
- the alan's sisters' daughters' children (but not sisters' sons' children, who belong to the bwij of their mothers)
- the alan's mother and her sisters and brothers, if still alive (they probably would be invalided at their age)

Some informants tend to include within the bwij another group of blood relatives (nugin is the term applied to all relatives by blood). This group includes the alan's children if the alan is a man, as well as brothers' children, brothers' children's children, and sisters' sons' children -- none of whom are related to the alan through the female line (matrilineal descent is one of the basic characteristics of Marshallese society). Other informants insist that these nugin fall "outside" the bwij; they call them wutwat in bwij (the term wutwat refers to the outer skin or peel of the breadfruit), the "outer skin of the bwij," because they are related to the alan through the male line and not the female.

Another classification of individuals who are sometimes included in a loose definition of the bwij are the spouses -- husbands and wives of true members of a bwij, who may be residing with their mates on land belonging to the bwij, thus coming under the immediate supervision of the alan. Since they have no blood tie, through either the male or the female line, they are generally excluded in defining the traditional concept of bwij. They are not even considered as nugin, but are referred to as ri karol - non-relatives, or "outsiders."

And finally, another category of individuals who might be thought to fall within the bwij, but who do not, are persons who have been adopted by a male or female member of the bwij. Kairiri is the term applied to adopted children. They enjoy most of the rights and privileges of their half-brothers and sisters, but hold no permanent status in the



While the husband and father is the immediate head of the nuclear family, his authority over wife and children is slight and is largely subject to the will of his wife's elder brother. A first-born child, whether boy or girl, is supposed to receive special consideration by younger brothers and sisters, and even by the children of his parent's younger siblings. In actual practice this ideal is modified according to the personality of the first-born; in many cases a stronger, though younger, relative may succeed in controlling the family.

Today, girls marry as early as fifteen years of age, boys a year or two later. Few restrictions are placed on sexual relations before marriage, except where missionary influence in some islands has limited the freedom of youth in this respect. Although young people formerly had to follow the wishes of their parents in the choice of a spouse, a fairly free choice awaits them today, and they form their own unions in much the same manner as practiced in America. However, a young man must still observe certain rules in choosing a bride, e.g., she must not belong to the clan (lowi) of his mother, nor may she be daughter of his father's brother or his mother's sister, since that relationship is regarded the same as that of brother and sister, and an incestuous union would result. The daughter of his mother's brother is the best choice he could make. When a person of one nugin (blood kin) marries into another nugin, their marriage is referred to as ri lou -- they are said to be intertwined like the fibres of the inner bark of lou (hibiscus).

In former times it was customary for a newly wedded couple to live for a period in the house of the bride's parents, but today patrilocal residence is the rule, and the man takes his bride to his parents' home. Exceptions to this patrilocal rule occur where the bride's family has more land or prestige. Eventually, as they are able, a married couple will establish their own dwelling unit. If a man has to be absent from home for an extended period, as when he spends six months or a year as laborer at an American military base, his wife generally remains with his parents, who take charge of her and keep an eye on her if necessary.

The Marshallese people ordinarily employ kinship terms only when referring to relatives; for direct address they prefer to use personal names, often adding a familiar suffix (-i), e.g., Anton becomes Anton-i, Lora becomes Lora-i, and Carl becomes Carl-i. To specify a particular relative, natives use combinations of kinship term and qualifying adjective, as alap (older) and arik (younger), aman or man (male) and kora (female). The importance of kinship usages to the administrator lies in the fact that they reflect fundamental social relationships and primary channels of authority and control.

## KINSHIP TERM

## RELATIVES INCLUDED

<u>jiman</u>	his mother's father his father's father his male relative of the preceding generation (his great-uncle) his "ancestor"
<u>jibvin</u>	his mother's mother his father's mother his female relative of the preceding generation (his great-aunt) his grandchild ( <u>jibvin amman</u> - grandson; <u>jibvin korā</u> - granddaughter) his male or female relative of the succeeding generation
<u>jamen</u>	his father his father's brother (but not his mother's brother) his father's "brothers" ( <u>jain</u> and <u>jadin</u> ) his parents' sisters' husbands
<u>jinen</u>	his mother his father's sister his mother's sister his mother's "sisters" ( <u>jain</u> and <u>jadin</u> ) his parents' brothers' wives
<u>rikoren</u> (Ralik)	his mother's brother
<u>vuleben</u> (Radak)	his mother's brother
<u>jileben</u>	his parents-in-law (infrequent)
<u>jain</u>	his elder sibling ( <u>jain korā</u> - sister; <u>jain amman</u> - brother) his elder parallel cousin (his father's brothers' children and mother's sisters' children) his elder cross cousin (his father's sisters' children and mother's brothers' children)
<u>jadin</u>	his younger sibling ( <u>jadin lerik</u> - sister; <u>jadin lerik</u> - brother)

<u>jadin</u> (cont.)	his younger parallel cousin (his father's brothers' children and mother's sisters' children) his younger cross cousin (his father's sisters' children and mother's brothers' children)
<u>riligin</u>	his cross cousin (daughter of father's sister or mother's brother) her cross cousin (son of father's sister or mother's brother)
	(this term may be combined with <u>jain</u> or <u>jadin</u> , to imply possible marriage, but is never used in the other's presence. Cross cousin is the preferred relationship for marriage)
<u>belen</u>	his wife ( <u>lio belen</u> ) her husband ( <u>leo belan</u> )
<u>imān imādin</u>	his "brothers," "sister," cousins; brethren
<u>erro</u> (Radak)	his wife her husband
<u>inen</u> (Radak)	his sister (his "seed") his father's brother's daughter his mother's sister's daughter
<u>manen</u> (Radak)	her brother her father's brother's son her mother's sister's son ( <u>inen</u> and <u>manen</u> should not marry each other)
<u>nejin</u>	his child ( <u>nejin man</u> - son; <u>nejin kārā</u> - daughter) his nephew (except sister's son) his niece (except sister's daughter) his son's wife his daughter's husband
<u>māngōren</u>	his sister's son ( <u>māngōren man</u> ) his sister's daughter ( <u>māngōren kārā</u> )

It will be seen from this list of kinship terms that Marshallese natives tend to apply a single term to a large group of relatives at a certain generation level, with special terms to indicate differences in sex. Thus one refers to a man's grandparents and to others of their generation as jiman and jibwin; these terms are reciprocated by grandparents in referring to their grandchildren. Similarly, one refers to all people of a man's parents' generation in the same way as to the man's father and mother - jemen and jinen. The general term jimian jimiaidin refers to a man's siblings and to other relatives of the same generation; more specific terms indicate relative age, as jein and jadin (older and younger sibling). Finally, nain is used for all relatives of a succeeding generation, and not only for reference to a man's own children.

Exceptions to these general rules are few but significant, with reference to marriage or to inheritance of property and title. Rilicin indicates the preferred relationship for marriage partners, that of cross cousin. In Radak, the taboed union between parallel cousins is underlined by use of special terms for true siblings and parallel cousins (inen and manen) as distinguished from other cousins (jimian jimiaidin). The significant relationship in matters of inheritance is that between mother's brother (rikoren in Ralik, wuleben in Radak) and sister's child (māncōren); title and property ideally pass from an older man to his maternal niece or nephew.

Other terms which are not properly kinship terms are in common usage to indicate categories of age and sex and marital status.

AGE GROUP	MALE	BOTH SEXES	FEMALE
baby		<u>niananing</u>	
infant		<u>ajiri</u>	
child	<u>larik</u>		<u>larik</u>
pre-puberty	<u>inone</u>		<u>wani</u> (Ralik; infreq.)
adolescent	<u>likae</u>		<u>jironz</u>
unmarried	<u>lainone</u>	<u>jalen</u>	<u>leinone</u>
married	<u>leo belele</u>	<u>belele</u>	<u>lio belele</u>
adult	<u>amen, man,</u> <u>women</u>		<u>kōrē, lio</u>
old age	<u>lillab,</u> <u>slawōwōn</u>		<u>lillab, torbel</u>

b. The clan. The Marshallese are divided into a large number of clans, called jowi (Ralik) or jou (Radak). These clans are larger, more inclusive kin groups than the bwij, or "family" described in IIB-1a. A number of bwij are united in one clan by a tradition of descent from a common ancestor. In the case of old clans, the details of descent have become legendary in the clouded memory of centuries past. Clan members today are usually scattered over a number of atolls, some even extending throughout the whole of the Marshall Islands.

Both the clan and the bwi are matrilineal. In other words, membership depends on descent through females -- every woman passes on to her children a place in her clan. Because of a taboo on marriage between clan members, all husbands and fathers belong to clans other than those of their wives and children. Succession to office and inheritance of rank and property are likewise transmitted through the female line; a man's heir is his sister's son, not his own son.

Some clans have a special totem, called wunepak ("origin of clan"), which is usually a natural object like an animal, fish, tree, or stone. Likewise, each clan has a distinctive name which is not that of the totem but is generally a local designation, such as the place of origin of the clan or its residence in historic times. Thus, ri lujian namo refers to the "people of the interior of Namu," ri koro to "sea people;" and ri kwajlen, to the "people of Kwajlen" whose totem is a tree.

Legend relates that long ago only seven clans existed in Ralik, all of them originating on the atoll of Namu. There, in the village of Bojar, stands a pillar of basalt which the natives called Luatonmur, "the mother of all clans." The child which was born to this mythical mother is remembered as the first chieftain of Ralik. Annually, the natives of Namu still congregate at the pillar for feasting and dancing in memory of Luatonmur. A similar pillar of basalt, called Liribribju, exists in the atoll of Aur in Radak. The natives say that these two stones are like sisters, and that from these stones came the people of lajirik clan, who consider themselves better than others because of their sacred origin.

In historic times, each clan had a number of chiefs or headmen, who were the leaders of clanspeople in each island and atoll. Where people of several clans inhabited a single island or atoll, the chief who had the strongest following exacted respect and tribute from lesser chiefs. Like the headman (alap) of the bwi, these chiefs were usually the senior male, by primogeniture and maternal descent, of the highest ranking family. They held title to any landed property that the group possessed, and exercised considerable authority over the people who lived on that land. The native political structure was compounded of the relations of paramount chiefs to one another, to the lesser chiefs whom they controlled, and to the people of their own kin group and those subordinate to them. Several chiefs, by persistently aggressive action, achieved the domination of many atolls. Southern Ralik was invaded at the beginning of the nineteenth century by warriors of a powerful clan in the north, the lajirik (ijirik); to the east in Radak, chieftains of the clans ri meijor, rarno, and jerikrik gained control of most of the atolls in that chain after generations of conquest and administration.

Today, civil war is a thing of the past, and the relative ranking of clan groups has been frozen as of the last aggressive action during the German administration. As the years passed, some clans became extinct by failure of members to maintain their numbers, and new ones were created as sub-groups migrated to another locality for economic reasons and gradually achieved full status as clans. A generation ago, a Mexican

woman was brought to Jaluit by her Marshallese husband, and since she had no jowi name of her own, a new clan was created and she and her children took the name of her country of origin -- ri mejiko. About fifty different clans are known today; many of these were not mentioned in the German literature, or even the Japanese, and other clans noted earlier have since disappeared.

In Ralik, only two clans presently produce truly royal chieftains la jirik and iroja, both strong clans of old, while others like jemĕliut and irrebra have tumbled to lesser positions. In Hadak, rarno and ri meijor are the two most powerful clans, although chiefs of some atolls are also derived from raur and jerikrik. Other clans are regarded as common, or kajur; their members are tributary to chiefs of the above-mentioned royal, or iroja, clans. Underprivileged groups usually locate their dwellings in less desirable areas, in the interior of islands or close to the outer shore (lik means "outer shore" and, when included in the name of any clan, indicates immediately its inferior position, as ri likijine and ri likin bulujo).

The following clans are represented in the populations of Kwajalein, Lae, Rongerik, and Jaluit in the Ralik chain; and Arno, Aur, Majuro, Mejit, Utirik, and Wotje in the Hadak chain. Royal clans, from which the chiefs are derived, are asterisked -- other clans are common (kajur).

<u>Kwajalein:</u>	* <u>la jirik</u> * <u>iroja</u> jol kalo	magaoliej ri likijine ri lujien name ri kabin ailingin	ri kwajlen ri mae
Lae:	* <u>la jirik</u> iroja jol	kalo magaoliej rarno	ri kin ailingin ri kwajlen ri meijor
Rongerik:	* <u>la jirik</u> magaoliej	ri bikarij	ri lujien name
Jaluit:	* <u>la jirik</u> * <u>iroja</u> irrebra jejir jemĕliut jibilul jol	jowa kalo magaoliej mangeron raij ri abĕten ri bit	ri bojar ri koro ri lobaren ri lujien name ri lunt ri mae
Arno:	* <u>ri meijor</u> jejir jerikrik jelablab jikublik jowa luk magaoliej	raij rarno raur rebrib ri bikarij ri bit ri jaluit ri jelwĕj	ri koro ri lujien name ri lunt ri malel ri matolen ri wĕjje tilang

Aur:	*raur majaoliej jejir jelablab	jerikrik jowa raij ri bit	ri luut ri mejor ri tabal tlang
Majuro:	*rarno jejir jelablab jerikrik jikublik jowa magaoliej	luk raij raur rebrib ri bikarij ri bit ri koro	ri lotobo ri lujien namo ri lunt ri mae ri malel ri mejor ri tabal
Mejit:	*raur jerikrik jowa	magaoliej ri bit	ri mejor ri tabal
Utirik:	*jerikrik jejir jelablab jowa	magaoliej raur ri bikarij ri jaluit	ri luut ri mejor ri tabal
Wotje:	*jerikrik *rarno bokatilkan jejir jerikrik jowa magaoliej	raur raij rebrib ri bikarij ri bit ri jaluit	ri kijit ri koro ri mae ri mejor ri tabal tilang

In the sampling obtained the most widespread memberships were those of clans magaoliei, ri mejor, jowa, lajirik, raur, jejir, ri bit, raij, and jerikrik.

Some clans are ranked as sub-groups of an inclusive clan. Examples of these are known for clans iroia, magaoliei, and ri bikarij. Thus, within clan iroia are several sub-clans, some of which are considered upper-class (the chiefs are derived from these) and others as lower-class. Today there is no difference in appearance or manner of living among the people of clan iroia, but formerly those of lower rank were forbidden to eat certain foods prescribed only for chiefs; special categories of servants were chosen from these lower groups.

#### I. Sub-clans of clan iroia

1. iroia - from this group came the great chiefs (iroij).
2. ri lomolo - people of Lomolo (cool, swampy place at Wotjā I.).
3. ri bōken iekieken - people of a cape at Wotjā I. (Ailinglapalap).
4. ri likin bulujo - people of outer shore of Bulujo I. (Ailinglapalap).
5. ri mae - people of Mae I. (Namu).

6. ri bik - people of southern point of Jaluit I.
7. ri likin hik - people of outer shore of southern point of Jaluit I.  
(Sub-clans 6 and 7 are classed together as kubwelul, a kind of insect).

## II. Sub-clans of clan magaoliei

1. magaoliei.
2. rebrib - trunk of a tree.
3. mangeron - something which is good for awhile, but goes away later.
4. ibwilul - lul refers to a person's backside, or lower part. (This is the lowest sub-clan of magaoliei. Members would never refer to themselves as ibwilul, but as magaoliei).

## III. Sub-clans of clan ri bikarij

1. ri bikarij.
2. ri lotobo - lotobo is a kind of vine growing on the lagoon beach.
3. ri kabile - Kabile is an area near the lagoon on Bikarij I. (Arno).
4. ri likin jebakina - Jebakina is an area on Bikarij I. (Arno).  
Likin refers to the outer shore of that area.
5. ri lokolange - kolange is a kind of tree, thus "dwellers near the tree" at Bikarij I. (Arno).
6. ikunlik - ikun means "dwellers" - lik refers to outer shore.
7. ri tingongtok - poor people, the lowest sub-clan of ri bikarij.

Informants agree that members of the sub-clans may marry each other, i.e., a ri lotobo man can marry a ri kabile woman; either of these individuals can marry persons of magaoliei or iroia clans or sub-clans, but a ri lotobo man cannot marry a ri lotobo woman. This accounts for the seeming breakdown of clan exogamy (the rule that one must marry outside the clan) when informants relate that a ri bikarij man has married a ri bikarij woman. Actually, as used in that case, ri bikarij refers to the inclusive clan, and not to the sub-clan where the taboo really operates. However, older people still frown on marriages within the inclusive clan as being in poor taste, although they are permitted.

The main function of the clan today is the regulation of marriage through the taboo on clan unions, and the determination of rights to property and chieftainship through inheritance of clan membership. (The relation of the clan to property will be discussed further under IVA; of the clan to rank and chieftainship under IIB-2b and 5). The German and the Japanese administrations tried indirectly to break down the old traditions of Marshallese social organization, but as far as the present older generation is concerned they were unsuccessful. The old forms are still highly operative in terms of clan membership, succession to chieftainship (clan leadership), inheritance of property and rank, and the taboo on marriage within the clan. The younger generation today is not as well versed in these traditions, forgetting some and neglecting others; as young people grow older, however, the traditions begin to take on additional meaning for them.

## 2. Territorial Organization

a. The settlement. As the visitor is carried ashore on the back of a strong and willing native from whatever craft may have brought him into the lagoon of a typical Marshall atoll, he is greeted on the beach by scores of hands, outstretched and eager. The natives had begun to drift toward the beach the minute the ship was sighted miles down the lagoon, and now men, women, and children alike crowd closely around the stranger. Their typical greeting is quite formal, varying degrees of emotion being displayed; it consists of the words iokwe iok (welcome, how are you?) and an old-fashioned Methodist handshake. Usually, the native magistrate and his scribe are first to present themselves, then come the old men and the old women, after whom other adults and children of both sexes approach one by one for the little formality which anticipates more of that "Marshallese hospitality" that has come to be legend among American servicemen who have had a chance to visit a Marshall Island village.

When the interchange of greetings has been concluded and the last small handshaker disposed of, the stranger looks about him, the white glare of the sand beach burning his eyes. He has disembarked near the center of the village, which stretches for half a mile and more up and down the narrow island. To right and left of him, he sees a score of canoes, drawn up on the beach under the protective shade of towering coconut palms or resting quietly with one end still in the water ready to be launched at any time. Ahead of him, as he plods through the dragging sand and up the slope, is a shaded park-like area, cleared of brush and scrub, and dotted here and there with more coconut palms and grotesque pandanus trees. From the beach, the land levels off and the settlement proper begins. A hundred yards inland, a wide pathway or road follows a course roughly parallel to the beach, dividing the narrow island into two long areas: one, a pleasantly cooled dwelling area fanned by the brisk breezes from the lagoon; the other, a warmer, moist, dense jungle stretching beyond sight to a noisy outer beach where surf crashes on the reef, sending a salty spray over the stunted and wind-blown bush which holds a line at the top of coral rubble piled high by storms of years past.

The visitor is led by his hosts, the village officials, to one of the larger buildings beside the road. Perhaps it is a frame building with corrugated-iron roof -- the town hall or the magistrate's house in settlements more affected by civilization, or it may be a pandanus-thatched shelter with sturdy corner posts and open sides, with coral pebbles strewn thickly over the ground, and a table and a few battered chairs at one end -- the community building which serves in smaller villages as town hall, church, school, and recreation center. Up and down the road on the lagoon side are thatched dwellings of different sizes, each standing apart from the others in a large coral-strewn yard dotted with smaller structures, such as cook-house, lean-to shelter, and an occasional eating-house, as well as cement cistern or brackish well. Though the stranger does not know at the time, he learns later that each group of people who occupy one of these dwelling units actually controls that strip of land from lagoon to ocean across the island. The more pleasant part of the strip, on the lagoon side of the

road, is generally the dwelling area, while the other larger part inevitably possesses a small outhouse and maybe an ill-smelling pigsty some distance back from the road and screened by the dense underbrush. The ocean part of the strip is also planted with all the trees and root crops needed by the occupants for subsistence — coconut, pandanus, breadfruit, banana, papaya, arrowroot, and taro. These land strips are sometimes bordered by hedges of low trees or bushes, or by coconut trees slashed with property marks at their bases.

Rows of upended coral slabs and more hedges line the roadway on either side, giving a trim, neat appearance to the street, which is also filled in with clean sand or small coral pebbles to keep grass and weeds down. Sometimes on the larger islands, a second road farther inland parallels the beach road, and between the several narrow cross-walks are found other dwellings with subsidiary structures nearby. People walk slowly along these roads, the women swinging their arms as they go, in an easy manner quite symbolic of the tempo of life they follow.

As the stranger explores the village further at the invitation of his guide, he discovers a church with spacious cemetery not far away, a single store (very often a frame building formerly owned by the Japanese Nanyo Boeki Kaisha), a ball ground where holidays are celebrated by programs of races and games and baseball, a medical dispensary with native practitioner applying antiseptic and bandage to his patients, an occasional warehouse for storage of the copra sacked and ready for the trader's next visit, and perhaps a large open shelter along the beach where the keel of a new canoe has just been laid and where fish nets hang from the rafters to dry after being used that morning. As the visitor completes his tour of the settlement, hens with their chicks scurry from under his foot, a cat streaks across the yard after the rat she was intended to catch, and a couple of dogs bark boldly just out of reach of the inspection party.

The basic territorial unit in Marshallese society was and still is the settlement. The natives call it iikin kwelok (place of assembly) if something in the nature of a village is considered; generally, they say ang, the term for island. Settlements take the name of the island on which they are located. Only infrequently does one island have more than one community, in which case the several swellings of population are given separate names but are generally grouped under the island name for casual reference. Any Marshallese settlement is really a series of homesteads strung like beads along the narrow roadway that courses the length of the island. Populations of settlements vary from 15 to over 250, probably averaging about 100, or nearly equivalent to the American rural neighborhood.

Jabor (on the island of Jaluit and atoll of the same name) was almost the sole exception to the above statement. Before the war, Jabor was a town of many hundred people, the center of Japanese economic and administrative activities, and a magnet which attracted many Marshallese and half-caste families because of the shops and small industries and the material advantages to be gained there. Today Jabor is silent and empty. Its buildings and installations were leveled by intensive American bombing

during the last years of the war. Elsewhere another settlement has taken its place for the time being -- an overgrown village on Majuro (Lanra) Island in the atoll of the same name. At Majuro the administration has established a branch government office, a native hospital for all the Marshalls, and a native teachers' training school -- all in the midst of a swollen population of over 1,200 Marshallese, many of whom are temporary residents from distant atolls.

The only officials of any sort common to all settlements are the alaps, the headmen of those families (bwij) which occupy the dwelling units and control the strips of property from lagoon to ocean beach. A single dwelling unit may be occupied by all members of a small bwij, but in most cases, a single bwij comprises several nuclear families each of which probably inhabits a single dwelling. A settlement of 150 people may have 30 dwellings but only 20 bwij and, thus 20 alaps. On the other hand, a single population group of two or three households may consist of only 15 people under a single alap. In matters which are of local concern only, the alaps are sufficient authority, but in larger matters their responsibility merges with that of atoll officialdom.

b. The atoll. Atoll populations are composed of a varying number of separate island settlements (see IIA-2b). Some atolls have only one settlement and that on the main island; larger atolls may have 15 or 20 settlements, and two or three on the largest island. Generally, an atoll is divided into several bukons, or districts, each embracing a number of island settlements in one segment of the atoll and centering on the principal island in that segment. Informants insist that the bukon is an old Marshallese concept, useful then, as now, in population administration.

The native political structure has always been bound up inseparably with ownership of land by the elan, or more realistically by the paramount chief of the elan. In former times, land tenure and chieftainship both depended on the battle strength and skill at intrigue demonstrated by opposing chieftains. At times, though land remained within the same clan, a split between branches of the ruling family would alter the ownership of the property, and create two "kingdoms" where there had been but one. These troubles persist today and, since warfare at the native level has been outlawed, disputes and quarrels are brought before the administration for settlement when a decision cannot be effected among themselves. The paramount chiefs (iroij labalap) continue to hold their positions by right of inheritance; as long as a legitimate heir exists, the traditional rules of matrilineal succession are adhered to. The lesser chiefs (iroij erik) succeed their predecessors in the same manner and continue allegiance to the same royal lineage as did their forefathers in the old days of civil strife. At the bottom of the native hierarchy, the alaps in turn serve the lesser chiefs and render tribute to them on demand.

Each bukon, or district, is in charge of a headman, who may be either alap or iroij erik, depending on the size of the area and the status of the leading families resident there (see IIB-5 for details of rank and

status). Arno atoll is divided into four bukons: Kebjeltak on the west with Arno Island in the center, Jabonwor to the north and including Fudu Island, Rearlabalap as the eastern extremity of islands, and Ajaltokruk along the south dominated by Ine Island. Jaluit atoll, before the dislocation of population which followed the American bombings during the war, was divided into six bukons; today the two northern bukons (Mejjai and Imroj) have been converted into one, its center at Imroj Island, the third bukon of Otle remains as before, while the other three bukons (Jaluit, Mejrrok, and Pingelap) are now represented by an enlarged refugee population resident at Pingelap Island. At Likiep atoll, where all the islands are owned by two half-caste families, there are seven bukons -- five of them defined by geographic area, and two representing the half-caste families themselves, as separate from the "native" population. Likiep's bukons 1 and 4 include the islands owned jointly by the De Drum and Capelle families, bukons 2 and 3 are property of the De Drums alone, and bukon 5 is owned by the Capelles; each of these five bukons are represented in atoll councils by an alan who holds his position by reason of his relationship to the bukon population according to Marshallese custom.

The connection between bukon and atoll or super-atoll leadership varies from one part of the Marshalls to another. Many atolls may fall under the jurisdiction of a single paramount chief, as in the case of the late Tomsing who lived at Wotje. He received tribute, as iroi labalap, from his lesser chiefs (iroi erik) at Ailuk, Utirik, Wotje, Aur, and Maloelap atolls, within each of which the iroi erik have the allegiance of the bukon leaders, be they alaps or minor iroi erik. On the other hand, Arno and Majuro atolls each have a pair of "kings," who control a proportion of the islands relative to their traditional authority, but who are independent of each other. The Ralik chain to the west has long been integrated under the combined rule of five chiefly families; that is to say, some Ralik atolls like Lae and Ujae are controlled entirely by one of these families, but larger atolls like Jaluit and Ailinglapalap are shared in varying proportions by all five.

In former days, the paramount chiefs, or "kings," exacted complete obedience in everything from their subjects upon pain of death. Their authority was absolute, over property and persons alike. The absolute nature of this feudal structure has disappeared under the influence of foreign administrations, but some of the awesome respect for chiefs is still exhibited by the present elder generation. The young people, however, resent the privileges still enjoyed by the chiefs, saying that once there was reason for an aristocracy which won its position by warfare, but now the chief is no better than any one else and should be treated the same.

Ekan is the name given to the custom of rendering tribute to the chiefs. When an iroi labalap visits one of the islands under his control, the people bring him coconuts, breadfruit, preserved pandanus, arrowroot meal, and even mats and money. Even the younger people, in spite of their opposition to this institution, are to be seen bearing gifts in large baskets as part of processions which wend their way down

the village street to the house in which the chief is being entertained. Only last year, it is related, Jemada (one of the Ralik chiefs) visited Jaluit where he was feted expensively by his people; during the winter the people of two of his atolls in the north (wotho and Ujae) sent him a quantity of arrowroot meal by hand of two alaps from those atolls. Again, at Rongelap, an administrative officer who was distributing rations as relief to a people in danger of starvation, discovered that a share of everything was being set aside for their chief who resided in the south at Ailinglapalap.

The Germans, and the Japanese after them, encouraged this custom of tribute as a form of taxation, in turn placing responsibility for certain services and expenses upon the chiefs themselves. This levy took the form mainly of a proportion of the natives' income from copra. In the late 1930's the Japanese standardized all the Marshall atolls on the basis of 50 percent of the copra proceeds going to the iroij, besides which the alap received 1/3 of what remained for the worker. Since the war little copra has been produced by the natives, and thus far none of their income has been shared with the chiefs or the alaps. The chiefs, however, are said to be biding their time until the copra proceeds are large enough to make litigation worthwhile, in the meantime keeping check on their subjects' income through their local representatives. The American administration has as yet made no pronouncement regarding this matter, other than to leave the amount of tribute to the discretion of the people themselves.

The Japanese established a system of direct administration through village officials appointed and salaried by the government. From the native populations were chosen atoll magistrates (soncho), scribes (shoki), village headmen (burakusodai), and policemen (shinke). In some instances, these appointed officials were in direct opposition to the traditional leadership of the Marshallese, the result being the co-existence of two hierarchies of government, the native organization operating behind-the-scenes where it could.

Today the American administration has followed somewhat the same pattern of local officials, but has placed their choice on an elective basis, in which each adult has a vote. There are now an atoll magistrate (ri til ailing, or "atoll leader") and an atoll scribe (ri iaie, or "writer"), both of whom are elected by the people. The village headmen are the traditional alaps, and several policemen in each atoll, called helliwan or ri kabwirak (one who stops), are appointed by the atoll council. The natives manage their own affairs largely through monthly sessions of an atoll council, consisting of the alaps and the village officials. Decisions of the council, which is presided over by the magistrate, are reviewed by the administrative officer who often times his visits to the atolls in order to be present at the council meetings. Directives from the administration are discussed and explained at the meetings.

It would appear that the Marshallese have adopted the American democratic procedure of government, but closer investigation reveals that these proceedings are actually a facade for the operation of traditional Marshallese institutions. An example may be drawn from the northeastern atolls where it so happens that the magistrates of Ailuk, Utirik, and Wotje, as "elected" by the people of those atolls, are also, in their own right, lesser chiefs (iroij erik) who owe allegiance to "King" Tomeing at Wotje. In other atolls where this is not the case, it is found that magistrate and scribe are usually right-hand men of the local "king" or are controlled by him. In the elections which took place, other candidates were nominated, but it seems that the traditional leadership is still favored by the majority of the people. The atoll council and electorate, however, provide an opportunity for dissatisfied elements to bring disputed issues into an open meeting and to air their grievances before the administrative officer, so that compromises might be effected in the interim. Eventually, the Marshallese will want to adopt more democratic practices or they may decide to adhere to their traditional customs of government; the two extremes are inconsistent and will be difficult to adjust to each other.

### 3. Occupational Organization

Marshallese kin groups (bwij and jowi) have provided an excellent medium for the organization of economic activities at the subsistence level. Beyond that, it has been demonstrated that the output of individual specialists, such as native handicraft, can be handled on an individual basis with little difficulty. Thus it happens that the only native occupational organization in the Marshalls today, aside from the economic functions of bwij and jowi, is the so-called trading cooperative.

The year 1944 saw the establishment in the atolls of thirty or more trading outlets under Military Government supervision. Native storekeepers were appointed and salaried by the administration. During the following year, this supervision was turned over to the government trading agency (U. S. Commercial Company, or USCC), which began to convert the stores as rapidly as possible into native cooperative ventures, owned and managed by the Marshallese themselves. This was to be accomplished by sale of the existing inventory (usually \$500 to \$1,000) to the people through the atoll council. Conversion was slow at first because few atoll populations had the required cash reserve to effect the purchase. However, by early 1946 the score stood as follows:

<u>Cooperative store</u> (owned by the people, managed by the atoll council):	
at Kwajalein, Namu, Ailinglapalap, Ebon, Namorik, Majit, Majuro,	
Arno (4), Aur (2), Maloelap (2), and Mili (2) .....	17
<u>USCC store</u> (owned by USCC with salaried native storekeeper):	
Lib, Ujae, Wotho, Rongelap, Rongerik, Utirik, Ailuk, Wotje,	
Kwajalein (2), Jaluit (3) .....	14
<u>Private store</u> (owned and managed by private individual):	
Likiep - Anton De brum, manager .....	1
Total number of stores serving Marshall Islanders .....	32

During the following months more USCC stores have been taken over by the Marshallese as they acquired the necessary funds. For example, on May 9, 1946, on the occasion of a USCC trader's arrival with supplies for the USCC store at Enelabegan (Kwajalein), the native magistrate expressed the desire of the community to buy the store. After the trader had inventoried the stock in the store, he informed the magistrate that the purchase price would be \$956.32 (retail value of the inventory less 15 percent); the community possessed only \$400 in savings. Since it would be contrary to administrative policy to extend credit in such cases, the people were advised to re-apply for purchase of the store when the required amount had been raised. Later in the summer, the transfer was effected at the USCC office at Ebeye Island (Kwajalein) between native officials from Enelabegan and the company's Marshall representative. It was a great occasion for the people of Enelabegan.

At the present time, nearly all stores in the Marshalls are owned on a cooperative basis, and USCC is pressing the remaining councils to take over the atoll stores as soon as feasible. The Likiep store is still the only one owned by a private individual, in this case a Likiep half-caste who happens to be magistrate as well.

The Marshallese have had a free hand in organizing the management of their stores. The responsibility generally rests with the atoll council. Funds for the venture have been collected either through voluntary contributions or through purchase of shares by the people. In some cases, a person could buy as many shares as he or she wished; in other atolls, each alap, or family head, was expected to contribute a prescribed amount. At Ebon, 150 individuals shared in the investment in varying amounts. They are pleased to have their own store and appear satisfied with the financial arrangements. Over 100 men, women, and children put money into the Arno Island (Arno) store. The so-called "council store" at Majuro is financed by investments of \$15 each by over 125 alaps. At Ailinglapalap the magistrate, assisted by the district (bukon) headmen, collected \$2.10 from each one of the atoll's population of nearly 900, in order to buy the Ailinglapalap store from USCC.

The profits which remain after management costs are deducted from the 15 percent mark-up allowed by USCC, are handled in various ways. They are usually divided in proportion to the number and amount of shares held in the enterprise, and are paid as dividends to the shareholders. In this manner, the natives come to appreciate more immediately the advantage of managing their own store, and they are more keen to keep expenses to a minimum, thus adding to the efficiency of the operation. The Ailinglapalap council retains the excess moneys in a special fund as capital to increase its purchasing power for the time when the USCC is able to supply greater quantities of trade goods. This matter of operating capital is important to a store's growth, as the USCC trader demands payment in cash on delivery of goods, and the council is not repaid until all goods have been sold in the community.

In the cooperatives, native storekeepers are chosen and paid by the councils. Occasionally their service is considered a contribution, and everyone is expected to take his turn. At Majuro, the "council store" is managed by the atoll scribe, who is assisted by two storekeepers both of whom work in the store at the same time. These two men are chosen from one of the five bukons (districts) in the atoll by the alans in council, for a period of three months. At the end of their period of service, they are replaced by two new men from the second bukon, and so on. The men are paid \$12 per month, and their respective bukons supply them with food. The other store at Majuro, managed by a lesser chief of one of the atoll's two "kings," is operated by three storekeepers who serve for a limited period (all working in the store simultaneously) and who are paid \$10 per month and rations. At Arno Island (Arno) the storekeeper formerly employed by USCC has continued in charge of the cooperative store and, with three or four villagers, is responsible to the community for its management. For awhile, the villagers paid this Arno storekeeper a regular salary from the 15 percent differential allowed them for that purpose but, during the summer, another plan was being considered whereby each shareholder would contribute five cents per month toward the storekeeper's salary -- about five dollars.

In general, the native councils have managed their stores well, have balanced their books, and have operated an equitable plan of rationing those commodities which are still scarce. For a time, Ailinglapalap suffered from a series of inefficient or dishonest storekeepers, and personnel had to be changed frequently. On the other hand, Wetje has a new storekeeper each trading trip, due to the rotation scheme in operation, but store accounts are always in good shape.

The administration has been impressed with the apparent success of the cooperative method in handling the distribution of trade goods, and is ready to consider the same method for other industries, such as the collection and sale of copra, the reconstruction of small boats for atoll use, and the operation of subsidiary enterprises.

#### 4. Associations

Secret societies, clubs, and similar associations are non-existent today among the Marshallese.

Prior to the war, the Japanese officially encouraged the young people in larger communities to form associations designed to benefit them physically and morally. Japanese school teachers, assisted by police and administrative officials and by interested Japanese civilians, provided the leadership for these associations. Monthly meetings with lectures and discussions, followed by athletic programs, were promoted. Apparently the Marshallese were not very enthusiastic as these activities have not been revived since the Japanese departed from the islands.

About 1931, Rev. Carl Heine organized an association of Marshall Island churches to prevent the threatened intrusion into the islands of a Japanese Protestant mission. This association held meetings every two years and was attended by native evangelists from the many atoll churches established by the Boston Mission. Natives were given an opportunity to participate in financial matters and in the framing of mission policy. During the war these meetings were banned by the Japanese. Since the American occupation of the Marshalls, a lack of leadership in the mission work had prevented the revival of this association, until Miss Elizabeth Wilson of the Boston Mission arrived in Majuro in August 1946; a meeting of native pastors is now planned for the end of 1946.

## 5. Rank and Status Organization

a. Marshallese. Natives of the Marshall Islands fall into one or another of a number of social classes and sub-classes according to the heritage of rank and status as determined late in the nineteenth century by native political rivalries and clashes over control of landed property. While class distinctions were well marked in former days, these have somewhat disintegrated in modern times. The autocratic privileges once enjoyed by the upper classes continue, for the most part, only in the memory of the older generation. The young people, almost without exception, are impatient with their elders who wish to preserve much that characterizes the old class structure. Superficial observation of a contemporary Marshall community indicates a minimum of class differences. However, more thorough investigation reveals a surprisingly strong class hierarchy, shorn of its distinctive insignia and considerably tempered in its feudalistic aspects, but still significant as regards the succession to posts of native authority and the inheritance of land or obligations to serve.

Primarily, two classes are recognized: bwij in iroi -- noble, aristocratic, authoritarian, privileged -- the relatives of paramount chiefs; and bwij in kajur -- common, subservient, tributary -- the ordinary people. Each class in turn is divided into sub-groups which reflect, both kinwise and landwise, to the paramount chiefs. In the class structure outlined below, English equivalents for the native terminology are only approximate and, unfortunately, rather misleading in their connotations. For that reason it seems desirable to employ the native terms in any discussion of the meaning and function of class distinctions.

### MARSHALLESE CATEGORIES

### ENGLISH EQUIVALENTS

#### \*I. bwij in iroi

#### I. Families of royalty

##### \*1. iroi

##### 1. Royalty

- \*a. iroi labalap
- b. iroi elap
- \*c. iroi erik
- d. iroi in til

- a. Paramount chief, "king"
- b. Chief
- c. Lesser chief
- d. Leader

- \*2. bwirak
  - a. bwirak elap
  - b. bwirak in egmouij

- 3. jib
  - a. jibtok
  - b. jiblock

\*II. bwij in kajur

- 1. ātōk
- \*2. alap
- \*3. ri jerabal

- 2. Nobility
  - a. Noble
  - b. Lesser noble

- 3. Fringe of nobility
  - a. ---
  - b. ---

II. Commoner families

- 1. Distinguished person
- 2. Headman
- 3. Worker, serf

In former times, upper class members were easily recognized by their specially designed clothing, by certain ornaments exclusively reserved for their use, and by the completeness of their body and facial tattooing. They were entitled to special foods: the better parts of large fish, turtles, and the first fruits of pandanus, breadfruit, and banana trees. Their subjects contributed matwork, labor, and war services. Privileged families resided on the best land near the lagoon. Men of royalty could take as many wives as they were willing to support, and had unlimited access to the sexual favors of lower class women. Even in death, special treatment was accorded chiefs and their aides in funeral ceremony and subsequent burial.

The commoners (kajur) greatly outnumbered members of bwij in iroij. The former owned no land but maintained themselves on plots of ground allotted to them by paramount chiefs, and paid tribute from the produce of that land. Kajur clothing was poor, and tattooing was permissible only in a limited degree. Commoners spoke to their superiors only when addressed. To pass behind a noble was forbidden, and in his presence commoners had to walk in stooped position. Men of kajur class dared make no advance toward women of noble birth, and were restricted to a single kajur wife. Their homes were located inland or on the windy and malodorous outer shore.

Today, distinctions in residence still pertain, the heritage of a feudal distribution of land from former times. Chiefs continue to receive the best part of the fish catch, and baskets of food are brought periodically to their dwellings by their subjects. Tattooing was outmoded fifty years ago, and only the elder folk now display on their bodies. Under the influence of missionaries, all present-day marriages are monogamous. The landlord-tenant relationship prevails. No longer can paramount chiefs raise commoners to special rank for services rendered in war, but parcels of land have been presented in recent years to assistants for advice in business matters. Rank and status depend today almost entirely on the inheritance from maternal relatives of clan membership and social position. The traditional rules of Marshallese descent are still enforced as rigidly as ever before, but quarrels are not uncommon when a legitimate heir to a "king's" position is lacking, and rival branches of the royal family engage in bitter feud for succession.

---

\* Categories which are most significant today

Succession to a post of native authority follows one set of principles, whether the post be that of iroi labalap or alap: the female line is the significant one, and an older sibling always takes precedence over his younger brothers and sisters. When a chief dies, the prescribed order of succession is as follows:

1. his younger brother or sister
2. his eldest sister's children (his māngōren)
3. his eldest sister's daughter's children
4. his younger sister's children
5. his younger sister's daughter's children.

If none of the above relatives remain alive, less legitimate claimants begin a campaign for succession. An aggressive individual, with the support of lesser chiefs and alaps, stands a good chance to emerge victorious over claimants who may stand in closer relationship to the deceased chieftain. The chief without heirs may be succeeded by his own son, by a child of one of his brothers, or by a child of a maternal cousin.

It was formerly the custom for people to marry within their own class, especially in the case of royalty, in order to keep the family line pure. Exceptions occurred when men of royalty took their secondary wives from lower classes, creating a number of different categories of mixed-class offspring. A common complaint of Radak natives today about the paramount chiefs of Ralik is that the latter, though they are called iroi labalap, are not truly so because their predecessors tainted the royal lineages with too much kajur blood by inter-class marriages, thus reducing their descendants to the lower status of bwirak. The bwirak chieftains of Ralik, therefore, are not comparable in stature to the iroi labalap leaders in the Radak atolls.

A child inherits his position from his mother, regardless of his father's rank unless the father stands in a particularly privileged position. Thus, an iroi woman gives birth to iroi children, whether the father is iroi, bwirak, or kajur. However, if a kajur woman marries an iroi man, the rank of the father raises the children to status of bwirak for all practical purposes. In each category of rank, a special prefix may be attached to indicate male or female: le- or li- for female, la- for male, e.g., leiroi, lebwirak, lelibjib, lektōktōk as compared to iroi, bwirak, lajibjib, and laktōktōk. Upper class titles pertain only in that atoll where the individual has the prescribed relationship to the paramount chief. In other words, an iroi labalap may be only bwirak when he visits atolls outside his own jurisdiction. Paramount chieftain Langlan of Majuro, whose mother was leiroi on Majuro but only lebwirak on Arno, is iroi himself on Majuro but only bwirak when he travels to Arno.

At the top rung of the social ladder stands the iroi labalap, the paramount chieftain, or "king," who recognizes no higher native authority. He controls the lesser chiefs under him, together with their followers and the land which they occupy. Examples of iroi labalap today are Temeing at Wotje, the supreme chief of Aur, Maleelap, Wotje, Ailuk, and Utirik; Tōbo

and Jewirök who share control of Arno; Jideom and Langlan, the two "kings" of Majuro; and Jeimata, Lailang, and Lajare, the paramount chieftains of Balik who, as noted above, are really only bwirak but are referred to as iroi labalap.

All relatives of an iroi labalap in the female line are called iroi and leiroi. At times, however, there is need to distinguish among the families of his married sisters for purposes of determining succession. His older sister's family (bwij elap), comprising her children and (bwij erik) her daughters' children (iroi elap), hold the advantage over families of his younger sisters, members of which are known as iroi erik and can never hope to succeed to position of iroi labalap until the line of bwij elap is extinct. When that happens, the next eldest sister comes into line; her family becomes bwij elap, her children become iroi elap, and her eldest son assumes the position of iroi labalap. Lesser chiefs (iroi erik) generally are given charge of a district (bukon) or of an atoll and are directly responsible to the paramount chieftain. Examples of iroi erik functioning today are Magistrates Taibun of Ailuk, Ain of Utirik, and Lailaj of Wetje, who look to "King" Tomsing at Wetje for direction in native affairs. There is also Redök, who controls Ehen for paramount chief Lailang of Balik; and Assen and Levi who are respectively the right-hand men of Langlan and Jideom, the two rival chieftains of Majuro.

Another group of royalty, a step lower in the hierarchy than the lesser chiefs, are the iroi in til (leaders). In authority and responsibility, these individuals are equivalent to the lesser chiefs (iroi erik), but the former may never hope to succeed to position of paramount chieftain. Though upper class by birth, some are adopted by an iroi, others are related to the paramount chief only through the paternal line, and still others have been given the title for some special service to their chief. The rank of iroi in til may be inherited according to rules of the matrilineate.

Bwirak individuals are the nobility of Marshallese society. Theirs are the families more distantly related to the paramount chief; they share the advantages of royalty but never have any right to succession in the event of the "king's" death. If a lebwirak marries an iroi, her children may be distinguished as bwirak elap, reflecting the slight distinction of the royal father. If an iroi marries a kafur woman, their children are really commoner by birth, but have more status as bwirak erik, more commonly called bwirak in amouij. In using the term amouij, the Marshallese make an analogy to the animal world: among the shorebirds (kötköt) is a red-feathered bird referred to by natives as a "chief" and called nirlap; next to nirlap in bird society is one with mixed red and white feathers, known as amouij. Thus bwirak in amouij are those persons just below the chiefs.

Jib (laibib and leibib) refers to the offspring of marriages between bwirak and kafur individuals. The children of a lebwirak and a kafur man ordinarily assume the bwirak class of their mother, but when a more specific designation is desired, they are called jibök. Lower than

iibtok is iblok, the term for children of a bwirak and a kajur woman; the noble rank of the father saves the children from the kajur designation they would ordinarily inherit from their commoner mother. Laibib are often employed by paramount chiefs as local agents or representatives on islands or atolls where no iroi erik or bwirak reside. They act as intermediaries for orders given by their superiors to the kajur tenants who occupy the area for which they are responsible.

All individuals classed as members of bwii in iroi have at least one parent who is not commoner (kajur) by birth; it will be noted that the parent who is not kajur is always the man, thus modifying to some extent the rule that a person's status is determined by that of his mother. Within the kajur classification, however, all individuals have parents who are both kajur, and though some persons, such as Ātōk, have the advantages of upper class they are remembered as actually of lower class in the last analysis.

Within the kajur class, a privileged group of persons known as Ātōk (laētōktōk and leētōktōk), who were elevated to that position by special decree of a paramount chief, came to be quite powerful in former days because their unusual talents negated the disadvantages of their lowly birth. Some were famed as war leaders, others administered their land so well that recognition was bestowed from above, and still others married leiroi (a most unusual accomplishment for kajur men) and were raised to Ātōk status by their iroi children. Laētōktōk were directly responsible to the paramount chief and did not resort to channels through the lesser chiefs, which fact placed them on a level with the iroi erik in authority and power. Today only a few individuals of Ātōk status remain; for many years no such titles have been conferred on anyone except through inheritance.

Below the Ātōk stands the alap, headman of a bwii (his position has already been discussed in IIB-1a). Alaps are responsible for the familial areas in their charge to Ātōk, iroi in fil, iroi erik, or iroi labalap, depending on which superior resides closest to the area in question.

At the lowest level in the class hierarchy are the ordinary people, ri ierabal, who constitute by far the greatest part of the native population. They are the tenant farmers, the workers, the supporters of the more privileged classes. Today many atoll populations are made up entirely of ri ierabal, with a few alaps as heads of the families.

While class distinctions in modern times are determined mainly by inheritance according to rules of the Marshallese matrilineate, there has been formed in recent years a new upper class which is extra-Marshallese in character. This new privileged group is founded on educational advantage, personal ambition, and the acquisition of wealth and power through channels made available by the presence of foreign population groups in the Marshall Islands. Many in this new group, probably most of them, are the descendants of mixed marriages between foreigners and natives.

b. Half-castes. On 10 July 1946 a meal was served on the heaving deck of the Marshallese ketch Mera at sea between Likiep and Wotje. The two American passengers, having been provided with knives and forks and metal Navy trays, were invited to eat first. As they finished, four half-castes stepped up to take their ration, eating it with spoons from bowls. And only then was the remainder of the food passed among the natives (men and women) on board the ship as passengers and crew. This incident was diagnostic of a different kind of class distinction which has sprung up in the Marshalls under foreign domination — a colonial society characteristic also of other areas in the Pacific and the Far East, in which a small number of purebloods from the Western nations stand at the top, creating in their liaisons with local women a slightly larger group of mixed-bloods, and both in danger of being engulfed by the broad base of the native population.

To the Marshall Islands have come during the past century Germans, Americans, Portuguese, British, and Japanese in varying capacities. Some settled down in the islands and took native women to wife. Their descendants, though the Western blood has been watered by three or four generations of intermarriage with Marshallese, have managed to maintain some degree of social superiority over the natives with whom they live. These half-castes (abkai — as the natives refer to them) comprise only a small part of the total population: in some islands just two or three in several hundred, in other places none at all. No stigma attaches to the term "half-caste" or to the fact of mixed blood. Rather it implies a certain prestige and a recognition of the advantages which go with even a small part of foreign blood in a social environment dominated by foreigners. Neither does any distinction appear to be made in the race or nationality of the foreign parent, whether German or American or Japanese.

The offspring of mixed marriages in the Marshalls do have advantages of training and background which only a few natives can equal. Their fathers worked at trading, teaching, seafaring, and ship-building to earn larger incomes than the average Marshallese. To give their children the benefits of Western education, they sent them to mission and government schools at Jaluit, at Kusaie in the Carolines, and at Makin in the Gilberts. The half-caste thus has had more opportunity to become familiar with the strange customs of foreigners. When the half-castes learned English, they gained the greatest advantage over the natives, most of whom lacked either the opportunity or the motivation to do the same. Today the administration looks to the half-caste for assistance, not because of his non-native heritage, but because he is better-equipped for use as an interpreter or a supervisor of native laborers, and for training as a teacher or a medical practitioner.

Generally, the Marshallese display no ill feeling toward the half-castes, but tend to seek them out for advice and leadership in dealings with the foreigner. Cultural differences between the two groups are not great if one overlooks the better education, the greater facility in English, and the slightly higher standard of living in matters of food, clothing, and housing which are characteristic of the Marshall half-caste.

Both groups are keen to remember the obligations of kinship and community, their children are reared in much the same environment, Protestant and Catholic religion is equally available to both, and even in economic pursuits the half-castes catch fish and collect fruit and root crops in quite the same manner as do their native companions. The initial advantage now held by the educated mixed-blood is not necessarily permanent; under the present administration natives who wish to improve their lot have opportunities to do so. However, one important difference, which is significant for a picture of the future, is that the half-caste is more wont to increase his initial advantage by still closer association with Americans for the knowledge he can acquire, while the native, though equally curious about the ways of foreigners, is more apt to be content to return after a brief experience in the military labor camps to his home in the atolls and carry on in the culture he knows better.

The reported ambition of many native and half-caste girls to marry American personnel stationed in the Marshalls or to have children by them has some basis of truth in that liaisons are easily formed and some girls are definitely aggressive. While marriage with an American is hoped for, most girls realize the practical difficulties of such a union, and are satisfied if they become pregnant by illicit intercourse. In some localities, rumors are rife among the natives of liaisons between Marshallese (and half-caste) girls and American officers and men, even though many of the tales have no foundation, having been started more to provoke incidents than to prevent them. In the few years of American occupation, a number of fair-skinned babes have been borne by unwed Marshallese mothers. However, the matrilineal society of the Marshallese lends itself well to illegitimacies of this sort, since the mother's family is always a refuge for her and her child, and the father is not necessary to give the child a status within the community. Even the additional expense of rearing a fatherless child is absorbed by the family group and becomes a minor consideration. The prestige attributed to half-caste offspring is apparent in the loving care and attention showered by proud relatives on the fair-haired infant in their midst.

For the Marshalls a unique social situation exists at Likiep Atoll where, nearly one hundred years ago, two Europeans (Portuguese seaman De Brum and German trader Capelle) wed native girls and established two lineages which today own the atoll and comprise about one-fourth of the Likiep population. The two founders desired that their descendants intermarry in order to preserve the European caste, but this wish has been thwarted by the social and economic rivalries existing between the De Brums and the Capelles; few inter-family marriages, and even fewer intra-family unions, have resulted. Half-caste children of the first generation took half-caste or native spouses from other Marshall atolls and from the Gilbert and Caroline Islands, and succeeding generations have married predominantly into the Marshallese population. At present, a bitter dispute is in progress between the half-caste owners of Likiep and the native tenants over the division of profits from cepra, the main industry of the atoll. The issues are basically economic, and the different racial composition of the contesting parties is due to historical accident. Details of this disagreement will be discussed more fully under Property and Labor (IV and V).

## 6. Comprehensive

The people of the Marshall Islands have almost no feeling of unity for any area or entity larger than the atoll (in some cases a group of atolls) or the clan. They recognize that people of the Gilberts and of Kusaie and Ponape in the Carolines are different, not only in language but in other aspects of culture. The Marshall Islands may be considered as one culture area, with Ponape and Kusaie as other culture areas to the west, and the Gilbert Islands as still another area to the south. Within the Marshalls, the native distinction between the peoples of Ralik and Radak indicates the existence of two sub-culture areas, but otherwise the Marshallese operate within a homogeneous culture.

### III. CONSUMPTION AND REQUIREMENTS

#### A. NATIVE CONSUMPTION PATTERN

##### 1. Consumers' Goods

a. Food. A balanced diet as conceived by the Marshallese requires both flesh and plant foods. Their plant foods are of two kinds: tree crops and root crops. Of tree crops, there are breadfruit, pandanus, coconut, papaya, and banana. The first three are found nearly everywhere in the Marshalls, although the quality of those in the northern islands is poor; papaya and banana are either scarce or absent north of Kwajalein and Likiep. Of root crops, there are arrowroot and taro. The former flourishes throughout the islands, but taro is a wet-weather crop grown only in the southern islands.

Breadfruit (mā). At least ten different varieties of breadfruit are recognized by the Marshallese:

betakatōk	makoneno
bilbwillikraj	māteite
bukorol	mejelakelek
keturoro	mejokelap
lijimanwi	nejwan

From May through September is the breadfruit season. The variety betakatōk is unanimously conceded first place because of its flavor and its adaptability for various preparations. Bukorol is rated second due to its abundance and qualities for preservation. Mejwan — the jackfruit — is undoubtedly third in popularity, being prized for making of beliji and for the nuts (kole) which it contains.

Green breadfruit is commonly roasted on hot coral stones, the charred part scraped away with a small shell, and the fruit sliced or broken open to be eaten with the fingers. This is kwanin, the mainstay of Marshallese meals during the breadfruit season. To prepare a favorite soup (jokvip): the green fruit is peeled and cored, cut into small pieces, and boiled for an hour or so; it is served with the addition of coconut cream and, on special occasions, pieces of chicken, pork, or fish. Beliji is a prized dessert: after green breadfruit has ripened for a couple of days off the tree, it is cored and filled with coconut cream, the ends are plugged, and the fruit is wrapped in leaves and baked in the earth oven. The resultant golden-orange color and the rich sweetness of the cream-saturated breadfruit makes for a delicacy that is almost too rich for the table.

Breadfruit is preserved in two ways, hwirn and ianckwin, to provide a staple food for the lean months from March to May. To prepare

bwiru: the green fruit of bukorol is plucked from the tree, the rind is removed with shell peelers, and the center is cut out after each fruit has been halved. The sections are bundled into a rope net and anchored in the lagoon to soak overnight in salt-water. The next day, the pulpy fruit is spread out on the ground and covered with coconut fronds for several days, after which the strong-smelling preparation is kneaded and buried in a leaf-lined pit until needed months later. In making lanckvin, the same green fruit is cored, filled with salt-water, wrapped in leaves, and buried in the ground for two or three days to ripen; after being peeled and re-wrapped in leaves, the fruit is baked in the earth oven, and laid out in the sun to dry hard. It will last for many months.

Pandanus (ban). Over forty different varieties are recognized in the southern atolls:

ailuk	erwan in nelu	kiborber	learme
ajbwirok	ingintok (tebotin)	kinun	lebijin
alorkan	jableer	kiran	lukalej
anberia	jabonrok	kubwejengen	lokotwa
anemu	jetirwe	lajinlik	lomben
sojan	jonman	lantor	mangeron
benuk	joibep	lejokrer	manvi
biken	joliu	lekman	mennikren
bikor	julele	libjinnore	nöjel
erwan in jeklukor	kaubarwa	libwini	ripampan
erwan in metolij	kemelij	limetal	robejen

From October to March the parade of pandanus varieties coming into full maturity provides the principal item in Marshallese fare during the winter months. Lejokrer appears to be the favorite eaten fresh, mixed with arrowroot as beru, or preserved alone as nöron. Other preferred varieties of pandanus are biker, joiban, kemelij, biken, and ajbwirok.

As soon as the green fruit is tinged with orange, children and adults alike may be seen anytime vigorously twisting and chewing the pandanus segments in their mouths for the sweet pulp. To cook pandanus, the separated pieces of fruit are steamed for over an hour in the earth oven. From this steamed pandanus, one may prepare beru, a thick, heavy, sweet pudding, for immediate consumption by extracting the orange pulp on a scraper, adding some arrowroot flour, and baking the leaf-wrapped mixture in the earth oven. If the preserved product (nöron) is desired, the expressed pandanus pulp is smeared on a wooden frame and dried in the sun, resulting in leathery sheets about 1/8-inch thick which are rolled tightly in pandanus leaves and stored away for future use.

Coconut (ni). Although the coconut is a valuable source of food and drink, the islanders do not use it as much as might be expected from the abundance of this palm tree among the island flora. Different qualities in a tree, such as size and coloring of nuts and size of the cluster, are distinguished in the following Marshallese terminology:

COLOR:	<u>niran</u>	light yellow (rare)
	<u>ninaro</u>	green
	<u>niunnei</u>	dark green
	<u>nimir</u>	red
SIZE:	<u>nirik</u>	small (good for drinking)
	<u>nivolap</u>	large (good for copra)
NUMBER:	<u>nimar</u>	many nuts to a single cluster

The young nut provides both a delicious liquid (ron in ni) which is not to be surpassed as a thirst-quencher, and a jelly-like meat (neru) which can be fed to babies. When the nut is mature (vaini) the liquid is thrown away, but the hard meat is grated and mixed with other foods; a thick rich cream (aei) may be pressed out of the scrapings. When the nut begins to sprout, a spongy growth within (in) gradually absorbs all the milk and provides an excellent food which can be boiled or eaten raw, and is particularly utilized as an interim fare during periods when both pandanus and breadfruit are scarce.

A sweet sap, or jekaro (known elsewhere in the Pacific as toddy or tuba), is derived from the inflorescence of the coconut palm. Jekaro is used in a variety of ways: as a sweet drink while still fresh, as a mild intoxicant or as a leavening agent for bread-baking after the sap has fermented a day or two, and as a strong liquor when distilled. The unfermented sap may be boiled down into a sweet molasses (jekmai), or a candy-like sugar (jelinan) not unlike maple sugar in taste and consistency. The heart of the palm (jiap), a cabbage-like substance, is occasionally used for food but, since it necessitates the felling of a tree, natives restrict its use to festival occasions.

Papaya (kinabu). The Marshallese say this fruit was introduced many years ago by missionaries from Hawaii. A different variety, larger but not as sweet, is reported to have been cultivated with limited success by the Japanese in more recent years. The Marshallese prefer papaya raw, occasionally sharpened with lime juice; or they peel the fruit and cut it into small pieces to be boiled and served in a gravy thickened with arrow-root flour; or, as beliii, they bake it in the earth oven after peeling and coring the fruit, filling it with coconut cream, and wrapping it in leaves. The natives know the trick of tenderizing a piece of meat by smearing it with mashed green papaya; tough chickens are sometimes stuffed with papayas before being baked in the earth oven.

Banana (kabrong). Bananas are less common in the Marshalls than papayas. Of the several varieties of banana introduced, jeruker is probably the oldest. This is a large banana with hard meat which the natives bake, or boil, or slice in half and dry in the sun for a week to produce a preserved food (iangwin) which will keep for six months or more. Other varieties, such as makarkar (from Kusaie), jeina (from China), and two larger bananas from the Gilberts, are sweeter in taste and are preferred for eating in the raw state, the commonest method of consuming bananas in the Marshalls.

Arrowroot (makemōk). Marshallese arrowroot grows in profusion throughout most of the islands. Harvested from October to January it assures with pandanus, a season of plenty comparable to that enjoyed by the natives when breadfruit is available. The members of a community cooperate in the preparation of arrowroot meal under the expert guidance of a few older men and women. The roots are grated on blocks of coral to a moist pulp, which is strained with saltwater until the starch has been leached out. When the strainings have settled, the sediment is dried and pulverized into a fine white meal. This flour is used as medicine, as thickening for gravies, in puddings, and together with pandanus as the other ingredient in beru. The flour is easily stored, which allows the natives to build up reserves to tide them over the lean months until the breadfruit season returns.

Taro (iaraj). Considerable labor must be expended to cultivate the several kinds of taro, some of which have recently been introduced into the Marshalls from Kusaie and the Gilbert Islands. Cultivation has been modestly successful only in the wetter, more fertile southern atolls. During the war, the natives neglected their taro beds because the fruit of their labors was soon confiscated by Japanese soldiers. Taro is regarded as a reserve food to fall back on during the scarce months of August to September and March to May. To be prepared for eating, the roots are boiled or baked, pounded into a mash, mixed with grated coconut or the raw roots may be grated on coral blocks, mixed with coconut cream or ikmai, wrapped in leaves and baked.

Fish (ik). The flesh portion of a balanced Marshallese meal generally consists of fish, supplemented on festival occasions by shellfish, chicken, and pig. Smaller fish are preferred for taste and make up the bulk of fish consumed, the larger kinds being sought for variety. Fish are available anywhere in the Marshalls, at any time of the year, and in numbers sufficient for subsistence purposes. The islands of northern Ratak are reputed to fall within the finest fishing grounds in the archipelago. Natives can recite over 150 names for different varieties of fish; of these about 10 or 15 are said to be poisonous, although some only in certain localities or at certain times of the year. The names given to fish in the Ratak and Ralik chains tend to differ, but methods of taking fish and preparing them are much the same throughout the Marshalls. Varieties of fish commonly caught are sardine, mullet, red fish, butterfly fish, mackerel, albacore, bonito, tuna, and flying fish.

Every native man is a fisherman and provides daily fare from the sea for those dependant on him. Women are regarded as harmful to successful fishing, do no fishing themselves, and must absent themselves from the scene when their men are engaged in this activity. Most fishing is carried on individually today and some men naturally become more expert than others. Those with a reputation for getting results provide leadership whenever a number of men work together, as in the case of net- or palmleaf-surrounds, or in the use of the stupefying poison obtained from the nut of the wub tree. Native fishermen employ a number of methods:

hook and line (pole from shore, drep-line and trolling from a canoe), spear (in shallow water and along the reef), throw-net from lagoon shore, basket traps, and stone weirs. Differences in method and in fishes caught depend on whether the scene is lagoon or ocean, reef or deep water, and whether the time is day or night, moonlight or dark. Modern nets, lines, hooks, and lures have been substituted by native fishermen for the aboriginal devices once employed. Fishing outside the atoll reef is considered more as sport than work, since daily requirements can generally be satisfied in the lagoon with throw-net or line. Men will, however, go outside to about three times each week, arriving on the spot early in the morning and staying until afternoon or until a good catch (about five large fish or twenty smaller ones) has been made. October through December are considered the best months for fishing.

Fish are preferred roasted over hot stones or live coals; they are also fried in pans, boiled in saltwater, dried in the sun, or eaten raw (sometimes with a sauce of lime juice and coconut cream). The eyes and heads of fish are considered delicacies. Other marine food includes crayfish, clams, turtles, squid, and otopi.

Fowl (baa). Although shore birds and sea birds of many varieties are found in the Marshalls, the natives prefer the flesh of domesticated fowl introduced in modern times. Almost any chicken is reported to breed well in the island environment, but invariably a smaller and hardier bird is developed. Generally, chickens are allowed to run free about the village and often have to forage for themselves. The Marshallese say chickens are easier to take care of than ducks and turkeys; they are fed with grated coconut and the tender meat of discarded drinking coconuts. Ducks are said to be more susceptible to a sickness which produces a condition of diarrhea, watery eyes, and weakness, resulting in death within twenty-four hours. Turkeys are reportedly difficult to rear when young, but require little attention after maturity.

Before the war, the Marshallese possessed a substantial stock of domesticated fowl: mainly chickens, some ducks and geese, and a few turkeys. After 1942, natives and Japanese military personnel consumed nearly all poultry to avoid starvation when Japanese shipping to the islands was cut off. Today only a few chickens remain in most of the atolls, ducks have almost completely disappeared, and occasional turkeys are reported wild in outlying islands. As an example, Maloelap atoll had about 1,000 chickens and 100 ducks before the war; today the count is 200 chickens and no ducks -- the inhabitants have now asked for stock to build up to 800 eating-chickens, 200 layers, and only 50 ducks. The Marshallese themselves are attempting to restore the poultry population to normal by exchanging chickens with families which have none, by killing few chickens for food in order to build up the stock first, and by repopulating those atolls where the number of fowl had dropped to zero due to the depredations of starving Japanese.

Chickens and ducks are definitely a festival food today. On such occasions, fowl are dressed and either baked in the earth oven, or

boiled in sea water, or cut into pieces and fried in flour and grease. The cooked meat may also be mixed with breadfruit in a thick soup. Only the more Westernised of the natives care for eggs, in which case the eggs are usually fried.

Pig (bik). Pigs, goats, and cows have been introduced into the Marshall Islands in modern times, but the pig is the only animal which the natives are willing to raise. Goat meat is too tough, cows require too much attention, and besides the Marshallese have never acquired an appetite for fresh milk. Pigs are desired both for meat and for grease.

Prior to the war, the islanders owned perhaps 4,000 to 5,000 pigs and a very few goats. The ravages of hungry Japanese soldiers brought the number of pigs down to about 500, which figure may now have increased to 1,000 or 1,500 due to the natives' efforts to rebuild their stock. Maloelap, for example, reported 350 pigs on hand before the war, now has 10; the atoll council has asked for 400 "eating pigs" and 200 "pigs for grease." The Marshallese regard the pig as festival food, although some animals were raised for sale to foreigners in centers like Jaluit.

Native families keep pigs in small, fenced or stone-walled pens, and feed them grated coconut, leafy parts of low bushes and vines, and vegetable refuse from the kitchen. Pigs are slaughtered only on very special occasions, and the animal is then consumed in one meal by the assembled throng of guests. Pork is served as whole pig (even-baked), or is cut into pieces and fried or cooked in a stew with breadfruit.

Imported food. During the past fifty years the Marshallese have acquired appetites for a number of foreign foods. Of these the more essential to native fare are rice, flour, hard biscuit, sugar, canned meat (corned beef), canned fish (salmon and sardines), coffee, potatoes, shoyu (soy bean sauce), mise (soy bean paste), onions, salt, and canned milk. The proportion of imported food in Marshallese diet depends on the available supply and the ability to buy -- half-caste families invariably consume more foreign food than the natives.

Flour is ably used by native women for baking bread, cookies, biscuits, and doughnuts, with fermented toddy as the leavening agent. Rice, the white polished variety, is boiled and may be eaten with fish and shoyu in the Japanese style. Canned meats and fish are in demand because of the convenience in serving and as a substitute feed in cases where family men are employed at wage labor or otherwise unable to fish and attend to pigs and chickens. Canned milk goes mainly to sick persons and babies; tea and coffee replace coconut milk and fresh toddy only on special occasions.

Meals. The earth oven (um) continues to be favored by Marshallese women as a method of cooking, with the fry pan edging out the kettle for second place. Although considerable time is required to prepare the oven for each meal, several kinds of food can be cooked in the um at one time. The earth oven is a pit, one to two feet deep and lined with coral

pebbles, in which has been kindled a large fire of dried coconut husks, discarded coconut shells, and chewed pandanus segments (bij); when the fire burns down, all live embers are removed, some of the hot pebbles are pushed to the side, and the food (wrapped in green leaves or placed in a covered iron pot) is set in the center and covered with hot stones and layers of leaves and gunny sacking.

Meals are quite informal, participants being members of the household plus any close relatives or visitors who happen to be present at meal time. Only two daily meals are prepared: breakfast (mabung) and dinner (kajota). A similar menu applies to each meal, but the evening repast is generally more sumptuous. Examples of daily meals during the breadfruit season show the variety of food items which may be had (at other seasons, pandanus, arrowroot, taro, and preserved breadfruit could replace breadfruit):

Rice	Baked breadfruit	Breadfruit soup	Roast breadfruit
Corned beef	Boiled coconut sprout	Baked fish	Rice
Bread	Roast fish	Bread	Fried fish
Coffee	Fresh toddy	Tea	Fresh toddy

The average adult is said to consume daily about fifteen drinking coconuts (throwing most of the coconut meat to pigs and chickens), one to two quarts of fresh toddy, ten to fifteen small fish, one pound of rice, one breadfruit, and a loaf of bread, besides the incidental between-meal snacks of fresh pandanus, ripe coconut, sprouted coconut (iu), and bananas.

On festive occasions, such as a child's first birthday, a wedding celebration, or the dedication of a new canoe or a new dwelling, the food is supplied by women of the entertaining kin group, usually the bwij (extended family). At such times, plant foods and meat are prepared in a greater variety of ways, and special dishes and delicacies are added to the normal fare. This is demonstrated by a few examples of feasts which occurred in the islands during the past summer (note the difference between feasts given by natives and those by half-castes):

Canoe Dedication (native)

Stew (pork and breadfruit)  
 Raw fish (with lime sauce)  
 Rice  
 Roast breadfruit  
 Curry  
 (chicken, pig, and breadfruit)  
 Coconut milk  
 Distilled toddy

Chief's Visit (native)

Raw fish (with lime sauce)  
 Rice  
 Boiled breadfruit  
 Breadfruit pudding  
 Boiled chicken  
 Roast breadfruit  
 Coconut milk  
 Breadfruit belijj

Official Visit (half-caste)

Soup (chicken and breadfruit)  
Baked breadfruit  
Rice  
Fried mullet  
Fried breadfruit  
Cooked papaya (ripe and green)  
Roast chicken  
Coffee  
Palm-heart salad  
Fresh papaya  
Coconut coolies  
Distilled toddy

Fourth of July (half-caste)

Blood soup (pig and prune)  
Roast breadfruit  
Rice  
Bread -- Tea  
Roast chicken  
Stew (pork and breadfruit)  
Roast pork  
Palm-heart salad  
Pork and lima beans  
Bera -- Belili -- Mōrōn  
Cooked coconut sprout (in)  
Prune pie --- Fresh papaya

b. Clothing and accessories. Marshallese fiber loincloths and fine-mat skirts are only museum pieces today, for American missionaries decades ago covered the nudity of the "unbenighted heathen" with unrevealing "Mother Hubbard" dresses, long-sleeved shirts and long trousers. The conflict between Western styles of the nineteenth century, which the Marshallese so religiously adopted, and modern American fashions was ironically highlighted by a military occupation order forbidding service personnel to remove their shirts while working in a restricted native area, so as not to offend native modesty. However, American GI's and American movies in the Marshalls are successfully advancing the cause of less clothing for healthier living.

Today, the Marshallese male adult is commonly clad in long trousers (or shorts), T-shirt (or long-sleeved shirt, open at the neck and sleeves rolled up past the elbow), and underpants. If he lacks an American fiber helmet, he dons a work cap or a native hat woven from coconut or pandanus leaf for protection from the hot sun. When at work, he sheds everything but underpants and trousers. He is unshod by preference. At the military base camps, native laborers are issued a clothing ration of heavy field shoes, socks, underwear, T-shirts, long trousers, fatigue jackets, and field hats. By now these items of clothing have found their way into the native villages, often causing male costumes to appear more military than civilian.

The female adult is more modest in her dress. Older women still stand by the "Mother Hubbard" which requires at least four yards of cloth to fashion. Its three-quarter length sleeves are gathered in at the elbow, and the dress hangs long and full with no restriction at the waist. Women of a younger generation need only two yards of cloth for their form-fitting dresses, which are short-sleeved or sleeveless, open at the neck, and fall just below the knees. Teen-age girls emulate their American movie sisters with stylish ensembles which bare the knees and possess patch pockets and other special effects for sophistication. All women wear white slips or brief pants next to their skin, and no shoes or head-gear.

To an American observer, the modesty displayed by Marshallese women sometimes assumes strange proportions. When at work, they never shed any article of clothing; indeed, if obliged to go into the water for some reason, they wade in dressed as usual and change to dry clothing when the work is finished. The elder women are scrupulously careful about revealing no part of leg or ankle, and young women and girls carefully tuck their dresses between their legs, as they squat on their heels to scrub clothes or to cook, although their legs are bared above the knee. When a baby cries to be fed, even though the place be a Sunday church meeting, no mother hesitates to open her dress front to give the breast to her crying infant.

Children are allowed to run about naked for the first two or three years. Girls then acquire short dresses and brief underpants, while boys may continue unclad for another year or so before donning shirts and shirts. Boys and girls, like their parents, are barefooted.

Although men buy much of their clothing ready-made at the stores, most items of dress are made by the people themselves from cloth material purchased from the traders. Women cut their own patterns and sew up a dress skilfully and quickly on antiquated German sewing machines, operated by hand on the floor in front of the squatting seamstress. Needle and colored thread are artfully employed to brighten garments with embroidery and other needlework — slips with beautifully crested borders are proudly allowed to show below younger women's dresses. Due to prevailing shortages of cloth material, the natives accept any color or design, but try to create some individuality of costume by varying the pattern or dyeing the goods another color. Men, too, are skillful tailors, using either sewing machine or hand needle to assemble shirts, shorts, and long trousers from cloth pieces cut with the aid of paper patterns.

The need for laundering clothes has been well learned in the Marshalls, and soap continues to be one of the most desirable trade items. Few natives own more than a single change of clothing, so that laundering is by necessity a daily chore. Small groups of women may be seen every morning squatting in their yards before a pile of dirty clothes, a pail of fresh water and some soap, and an old mat or a piece of canvas covering a depression in the ground, in which the clothes are washed. Clothes are scrubbed vigorously and sometimes beaten with a wooden paddle to rid them of dirt. Old charcoal-burning irons provide the means for neatly pressing freshly laundered articles.

Soap is valued as well for bathing. Natives take fresh-water baths at least thrice a week; men who are in salt-water every day, fishing or canoeing, habitually bathe in fresh-water before putting on dry clothes. Perfumes and smelly lotions are eagerly sought by male and female alike, to anoint their bodies and hair.

Natives' beards grow slowly and require shaving no more than twice a week; straight-edge razors are preferred but safety razors are more in evidence today because of available supply. Every community has several able barbers, who wield hand-clippers, comb, and scissors in true

American style. Women allow their hair to grow long and full to the waist, customarily twisting it into a single rope to be tucked in a roll at the back of the head or behind one ear, and held in place with an ornamental comb. Women, when not occupied otherwise, are continually undoing their hair, combing it out, and resetting it. Children's haircuts, in which the hairline runs about the head just above the ears, give their little owners the appearance of small Japanese boys and girls.

Both sexes are fond of floral necklaces and crowns, fashioned by women and girls in idle moments from sweet-smelling blossoms anointed with coconut oil. Aboriginal practices of tattooing and ear-piercing were discontinued 50 years ago under missionary influence. Only the elder men and women have the enlarged holes in their earlobes, now empty and unadorned. Tattoo marks are occasionally revealed on fingers, arms, and legs of old people. Formerly these tattoo lines indicated social status and were an important part of native custom.

Status differences in dress are today almost non-existent. The more important and influential persons in a community generally have greater means to achieve quality and variety in clothes, but present shortages of dress goods effectively neutralize that advantage. On Sunday, a day of church attendance and rest, women blossom out in white, finely-worked dresses, and men in their newest shirts and trousers (officials quite often appear in white suits), but nearly all remain barefooted. However, the more sophisticated young people are becoming increasingly conscious of their feet, which are broad, with soles tough and cracked, and toes widely splayed. Many young men have quickly taken to heavy field shoes, but the girls are having difficulties fitting their coarsened feet into even the widest of sport oxfords.

## 2. Capital Goods

a. Tools and implements. Just as the Marshallese adopted Western clothing, so have they substituted for their own artifacts a wide assortment of Western tools for use in their handiwork in wood, leaf, shell, and bone. Aboriginal artifacts which have disappeared from the modern scene include shell knives and drills, bone needles, shark's tooth awls, ray-skin files, and wooden adzes with shell blades. Those which remain are few -- a bone awl (in ai) used in making thatch, a tridacna-shell pounder (rakein nin) for softening pandanus leaf, a coral grater (buka) for arrow-root and taro, a pandanus scraper (baka), a shell breadfruit peeler (kekör), a coconut grater, and a long-handled pole with end-hook for detaching breadfruit and papaya from the branches.

Although the natives of the Marshall Islands are not known for their woodwork, many of them have become skilled carpenters, well versed in the construction of houses and canoes. Some learned the trade from the Japanese at the Apprentice Wood Workers' Training School at Palau before the war. For years now these people have known how to use modern tools, and they depend on them for good work. During Japanese times, the Marshallese bought tools from Japan; they recognized the cheap quality -- poor

cutting edges and flimsy construction -- but to purchase better quality from Europe and America was costly and took months for orders to be filled. In spite of that, the natives acquired some tools of American manufacture and do not need to be sold on their superior quality. Woodworking tools which the Marshallese regard as essential for their work are saws, planes, chisels, adzes, files, scrapers, sharpening stones for these tools, hammers, pliers, screw drivers, rules, squares, levels, bevels, clamps, and vises. They use nails, screws, bolts, sandpaper, and emerycloth, and know about such things as sizes and numbers where specifications for woodworking materials are concerned. The work which the natives turn out, while it does not measure up to the standard of carpenters and cabinet makers in America, has nevertheless astounded observers who expected something much cruder from these small islands of the Pacific.

Tools used by the women in producing their handicraft from coconut and pandanus materials are not many -- a sharp pocket knife, an ordinary sewing needle, and perhaps a pair of scissors. Other tools and implements to which the Marshallese are well accustomed are those connected with agricultural and other daily chores -- shovels, spades, rakes, hatchets, axes, copra knives, and bush machetes.

b. Machines and apparatus. Machines are not yet a part of contemporary Marshallese culture, although many young men during the war have learned how to operate trucks, marine engines, and power equipment at the military base camps where they worked as laborers. In Japanese times, other natives had worked at wireless stations, in Japanese power trawlers, and in shops at Jabor where soap and rope were fabricated from copra and coconut husk by machine methods. As yet no power driven machinery has been erected in any native settlement, although plans exist to introduce a power saw into one atoll for use in boat construction.

Apparatus of any kind is rare in the islands. Tripods are constructed from long poles and rope to hold block and tackle for lowering processed concrete sidings into place in salt-water wells. At Likiep, a chain hoist, salvaged from damaged Japanese equipment, is used by the community whenever the need arises. Racks and platforms are erected in open places for drying copra and certain foods being preserved.

c. Vehicles. Even prior to the war, there were relatively few vehicles in the Marshalls. In 1936, 346 bicycles, 115 wagons and push-carts, and one automobile were reported for the whole archipelago. The later development of Japanese military installations at Jabor (Jaluit) and at other key islands spiraled the total of automobiles and trucks. Today, American bombing has effectively silenced every motor vehicle on the by-passed Japanese base, either by direct hits or by gradual disintegration resulting from non-use. As late as December 1945, natives were operating a few Japanese trucks which had been abandoned in outlying atolls, but rust has frozen the moving parts of even those vehicles by now.

Dirt roads in the native settlements cannot support motor traffic, even if the need existed. In terms of local requirements, bicycles and light push-carts are the only practical vehicles for native use. The small number of bicycles still in working order are operated more for sport than utility. The most valuable vehicle for the islanders is the push-cart introduced by the Japanese, a lightweight, pipe-frame, two-wheeled affair which can carry a load of 700 pounds of copra, is easily managed by one or two men, and handles well on the narrow trails among the coconut plantings. The few carts still in operating condition are used mainly for the transport of coconuts and copra from the interior to the village area.

d. Water craft. Canoe-building was and still is a primary industry in the Marshalls. The natives are expert canoe-builders, having gained for their product the reputation of one of the fastest sailing canoes in the world, averaging 10 to 15 knots in a good wind. The Marshallese today make three types of canoes: (1) a small paddle dugout, 6 to 10 feet long, with no decking, equipped with a light outrigger, capable of carrying only one or two adults, and used for fishing the calmer lagoon waters; (2) a sailing canoe, 12 to 20 feet long, with no decking, equipped with outrigger and platform for stowing gear, capable of carrying four or five adults, and used for travelling or fishing in the lagoon or just off the outer reef; and (3) a larger sailing canoe, 20 to 30 feet long, decked over hull providing watertight compartments for gear stowage, equipped with outrigger and platform for passengers and gear and balanced by a second platform on the lee side of the canoe, capable of carrying as many as ten adults and considerable gear, and used for long sea-going trips between atolls.

In former times, outrigger sailing canoes of 50 and 60 feet carried paramount chiefs and their whole retinues for long voyages the length of the Marshalls and beyond, but they were rendered impractical when foreign schooners and steamers provided safer and more comfortable passage. Only a few of the older men now remember details of construction of these big canoes and can reproduce them in beautifully rigged models. The largest canoes in the Marshalls today are extremely seaworthy, although not adapted to passenger comfort because of cramped space and the water and spray taken aboard enroute.

The native outrigger canoe is constructed entirely of wood, its parts being lashed together with sennit; nails and screws in construction would result in a structure too rigid to withstand the heavy beating given by rough seas, when strains of different degree are exerted simultaneously on float, outrigger frame, and hull. A breadfruit log is dug out with adze and chisel to form the keel and bottom portion of the hull. On this the sides are raised by the addition of irregular strakes running parallel with the keel and fitting at each end into a solid-block prow and stern-piece. Each strake consists of a number of rough-hewn planks, secured together by sennit lashing passed through holes drilled in the opposite edges. In this type of construction, no ribs or framework are employed; two deck coverings and inserted thwarts stiffen the hull adequately.

In the southern atolls, where breadfruit trees provide larger logs, the upper part of the hull and prow and stern-piece are dug out of a second log, the two sections being fitted and lashed together with sen-nit where they join. Only recently, in the northern atolls where bread-fruit trees are smaller and scarcer, one craftsman (Robert Reimers, a half-caste at Likiep) desiring a larger sailing canoe conceived the idea of retaining the traditional design of the canoe but building the hull with a keel piece and spaced ribs of native hard woods, planked over with imported pine or cedar. His efforts have proven very successful; hulls are able to carry more cargo and are being constructed up to 32 feet in length. About 10 or 15 craft of this construction, with out-rigger and sail still in the Marshallese tradition, are being operated among the atolls of northern Radak.

In all Marshallese canoes, the hull is double-ended, fore and aft sections exactly duplicating each other. The sides of the hull, how-ever, are asymmetrical, the outrigger side being round and bulging, the other nearly perpendicular. This is done purposely to counterbalance the drag of the float, thus easing the task of steering.

Two main booms, joined firmly to the hull amidships, extend horizontally on the weather side of the canoe to connect indirectly, by means of two short ropes and a yoke lashed athwart the ends of the booms, to the float. Four accessory booms, butt-lashed to the weather side of the hull and descending in a long curve, bracket the main booms and are lashed directly to the float. Midway athwart the booms is tied a deck-ing of wood slats which contributes additional strength to the structure and serves as an outer platform. Between this outrigger decking and the side of the canoes, a space of from three to four feet, is a raised plank platform. On the lee side of the hull, there is sometimes an overhanging platform, about the same size as the first; both serve to carry passengers and gear as well as to allow for proper distribution of weight to maintain balance between sail and outrigger.

The mast is stepped free in a shallow socket midway along the weather gunwale, and is supported by one or two stays from masthead to the outer end of the outrigger booms. In addition there are two mast-head stays running to the two ends of the craft. The sail, formerly made of matting but of eight-ounce white canvas now, is triangular in form, the long sides being secured respectively to a boom and a yard by lashings passed through holes bored at intervals along one edge of each spar. The sail is set apex down, the tack resting against a pin step in the bows. When the sail is set, the single halyard is belayed to a cleat two feet above the heel of the mast; the sheet is led to a single pulley on the boom. The steersman determines the course by means of a rudder or a pad-dle. There are bailers in every canoe. Anchors are rarely used.

In tacking, the sheet is paid out to let the sail flap idly to leeward. The two masthead stays are loosened, and the tack at the bow of the canoe is passed by one man the length of the craft to another man at the stern; but stern becomes bow, and the tack is secured in its new

position by hauling the staywires taut. In this maneuver the mast was altered in its oblique position to lean toward the new bow. The steersman takes his station at the new stern with his rudder or paddle, and the sheet is re-adjusted to fill the sail with wind. The outrigger always remains to windward of the hull, the sail to leeward. Two men can easily handle sail if the weather is not unduly rough; during a tack, a third man is sometimes stationed amidships to guard against the mast and sail falling to windward in a lull.

Much time and care is expended by men on their canoes. They paint them frequently, renew lashings and mend or replace broken spars or braces as necessary, protect the sail to avoid rot or mildew, and after use haul their canoes high on the sand beach on palm fronds and skids of frond butts to save wear on the bottom of the hull. Proportions used in constructing Marshallese canoes are as follows:

Length of canoe equals length of mast.

One-half the length of canoe equals the distance from weather side of hull to outrigger float (the latter measurement is sometimes longer, but never shorter).

Length of float equals length of middle section of hull between the breaking points in line of keel.

Longer float provides better balance and greater seaworthiness, but decreases speed (shorter float may be too light to balance the sail).

In the construction of sailboats on the European model the half-castes at Likiep have gained a good reputation by thirty years of successful operation and production of hundreds of boats, from rowboats to 50-foot schooners. A good-sized fleet of sailing vessels of this type, most of them built by the Likiep people, some by Japanese shipwrights at Jabor, were being operated by natives in the Marshalls before the war. Of two 20-ton ketches, four or five 10-ton yawls, and about twenty 5-ton sloops which existed just prior to the war, there remains in good condition today only one of the ketches and about five of the sloops — the rest were sunk during the war by American strafing or damaged beyond repair by the Japanese. Natives and half-castes have received assistance from the administration in the way of paint, rope, hardware, and lumber for the reconditioning of their craft. At present, an increasing number of canoes, both paddle and sail, are being constructed as materials become available and as time can be spared from the labors demanded by subsistence and other rehabilitation. For example, Aur atoll has one 30-foot sloop (reconditioned), 13 new sailing canoes lacking sails, and 12 old canoes in operation; Lae atoll, with a smaller population, has five sailing canoes (two more being built) and two paddle canoes; Arno atoll has 33 sailing canoes and 44 paddle canoes; and Wotje has at least 20 large sailing canoes, most of them new and in operation between atolls.

### 3. Shelter

The restoration of shelter facilities necessitated by the population dislocation and housing damage incurred during the war is a top-priority problem in the rehabilitation of Marshall Islanders. Wherever Japanese built military installations on Marshallese village sites, native families were compelled to seek new homes; some crowded into existing housing with relatives in other islands, and others erected temporary huts in previously undeveloped areas. Native laborers, required to work at Japanese bases like Jaluit and Wotje, lived in huts quickly thrown together for their use. In at least one place (Enelabegan in Kwajalein Atoll), displaced persons were relocated in huge barracks originally built to accommodate Japanese troops on their way to forward areas in the Gilberts and southern Marshalls. Damage to native housing resulted from American strafing and bombing of settlements located near suspected Japanese installations; during the latter years of the war, Japanese soldiers tore down frame dwellings, owned by Marshallese to salvage lumber and hardware for their own use. After the American invasion of the Marshalls, more dislocation occurred as refugees were snatched from by-passed Japanese bases and accommodated temporarily on American-occupied atolls.

Today, most of the Marshallese have been repatriated and are hard at work to reestablish themselves in their old homes. They are faced with shortages of materials and labor. Native building resources, such as pandanus, breadfruit, and coconut trees, have been destroyed or sharply curtailed in those islands devastated by war. Lumber, iron roofing, and other modern materials have been salvaged by natives fortunate enough to have access to demolished Japanese bases and reduced American military installations. All building materials are scarce in a few areas, and temporary housing of a squalid and unsanitary sort has resulted. Labor is dear, in the sense that housing is only one of many time-consuming occupations which face the Marshallese: canoes to build, gardens and plantations to clean up and cultivate, daily food supply to secure, and copra and handicraft to produce for trade goods exchange. Time is rationed, but the work of reconstruction progresses. Settlements ring with the sound of hammer and saw and with the shouts and chatter of a busy people helping each other erect new dwellings and rebuild old ones.

The traditional Marshallese dwelling, small and rectangular in plan (about 12 by 15 feet), is either built on the ground, the dirt floor being covered with coral pebbles and a layer of mats, or raised on posts one to four feet high, the space under the plank floor being used for storage or as a shady workplace in the heat of day. The roof is thatched with dried pandanus leaves. The walls, pierced at intervals with shuttered openings for adjustment of light, temperature, and ventilation, are either thatched or panelled with plaited coconut- and pandanus-leaf mats. Materials are available locally in the pandanus, coconut, and breadfruit tree resources. The work of construction can be accomplished in three or four days through cooperative efforts of four or five families (usually a single, or two related, bwij). The work is directed by the owner of the house, the heavy work of preparing timbers is done by men, thatching

and mats are prepared by the women. The completion of the house is celebrated by a feast prepared by the relatives of the house-owner and participated in by all who contributed their work.

A larger dwelling, quite common before the war and gradually reappearing as settlements are reconstructed, is rectangular in plan (about 20 by 30 feet), with a sloping gabled roof of thatch rising from 6 feet at the eaves to 20 feet at the ridge. Within are two walled sleeping-rooms elevated about two feet above the coral and mat floor and surrounded by a 6-foot passageway used for work space and extra sleeping space. Privacy is assured occupants of the inner rooms by the concealing thatched walls, but the outer walls of the house have hinged openings for light and ventilation. Tools used in the construction of these houses are hammers, saws, adzes and planes for smoothing timbers, and carpenter's rules.

Furniture is held to a minimum, the mat-covered floor usually being empty of such items as chairs, tables, and beds. Sleeping gear is rolled up in mats and placed against a wall or suspended from a rafter out of the way. Chests, roomy wooden ones with hasp and padlock, rest unobtrusively in dim corners of the room and contain clothing, handiwork, and other personal possessions. A kerosene lamp hangs from a nail on a corner-post for use far into the night as the natives work at their handicraft. In many houses, an old sewing-machine may be found, operated by hand-wheel and resting on the ground.

All cooking is carried on outside, usually in a small leanto a few yards from the house. At one end of the structure is an earth oven or a fire-pit with irons for support of fry pan and kettle, the smoke from the fire weaving its way out through a roof-opening or the open end of the cook-hut itself. All cooking and eating utensils are kept in the cook-hut, as the family eats there and not in the main dwelling. In some cases, a separate eating-hut is built, and prepared food is eaten there in an atmosphere free of smoke and flies. Other structures commonly considered in a dwelling unit are bath-hut and latrine. The first is a small thatched and walled structure located near the well or cistern which serves the household. The dirt floor is covered with coral pebbles and the water for bathing is held in a pail or wash-tub. The latrine is generally built several hundred yards away from the dwelling, on the ocean side of the village street. It is a thatched adaptation of the "Chic Sales special" introduced by foreign administrations in the interest of sanitation; formerly Marshallese were accustomed to urinate anywhere and to defecate on the outer shore at low tide, the waste matter being washed away at high tide.

The Marshallese prior to the war were already familiar with the architecture and construction of Western styles of housing. Perhaps 15 percent of their dwellings were a kind of modified Western; today, this proportion has decreased considerably due to destruction of houses during the war. In the meantime, many native families have become desirous of improving their housing by adopting Western styles in a greater proportion, partly for prestige reasons, partly for utilitarian advantages of permanence

(no need to replace thatch roofs and timber every few years), sanitation, and water storage (the iron roofs permitting efficient water catchment). In the future, the natives will probably build modified Western housing as rapidly as their income and supply of lumber, roofing, and cement allow.

Those individuals who have the means, usually half-castes and chiefs, prefer the modified European or Japanese style of dwelling, with plank or concrete flooring, walls of painted siding, corrugated iron roofs with galvanized piping diverting rain-water to cement cisterns. Such dwellings usually have two or three rooms, furnished with table and chairs, bedsteads or cots, chests, mirrors and pictures on the wall, and kerosene or gasoline lamps. Broad-roofed verandas sometimes surround the house or are attached to front and rear. Where acculturation has altered housing styles, the subsidiary structures continue to be built apart although modern materials are used. There are still no electric lights, no running water, no heating facilities, nor sewage disposal system other than provided by the limited Marshallese pattern.

The modified Western housing is erected by skilled carpenters, either hired by the owners or contributing their services according to the mutual aid pattern of the Marshallese kin group. Most natives are skilled in the use of hammer, saw, plane, rule, and drill, but men who can read plans and fabricate the structural departures in Western design are fewer in number, comprising those who were apprenticed in the past to European or half-caste carpenters resident in the Marshalls, or were trained in woodworking at the Japanese school at Palau.

As in the case of private housing, the various community structures, such as schools, churches, and town halls, may be built in the Marshallese tradition with local materials and by community cooperation, or with modern materials and by skilled craftsmen paid from contributions, by the community. Each settlement has at least one such community structure, a large rectangular building 50 by 100 feet, with thatched roof (or corrugated iron), open sides (or walled with painted siding), and coral-covered dirt floor (or concrete), sometimes with benches but more often not, and a raised dais at one end for teacher, pastor, or government official. Smaller structures serve for medical dispensaries and are furnished with table, chairs, and shelves for medical supplies. In some villages, still other community buildings are erected, such as work-sheds for building canoes and boats, warehouses for storage of copra and miscellaneous supplies, and stores with counters, shelves, and scales in the tradition of such retail establishments.

#### 4. Services

a. Transportation. Practically the only transportation available to Marshallese has been, and still is, by water. Whatever road, rail, and air transport existed prior to the war was maintained and utilized entirely by the Japanese; the same conditions apply today, in that all road and air transport (no rail equipment remains) is used exclusively for American military purposes.

Long ago the Marshallese proved themselves extremely competent navigators. There are cases on record of voyages by outrigger canoe as far as the adjacent Carolines and Gilberts. As aids in teaching inter-atoll navigation, the Marshallese use sea-charts (medo), made by lashing together thin ribs of coconut leaflets to form a frame on which small shells are tied to represent various atolls; curved strips indicate the altered direction taken by ocean swells when deflected by an island, and their intersections represent nodes where these swells meet, which are regarded as a valuable indication of the voyager's position. In addition, the natives place considerable reliance on observations of currents, stars, and the flight of sea birds.

The Germans had early instituted a regular steamer service between Sydney and Hongkong, which included Jaluit and islands in the Carolines as ports of call about three times a year. Regular bi-monthly service was maintained between Australia and the Marshalls by vessels of the Burns Philp Company until 1925. Under the Japanese, shipping facilities in the Marshalls were considerably expanded. From 1922, the administration through subsidy assisted Nippon Yusen Kaisha in the maintenance of an eastern line on a regular schedule which started from Kobe and ended at Jaluit and passed through the Marianas and Carolines enroute. In 1937 a regular service of ten voyages a year was maintained by three steamers (average weight about 4,000 tons). A similar arrangement was made with Nanyo Boki Kaisha (South Seas Trading Company) for regular steamer service within the Marshalls; NBK operated routes from Jaluit through Ralik and Radak and to the Gilbert Islands. NBK ships made seven calls a year at most Marshall atolls, and two a year at outlying places like Bikini and Ebon. In addition to NYK and NBK services, smaller vessels of trading companies plied between the atolls to provide in the aggregate at least monthly service to most of the islands in the archipelago.

Under Japanese administration, the Marshallese were permitted to travel as deck passengers on the regular trading vessels at scheduled fares, but had to provide their own food and sleeping gear. Natives took advantage of this service to visit friends and relatives on adjacent atolls and to go to Jabor, the center of economic activity in the islands. After 1939 the Marshallese were no longer permitted to leave the archipelago, or to travel on steamers that called at ports outside the Marshalls. At the same time, inter-atoll trips by outrigger canoe were officially discouraged.

Under American administration, transportation within the islands for natives has been limited as a practical matter to those individuals being hospitalised, repatriated, or recruited as labor. Naval vessels have operated on irregular schedules. LCI's and YF's (a wooden yard vessel built in New Zealand) have been used by Military Government and USOC to make periodic inspections, to import trade goods for the natives, and to pick up copra and handicraft. During the first year or two, fairly regular schedules were maintained about once a month for atolls taken from the Japanese. The end of the war and the Navy's demobilization program brought about a serious decline in shipping, the low point being reached in mid-summer of 1946. By that time some atoll populations had

not received trade goods for six months, during which period they subsisted on one month's supply and their own resources, each day looking anxiously for a ship to steam into the lagoon with relief stores. At Majuro, for example, no naval vessels were available after 15 March 1946 to service the atolls of southern Radak. Only after high winds had subsided in May, were native outriggers able to make trips across a 20-mile stretch of open water between Arno and Majuro, and in August a 5-ton sailboat, owned and operated by Aur natives, after a 70-mile journey limped into Majuro for badly needed supplies. During this period some emergency trips were made by air to outlying atolls to repatriate persons who had been hospitalized and laborers whose contracts had expired at the military bases.

When it became necessary to return native graduates of the administration's teacher training program at Majuro, so that the new educational program for natives could be started in the outlying atolls, Military Government was embarrassed by its lack of shipping facilities. Finally, a half-caste at Majuro, who owned an 18-ton ketch, contracted with officials to return the native students in his boat (operated by a half-caste skipper and Marshallese crew, and powered only with sail). A Military Government official accompanied the party on the first leg of the trip. The task was accomplished in three months in spite of delaying calms and strong currents.

In June 1946, the YF-1041 was dispatched from Kwajalein loaded with USCC trade goods for the atolls of Likiep, Wotje, and Ailuk. At the last minute, clearance was given by the port commander for the Likiep trip only, since the ship lacked adequate radio facilities to maintain contact with Kwajalein past Likiep (a bit over 100 miles). When the vessel reached Likiep all stores were offloaded. To notify the people of Wotje of the arrival of their goods at Likiep, two outrigger sailing canoes, manned with volunteer native crews, set out on a trip which normally took eight hours. The canoes became lost enroute to Wotje and spent 38 hours at sea before the atoll was sighted. From Wotje the same message was passed on to Ailuk by two other canoes; the natives at Ailuk own a 5-ton sailboat which was to transfer the trade goods from Likiep to both Wotje and Ailuk. But the Wotje people, having been without supplies for three months, cared not to wait for the Ailuk sailboat and launched eight outrigger canoes the next day, loaded with nearly \$4,000 in handicraft, all of which arrived safely at Likiep after a wet voyage of eight hours. During the next two months the Wotje canoes made two more round-trips to complete the transfer of their freight from Likiep. The Ailuk sailboat arrived at Likiep in a few days with several tons of copra and some handicraft for the USCC trader. After repairs to the boat had been effected, the sailboat departed from Likiep loaded down with trade goods; a second trip later in the summer was necessary to complete the transfer of supplies to Ailuk. All three atolls were visited by a properly equipped USCC ship two and a half months later.

It is now reported that the shipping situation has improved considerably with the addition of two LSM's which, with the old YF, are intended to maintain regular monthly schedules for all atolls in the Marshalls.

b. Communication. American personnel stationed in the islands express amazement at the rapidity with which news travels among the Marshallese. Word-of-mouth communication has been, and will probably continue to be, the principal means of news dissemination for the natives. Rumors and gossip spread whenever a native travels from one atoll to another; the total volume of news is in direct proportion to the number of transients. Personal messages and letters by hand are carried willingly by native travelers. Patients come to the Majuro hospital from all parts of the Marshalls; native laborers are drawn from many atolls for the camps at Kwajalein and Majuro; and native interpreters accompany Military Government and USCG parties on their rounds of the islands -- all of whom provide considerable opportunities for the rapid exchange of news.

In Japanese times, other means of communication were available to natives, but rare use was made of them except in the case of the postal service. A single postoffice, located at Jabor (Jaluit), served all of the Marshalls and operated under similar regulations as governed postal matters in Japan proper. Business handled at the Jabor postoffice included ordinary mail, parcel post, postal money orders, and postal savings. Mail was carried by steamers which afforded monthly service within the Marshalls and between Jabor and the outside world. Telegrams were accepted by the postoffice in Japanese and in any European language. Jabor was in wireless communication with Truk, Yap, and Palau; at Yap, connections were made by cable to Japan and foreign countries or to the Philippines and the United States. Rates for inter-island messages were lower than for those between the islands and Japan. Telephone communication at Jabor was restricted to official use. A single public radio station JBX was located at Jabor, although other stations were maintained in outlying atolls for military operations. Radio receivers for natives were not practical due to lack of power in the settlements for operation.

An official gazette containing changes in regulations for the notice of Marshallese officials was the only Marshalls publication. A few half-castes arranged subscriptions to German newspapers through Japan; one man was a member of the National Geographic Society and received its magazine regularly through the mail. Except for moving pictures shown occasionally in a wealthy native's warehouse at Jabor, there were no movie theaters in the Marshalls.

Under American administration, an irregular postal service operated by the Navy is the only medium of communication open to natives, other than by word of mouth. No postage is required within the Marshalls area. Native mail is addressed in care of Military Government at Eniwetok, Kwajalein, or Majuro and is distributed among the island populations whenever shipping is available. Individuals at Likiep subscribe to the Honolulu Advertiser and to one of the San Francisco papers, which are received by mail at long intervals. In the early months of American occupation, naval personnel who visited native settlements donated numerous back numbers of Life, Time, Newsweek, Saturday Evening Post, and Readers Digest, which were read from cover to cover by all natives able to read English. This source

of news has dropped to almost nothing due to the shipping situation this year. For a time, Military Government at Kwajalein published a very successful Marshallese News Review, in English and Marshallese, which consisted of a monthly digest of United States and world news and interesting local items. The selection of material was made by a Military Government officer and translated into the vernacular by a Marshallese assistant. Publication of this periodical ceased in February 1946 due to lack of facilities and personnel to continue the project. Marshallese may attend moving pictures at naval base screenings in Kwajalein, Eniwetok, and Majuro. On occasion, naval vessels on tour of the islands and equipped with 16 mm. projectors have given programs on shore for native enjoyment. Since most Marshallese are not able to follow the English dialogue, their favorite movies are the musicals and Westerns.

c. Distribution of trade goods. Trade between Marshallese and Europeans began with Kotzebue's first visit in 1816. From visiting ships, the natives secured European tools, utensils, and clothing by barter and by theft. The desire for foreign goods gradually developed to the point where the natives were willing to produce a surplus of copra to exchange for them. All trade was originally conducted by barter. For a period, twist-tobacco was the medium of exchange, but a missionary taboo against smoking put an end to that custom. By the end of the nineteenth century American, Australian, Mexican, and German currency had come into general use, but after 1900 only German currency was legally acceptable. In 1914, the German mark was replaced by the Japanese yen, which in turn has been voided in the Marshalls in favor of the American dollar.

Under German and Japanese influence the Marshallese have changed considerably from their aboriginal subsistence economy in the direction of a money economy dependent on the world market. With the money received from the sale of copra and other products, they have bought increasing amounts of foreign goods. By the end of the last century they were importing rice, ship's biscuits, tobacco, clothing, tools, utensils, guns, and building materials. The process was carried still further during the Japanese period. By 1941, bread and canned meat had become regular items in the native diet, clothing was almost exclusively made of foreign cloth, imported lumber and roofing materials were extensively employed in house construction, and tools and utensils of metal had almost completely replaced those of wood, shell, and fiber.

In 1861 Adolf Capelle was sent by the German firm of Stapenhorst and Hoffschlager (Honolulu) to establish at Ebon the first permanent trading station in the Marshalls. A few years later he entered into partnership with Anton De Brum, a Portuguese harpooner from an American whaling vessel. Their business was selling trade goods to the natives and buying coconut oil or copra in return. As Capelle and Company, they established headquarters at Jaluit, with trading stations at Ebon, Maloelap, Mili, and even at Penape in the eastern Carolines where an American, Charles Ingalls, was brought into the partnership. Other white men and half-castes were put in charge of these stations; trade goods were supplied from the German trading firm of Godeffrey and Sons, which covered the south Pacific from German Samoa.

For a time, Capelle and Company were the only traders in the Marshalls, but after Capelle had shown the business to be profitable, another German company entered the field; in 1877 Hershheim and Company (Hamburg) established a station at Jaluit in competition with Capelle's outfit. By 1880 both companies had their stations scattered through both chains of islands. Another country entered the lists when the New Zealand firm of Henderson and MacFarlane started a branch at Majuro to trade in southern Ratak.

Business reverses of one sort and another caused the Capelle firm to go into bankruptcy in 1893; all properties and interests, except the atoll of Likiep which had been purchased earlier from the natives, were transferred to the German firm of Deutsche Handels- und Plantagen-Gesellschaft der Südsee (in) Hamburg. The bankrupt trio retired to Likiep where they continued to trade with the natives of northern Ratak, in a partnership with the American Crawford and Company in what was called the "Tiernan Venture" — after their trading ship, the Tiernan.

In 1887 the German trading concerns merged their interests and founded the Jaluit Company. In return for assuming the costs of administration (Germany had established a protectorate over the Marshalls in 1885), the Jaluit Company obtained a virtual mercantile monopoly. Their principal competitors were the New Zealand firm and Burns Philp and Company, an Australian concern with extensive holdings in the southwest Pacific, which had entered the Marshalls about that time. In 1893, the American Crawford and Company was compelled to withdraw from the field; Capelle and Ingalls, as the three traders at Likiep called themselves, continued operations in northern Ratak as agents for the Jaluit Company. The Jaluit Company had trading stations throughout the Marshalls, in some atolls as many as 13 different traders (local natives or half-castes). It operated 80-ton sailing ships with German captains and motor mechanics and Marshallese crews, visiting each station monthly to leave trade goods and pick up copra. After 1900, the Company operated three or four vessels in the Marshalls, as well as one to the Gilberts and another to the Carolines. Despite the efforts of the Jaluit Company to shut out its "down under" rivals by levying exorbitant fees and export duties against them, the Burns Philp people remained in the trade and finally persuaded the Australian Government to protest to the German Government concerning the monopolistic actions of the Jaluit Company. In 1905, the German Government ended the monopoly of the Jaluit Company which continued, however, to trade in the Marshalls until 1914, when it was dissolved by Japanese occupation of the islands.

The years 1914 to 1922, when the Marshalls were under Japanese naval administration, are termed the "bad years" by the natives. During this period, the islands were opened up to individual Japanese traders who operated on a shoestring to make small fortunes overnight. There was no control of prices on imported goods until civil government was established in 1922. Thereafter, Nanyo Busshi Kaisha, which had been active in trade in the Marianas and Carolines under the Germans, became the major trading organization in the Marshalls. NBK received subsidies from the administration, enabling it to maintain the major steamship lines in the area, to

import most of the trade goods for natives, and to buy most of the copra for export. Burns Philp and Company, which had survived the German regime and had continued to trade under the Japanese naval administration, was finally forced to withdraw in 1922 when MBK came into the field.

While MBK had its stores in every atoll in the Marshalls, small independent traders (Japanese, Okinawans, Chinese) operated here and there on a minor scale. The more successful of these were Tairo Shoten and Marusi; others were Kaneko, Ishikuro, Hayayasi, Irumare, and Manisen. MBK, Taiyo, and Marusi usually built modern stores in charge of Japanese or native storekeepers who were paid by the company to sell trade goods and to buy copra from the natives. Smaller companies set up natives in their own homes with a stock of trade goods. MBK and a few other companies had their own ships for trading runs through the islands, but smaller traders put their cargoes aboard MBK vessels and paid the freight from Jaluit to outlying atolls.

At Likiep, the Capelle and De Brum heritage remains to this day. In 1914, the half-caste sons of the two Europeans were operating a store together at Likiep, but financial and other difficulties caused the partnership to be dissolved. In 1919, Anton De Brum, a son of the old Portuguese, returning from school at Jaluit with capital of his own and his brothers, established a new store, which continued to show a profit throughout the Japanese administration. With USCC today controlling the trade goods program in the Marshalls, Anton De Brum's store is the only one in the archipelago operating as a private enterprise -- the others are cooperatively owned by atoll councils or are held by USCC with a paid native storekeeper in charge.

d. Savings and credit. The Marshallese own little valuable property other than land, and are not in the habit of saving their money. Although they participate in a money economy, selling produce for cash and buying trade goods for cash, they rarely can acquire more money than is necessary for their everyday needs. When they do save, they usually hide their earnings in a cache near to hand. Exceptions were the chiefs who amassed considerable sums of money from their share of the copra produced by their subjects, and certain half-castes who managed a profit on private enterprises, such as copra plantations, stores, and ship yards.

Before the war, there were no banks in the Marshalls except the postoffice at Jaluit which offered facilities for postal savings. A small number of Marshallese took advantage of this service. Records of these accounts, held by the Japanese at Jaluit, were completely destroyed in the subsequent bombardment of Jabor. When American forces occupied the Marshalls, the small amount of Japanese yen then outstanding was exchanged for American dollars at the rate of 20 to 1, with a maximum limit of 1,000 yen per person. Few individuals, other than half-castes and native chiefs, had any yen to surrender. The present administration has established a Safekeeping Deposit System in which native laborers and others can keep their earnings. Some have used this service, since the shortage of trade goods in the islands has afforded natives little opportunity to spend money.

In March 1946, about a hundred depositors in the Marshalls had over \$6,000 in this fund, averaging \$50 to \$75 each. Most natives appear to be keeping any surpluses of funds in their own caches.

Extension of credit to natives was forbidden under the German administration except to native traders associated with merchant firms. This restriction was removed by the Japanese on the assumption that sufficient protection to the natives was offered by the law preventing the mortgage of land. Storekeepers and copra brokers at that time were accustomed to advancing limited credit to natives, usually in goods rather than in cash, in expectation of payment from future crops. This practice was never carried to excess since the natives, possessing little property except their land, could offer no security against their debts. The American administration discourages the extension of credit to Marshallese, but native storekeepers continue to advance small amounts of trade goods on a promise to pay when local handicraft and copra is next purchased by the USCC trader.

e. Vocational education. Techniques of making a living are still acquired by Marshallese through informal education within the family and community organization. Practical knowledge -- the construction of canoes and houses, the production of copra, the lore of fishing and agriculture, the techniques of cooking and making clothes, and the arts of handicraft -- is gained mainly by association with and instruction from parents and other adults during the routine performance of daily tasks. Formal education under the Japanese, and under the Americans since the war, has emphasized the non-technical side of living.

The Japanese had established three public schools for native children in the Marshalls -- at Jabor (Jaluit), at Wotje, and at Kwajalein (transferred during the war to Namu). A regular three-year course was given at each school, with an additional two-year advanced course only at Jabor. The curriculum of the elementary schools stressed the teaching of Japanese language, half of the classes being devoted to that subject. Remaining hours were taken up with arithmetic, music, physical exercise, and some manual training, agriculture (for boys), and housekeeping (for girls). In the advanced course more time was given to the last three subjects, less to the teaching of Japanese. Although there was no vocational school in the Marshalls, special courses were offered at the Jabor school in handicrafts, such as fishing nets, needlework, fans, mats, and woodwork. Every six months the students' work was displayed at the school and afterward sold to the public, the proceeds being returned to the young artisans. The handicraft is said to have been of good quality. Some Marshallese boys were also sent each year, after 1926, to the Apprentice Woodworkers Training School at Palau, which gave courses in building materials, tools, workmanship, mechanical drawing, and designing. In 1938, 14 boys from the Marshalls had graduated from the two-year course at this school, and six of them had taken an advanced course for an additional year.

Marshallese children were also free to attend the "church schools" which were conducted in the atolls by native pastor-teachers trained under the supervision of the Boston Mission. Instruction in these schools emphasized the arts -- literacy in Marshallese, music, and some arithmetic and geography.

Today, the Marshallese are eager for education, particularly in the vocational field -- in subjects such as carpentry, motor mechanics, and needlework. While the natives recognize the desirability of subjects such as history and geography, they decri their usefulness in the isolation of island settlements. During the summer of 1946, Military Government initiated an educational program for the islanders in which atoll schools were to become fairly well standardized. Native teachers were trained in classroom techniques at the Teachers Training School at Majuro, and were returned to their home islands to assume charge of the schools. Attendance is compulsory for pupils between the ages of 7 and 14. The curriculum consists of hygiene and sanitation, music, writing and drawing, spelling, Marshallese, history and geography, and English. There is no provision for vocational training.

f. Social welfare. Judged by Western standards, the Marshallese have a relatively low standard of living. Under German and Japanese administration, they had begun to benefit from their contact with the Western world. The natives were given opportunities, limited though they have been, for education and recreation which formerly did not exist. Housing conditions were improved. The people were provided with health and sanitation services. Earned income permitted the purchase of clothing, household articles, trinkets, imported foods, and production tools. Their wealth in terms of money and other material possessions was not great before the war, and has now shrunk to a minimum as the result of war damage and devaluation of the Japanese yen. Nevertheless, their previous acquaintance with Western technology and their desire for better things has put them in a frame of mind to anticipate an improved standard of living under American administration.

The Marshallese have had no experience with private relief agencies, welfare organizations, or social insurance. In the case of poor and needy individuals or families, relief has been provided according to their customs of hospitality and to the philanthropy of the chiefs. The source of aid depends a great deal on kinship ties, even to relatives in distant atolls. As long as mobility within the Marshalls is assured in terms of transportation and communication, there is little chance for anyone to starve or to suffer unduly from want. Orphaned children are readily adopted by friends or relatives, and cared for as they own. Today, public health and medical care are the responsibility of Military Government, and some of the burden of local native assistance is correspondingly lightened.

The Marshallese have always considered dancing, singing, and sports as important recreational activities to be indulged in on every occasion. The missionaries objected to the native dances, which often

represented sexual behavior, and even today expell church members who participate; on the other hand, the church has encouraged the native aptitude for song in the development of choral and group singing. The Japanese promoted sports, baseball in particular, and American administrators find that natives need little direction in organizing their own sports festivals — curious combinations of aboriginal, Japanese, and American customs.

## B. NATIVE REQUIREMENTS

### 1. Principles

As the result of war in the Pacific and the increased contacts between natives of Oceania and the Western World, radical and fundamental changes are taking place in the basic ideologies relating to the administration of dependent peoples. Colonial policies throughout the Pacific are in the process of reorganization. The old colonial system, which is characterized by racial discrimination, economic and political subordination of natives, poorly developed social services (especially education), and lack of social contact between ruling class and subject people, is being critically reviewed. National responsibilities for dependent territories have assumed an international character and are no longer domestic affairs. It is regarded in poor taste to continue to argue that natives are innately lacking in organization and technical abilities and thus incompetent to operate their own productive and distributive enterprises.

In the Japanese Mandated Islands the United States has inherited a colonial venture in which the Japanese combined a half-hearted attempt to assimilate the native population with an intensive economic exploitation of the area's resources. Natives have had little chance to attain positions of economic responsibility, and the profits of large-scale enterprise were reserved for the ruling caste. Social services left much to be desired, and education was not adequate to the real needs of the people. However, the German and Japanese administrations have reduced the barriers of cultural isolation. Not only have natives become used to Western foods, clothing, building materials, utensils and tools, but they have learned about social and economic conditions and trends in other parts of the world, especially in America.

Any consideration by the present administration to revive in the islands a completely self-sufficient economy, as indeed existed in pre-European times, would be unrealistic as well as unfavorable by comparison to practices and policies in operation elsewhere in the Pacific. Today, the natives in the Marshall Islands, reduced to poverty and used by the ravages of war, reflect on their comparatively affluent condition under the Japanese, and look forward to even higher levels of real income and standards of living under American administration.

In defining native requirements for consideration in any economic planning for the Marshall Islands, the immediate objective shall be a

return as quickly as possible to the level of real income and the standard of living which prevailed during the last decade of Japanese rule; the long-range objective, in view of the United States' espousal of the principles of trusteeship which were written into the United Nations Charter, shall be to provide the Marshallese with ample opportunities for improving their social and economic welfare beyond that which characterized the islands under the Japanese.

## 2. Specific Needs

a. Food. While the majority of Marshallese are presently provided with adequate food resources, certain measures should be considered to increase both quantity and quality of resources and to encourage their greater utilization in a better balanced regime. Special attention should be given to northern atolls such as Rongerik, Wotho, and Eniwetok where extreme climatic conditions restrict populations to only marginal returns from a limited number of crops. Relocation of these natives to more favorable atolls in the south is not recommended because of the strong emotional ties which bind Marshallese to their home islands; rather, any effort should be directed at improving the available food resources.

The Marshallese should be encouraged to increase their plantings of breadfruit, pandanus, coconut, papaya, banana, arrowroot, and taro. The first three trees are also needed in larger quantity for building materials and handicraft. Certain war-damaged areas require considerable replanting. Places like Mejit and Ailinglapalap had only small stands of trees destroyed by bombs; at Wotje and Jaluit, entire islands were denuded. Temeing, paramount chieftain in northern Ratak, has drawn up detailed plans for resettlement of Wotje Island. When all live bombs have been finally removed by naval bomb disposal teams and the shell craters filled with the aid of a couple of bulldozers, pandanus seedlings and coconuts will be planted along the outer shore to form a protective windscreen of vegetation for less hardy flora, such as breadfruit, banana, and papaya. All labor will be contributed by Wotje natives who will meanwhile, with the assistance of relatives, subsist on resources from other islands in the atoll. Best quality seedlings for replanting are to be imported from other atolls when shipping is available for the task. It is estimated that the breadfruit trees will begin to bear fruit in two or three years, pandanus in four or five, and coconut in seven to ten years.

Natives should be encouraged to cultivate more garden crops than they do at present. Japanese military personnel during the war demonstrated what could be done in the islands in the successful cultivation of sweet potatoes, pumpkins, cabbage, corn, and tomatoes, but the natives have failed to maintain these gardens because they have no appetite for such vegetables. Although it is recognized that the habits of a people are difficult to change quickly, an educational program to stimulate the cultivation and consumption of vegetables might produce results in long-range terms. As the natives view the matter, one disadvantage to gardening is the considerable effort which has to be put forth for returns not immediately perceptible. A multiplicity of tasks have to be performed daily, and those which bring no immediate satisfaction are most apt to be overlooked.

Admitted that the soil of coral atolls is not conducive to good crop production, a few possibilities exist for its improvement in the Marshalls. The natives are in the habit, probably acquired for missionaries for sanitation purposes, of cleaning up the ground on their plantations -- either burning the accumulated coconut husks, dried palm fronds, broken branches, and leaves or burying them in large pits. These pits are covered with dirt and, some time later, are planted to banana and papaya with good results. Agricultural experts, however, recommend that more benefits would accrue to the plantations if the refuse were allowed to decompose where it fell to provide rich humus for the infertile soil. The Japanese are said to have encouraged this practice, but the Marshallese preferred to have their lands look cleaner. Nevertheless, when an American administrator demonstrates to the natives the desirability of such a measure, it is likely they will cooperate.

Small deposits of phosphate and guano exist on some of the Marshall Islands. The Japanese investigated their possibilities and were actually engaged in exporting phosphate from Ebon to Japan when the war started. It is recommended that these deposits be exploited where feasible for the further enrichment of soil in those islands which need it most. In cases of extreme need, rich volcanic soil from Ponape and Kusaie might be imported and mixed with the coral soil. This feat had been tried with some success for small garden plots, prior to the war, in coral atolls south of the equator.

Natives should be encouraged in the greater utilization of their present plant resources, especially as regards the preservation of breadfruit, pandanus, and arrowroot, to tide them over the lean months. In Majuro, Arno, and other southern atolls, these food reserves are being neglected because the inhabitants lack ambition to process their surplus crops, secure in the belief that the administration will supply relief foods when the need arises. It is true that considerable work is involved in preserving these foods, but it has always been in the Marshallese tradition to do so when left to their own resources.

Fish can usually be obtained in adequate numbers anywhere in the islands, but at present a dire need exists in most of the Marshalls for fishing equipment: fish-hooks of all sizes, fish-line, twine for seines and throw-nets, lead sinkers, steel leader-wire, brass swivels, feather fish lures, spoons, and 3/8-inch iron rods for making fish spears.

Stocks of poultry and swine are extremely low. Present resources are generally less than one-fifth of those which prevailed prior to the war. It is recommended that this source of food be reconstituted by the introduction of breeding stock to equal the pre-war estimates: 50,000 chickens, 5,000 ducks, 1,000 turkeys, and 5,000 pigs. This would provide each family of five with fifteen chickens, two or three ducks, an occasional turkey, and two or three pigs. If the Marshallese can be persuaded to give more care to their stock, provide protective shelter for poultry and feed them regularly rather than turn them loose to forage for themselves, these resources, together with fish, should satisfy the meat needs of the people.

There is no concern in the Marshalls over the drinking water supply, because natives depend almost entirely on the milk of green coconuts and on jakaro (the sap obtained from the coconut efflorescence), both of which appear to be available in sufficient quality for present needs.

Many imported foods are desired for emergency use, to be purchased only when native food is not readily available, as for meals on Sunday when religious observance forbids work of any kind, during inclement weather or when poor luck accompanies any food collecting activity, and particularly for wage laborers and their families, in which case the man is unable to provide native food in the customary manner and buys packaged food from the store as a substitute. In some instances, imported food constitutes an outright luxury, with some prestige value to the consumer but, aside from rice and flour, natives do not generally spend their hard-earned money for store food unless island resources fall low. Flour and rice have become as essential to the native diet as meat and potatoes are to an American. Other items considered by the natives as desirable but not essential are canned beef, salmon and sardines, sugar, hard biscuits, coffee, tea, canned milk, soy sauce, bean curd, onions, potatoes, and salt. The USGC now provides the natives with rice, flour, sugar, stewmeat, salmon, pilchards, salt, coffee, tea, biscuits, and cigarettes, but all in rationed quantities. Natives have asked that one-pound cans of food be sold in the stores rather than the five- and ten-pound cans released from Navy mess stores, as the latter involve considerable waste.

Prior to the war, tobacco was smoked by relatively few natives because of a mission taboo against its use. But, as the result of association with American service personnel and the ease of obtaining tobacco at the military base camps, this habit has gained widespread popularity among Marshallese men throughout the islands. The appetite for cigarettes is as real for the Marshallese today as for the average American. There appears to be no good reason to deny them tobacco if they have the money with which to buy it.

Some consideration should be given to the fare of native laborers at military base camps. At present they receive practically the same food as enlisted men. On the one hand, this is a factor in creating new appetites for foreign food; on the other hand the fare is often unsatisfactory to native palates, as witness the incident which occurred at Majuro this summer. The camp had received no rice rations for several months, and native laborers were being served macaroni and spaghetti instead. They became so satiated with the substitute that they spent their leisure time collecting breadfruit and pandanus from adjacent islands and catching fish on the reefs, eating them raw. Experiments should be made in the native messes with native foods, the administration purchasing breadfruit, fish, and other items from natives outside the camp.

b. Clothing. For the Marshallese there can be no return to the aboriginal styles of dress nor any resort to island resources for materials. All clothing must be imported and purchased at the trade store. In the three years that Americans have occupied the Marshalls, considerable service

apparel has found its way into the hands of natives -- by salvage, by ration to laborers, by trade with military personnel, and by purchase in the trade stores. As an emergency measure the native has accepted service clothing with good grace, but a number of Marshallese have complained recently that they would like to wear civilian clothes again, instead of dressing up in fatigue greens and field shoes. Clothing and sewing materials have been scarce commodities thus far, in the Marshalls as well as rest of the world; it may safely be said that the Marshallese are at least covered, but in some islands women have to fashion dresses from discarded mosquito-netting, and children run about wearing no more than an old undershirt.

Cloth for women's dresses and undergarments is the No. 1 scarcity. USCC has been distributing calico on a rationed basis of about two yards per woman every two or three months, which doesn't allow much leeway when some dresses require four or five yards and undergo the wear given any working woman's clothing. Women continue to clamor for more cloth in all of the islands and make trouble for the storekeeper whenever a shipment arrives in the atoll. Any color or design in cotton goods is acceptable for everyday wear, although some variety is hoped for, and some white, satin-like material of inexpensive quality would be appreciated for Sunday dress. Catalogs of patterns and ready-made dresses should be introduced into every community to answer the demand for information about American styles and to educate the women away from the voluminous "Mother Hubbard" fashions.

Sewing needles are in good supply, but needles and parts for sewing machines are in great demand. In the village of Imroj (Jaluit), for example, there are twenty German hand-cranked models which rest on the ground, but many of them are worn out or have essential parts missing. German machines require a needle with a different shank than do American models, but natives find little difficulty in adapting American needles with a few strokes of a file. The Marshallese find it hard to accustom themselves to American sewing machines equipped with foot-treadle, and yet they are willing to buy them, despite the fact that machines on sale in USCC stores last summer sold for \$80, far more than most families could afford; the natives recognized the good quality of the machine and knew it would last a long time. When USCC traders suggested that the machine be purchased on a community basis in order to distribute the cost, natives reckoned it would be better for an individual to buy one and loan it out, otherwise the divided responsibility would probably result in poor care of the equipment.

Thread for general sewing is required mainly in Nos. 40 and 50, either white or colored. Especially desirable is embroidery cotton of all colors for the fancy work with which all women want to adorn their garments. Crochet needles and white crochet thread are also scarce; they are used for the beautiful lace borders on feminine undergarments. Buttons are not in much demand, as a rule being used only for men's clothes.

Ready-made wear which should be on store shelves includes men's clothing and a few odd items for women and children. Tiring of military clothing, Marshallese men want civilian trousers, open-collared sport shirts (long or short sleeves, white or mixed color or striped), undergarments (shorts and shirts), sweaters for cool nights on the water, and socks. Shoes for men should be GI field shoes, canvas sneakers, and a few oxfords for Sunday wear. Men's sizes run about seven to nine; a few women would like plain oxfords or sneakers, but need the greatest possible width and sizes six or seven in length. Men liked the Japanese tabi, or canvas-topped fishing shoe, which sold for about ¥.80 to ¥1.50. Umbrellas and rain gear are in great demand in the wetter parts of the islands.

Jewelry would be purchased if stocked -- rings, screw-type earrings, heart-shaped lockets, clips, brooches, ornamental combs, but only a few bracelets. Men ask for barber's equipment -- hand clippers, combs, scissors -- and straight-edge razors, brushes, and shaving cream. Both sexes want toilet soap, perfumes of all scents, hair oil, scented pomades, shaving lotions, and shampoos. Fancy silk handkerchiefs, are prized, but should be plain because the women will want to add their own designs in colored thread. Women have already adopted the use of sanitary napkins in limited numbers; probably most individuals still rely on old cloths, but an order of 48 packages for 125 Wotje women between the ages of 13 and 45 was thought inadequate for two months needs.

Laundry soap is greatly needed throughout the islands, and women ask for blueing as well. Flat-irons for pressing are few in number, but are in constant use through borrowing. Men ask about shoe repair, the only facilities at present being those at the military bases. Before the war, one man made a good income repairing shoes at Jaber; with the increased wearing of shoes today, several natives could be kept busy if they had the necessary shoe-repair equipment.

c. Tools. Tools and implements of all kinds should be given a high priority to revive Marshallese production activities. They are needed for house building, canoe construction, agricultural rehabilitation, and handicraft production. Not any kind of tools should be sold to Marshallese; they want good quality from America, and most of them have the money, earned from handicraft sales, to pay for tools answering their specifications.

For carpentry work, men want rip and crosscut hand saws, two-man long saws, but no bucksaws; planes of all kinds and chisels of all sizes -- flat, round, a few V-shaped; scrapers and files -- flat, triangular, and round; adzes -- a special kind with 3/8-inch raised sides to prevent splitting the wood when cutting across the grain; and whetstones and grindstones to keep these cutting tools in good edge. Other tools just as essential include claw and ball pein hammers, pliers, screw-drivers, carpenter's rules and tapes, levels, steel and try squares, bevels, hand drills and bit braces with a good assortment of drills and auger bits, C-clamps and long cabinet clamps, and bench vises for small work. The natives are short of galvanized common nails (3d to 20d), flat-head screws (3/4-inch to 3-inch), bolts of assorted lengths, copper tacks for putting canvas on canoe parts, and copper nails up to 3-inch for canoe construction.

Pocket knives of good quality are desired for general handicraft. In a few atolls, coping saw frames and fine jeweler's blades are necessary in the production of wood and shell inlay; at Likiep last summer, a shortage of blades was temporarily solved when natives filed teeth in discarded metal springs. Sandpaper and emerycloth of assorted grits and joint glue are also needed in small quantities.

For work about the yard and in the plantations, natives require long bush machetes (14 to 16 inches in length), short 6-inch copra knives, long-handled round-pointed shovels for digging pits, short-handled square-pointed shovels for mixing cement, round-pointed spades for work in the taro trenches, rakes for cleaning up yards and roadways, and hatchets and single-bit axes for collecting firewood and removing old or dead trees.

d. Machines. There is a very limited need for power equipment in the Marshall Islands: for small sawmills to cut lumber from local tree resources, for charging of storage batteries in the maintenance of two-way radio communication among the atolls, for small factories which may be set to process copra and coconut fiber, and, very remotely, for furnishing electric light for communal use. At present there is no communication by radio, nor any electric light except as provided for military use, lumber for house and canoe construction is sawed laboriously by hand from breadfruit, pandanus, and native hardwood logs, and the few factories which were in operation at Jaber before the war now lie in ruins.

In considering the introduction of machinery for native use, several factors should be kept in mind. Tropical climatic conditions are not easy on machine parts; the natives are not expert in the maintenance and repair of machine equipment; extra parts will be difficult to obtain in case of breakdown; and the cost of installation and upkeep of machinery must be held to the minimum within reach of natives with little cash income. The advantages of machine labor over hand labor must be carefully weighed in terms of eventual return to the native population.

In the case of factory equipment, which involves engineering problems dependent on local conditions, the advice of experts in that field should be sought as to the possibilities of establishing local processing plants in the Marshall Islands.

The islands receive a steady northeasterly wind most of the year, which might well be harnessed through the use of wind chargers. Some of the large mail-order houses advertise a wind charger for about \$50, which is capable of generating 200 watts or 5 volts to keep a radio storage battery continuously charged and to furnish additional power for a few electric lights. The Hudson's Bay Company in Canada has successfully equipped each of its isolated trading posts with these wind chargers for maintaining two-way radio communication equipment. They are easily installed and involve little or no cost of operation. It is recommended that serious consideration be given to the possibilities of wind power.

In no case would a wind charger be able to generate enough power for machine operation. Small gasoline engines operating at low cost would have to be adapted to run light, low-priced sawmill equipment such as individual wood-lot owners in the United States use to saw their own lumber for personal use or for sale. In some instances, the savings in man-hours of labor would be worth the investment and the cost of operating such machinery; generally, however, it would not, and it is not contemplated that more than a few Marshall atolls would be equipped with a sawmill.

e. Vehicles. The Marshallese, almost entirely dependent on water transport as they are, have no real need for automotive equipment. There is a demand, however, for two-wheeled pushcarts of the type introduced by the Japanese for carrying burdens on the plantations and in the villages. These carts are equipped with light, rubber-tired, spoke wheels, not unlike those used on bicycles. Of the nearly 200 vehicles of this kind, which the natives owned before the war, only a few remain in use — tires have deteriorated, wheels are bent, and spokes are lost or broken. The people ask if more pushcarts can be purchased. It is possible that these could be imported from Japan for sale to the natives; otherwise, if provided with ordinary bicycle wheels, axles, and tires, the natives would be willing to build their own carts.

During Japanese times, the Marshallese possessed nearly 400 bicycles. These were used on the village streets, which often extend for several miles, for errands and for sport. Today only a few bikes can be operated. They need new tires and tubes (sizes 26 and 28), new wheels, spokes, coaster brakes, pedals, forks, roller chain, saddles, handlebars, and wire carriers. Bicycles should receive a lower priority than pushcarts, however, since the latter type of transport is an integral part of modern Marshallese economy, while bicycles are not.

f. Water craft. Since water transport assumes such an important role in Marshallese economy, the rehabilitation of canoes and sailboats should be given the same priority as clothing and housing needs. Of pre-war native craft, well over half were scuttled by American strafing and Japanese sabotage. Today, the Marshallese are building new canoes and reconditioning old native and Japanese sailboats, but shortages of lumber, canvas, rope, and hardware handicap their efforts. Military Government and USCG have boat-building programs under consideration, which are aimed at the revival of native inter-atoll shipping, but little headway had been made by September 1946 due to equipment shortages and lack of organization. In any case, construction of outrigger canoes for local use was left to the natives' own industry and ingenuity to make shift with materials which they had at hand. The Likiep half-castes' boat-construction activity will be described later as a local industry which may serve as an additional source of income.

Canoe building requires special tools, all of which are few in number in the islands today: an adze with low raised edges to prevent splitting the wood when cut across the grain, designed for the natives in German times and manufactured in Australia; a round gouge with sharp edge

on the outside of the blade (this and the adze are both hafted by native canoe-makers according to their own preferences); and a hand drill for making the small holes through which sennit lashing is passed to join the wood pieces. The administration has considered the installation of a power saw at Likiep, but hand sawing of canoe timbers will suffice at other atolls.

For the most part, wood can be obtained locally -- breadfruit logs for hulls, and such native hardwoods as lōgwij, kirin, and kōno for braces and special parts. For masts, booms, and planking, the Marshallese have in the past resorted to Oregon pine and Japanese woods from Ponape, either specially imported or salvaged from shipwrecks and driftwood. Today, a small supply of timbers has been salvaged from Japanese and American military bases. At Likiep stand two unfinished canoes for want of planking, the hulls covered part way with Japanese  $\frac{1}{2}$ -inch cedar boards and American 1-inch pine. Pine boards are regarded as too heavy for boat construction and too full of knots, which fall out when canoes dry out on the beach; but pine is used in the absence of anything better.

Sailcloth is a precious possession in the islands today. At Aur Atoll, 13 newly-built canoes lie idle in the villages due to lack of sails, and 12 pre-war canoes need new canvas badly. At Likiep, one sailor trimmed down an over-weight sail salvaged from a scuttled sailboat, to make shift on his outrigger canoe for a few more months. It is estimated that 30 or 40 yards of 28-inch canvas are required for an average canoe-sail. The natives use 7- and 8-oz. canvas for ordinary canoes, 8- and 9-oz. for sailboats of the sloop variety, and 10-oz. for larger vessels like the eighteen-ton Mera.

Other essential imports for which it is difficult to find substitutes in the islands are: fiber rope of 1/4-, 3/8-, and 1/2-inch diameter, steel wire rope of 1/4-inch size, brass and copper wire for wrapping rigging, galvanized thimbles for fiber and wire rope, one-eyed wood blocks with single or double sheave, caulking compound, tarred oakum, or putty, outside and copper paint, linseed oil, and turpentine.

At the present, no native craft in the Marshalls is operated or equipped with motor power. The Atoll Commander at Kwajalein has considered putting a Gray Marine engine in the ketch Mera as part payment to its owner for assistance rendered in transporting native teachers to the homes this past summer when the Navy was unable to detail a vessel for that purpose. Native skippers advise, and experience seems to support their arguments, that any sailboat of 30 tons or over should be equipped with auxiliary engine for maneuverability in dangerous passes and for ensuring headway against strong currents or during periods of calm.

For inter-atoll voyages, reliable compasses are needed for safety sake. In the old days, Marshallese navigators knew how to find their way across stretches of open sea by resorting to their knowledge of the sea's eccentricities, but few of the old navigators are still alive, and younger sailors have not bothered to learn the old arts.

g. Shelter. As the result of population dislocation and housing destruction during the war, the restoration of shelter facilities becomes one of the principal problems of rehabilitation in the Marshalls. Today, most of the Marshallese have returned to their home islands and are engaged in rebuilding their dwellings and other structures. A shortage of building supplies has handicapped them severely. Where local materials, derived from breadfruit, pandanus, and coconut trees, have not been sharply curtailed by war damage, they stand in immediate danger of being reduced to a fraction of their normal availability under the heavy demands for mats, thatch, and structural timbers. In the existing scarcity of modern building supplies, even the 25 percent of natives who, before the war, owned houses in a modified Western style are now compelled to rebuild homes with native materials as temporary substitutes.

The unfortunate side of the Marshallese housing situation is that not only do the pre-war owners of modern type dwellings expect eventually to duplicate their previous facilities, but many other natives who formerly dwelled in thatch housing now want to build Western -- to occupy more permanent, more sanitary, and generally more useful frame dwellings. Some families have been able to salvage limited amounts of iron roofing, cement, siding, and scantlings from leveled Japanese installations or from surplus stocks at American bases. Even at that, some native settlements are actually little more than temporary erections of sheets of rusted iron roofing and scraps of worn canvas, hastily thrown together as shelter for people and their belongings in anticipation of that time when more permanent structures can be built.

It is recommended that, wherever it has not already been done, all surplus building supplies at evacuated or reduced military bases in the Marshall Islands be made available to needy natives for their housing requirements. If necessary, further provision should be made to furnish transportation to distribute these supplies among the population. Such materials as iron roofing, cement, and lumber should be invested only in permanent housing, and not be used for temporary shacks in areas where more durable buildings are intended to be erected at a later date.

For permanent housing of the modified Western type, the Marshallese need scantlings, siding, planking, cement for cisterns and flooring, corrugated iron roofing, galvanized iron piping for rain water, outside house paint, nails, screws, hinges, and some glass for doors and windows. Some of these items are not essential for the present, but should be included as part of any long-range program for reasons of public health and consideration of native predilections. The usual tools required in building construction are not present in the islands in sufficient quantity for the building program which lies ahead of the natives.

Not only have the Marshallese become accustomed to modern housing, but also to the furniture and furnishings which usually go with it. Most of the following requests from Marshallese individuals stem from wants which were satisfied prior to the war; thus, it cannot be argued that these are "luxury items" and completely "non-essential to the primitive

needs of simple natives." Chairs, tables, benches, shelves, chests (with brass butt-hinges and padlocks) will be fashioned by the men if lumber and hardware are available. Local native woods do not lend themselves to this kind of manufacture, being twisted and knotty and providing no great length or width without considerable waste. As for lighting, the Marshallese are satisfied with kerosene lamps and Coleman lanterns, although the supply is still too meager and parts are needed for replacement -- glass chimneys and globes, mantles, and wicks -- not to mention kerosene. Whether natives continue to roll out their sleeping mats on the ground or on iron bedsteads, they want and need light-weight single blankets, to keep off the chill of the night air, and white sheeting for bedsheets and pillow cases.

In the cook-house the requirement for more utensils is a real one: saucepans, fry pans, kettles, tea pots, meat grinders, coffee grinders, plates, cups, glasses, spoons and ladles, butcher knives, can openers, and a few table knives and forks. Many natives ask about a future supply of charcoal braziers, which the Japanese introduced for cooking and sold in large numbers but which are now wearing out with continuous usage. Other families would like a wood range with large oven for more convenient baking than is possible in the tedious earth oven.

In the bath-house, enameled basins, galvanized iron pails and washtubs are in demand far above the present supply. Towels of all kinds are required in greater quantities than are being received. In some cases, cisterns could be equipped without difficulty with small utility hand pumps to ease the woman's arduous chore of drawing water periodically throughout the day for the needs of the household.

**h. Transportation.** Transportation is the pillar on which any economic program for the Marshall Islands must be founded. Without it, as demonstrated this past summer, trade goods cannot be distributed, native copra and handicraft cannot be collected for export, normal economic activities in the atolls are seriously disrupted, there are no facilities for inter-atoll passenger traffic and mail, and regular official inspections can not be made. The transportation necessary to maintain economic stability in the Marshalls must be water borne; special or emergency situations can be handled by air transport.

To consider the requirements of water transport: on the basis of facilities which were available to natives before the war, a regular schedule of contacts with each populated atoll or isolated island should be maintained for freight and passenger service. At least monthly service should be provided, both within the Marshall Islands and between a central point like Kwajalein or Majuro and the outside world (Ponape, Kusaie, Guam, Tarawa in the Gilberts, and Honolulu). Regularity of schedules prevents unexpected supply shortages and copra spoilage in the islands and establishes a feeling of security among the Marshallese.

Every consideration should be given to the participation of native seamen and ship-owners and the utilization of native shipping, in order to increase the responsibility of the Marshallese in managing their own economic affairs and to augment their income through wages, commissions,

or profits from private enterprise. The degree of integration of native resources within the administration's program for transport will depend, of course, on local conditions and developments. Some training will be necessary for natives employed on ships equipped with engines and radio, but there already exists a vast reservoir of able native seamen who are familiar with sailing-ship routine, and a few individuals with experience as skippers, navigators (by modern methods), and motor mechanics gained through employment on German and Japanese vessels. The use of sail is recommended wherever possible in order to exploit to the full the resources of trained personnel in the islands, to add to the native income, and to reduce the overall cost to the administration for transport facilities. Closely allied with the employment of natives in transportation is the boat-construction industry at Likiep, which is being considered by the administration as another resource which the Marshallese may utilize in their own rehabilitation.

It is recommended that a program such as that outlined below be put into operation to facilitate the recovery of the Marshallese and to give them an opportunity for advancement in economic responsibility. Three phases are suggested: emergency (the present), interim (the next year or two), and final. The emergency period would require administration shipping (naval vessels manned by service personnel) between headquarters and the atolls, with little participation by natives except at the atoll level. This is practically the same situation as exists in the Marshalls at present, whereby USCC traders and Military Government officers contact each atoll by naval vessel. However, as native small-boat facilities are reestablished, the administration operations would be curtailed to the point where contact would be made with a few sub-stations, and the natives would carry on from there to the outlying atolls in their five- and ten-ton sailboats, owned and operated on a community basis. According to this plan, no atoll vessel would be required to make an open sea voyage of more than 100 miles and return, a trip which can be accomplished without great danger or difficulty. The final step in the program would replace the combination of administration responsibility and native participation of a communal basis, by a system whereby all shipping would be organized as a private enterprise, with native middlemen and ship-owners assuming responsibility and dealing with the native populations at the atoll level. Actually the third phase is similar in organization to the first, except that native private enterprise is substituted for the administration; this change should be effected as soon as larger sailing craft can be constructed and placed in the hands of native entrepreneurs.

In detail, the first phase would be implemented as follows. A central station would be established at Kwajalein (the geographic center of the Marshalls) or at Majure (the population center of the islands) to which all trade with Guam, Honolulu, or the West Coast would be channelled. From a warehouse at this central location, two administration vessels (Navy LSM's are in use at present) would service the archipelago on a monthly schedule. One vessel, operating out of Kwajalein, would make the northern run through Lib, Namu, Lae, Ujae, Wotho, Eniwetok, Rongelap,

Rongerik, Likiep, Wotje, Ailuk, Utirik, Mejit, and Kwajalein -- fourteen calls and 3,682 Marshallese inhabitants. The other ship, based at Majuro, would take the southern run through Arno, Mili, Aur, Maloelap, Jaluit, Ebon, Namorik, Ailinglapalap, and Majuro -- nine calls but 5,843 natives. The vessels would make overnight runs between stops, averaging about two or three days at each port to offload trade goods, mail, and passengers, and to pick up copra and handicraft, other mail, and passengers. Administrative and medical officers would accompany the trader and conduct their business ashore while the trading was in progress. The northern run is characterized by longer distances between atolls and by smaller populations, but the total time consumed would not be appreciably different from that required in the southern run where distances are shorter but the larger populations involve larger shipments of goods.

The second phase of the program would involve the transfer of a share of the shipping to the atoll populations, who would service themselves with their own sailboats through contact with native warehousemen or storekeepers at six different sub-stations. These sub-stations, chosen in such a way that no atoll ship would have to make a round trip of more than 200 miles, would be serviced in turn by a single administration vessel (Navy LSM) operating monthly out of Kwajalein or Majuro headquarters. Some outlying atolls would find it easier to get their goods through the storekeeper of another atoll nearer the sub-station, but these cases are few. Thus, Kwajalein would be the sub-station for Namu, Lib, and Lae (Wotho and Ujae through Lae); Eniwetok (stands alone because of its extreme isolation from the rest of the Marshalls); Rongelap for Rongerik; Jaluit for Ebon, Namorik, and Ailinglapalap; Majuro for Arno, Mili, and Aur (Maloelap through Aur); Likiep for Wotje and Ailuk (Utirik and Mejit through Ailuk). This allocation is based on historical centers of population and their relationships with adjacent atolls. The native warehousemen or storekeepers at the six sub-stations could be paid a salary by the administration, or better still, could be given a commission for all goods which passed through their hands in order to reward them in proportion to the volume of traffic. The Atoll Councils which operate their own stores and boats would obtain a proportionate discount for freight and handling.

The final stage of the program would place all water transportation which served Marshallese entirely in the hands of natives on the basis of private enterprise, controlled and operated by several groups of native entrepreneurs, or by a combination of private enterprise and communal cooperation at the atoll level. In this phase, only four sub-stations would be established -- Kwajalein, Likiep, Majuro, and Jaluit. Eniwetok would be eliminated as it could better be supplied directly as part of the military base located there, and Rongerik and Rongelap would be drawn into the Kwajalein area. From these four sub-stations, Marshallese atoll stores would be supplied by four sailing vessels, 60 or 80 tons apiece, equipped with auxiliary engines for greater efficiency, manned by Marshallese seamen, and owned and skippered by private individuals or family cliques, to provide a greater motivation for efficient and profitable operation. Trade goods would be purchased at the administration warehouse at Majuro or Kwajalein by the native entrepreneurs from the sub-stations, and distributed by sailing vessel to the atolls and isolated

islands within their respective areas, or retailed to the atolls populations on a cash and carry basis at the sub-station as in phase two. Suggested zones of operation are Kwajalein -- Lae, Ujae, Wotho, Rongelap, and Rongerik; Likiep -- Wotje, Ailuk, Mejit, and Utirik; Majuro -- Arno, Mili, Aur, and Maloelap; and Jaluit -- Ebon, Namorik, Lib, Namu, and Ailinglapalap. In reverse operation, these middlemen would employ their ships to pick up native copra and handicraft which they would purchase in the atolls for sale to the administration at Kwajalein or Majuro, the usual commissions being collected by them at each end. The half-castes at Likiep are accustomed to this sort of operation already, as the De Brums made frequent trips to Jaluit in their 20-ton ketch before the war, to reap the difference in freight charges on trade goods and copra, and this in spite of regular monthly visits made by Japanese trading ships from Jaluit to Likiep.

Should the administration eventually withdraw from the local transport picture, it would still be faced with the problem of official trips to the atolls. It would appear to be feasible, as regards time and personnel, to limit all official and medical visits to air transport. As an example, when shipping was reduced nearly to zero this past summer, a lone Military Government officer at Kwajalein, himself a pilot and having access to a Catalina PB1 attached to Operation Crossroads, was able to repatriate a considerable number of natives, make spot inspections with medical officers at outlying atolls, perform emergency flights as the occasion arose, and never spent a night away from his base of operations. This was an extreme case and an emergency, but it illustrates what could be done by the administration with air facilities at its disposal. A single administration team, by making daily flights from headquarters, could cover all 23 inhabited atolls and isolated islands once a month and still have several days remaining for necessary paper work. This would result in savings of time and personnel, since one team by air could perform the work of two or three teams by water; there would also be greater consistency in practical dealings with natives throughout the archipelago. Air operations for administrative business might profitably be tied in with air-sea rescue operations in the Marshalls and integrated with an islands communication system for speedy provision of emergency relief to outlying atolls.

1. Communication. Adequate facilities for handling ordinary mail, parcel post, and postal money orders should immediately be made available to the Marshallese people. At least monthly pick-up and delivery can be guaranteed if postal service is scheduled with regular trips made by trader and/or administrator. Marshallese mail could be processed as a collateral duty by a native interpreter on the headquarters staff of the administration. He would be responsible for the collection of mailable matter at each atoll and for the distribution of whatever mail had come into his care. Mail destined for other atolls in the Marshalls could be handled on an informal basis without entering the regular postal system, but mail going outside the Marshalls should be properly addressed and stamped for inclusion in the United States mail service. In each atoll, the Atoll Scribe could act as local postman, being responsible for the

collection and distribution of postal matter within his jurisdiction. The headquarters postmaster might also be authorized and trained to issue and cash postal money orders, perhaps coordinating this office with that of an islands banking agent for whatever savings system is inaugurated for native use.

Telephone communication is not, and never has been, a need of the Marshallese population. However, as an emergency service, it is recommended that telegraph or cable facilities maintained for military use be made available to the natives with the approval of an administrative officer.

For practical reasons, radio reception by individual natives will probably never be more than nominal. However, in the interests of public health and safety and of personal security in emergencies, and for possible use by the military as weather observation posts, it is recommended that a network of low-power radio stations be established in the Marshalls. Not all atolls would need this equipment immediately; judicious location of a few stations would insure a minimum of canoe travel from adjacent atolls in case of emergencies. Eventually it would seem desirable to establish such posts for every isolated population. The maintenance and operation of the radio stations could be handled by a corps of natives, adequately trained in radio and weather observation techniques. Equipment can be powered by storage batteries regularly charged by the use of inexpensive wind chargers, a method resorted to with considerable success in the Canadian Arctic by the Hudson's Bay Company for business and the personal security of its traders who are often isolated by weather and travel conditions for months at a time. The network should be incorporated as part of the Marshalls air-sea rescue program, or with air transport facilities which may be at the disposal of the administering agency, in order to insure immediate relief in emergencies as reported from outlying atolls. The cost of installation and the salaries of native operator-observers should be borne by the administration.

As a further medium of communication, the Marshallese News Review should be revived by the administration for monthly distribution throughout the Marshalls. This modest publication was well received by the Marshallese during the short period of its existence, and should continue to be published in English and Marshallese with news of local interest, world news, educational features, and official notices. The operation should be financed by the administration as an educational measure.

Another news service appreciated by the Marshallese is the distribution of back numbers of American news periodicals, collected from the reading rooms and libraries serving American service personnel. Many natives and half-castes in outlying atolls miss this little charity which was instituted by officers and men visiting the atolls during the first years of the American occupation.

j. Distribution of trade goods. It has been demonstrated in preceding sections of this report that a century of trading with foreigners has developed for the Marshallese certain requirements in food, clothing, tools, and building materials which can be properly satisfied only with the importation of trade goods. The distribution of these imports depends primarily on the transportation facilities which are available in the Marshalls (the mechanics of distribution in that connection have been discussed in the section dealing with transportation requirements). In general, it is recommended that large-scale trade operations, which cover the whole of the archipelago or a major section thereof, be managed by the administration or by native entrepreneurs operating in a private capacity. This should not exclude the possibility of interested foreign trading firms, American or otherwise, carrying on operations in the Marshalls in such a way that the interests of the natives are adequately protected. The Marshallese are already inquiring as to the proper channels for ordering merchandise from American mail-order houses as they did through Japan before the war. In the not distant past, a British firm was sending trade ships to the Marshalls from the nearby British colony of the Gilbert Islands; there are rumors that this firm may wish to revive its activities in the Marshalls. It is also reported that warehouses in Japan are choked with textiles and utensils with no available market; the islands need these goods and should benefit from the more realistic prices attached to them in terms of their own income. It should be the policy of the administration to provide opportunities for the natives to buy trade goods from whatever source can give them the most favorable prices.

At the atoll level, the distribution of trade goods should be placed entirely in the hands of natives, either on a communal basis as in the case of the trading cooperatives which flourish in the atolls today, or on an individual basis with private persons buying and selling on their own. The principle of free competition should be followed as soon as the supply of trade goods permits. It will not be long before the natives will question the maintenance of only one store in an atoll, the general principle which operates today with only a single exception -- at Majuro, where local differences between the two rival chiefs has resulted in the creation of two stores where one would suffice during the present period of shortages. In pre-war times, both German and Japanese administrations allowed a multiplicity of store outlets in each atoll, managed by at least three or four competing interests.

Where the trading cooperative is well established and operating successfully, it should be continued with encouragement. However, in atolls with larger populations and more diverse social groups, the management of retail stores by private individuals will probably result in a healthier situation, and should not be discouraged. At present, only one store in the islands is individually owned -- at Likiep, by the half-caste descendant of one of the first European traders in the Marshalls.

Closer supervision of the organization and management of trading cooperatives is recommended to prevent any inequities to individuals or groups involved. A cursory survey during the past summer revealed a great variety of approaches by Atoll Councils to matters of acquiring

capital, of salaries for storekeepers, of rationing, and of dividing the profits. A more exhaustive survey of all trading cooperatives in the Marshalls should be made with the idea of standardizing the operation of cooperatives or of allowing Council ingenuity a free rein, as actual conditions may indicate.

k. Savings and credit. Every effort should be made to convert the limited pre-war wealth, accumulated by some Marshallese in the form of Japanese postal savings or yen currency, into an asset in American dollars at the most favorable exchange rate. The international complications which are involved in this conversion are realized, but the matter is urged as one, among many, methods of placing cash in the hands of Marshallese to expedite their economic recovery. Certain individuals and families had amassed wealth in the form of capital goods which was wiped out by the war; at present their recovery can be effected only through long and laborious months and years producing copra or handicraft.

The administration should provide some procedure for extension of credit, on long terms and at nominal rate of interest, to responsible natives with records for industry, honesty, and fair-dealing and backgrounds of experience required for the enterprise to be undertaken. Some individuals have in mind a store, a restaurant, a shoe-repair stall, or a photographic studio, while others want to establish ship-yards, coconut plantations, or perhaps a soap factory or fiber processing plant. Loans should supplement outright grants-in-aid for purposes of rehabilitating the islands' economy.

The Safekeeping Deposit Fund which the administration has already inaugurated should be adapted and expanded to service Marshallese anywhere in the archipelago. Few individuals will have a surplus of funds for a long period, since income in the Marshalls will never greatly exceed the necessary expenditures. What is needed is a place to safeguard their funds for relatively short periods; further investigation should be made as to various possibilities of handling this situation. Perhaps the Bank of Guam might establish a branch in the islands, or the Post Office Department might eventually extend its postal savings service to the Marshalls, as did the Japanese. In the meanwhile, some kind of "strong-box" scheme like the Safekeeping Deposit Fund seems to be most feasible, provided deposits and withdrawals can be made more conveniently.

l. Vocational education. In the present educational planning for the Marshalls, greater emphasis should be placed on vocational subjects. A balanced curriculum of vocational and cultural courses is required. The average Marshallese settlement is faced with basic economic needs not unlike those of a rural community in the United States. What the Marshallese can use is something in the nature of the 4-H Club program worked into the elementary school curriculum: courses for native children in handicraft (mat and basket weaving, shell costume-jewelry, fiber cigarette cases and coasters), manual training, needlecraft, dress designing, cooking and diet, gardening, poultry and pig raising -- courses which will pay off with greater returns within the native environment. Of traditional subjects, the Marshallese will benefit most from literacy in their native tongue,

some knowledge of English, and a development of art, music, and dancing for their recreational satisfaction.

For more advanced students, especially men, courses in technical subjects are particularly desirable for economic advancement. Training in carpentry, mechanical drawing, ship designing, navigation, metal work, radio, motor mechanics, weather observation, typing, shorthand, and accounting will equip the individual for better-paid government employment or provide him with a skill which can benefit him in his own environment. Some of these subjects should be taught by administrative personnel in extension courses at Majuro, while others might better be offered in advanced schools at Guam and Honolulu. Certainly the need for technical education exists, and the Marshallese are already inquiring as to when and where they can receive that kind of training.

m. Social welfare. The position of the paramount chieftain should be more carefully considered in the administration of relief and medical assistance among the Marshallese. Throughout German and Japanese time, these traditional leaders were responsible for the welfare and hospitalization of their subjects whenever the need arose, in return for which the chiefs were permitted to receive tribute from their people in the form of certain goods and a share in the copra harvest. The present administration has overlooked this pattern in matters of hospital care, medical attention, public health, and sanitation; officials deal directly with the people or through the Atoll Magistrates. In most instances the paramount chieftain is by-passed, an oversight which is breeding trouble and causing many natives to question the position of the chiefs. If the administration intends to recognize Marshallese traditions of social organization, including chieftainship, the latter should be utilized as intermediaries in the rehabilitation of their people. Toning at Wotje is a good example of what a "king" is doing for the Marshallese in his planning for the resettlement of Wotje Island; in other atolls the chiefs sit about, living parasitically on their subjects and becoming a source of dissatisfaction. In administering relief of any kind, the present authorities would do well to make use of native traditions of cooperation and reciprocity wherever possible, even though more time is involved by such indirect methods.

Another matter which is sometimes overlooked, because its therapeutic value is underestimated, is recreation or leisure-time activity. The present stagnation of economic activity resulting from shortages of shipping and producers goods has created an over-abundance of leisure time in most atolls. Discontent is mounting because the natives have too much time to think about their troubles — real or imaginary. Organized recreation should be promoted as one outlet for these anxieties. Social dancing and song-fests for the younger generation should be encouraged to counteract juvenile delinquency. Sports activities, such as baseball, canoe-racing, athletics, and even singing and dancing, should be organized on a competitive basis, both inter- and intra-community, to assist in dispelling pent-up emotions.

### C. UNITED STATES MILITARY REQUIREMENTS

United States military facilities in the Marshall Islands would appear to be limited to one naval and air base at Kwajalein, with a complement of less than 1,000 men, and to naval air bases on caretaker status at Eniwetok and Majuro.

Present facilities are located either on former Japanese government land or on land formerly occupied by Marshallese natives. The natives have been resettled on other islands in the atolls and generally have no desire to return to their former land-holdings. However, the manner in which the military acquired the native-owned land should be investigated to insure that the legitimate rights of the natives have not been overlooked and that proper compensation has been made.

Since the military facilities are not large, requirements for native labor are not great enough to disturb the economy of the islands by interference with labor needs within the Marshallese communities. It is unlikely that the requirements for native labor at the bases will ever fail to be filled, because there are always some native men who welcome the opportunity to learn more about Americans and to enjoy the distinct benefits which attach to base life. It is recommended that natives who are employed by the military be utilized to best advantage, for their own education as well as for most efficient operation of the base. At Majuro, Marshallese at the labor camp have demonstrated their adaptability: with some training, they are employed, not only as waiters, bartenders, and unskilled labor, but also as truck drivers, telephone operators, barbers, electricians, tailors, and even assist in beaching operations on the seaplane ramp.

### D. NATIVE CONSUMPTION VS. REQUIREMENTS

Under present conditions, the normal requirements of Marshallese economy have failed to be met — a disparity which is due in part to shipping inadequacies, in part to world shortages of certain manufactures. Some atolls were hit hard by the war, but generally the natives are in no danger of starvation and have shown resourcefulness in meeting the emergency. Enormous sales of Marshallese handicraft have placed many atoll populations in the position of having money on hand but no trade goods on the shelves. It appears, fortunately, that a low ebb was reached this past summer, and that the introduction into the Marshall Islands of two Navy LSM's and a score of trained Military Government officers during recent months forecasts an upward trend in the progress toward rehabilitation of the Marshallese people.

## IV. PROPERTY

### A. LAND TENURE

#### 1. Native Land System

The Marshallese do not recognize private property in land, except in a few outstanding examples where foreigners or half-castes are involved. All native land is considered to be the collective property of a few royal families and is administered by the paramount chiefs (iroij labalap). A chief commonly controls land on several islands of the same atoll or, sometimes, on several atolls. The history of land administration in the nineteenth century is one of aggressive chiefs striving continually to maintain and to increase their holdings. Prior to the German administration, this state of affairs was characterized by constant warfare between rival families or branches of the same royal family. Landed property changed hands frequently as one chief gained paramountcy over another, and extended his control to the islands and native subjects of the vanquished ruler. Foreign domination by Germans and Japanese had stabilized the land situation by outlawing civil war in the Marshalls; since 1885, most changes in title to native land have resulted from intermarriage of landowners and succession to chieftainships vacated by death.

Land is divided into lots, each of which comprises a land strip extending transversely across the island from lagoon to outer shore, and crossed by the main roadway of the settlement. A single tract, from two to five acres in size, provides occupants with access to both lagoon and outer reef, with dwelling space on the lagoon side of the road, and with crop or forest land (coconut, pandanus, breadfruit, arrowroot, and taro) on the other and larger part of the lot. Each parcel of land is commonly occupied by a single family, augmented by a few maternal relatives, and is delimited by traditional boundaries -- marked on either side of the roadway by stone slabs, plantings of wild lily (kiam), or slashes at the base of coconut trees. A typical settlement of 150 to 200 people consists of 25 to 30 separate lots of varying width. In some villages, all land is controlled by one paramount chief; in other, especially larger, villages, ownership is divided among two to five royal families.

The paramount chiefs (iroij labalap) control the allocation of land; the lots are assigned to the care of alaps, the headmen of bwij (extended families) which acknowledge a feudal allegiance to the iroij. An alap may have charge of several lots, occupied by nuclear families which comprise his bwij. In most instances, alaps (who are usually commoner (katar) by birth) fall under the supervision of iroij erik (lesser chiefs), who are answerable in turn to the paramount chief for the proper maintenance of the land and its resources. Formerly, individuals of other rank, such as iroij in til, bwirak, and lahtokatok, also served as land supervisors but many of these traditional social distinctions have now fallen into disuse.

The workers (ri israbal), who occupy the parcels of land, come under the control of a royal family and the paramount chief at its head and are actually little more than tenants in a legal sense; they need not be, and generally are not, members of the same alan (jowi) as their chief. However, their rights of usufruct are hereditary in the female line, following Marshallese custom; as long as the tenants maintain the property in good condition and recognize the chief's authority in terms of respect, obedience, and tribute, they may not be dispossessed, and tend to regard the land as their own. The paramount chief has the right to allot property to foreigners or to natives beyond his jurisdiction, and is not required to consult with any of his own group on the matter; such transfers of property have occurred in recent years, some having been approved by the lesser chiefs in council.

Land and all crops grown thereon were considered formerly as the absolute property of the paramount chief and his family. There is an increasing tendency now to regard trees and root crops as the property of the bwij, or the extended family which is administered by the alan. In recent transfers of land to foreigners, the chief as usually compensated the alan for trees and crops grown on the latter's fief. Dwellings and other domestic buildings belong to the bwij, since they are generally built with the cooperative labor of members of the bwij. Small houses are occasionally regarded as property of the nuclear family and not of the bwij as a whole. Fishing sites in the lagoon or on the outer reef are free to be exploited by anyone, the catch being customarily divided among members of the fisherman's family. In no way can it be said that any native has exclusive right to real property -- even the paramount chief shares his interest with royal members of his own bwij. Recently, there have been a few instances where natives built outrigger canoes for sale, using woods cut on the property of their bwij; family disputes resulted when the canoes were sold to outsiders and all the money pocketed by the canoe builders.

The aboriginal practice of matrilineal inheritance of land and land rights still persists in most of the Marshall Islands. Two principles dictate the choice of an heir: (1) transmission must follow the female line, and (2) age takes precedence over youth. The deceased is succeeded first by his brother or his sister (men usually hold the posts of authority, as iroji or alan, but women occasionally act in their place if no suitable male heir exists), then by his older sister's children (his nāngōren), his older sister's daughter's children, his younger sister's children (also his nāngōren), and finally his younger sister's daughter's children. Only when the female line is lacking a legitimate heir, do the deceased's sons and their children have any legal advantage; in exceptional cases, Marshallese traditions of matrilineal inheritance may be by-passed by a death-bed testamentary disposition in favor of the man's own children. In case of the extinction of a family which occupied a tract of land, the property is reassigned by the alan or the iroji labalap; in case of the extinction of a royal bwij, control of its property passes to the bwij which establishes the strongest claim in terms of kin ties to the royal bwij, and gains the allegiance of lesser chiefs and alans formerly tributary to the bwij of the deceased.

Depending on the residence assumed after marriage, a family may occupy and cultivate a parcel of land belonging to either the wife's or the husband's people. Thus, due to the taboo on marriage within the clan (lowi), a man and his wife may never possess joint rights to real property; the children always share their mother's birthright and never their father's. In the case of matrilocality residence (the aboriginal ideal), the children were reared on land of their mother's people and inherit property from their maternal uncle who is alan of the bwij. Upon the death of his wife, the husband is "out" and returns to his maternal home, leaving the children with their mother's people. If he predeceases his wife, no displacement occurs because his wife and children have no right to property of his. In the case of patrilocality residence (the prevailing mode today), the children are raised under the tutelage of their father's people. If he dies first, his widow generally returns with the children to her maiden home because she is an "outsider" on her husband's land. However, if the husband survives his wife, the children may either be taken by her people or be adopted by the man's people -- in the latter case, it appears that adopted children never acquire inheritance rights to their father's property but do retain their birthright with regard to their mother's property.

## 2. Changes Under German Administration

In the three decades before the Marshalls were brought under the official protection of Germany, foreign traders considered the islands as the absolute property of the paramount chiefs, as indeed they were at a time when native feudalism was most highly developed. At Jaluit, the traders of several nations bought land from the iroi labalan, Kabua; Jortoka, the paramount chief in northern Radak sold Likiep to traders De Brum and Capelle; and the islands of Kili and Ujelang were acquired from the Balik chiefs by Germans who intended to exploit them as copra plantations. Eventually, all sales to non-natives, except in the case of Likiep, were taken over by the Jaluit Company for use in its commercial program.

Soon after the German protectorate was established, the policy of unrestricted land alienation by native chiefs was modified. In 1887, an order by the Imperial German High Commissioner required that all foreign landholders in the Marshalls register their titles and prove their claims by proper documentary evidence (see Appendix "A", for compliance in the case of title to Likiep). While the further acquisition of land from natives was forbidden under penalty of a fine of 5,000 marks, the Jaluit Company was given an exclusive right to take possession of unclaimed lands. In 1905, when the administrative function of the Jaluit Company was nullified, a proclamation by the German Chancellor declared all previous regulations superseded, and reserved exclusively to the Exchequer the right to conclude contracts with natives regarding the acquisition of property and land rights.

### 3. Changes Under Japanese Administration

The Japanese Government, upon assuming administration of the Marshall Islands, provisionally recognized all land rights previously acquired in accordance either with traditional native custom or with German regulations, irrespective of whether the owners were native or not. While a final decision as to the disposition of native land rights awaited completion of a land inquiry, the Japanese took the view that "land is in the exclusive ownership of tribal chiefs, and the people in general have the right of exploiting it, subject to an obligation to render to the chiefs a part of the profit arising from the palm groves which constitute the principal portion of such land." In the late thirties, one Japanese authority recommended that the "collective ownership of lands by clans" be abolished in favor of private property, by granting outright titles to the occupants of individual tracts of land, and compensating the chiefs for the loss of their feudal rights through a cash payment. The war apparently interrupted any official action in that direction. A land inquiry was authorized, with surveys, classification of land holdings, determination of titles, and demarcation of boundaries, but implementation of the program in the Marshalls was begun only in 1939; present evidence in the islands reveals that only a few atolls had been surveyed and that all maps and records were probably destroyed at Jabor under bombing attack. The Japanese officially classified all real property into State Domain and Private Lands.

State domain included German holdings transferred to the Japanese Government under the Versailles Treaty and those lands subsequently acquired by the Government from native landowners. In 1928, state domain in the Marshalls was officially reported as comprising 5 acres for public use, 20 acres for government use, and 6,044 acres for miscellaneous use (the last could be sold or leased by the Government to private persons). Most of Jabor was government land, leased to Japanese and natives as sites for stores, sheps, and dwellings. After 1937, considerable numbers of natives were dispossessed of their lands for the construction of airfields and other Japanese military installations; the formalities of government purchase were adhered to, both paramount chief and alan being parties to the contract, but frequently no payment was forthcoming, or else the recipients were forced to invest the purchase price in Japanese enterprises or government stock. In some cases, compensation was made to the natives for trees and buildings but not for the land.

Private lands were classified as (1) property of natives, either private or communal, and (2) property of non-natives, including both Japanese and foreigners. Land of the second category could be freely bought, sold, leased, exchanged, or otherwise transferred, and natives had unrestricted freedom to buy or lease land from Japanese, foreigners, or one another. However, regulations provided that no non-native, except a government agent, could contract with a native for the purchase, sale, assignment, lease, or mortgage of land except with the express sanction of the Director of the South Seas Bureau (at Koror), to be followed within 30 days by registration of the contract in the Jaluit office.

#### 4. Conditions Under American Administration

The histories of land ownership by royal families in different sections of the Marshall archipelago demonstrate not only the normal control and administration of property by paramount chiefs, but also the bitterness which often characterises feuds between rival clan groups and even between older and younger branches of the same family, and reveals the degree to which the Balik chiefs have departed from Marshallese custom in the inheritance of property and the succession to chieftainship. Some of the most serious problems facing Military Government officials in the Marshalls are related to native rivalries and misunderstandings about land ownership which pervade most of the atolls today. A thorough investigation should be made of the issues and the histories of opposing cliques before decisions are handed down in the settlement of these disputes.

a. History of land administration in Radak. In the Radak chain a powerful chief, LAMARI, is reported to have left his home at Arno about 1810; supported by a force of relatives and retainers he waged successful war at Aur, killing the chief and setting up his capital on Aur atoll. In the succeeding years, he extended his control by force to the atolls of Maloelap, Wotje, Likiep, Erikub, and the island of Mejit. Kotzebue, the Russian explorer, met LAMARI in 1817 and considered him to be the paramount chief of all Radak. By 1823, when LAMARI was still less than forty years old, he had already consolidated his northern possessions as far north as Utirik, and turned southward in an offensive against the independent chiefs of Majuro, Arno, and Mili atolls. In a "most bloody" six-day battle, LAMARI's warriors fought the people of Majuro and won a victory, in great part due to the effective use of iron hatchets which LAMARI had earlier obtained by barter from the Russian expedition. Having established himself in Radak, LAMARI marshalled his forces to repel an attack from the west by a paramount chief from Balik. The Radak chieftain was able to turn back the Balik offensive, and since that time the peoples of Balik and Radak have remained politically independent of each other. Aur atoll continued to be the capital of LAMARI's successor, but Majuro, Arno, and Mili broke away from the federation.

Radak history then becomes clouded until after 1850, when the scene shifts to Majuro. Political reverses seem to have overtaken the Aur dynasty, for it is reported that all Radak (except Mili) was controlled by LAJETE, a paramount chief of the clan ri meijer at Majuro. He was assisted in the administration of his empire by lesser chiefs of the clans rarno and ierikrik. The story is told that LABELLE, a ierikrik chief on Majuro, married LIMAJANG, a rarno princess from Mili; at Majuro she gave birth to two girls -- LIWARELIK (older) and LIBWINE (younger). One day on the beach at Majuro, LAJETE saw the young girls playing and fell in love with them immediately. As they attained maturity he discarded his previous loves and married the girls -- to each was borne a son, BOULIEJ and JEBERIK. JEBERIK, although handicapped by being the younger sister's son, was very ambitious and planned to gain control

of Majuro by force. To this end he married his numerous sisters to the most capable men in Majuro, and in time his hwij came to control most of Majuro's food resources and represented a sizeable force of warriors -- all rarno men.

On his death-bed, LAJETE forsook his ri meijor relatives and willed the atoll of Majuro to his rarno sons, BOULIEJ and JEBERIK. The latter saw his chance and was ready. Gathering his forces JEBERIK drove his older brother to seek refuge with LEKETON, the ri meijor chief on Arno who had succeeded LAJETE in the administration of the rest of Radak. Since JEBERIK was too strong to be ousted from Majuro, LEKETON dispatched BOULIEJ to the northern atolls, promising him control of the atolls from Aur northward if he would take the responsibility of their maintenance. Thus, LAJETE's empire was partitioned -- Majuro under JEBERIK (rarno), Arno under LEKETON (ri meijor), and the rest of Radak northward under BOULIEJ (rarno).

BOULIEJ administered his lands well and established a rarno dynasty which has continued unbroken for nearly a century, one of the most stable royal lines in Marshallese history. The capital of the paramount chief shifted back and forth between Aur and Maloelap and is now at Wotje. BOULIEJ was followed by JORTAKA, who sold Likiep atoll to the traders De Brun and Capelle in 1877; then MURJEL is mentioned by a German writer as paramount chief in 1885; KIABINBIK is known only by name; LABAREO succeeded him by 1900; JAJUA was noted by the Japanese as one of the great Marshall chieftains in the early thirties; TOMEING carried the line through the war and, weakened by an illness contracted during the war, passed away in October 1946; presumably, TOMEING will be succeeded by his brother LANGINMUOJ at Maloelap.

The late TOMEING was an example of a paramount chief in the Marshallese pattern -- a man of nearly fifty years, ambitious for his family and his people, aggressive and energetic, exacting in his requirements of tribute from subordinates, and tireless in his planning for the rehabilitation of Wotje, an area as devastated by the war as any in the Marshalls. He had moved his capital from Maloelap to Wotje because the latter was more centrally located -- his lands on Aur and Maloelap to the south and those on Ailuk and Utirik to the north. The uninhabited islands of Jemo, Taka, Erikub, and Bikar also fall under his rule, and are exploited periodically by his people as additional source of food. Whenever TOMEING required raw materials and produce for his own use or for needy areas within his realm, he had only to send a request to one of the many iroi erik who supervised his landed interests, and the requirement was fulfilled -- native timber for building canoes, food for relieving area shortages, seedlings for replantation of denuded islands, and he himself was never compelled to put his hand to manual work. Instead, he was the people's spokesman in official councils with Japanese or Americans, he taught school with his limited facilities that his people might be learning until the Americans could supply better instruction, and he applied himself too vigorously for his own health to the problems of rehabilitation. His people were

stimulated to produce enormous quantities of handicraft to secure additional income to supplement their own limited resources; and when they had more money than trade goods to buy, the people of Wotje contributed \$10 to the American Red Cross, \$50 and a box of handicraft to the Military Governor of the Marshalls in memory of the naval evacuation of Marshallese from the Japanese-occupied atoll of Wotje in 1944, and more boxes of handicraft to individual Military Government officers who had serviced their needs since the war. Truly, the rarno family which controls northern Radak is the head of a feudal organization with the usual characteristics of subordination and tribute payment, but the people in turn have received assistance and guidance in trying times as well as aggressive representation of their requirements to the administrative authorities.

TOMEING was assisted in the administration of his territory by members of his own family and by the lesser chiefs of other clans, particularly jerikrik, the people of which had aided his forefathers for generations. At Wotje, when the Japanese dispossessed the natives of their main village site on Wotje Island, TOMEING established a new capital on Ornej Island. Wotje atoll is divided for administrative purposes into two districts. The northern half, from the western pass to Torrij Island, is in charge of TOMEING's sister, LIMIJUA, who has remained at Majuro to supervise evacuees from northern Radak in need of hospitalization and schooling, and will return to Wotje with them; she is assisted in her district by three iroij erik — NANO (son of another sister of TOMEING), MOSES (rarno man whose ancestors aided rarno royalty), and LIKABAR (descendant of chief MURJIL on the paternal side) — and nine alapa who are responsible to the iroij erik. The southern district is supervised by LAILAJ, a jerikrik man whose predecessors served the rarno dynasty in battle; he is aided by two other iroij erik — JOWEJ (son of an alapa under MURJIL) and OBTINIA (daughter of an iroij erik under LAILAJ's father) — and five alapa. At Maloelap atoll to the south, LANGINMUOJ, a brother and probable successor of TOMEING, is the local authority; he is assisted by his sister, LIBAREO, and a number of iroij erik and alapa. Likewise, Aur atoll is supervised by LANWE, a rarno man who is not immediately related to TOMEING. To the north of Wotje, two jerikrik chiefs represented TOMEING's interests in Ailuk and Utirik — AIN of Utirik is the senior member of the jerikrik clan in the northern islands, and is cousin to both LAILAJ of Wotje and TAIBUN of Ailuk.

Another rarno dynasty had meanwhile been established in southern Radak, where JEBERIK, the aggressive younger brother of BOULIEJ, had made secure his position as paramount chief of Majuro. This dynasty has been maintained to the present time by a single royal bwij, but a bitter feud has prevailed during recent years between the elder and younger branches of the bwij. JEBERIK was succeeded by his sister's son, LALLU (JOHN), according to Marshallese custom; in turn, LALLU was followed by his sister's son, LEROK. LEROK had two nephews: RIME, son of his elder sister, LIWANMIJ, and KEBELE, son of his younger sister, JEKLIKWOR. The nephews assisted LEROK as his iroij erik, and for that

purpose the islands of Majuro were divided between them. Although RIME was the legitimate heir to the Majuro crown, old LEROK appears to have favored the cadet, KEBELE, who was a gay blade and shared his mistresses with his uncle. The death of the old paramount chief precipitated a bitter feud between the two nephews; RIME attempted to take complete charge and was opposed by KEBELE. In the struggle which followed, neither gained any advantage, and finally a truce was made on the basis of each retaining those islands which he had previously supervised as iroi erik. RIME was later succeeded by his sister's son, KAIBUKI TOBINWA. KEBELE took the name of an ancestor who had also belonged to the cadet branch of the royal iyii, and thereafter he was known as JEBERIK KEBELE. The German administration, upon its inauguration in 1885, recognized the two chiefs as independent iroi labalan, and thus two dynasties of rano chieftains were formally established on Majuro.

During the next 35 years, J. KEBELE was succeeded by his brother, J. JOKONE, and he by another brother, J. LEKENER, and he by his sister's son, J. LEKETWERAK. Shortly after the great typhoon struck Majuro in 1918, LEKETWERAK died without kin to succeed him. In the same period, KAIBUKI TOBINWA was succeeded by his brother, K. LOREWA, and he by another brother, K. LANGKEIN (MURJEL), and he by his sister's son, RELE.

The choice of a successor to J. LEKETWERAK has created a major political crisis. It is claimed that before he died, LEKETWERAK had willed his post to MOSES, a chief of Mili atoll and a son of LEKETWERAK's maternal uncle. However, the iroi erik of the late LEKETWERAK contested the will, for they did not favor MOSES as their chief. It is reported that some were inclined to merge the land holdings on Majuro under RELE, but others of the leaderless group insisted that their independence be maintained. When RELE attempted a coup d'etat, the dispute was brought to the attention of the Japanese government -- no longer could disagreements between native factions be settled by warfare. While the Japanese administrator at Jaluit was favorable to the arguments of LEKETWERAK's iroi erik, who had banded together in a "Council of Twenty" without any leader, it was decided to conduct an investigation before formulating any settlement of the issue. RELE died about 1926 and was properly succeeded by his brother, LAINGLEN, one of the present chiefs of Majuro. The Japanese Government is reported to have decided, just before the war, to place the whole affair in the hands of the natives of Majuro to decide for themselves whether they wanted one chief or two. The war interrupted further action, and the two factions continued as separate entities until the Americans invaded Majuro in February 1944.

The American commander decreed that all Japanese badges and other insignia of Japanese authority be surrendered by all paramount chieftains, who would then be invested with symbols of American support. Some natives informed Military Government that two chiefs existed on Majuro -- LAINGLEN and JIDBOM. The latter had been an iroi erik under LEKETWERAK and was reported as the selection of the "Council of Twenty"

to succeed their deceased leader; he possessed the additional claim of being brother to LEBONJU, who had been adopted by LIBARMEDO, a sister of JEBERIK KEBELE and maternal aunt of LEKETWERAK. During formal ceremonies at the naval air base on Majuro in early 1944, both LAINGLEN and JIDEOM were given badges and were recognized as independent paramount chiefs.

The bitterness between the two royal groups has not diminished. AISEA, the present magistrate of Majuro and the son of LAINGLEN's sister, MARIA, represents to American visitors that his uncle is the only paramount chief on Majuro. Other natives charge that LAINGLEN has recently dispossessed some natives who have been negligent in their feudal obligations to him, and has redistributed the land to more faithful supporters. It is said that JIDEOM shares his authority with the "Council of Twenty", both participating in any decision which affects the welfare of LEKETWERAK's people. During the past year, this group by common action contributed a number of trees and taro patches for the sole use of teachers and students at the Majuro Training School for Teachers -- the trees are all tagged with labels inscribed "Property of the Government School." Women of the group likewise have maintained monthly gifts of money, earned from the production of handicraft, for the benefit of the native hospital on Majuro. The cooperation achieved through interaction of the chief and his council for the good of the people, as observed in the case of JIDEOM's band, promises much for the better integration of Marshallese feudal structure with American ideals of democratic procedure.

As in Majuro and northern Radak, the span of native memory in Arno atoll encompasses about seven generations -- 15 years to a generation. An almost legendary "grandfather" is recalled, who would have ruled at the time of LAJETE, the ri mejior paramount chief of Radak. This ancestor of present royalty on Arno, according to present native beliefs, was born a giant with his gums edged in solid bone; after his death the giant ruler was buried on Arno, where his 12-foot grave can be seen even today. The giant was probably LAJETE, whose empire was partitioned among JEBERIK (Majuro), BOULIEJ (northern Radak), and LEKETON, the son of LAJETE's sister, who was destined to head the only ri mejior dynasty in the islands from that time on -- on Arno atoll, a dynasty which still continues although, like that on Majuro, frequently disturbed by intra-familial dissension.

LEKETON may have been succeeded by RILONG, the earliest paramount chief whom Arno people remember by name, probably a son of LEKETON's sister. RILONG's sister, LIELBÖD, had two daughters who carried the title of paramount chief in the absence of any royal males: LIBARMEJ and her younger sister and successor, LINEMON. When LINEMON passed away, the succession followed the line of her older sister in the person of LIBARMEJ's son, LEKMAN (who joined the royal families of Arno and Majuro by his marriage with TELONG, sister of the brothers KAIBUKI on Majuro); in turn LEKMAN was succeeded by DEVID, son of LIKON (older sister of LEKMAN).

The seeds of dissension had been sown between the families of the sisters LIBARMEJ and LINEMON. The German literature on the islands of that time refers to the state of war between two royal factions on Arno; a chief named UIJELANG is mentioned but at present his place in the royal genealogy is not certain -- UIJELANG may be the native cognomen of DEVID. It is related by Arno natives that LIBARMEJ's oldest daughter, LIKON, had married a rarno man by the name of TOKTO, who was exceedingly ambitious for his sons. A great bitterness developed between TOKTO's faction and the heirs of LIBARMEJ's younger sister, LINEMON, led by LEJEKEIN, the oldest son of LINEMON. It is said that subsequently TOKTO was killed by the opposition; at any rate the islands of Arno atoll were partitioned between the two royal branches, headed by paramount chiefs DEVID and LEJEKEIN respectively. The situation parallels that which existed in Majuro about the same time. DEVID was succeeded by his brother, LAELANG; however, LEJEKEIN had no proper successor and the control of his family property was assumed by LIWAITO, a younger sister of DEVID's mother but also an opponent of the DEVID lineage. The Arno dispute finally reach such proportions that the German administration was called on to make a decision in the matter -- the Government decided to support the independence of each group.

In Japanese times, LAELANG was followed by TÖBO, one of the present paramount chiefs on Arno and the son of LAELANG's sister, LIMEDO. TÖBO is also the son of one of the KAIBUKI brothers on Majuro and is a second cousin to LAINGLEEN, one of the paramount chiefs on Majuro. LIWAITO was succeeded by her own daughter, also LIWAITO, who died about 1932 with no living heirs. As in the case of the late LEKETWERAK of Majuro, LIWAITO's iroi erik opposed any merger of their land under the leadership of TÖBO; they claim that LIWAITO suggested one of them, JIWIRAK, as her successor, but today TÖBO exhibits an alleged will in which LIWAITO turns everything over to TÖBO -- the will was witnessed by members of TÖBO's faction and apparently was never given any legal recognition by the Japanese administration. JIWIRAK is a third-generation descendant in the female line of LIBO, a sister of the elder LIWAITO. He reportedly was elected as paramount chief by the seven iroi erik of the late LIWAITO. In 1944, the Americans gave equal recognition to both TÖBO and JIWIRAK as paramount chiefs of Arno.

The old trouble has flared up once more, however, stimulated by the bolting of two iroi erik from JIWIRAK's group: BILEK, a former magistrate under the Japanese and the supervisor of property at Matolen (settlement on Ine Island), and ABIJAI, who has responsibility for JIWIRAK's land holdings on Tagelip and Ijoen Islands. While the two dissenters are reported to be seeking assistance from TÖBO, it is suspected that they would prefer to establish themselves as independent of either TÖBO or JIWIRAK. According to Marshallese custom, BILEK and ABIJAI are perfectly free to transfer their allegiance from JIWIRAK to TÖBO but in aboriginal times they could retain control of their lands only with military support from their new chief in the war which was bound to follow such action. Today, with civil war outlawed in the

Marshalls, it is the native opinion that these two men do not have the privilege of taking their land with them when they desert their chief. The magistrate of Arno atoll, LAJIBLI, is a close adviser of TOBO, and is charged, by the opposition, with discrimination against JIWIRAK's people in the execution of his official duties. Supporters of JIWIRAK, in his attempt to avoid absorption by the ambitious TOBO, warn that if left alone for ten years the dispute could be settled as of old by warfare. Meanwhile they await the decision of the American administration.

b. History of land administration in Ralik. The first quarter of the nineteenth century saw the southward expansion of lajirik chieftains envelop the hitherto independent iroja rulers of Ebon and Jaluit. The two clans of lajirik and iroja have produced the majority of paramount chiefs in Ralik since that time, in the same way as the clans rarno and ri meijor have supplied the leaders in Radak. According to the memories of natives today, all Ralik was under the control of lajirik chiefs long before the Germans came to the Marshalls. Authority was centered in a single royal bwij, its capital at Ailinglapalap and its leadership jointly held by the brothers LAILJU and LANGINI. They were succeeded about 1845 by their nephew, KAIBUKI, son of their sister LAJINGMAIN by her first husband. KAIBUKI had served previously as iroij erik for his uncles on the atolls of Ebon and Jaluit where he married an iroja princess, NIMOKUA. KAIBUKI's reign was long and exacting; by the time of his death in 1870, the German residents at Jaluit knew him as a "despotic ruler" and for years afterward his subjects recalled his activities only with fear and trembling. During his reign, KAIBUKI consolidated all of the atolls in Ralik into one empire under his administration, but it gradually broke up after his death.

KAIBUKI apparently had no sisters, so the succession passed to the descendants of his mother by her second husband — the older daughter, LIBOKEANG, bore a son named KABUA, and the younger daughter, LOJ, bore a son named LOIAK. Instead of KABUA succeeding KAIBUKI as his birthright allowed, a dispute between him and his younger cousin, LOIAK, split the empire into two parts, each headed by one of the cousins as paramount chief. However, control of Ralik lands continued to remain with two branches of a single royal bwij of lajirik clan; some natives today speak of these two chiefs as of no clan, or as of the clan ri bojar, (the "People of Bojar," where stands the sacred pillar of Mamu), which may be a sub-clan of lajirik. In 1878, KABUA was recognized, as the paramount chief of Ralik in a treaty with the German Government, whereby German traders were assured a favorable reception in the islands, and Jaluit harbor was made available to German ships for use as a naval base. LOIAK resented this attribution of superiority to his rival; by 1880 he had collected sufficient support to contest KABUA's claims through battle. In the ensuing struggle LOIAK was aided by LITOKUA, a lesser chief from Ebon whose sister had been LOIAK's first wife. KABUA had the support of an iroij erik, NELU, who was son of KAIBUKI and NIMOKUA (after NIMOKUA had become a widow, she married KABUA, who then adopted her son, NELU). As a result of the wars, LOIAK gained control of Jabor,

the settlement on Jaluit atoll where European traders based their operations in the Marshalls, and KABUA was forced temporarily to retreat to his holdings at Ailinglapalap. Years later when LOIAK had declined in health, KABUA returned to Jaluit and regained some semblance of his former power. By 1900, only KABUA and LITOKUA remained of the old crowd. KABUA, as described by a German writer of that time, was "a sorry ruler, barely able to speak a few words of English — a lazy, narrow-minded person full of lies and hypocrisy." KABUA died in 1910.

By the turn of the century, new names were gaining prominence in the administration of Ralik lands, particularly those of two sons of KABUA. By NIMOKUA, the widow of KAIBUKI, a son was borne to KABUA and named LAILANG; a second wife, LIWORIN, gave him another son, JEMADA. Before KABUA died, he divided his realm between LAILANG and JEMADA, and although his brother, LET, succeeded him for a few years, the two sons eventually became the leading paramount chiefs in Ralik. According to Marshallese custom, LOIAK had no proper successor, but his estate went to LORAN, the son of his younger brother JORMELU; when LORAN died, LOIAK's own son, LÖBÖKKIJ (borne to LOIAK's second wife, LIMADENMIJ), assumed the post of paramount chief for a few years. When the Japanese occupied the Marshalls in 1914, there were four paramount chiefs in Ralik — LAILANG (iroja), JEMADA (lairik), LITOKUA (iroja), and LÖBÖKKIJ (ri bicarij). Their separate holdings were scattered throughout the western chain: Jaluit and Ailinglapalap were shared by all four chiefs; Ebon by LITOKUA and LAILANG only; the northern islands almost entirely controlled by JEMADA and LÖBÖKKIJ with interests also on Namorik, Namu, Lih, and Kwajalein. Ailinglapalap continued to be the capital of most of the chiefs, although LITOKUA administered his lands from Ebon. Outlying properties were supervised for the paramount chiefs by iroji erik, alaps, and commoners of laikakatok status, whom the natives have now come to refer to as "supercargoes."

From that time, the royal lineages of Ralik have deteriorated, in the view of the natives, who say that few individuals now holding a chieftainship have any claim to royal blood. One of the principal reasons for this decline appears to have been the scourge of venereal disease which spread from centers like Ponape, Kusaie, and Jaluit where infected Europeans had intercourse with native women, and which seems to have been most prevalent in the Marshalls among the royal families of Ralik — the affliction even came to be known by natives as the "chiefs' disease." By 1900, German authorities note that only five individuals of iroji status remained in southern Ralik. Thus, royalty was compelled to seek spouses among the kajur and byirak classes.

During Japanese times, LÖBÖKKIJ was succeeded, for lack of a direct descendant, by LAJARE, the son of LOIAK's third wife, LINEKO. LITOKUA's death precipitated a quarrel between his son, JOEL, and his brother's son, REDÖK, in the absence of any proper heir. LITOKUA's alaps elected JOEL, but when he died a few years later, REDÖK was appointed by the Japanese administration as regent for JOEL's sister's son,

BWILLEJ. Besides LAILANG and JEMADA, who reigned throughout the Japanese period, a fifth paramount chief appeared in the Balik picture -- LOIBWIJ, the only son of LET (KABUA's brother) and LIMADENMIJ (LOIAK's widow). LOIBWIJ was given some property by LAILANG, with the concurrence of JEMADA and LÖBÖKKIJ, and assumed the title of iroij labalap because he held land independently and was descended from parents related to true royalty.

During the last two or three decades there has been a tendency in Balik for natives to demand rights to property which they have helped their fathers develop, particularly in the atolls in the Jaluit area where foreign ideas of patrilineal inheritance and private property have been fostered. Disputes concerning real property have been many under the Japanese. Marshallese custom decrees that quarrels arising between commoners over land boundaries or property in trees be settled by the paramount chief, or by joint agreement of two paramount chiefs if the properties of more than one royal family are involved. Where paramount chiefs disagreed, or where commoners refused to abide by the decision of their own chief, the controversy was referred to the Japanese administration. For example, LAILANG is reported to have had trouble with his workers settled on land at Imroj Island (Jaluit), and subjects of JEMADA at Pingelap Island (Jaluit) were in serious disagreement among themselves over boundaries. Today, the American administration is faced with the same kind of disputes. Natives report that LAJARE is likely to be ousted from his position as LÖBÖKKIJ's successor, if support of LÖBÖKKIJ's son, ALBERT, increases; ALBERT has just returned to Ailinglapalap from the Government Training School for Teachers at Majuro. REDÖK's position, likewise, is being contested by supporters of BWILLEJ, son of the sister of JOEL; half of the former subjects of LITOKUA want REDÖK to remain as paramount chief, but the other half favor BWILLEJ in that position -- BWILLEJ is now 16 years old and has been trained in the mission school at Kusaie.

LAILANG is an old man (he is 74 years old) on his sick-bed at Ailinglapalap, and his properties are administered by his own son, KABUA, a commoner by birth but an intelligent young man educated in the mission school at Jaluit. JEMADA is only ten years younger than LAILANG and depends greatly on his son, LEJHLAN, who reportedly is an active young man, immensely interested in the welfare of his people.

A special problem in property ownership exists at Ailinglapalap in the thousands of sponges which were planted by the Japanese in the lagoon about 1938. American Military Government has taken over the sponge beds as captured Japanese property to be held in trust until final disposition, entrusting them meanwhile to the responsibility of LAJARE, the magistrate of Ailinglapalap. LAJARE, however, has interpreted this action as giving him sole proprietorship and that he may exploit the resource for his own benefit; according to Marshallese concepts of property, the lagoon and its contents are free to be exploited by all natives, and LAJARE's attitude regarding the sponge beds is likely to lead to local dissension when it becomes practicable to harvest the sponges for export.

c. History of the Likiep property. Likiep atoll, in pre-German times, was under the jurisdiction of the paramount chief of northern Radak, of which Maloelap was the capital. In previous years the atoll of Likiep had supported a sizeable population, but early in the nineteenth century a typhoon devastated that area, resulting in the destruction of food resources and the decimation of Likiep's population in the sickness and starvation which followed. Scores of Likiep natives died and other migrated to Wotje, Maloelap, Mili, and other atolls in the Radak chain.

Shortly after the middle of the past century, when Marshallese chiefs still recognized no foreign domination and were battling among themselves for power, a Portuguese seaman, Jose Antone De Brum, was married to a Maloelap girl by Jortoka, the paramount chief of northern Radak. De Brum had joined forces with two traders, a German (Adolph Capelle) and an American (C. H. Ingalls), under the name of Capelle and Company, which was desirous of acquiring land in northern Radak for purposes of developing copra production. When De Brum approached his wife's chieftain on the matter, Jortoka refused to part with Wotje atoll, one of the richest in that area, but was willing to sell Likiep -- then sparsely populated and poor in natural resources due to the typhoon damage. On August 14, 1877, De Brum met with Jortoka at Maloelap, where the chief agreed to transfer all rights to Likiep atoll to the Portuguese on receipt of merchandise (cloth, hardware, cannon, muskets, ammunition, tobacco, and other items) amounting to \$1,250.00. A contract was drawn up in proper legal style in Marshallese, German, and English, to which Jortoka put his mark, and was witnessed by four Europeans and two Marshallese natives. (A copy of this document exists in the strong box of De Brum's son, Anton, who is the present magistrate of Likiep atoll).

Shortly after the Maloelap incident, De Brum signed over his title to Likiep to Capelle and Company, in which he held a one-third interest. For this transfer of title, he was compensated in the amount of \$886.73, apparently the wholesale price of the trade goods he had given to Jortoka. In the whole transaction, De Brum seems to have acted as agent for the Company, buying the atoll as a private individual and then transferring it to the Company. The title held by Capelle and Company was recorded at Apia (German Samoa) on September 4, 1878.

Subsequent relations between the new owners and the natives of Likiep atoll were defined and agreed to by both parties in two contracts executed on January 30, 1880. Jortoka had previously notified his subjects on Likiep that he had sold the atoll to the foreigners; the Likiep area was then supervised by three iroij erik, of whom the foremost was Lajan, the son of a brother of Jortoka and adopted by that chief. The natives were presented with the choice of remaining on Likiep as tenants under the new owners, or of migrating to Maloelap or other Marshall atolls under Jortoka's control where land was available for new settlement. Some Likiep people abandoned the atoll at that time, but the membership of three bwij remained under the new conditions, 34

natives appending their marks in acceptance of the terms set forth in the two documents. They disavowed all rights, title, or claim to any part of Likiep atoll for themselves and their descendants, and agreed to remain as peaceful and orderly tenants under the direction of the European owners, working on the coconut plantations at the prevailing wage of two dollars in trade per month, in addition to being supplied with certain subsistence necessities. If the owners wished to dispense with the services of any of the tenants, six month's notice was required and the owners agreed to pay the expense of transportation to another atoll.

Likiep atoll was apportioned among the three partners of Capelle and Company as follows: joint ownership and equal sharing of proceeds and expenses applied to the islands of Likiep, Lado, Mokil, Biebi, and Eacarmij; Ingalls had sole ownership of that segment of the atoll from Kili to Jaldoniej Islands, inclusive; Capelle owned the northern arc from Jaldoniej to, and including, Rongerik Island; and De Brum controlled the western rim between Rongerik and Likiep Islands. This division was based on the native territorial breakdown according to bukon (district): bukon 1 -- joint property; bukons 2 and 3 -- De Brum; bukon 4 -- Ingalls; and bukon 5 -- Capelle. Coconut plantings were started on the joint property and later were extended to the larger islands of the other bukons. Additional native labor was imported from Mejit, Maloelap, Mili, and other islands to aid in the development of the plantations. In 1887, the three partners complied with the German High Commissioner's order whereby all foreign landholders in the Marshalls were required to register their titles and prove their claims with proper documentary evidence (some of this evidence is appended to this report -- see Appendix "A").

During the 1890's, Ingalls sickened and had to be removed to a Honolulu hospital, where he died. His widow, an American who had no desire to remain in the Marshalls after her husband's death, transferred Ingalls' share in Likiep to the Jaluit Company, since De Brum and Capelle were then unable financially to relieve her of the property. Subsequently, however, the Jaluit Company returned the property to the Likiep partnership on a long-term arrangement for 75,000 marks and for an obligation on the part of De Brum and Capelle to buy copra and sell trade goods in the northern Marshalls solely for the Jaluit Company. The De Brum family paid its half of the debt by 1905 and eventually assumed most of the Capelle obligation, so that by 1914 the Jaluit Company was completely relieved of its interest in Likiep by the half-caste families of De Brum and Capelle. In Japanese times, the Capelles repaid the De Brums, and the former Ingalls property was merged with the original joint holdings in Likiep, to be shared by the two families on an equal basis. The Japanese, like the Germans, recognized the private nature of the land holdings at Likiep and, where the native population of Likiep was concerned, regarded the two half-caste families in the role of iroi.

The present native population of Likiep atoll is made up of descendants of the original Likiep settlers and of immigrant laborers, and continues to hold tenant rights subject to the will of the half-caste descendants of Jose De Brum and Adolph Capelle. A bitter dispute is now in progress at Likiep between the native workers and the half-caste owners over the division of copra proceeds, a matter which will be discussed at greater length in the next section of this report -- on labor problems. Some natives doubt the validity of the half-castes' title to all of the islands of Likiep atoll; they insist that the deal between Jortoka and Jose De Brum involved only a portion of Likiep Island -- Laulim, a tract of land bounded by lagoon and ocean and lying between the Town Hall and the residence of Rudolph Capelle. The land deed which is alleged by the owners to have been signed by Jortoka, with full understanding of what he was committing himself to, specifically defines the property as all islands of Likiep atoll. The late Tomeing, paramount chief of northern Radak in 1946 and a lineal descendant of Jortoka, understood that Laulim was presented by Jortoka to De Brum and his Maloelap wife as a wedding gift, and that De Brum had in turn given the chief some cannon, arms, and ammunition. Tomeing further suggested that it was possible that De Brum's native wife advised her husband and his business associates to proceed with copra production on other islands of the atoll, in spite of the fact that Jortoka may have intended to alienate only Laulim on Likiep Island. Since this woman is said to have been a favorite of Jortoka's, any action taken in her name or on her advice is presumed to have evoked the tacit acceptance of the situation by Jortoka. The present half-caste owners, in support of their claims, produce a number of pertinent documents and point to the past recognition of their rights to Likiep atoll by both German and Japanese administrations.

## B. MOVABLE AND INTANGIBLE PROPERTY

### 1. Ownership and Inheritance

The Marshallese appear to have little desire to accumulate wealth in any form, in fact they have very few opportunities to do so in what amounts to a subsistence economy; on the other hand, the half-caste minority follows standards of wealth recognizable by Westerners. In aboriginal times, the paramount chief theoretically owned anything in the possession of his subjects, and had the right at any time to take food, clothing, mate, canoes, and other movables from his people, just as he had free access to their women. This right, however absolute in theory, was exercised in most cases with temperance. Today, the same chiefly privilege pertains in some areas of the Marshalls, but in practice all movable property is considered to belong either to the family, or bwii, or to the individual.

Categories of property possessed by the bwii include canoes, fishing equipment, tools and implements, sewing machines, baskets and other utensils, mats, vehicles, animals, and food stores -- in fact,

those things which contribute to the well-being of the small kin group and the maintenance of the household. Borrowing and lending of such property occurs freely, most generally between members of the kin group, and no charge or special obligation is incurred by the borrower, although usually at a later date he will find occasion to reciprocate the loan. Inheritance of family property follows the traditional Marshallese pattern where transmission is by the female, e.g., from a man to his sister's sons (in the case of canoes, tools, and fishing equipment), and from a woman to her own daughters or to her sister's children (in the case of utensils, sewing machines, mats, and food stores).

In the category of personal possessions are clothing, ornaments, toilet articles, books, musical instruments, and other items either made by the individual or bought by him for his own personal use. Such articles are generally stored in large wooden boxes or chests, often secured with hasp and padlock, although thieving is said to be only nominal. Personal property may be transmitted to any other individual according to the desires of the owner, regardless of Marshallese matrilineal custom which prevails in the case of other kinds of property.

Property marks are sometimes used, as when an individual has his initials neatly embroidered on shirts, trousers, or dresses. Animals and poultry are frequently marked with the sign of the owners; in the case of chickens the claw on a particular toe is clipped, a brand recognizable by other members of the small community. Heirlooms are few today. No longer do the natives cherish elaborate headdresses and badges of traditional status as they did in former times, and the fine mats of pandanus which once had a special status in property acquisition are today quite scarce, the few remaining being tattered and dirty and used for any kind of work about the house. Probably the only artifacts which are now regarded as heirlooms are the pandanus beaters of tridacna shell and the thatching awls of bone, which require many hours of hard work to fashion and which often possess great age and value.

Intangibles, such as songs, dances, recipes, stories, and the like, appear to have little property value, being freely contributed by their inventors for community enjoyment, some slight prestige thereby accruing to the originators. Names and titles, of course, are inherited along with property and rank. Specialized knowledge, such as magic and navigational lore, is passed on by training, although the process or pattern of transmission and compensation is not certain.

## 2. Tribute and Taxation

It has been noted in previous sections that the paramount chief and his family were traditionally supported by contributions of food, mats, clothing, and other necessities as tribute (*akan*) from the commoners who occupied the lands controlled by the paramount chief. This highly organized institution was adapted by the Germans and Japanese to bring about greater production of copra and to effect a practical means of collecting a government tax. The customary poll tax by the German

administration in the Micronesian Islands was replaced in the Marshalls by the copra levy. A quota of copra was levied on each atoll and the collection was placed in the hands of the paramount chiefs, who received a bonus of one-third of what they collected. In 1890 the levy for the Marshalls was fixed at 150 tons of copra, about 5 percent of the total yield; the amounts required from each atoll ranged from 5 tons for Mejit to 25 tons for Ebon, a particularly rich atoll. Later, these levies were increased to 220 tons for that archipelago. According to German regulation, individual natives were exempt from the tax if they had more than five children under 16 years of age, or were unable to work because of old age or an infirmity.

The Jaluit Company, which bought copra and administered the islands until 1906, secured the cooperation of the paramount chiefs by a system in which the produce of each native coconut plantation from January to June was allocated to the chief, and that from July to December went to the worker. The paramount chief, from his share, paid the tax required from his subjects by the German administration and used the remainder for himself and his dependents. It was to the advantage of the chieftains to press production of copra, because the increased income meant greater access to European trade goods on which they had come to depend.

In time, the workers learned that their own share could be increased, and that of the chief decreased, if they worked slower the first half of the year, or if they cached some copra from the first period and sold it to the traders during the second period. The paramount chiefs gradually realized that their income was being curtailed through these practices, and were unable to meet their obligations for goods advanced by the traders on credit. About that time the Japanese replaced the Germans as administrators of the islands, but they continued the German tax system until 1922 when civil administration was introduced. Modification of the copra levy at that time resulted in a system whereby the trader paid the worker one-half of the purchase value of the copra produced during one year, the other half going to the paramount chief, out of which the latter paid the necessary poll tax for his subjects. The levy was increased from 220 tons for the Marshalls to 234 tons, the additional 14 tons representing a new levy on Likiep in lieu of a previous land tax.

The financial return to paramount chief, worker, and administration varied with changes in the price for copra and with increased production. In 1936, when copra production in the Marshalls stood at 5,475 tons, 98 tons was produced on government-owned land under the operation of Nanyo Beaki Kaisha, 441 tons was exported from Likiep where the half-caste landowners reaped 50 percent of the proceeds, 234 tons went to the administration as taxes (¥22,836), and the remainder -- 4,136 tons -- was divided between the native chiefs and their subjects. The 1936 copra levy represented about four percent of the total copra production in the Marshalls, while the levy toward the end of German administration had been about eight percent. The annual revenue from the copra levy between 1923 and 1936 averaged ¥21,000.

In the latter part of the Japanese regime, copra was bought in the Marshall Islands, outside of Jaluit, at the standard price of ¥90 per ton (1,000 kilograms). The money paid for copra was divided according to a formula established by the administration -- of the 90 yen, ¥45 went to the iroi labalap, ¥10 to the worker's alap, ¥5 to the Japanese trader to cover handling, and the worker retained ¥30 (just before the war this formula was revised as follows: ¥35 to the chief, ¥10 to the headman, ¥15 to the trader, and ¥30 to the worker). The administration required the chiefs to pay not only the natives' taxes but also any hospital expenses incurred by their subjects. Assuming one year's production on native-owned land to be 6,000 tons, purchased at the standard price of ¥90 per ton, the proportionate shares of chiefs and their subjects clearly show the inequities of the system -- an estimated 350 persons of royal status in the pre-war Marshalls received, after taxes and hospital expenses were deducted, about ¥600 per capita, while the workers and members of their families (estimated at 9,500) gleaned just over ¥20 per capita. The individual income of paramount chiefs actually varied considerably, depending on the extent of their land holdings, a.g., some boasted an income from copra of several thousand yen while smaller chiefs received as little as ¥100 per year.

Since the war, the situation has changed remarkably. Shipping shortages and war damage to stands of coconut trees have effectively delayed the resumption of copra production in the Marshalls -- some atolls have produced no copra since the last collection by Japanese traders in 1942. During 1946 the copra exported from the Marshalls was counted in hundreds of tons instead of thousands. Wherever the government traders (USCC) are buying copra in the Marshalls, they have adopted the practice of giving receipts to the workers for the number of bags of copra purchased, the total purchase price being paid in cash to the atoll magistrate. The latter then redeems each worker's receipt, leaving any further division to the worker himself. The present administration has established a head tax of three dollars (\$3.00) for each male between the age of 18 and 60, which is collected from the men by the magistrate; all hospital expenses have been assumed by the medical branch of the administration. Thus it may be understood why the natives of some atolls spend all of their copra income on trade goods for themselves, and question the right of the chiefs to any share of it. To date, the paramount chiefs have said little about this "oversight" since the amount involved is relatively insignificant considering the present state of copra production. But it is interesting to note that several of the Ralik chiefs have their agents -- the natives call them "supercargoes" -- stationed on each atoll where they control land; the agents record every bag of copra sold to the trader by the subjects of their chieftains. An accounting would appear to be inevitable as soon as shipping and production return to normal. Indeed, many natives already look to the administration for advice as to the proper amount to be turned over to their alap and iroi.

### 3. Alienation by Gift

An American navy lieutenant, on the eve of his departure from Kwajalein for discharge in the States, was unexpectedly presented with a score of handicraft articles (cigarette cases, shell belts, mats, and baskets woven from pandanus leaf) by Marshallese natives whom he had befriended in the course of his duties in the islands. One of the natives cut short the lieutenant's remonstrances with the remark -- "This is an old Marshall custom, to give presents to our friends when they leave; it's a habit which is hard to break." Though apparently less common in the Micronesian Islands westward, the giving of presents seems in the Marshalls to entail no formal obligation to reciprocate, although most natives eventually find themselves in a situation where they can be host to others who have previously done them a favor.

The whole community may unite in bidding farewell and presenting gifts to an honored guest or to a group of visiting natives about to depart for home. A feast is prepared by the villagers in cooperative fashion under the leadership of recognized elders, or if the visitor be leaving during the day the feast may be omitted and gifts of food as well as handicraft will be showered upon him. A double file of singing men, women, and children approach the guest, each bearing a gift of some kind -- of food (bottles of iekaru, bunches of green bananas and coconuts, baskets of limes, papayas, breadfruit, husked coconuts, and even live chickens) and of handicraft (grass skirts, flower and shell crowns and necklaces, bracelets, fans, doilies, cigarette cases, belts, coasters, baskets, and mats). Articles of adornment are removed from the person of the giver and placed on the guest or before him on a table. The gifts accumulate in considerable quantity before the ceremony is interrupted by a speech from the magistrate or other elder -- a speech in which thanks are given for the visit of the guest, and sorrow is expressed at the need for his departure -- sentiments which have already been vocalized in the old Marshallese songs of farewell. The guest is expected to answer these remarks, and then the evening (if such it be) is given over to more songs and dances before the entire assemblage. In the case of foreign (American) guests, the handicraft is boxed for their convenience; some of the food is intended to be taken along by the guest's travel party, the rest is distributed among the villagers who presented it in the first place, and the surplus floral crowns and necklaces are snatched up until every native has one of his own to complete his festive mood. On such occasions, communities seem to compete with each other in the extravagance of their hospitality, prestige accruing to the more successful.

Some idea of the spirit behind the giving may be clarified in the following account of natives entertaining natives. A party of Wotje men had for a week been feted by the people of Likiep. On the night before they departed by outrigger canoe for Wotje, they were dined lavishly by the Likiep villagers. Toward the end of the evening entertainment, the leader of the Wotje sailors thanked the people for their hospitality which he said he knew had cost them much in food and money.

For his part, he said, he and his men had made up a small purse (\$14 in cash) for the women of Likiep (who had been responsible for the feast) not as payment but to be put aside in their savings fund for future use when needed. A Likiep elder answered him, saying, the hospitality was a small thing and only proper after the way in which Likiep people visiting Wotje had previously been entertained. On occasion, formal presents of preserved pandanus and arrowroot meal, wrapped in pandanus leaves and secured with sennit, are given by native visitors to their hosts.

American service personnel who have experienced Marshallese hospitality are commonly frustrated by their seeming inability to reciprocate. Many have solved the problem by judicious gifts to individual natives or to a community of store food, candy, cigarettes, purchases from the States, and magazine subscriptions for those eager to read English, or by small services, such as jeep rides, English instruction, and just plain information about the outside world. On the other hand, some officials have abused the institution as did one Military Government officer who pointedly informed his interpreter that it would be in order for the native communities in his area to prepare adequate farewell celebrations, with gifts, on the occasion of his departure for the States. His gifts from the well-meaning natives totalled over \$1,000 when sold to the trader; the officer left the Marshalls with the cash and gave no further thought to the Marshallese, for whom handicraft production was the main, if not the only, means of cash income. That sort of thing has caused many natives to hesitate to extend their usual courtesy to Americans, especially in atolls like Majaro where visits by foreigners are most frequent. In the outlying atolls, such as Wotje, Ujae, and Arno, the practice of giving gifts continues unabated. In an attempt to curb malpractices, the USOC has ruled that its employees may not accept presents from the Marshallese; this practice, however, has offended natives who find their presents refused by obedient USOC servants.

An outstanding example of Marshallese generosity comes from the atoll of Wotje whose people have been able, despite shortages of food and materials in their war-shattered islands, to accumulate a surplus of cash through the production and sale of great quantities of handicraft. Through their magistrate, the Wotje natives in 1946 presented one box of over twenty shell belts and necklaces to a former Military Government officer who had rendered outstanding assistance to them, another box of 130 shell belts and \$50 in cash to the Marines who had aided in evacuating them on June 9, 1944 from Japanese-occupied Wotje to a refuge at Arno and Majaro (this personnel had long since departed for the States, so the Marshalls commandant sold the handicraft and placed the proceeds, with the cash gift, in a Navy Relief fund), another \$50 in cash to Military Government at Kwajalein (this was turned into a native working fund), and \$10.20 in cash as a donation to the work of the American Red Cross. These gifts are the more remarkable in view of the very little attention given in the past year to the needs of the people of Wotje.

## C. RECOMMENDATIONS

There is immediate need for a cadastral survey in the Marshall Islands. Most native disputes about property today result from misunderstandings and disagreements concerning titles, boundaries, and inheritance of real estate. Plat books containing location and extent of land parcels throughout Marshalls should be compiled and made available for ready reference at administration headquarters, with local copies also at each atoll. The survey should be supplemented by the erection of more permanent boundary markers, the recording of titles of ownership and use of land and the issuance of deeds to the individuals concerned, the registration of wills and other instruments involving transfer of land, and the classification of land holdings as to ownership by (a) government, (b) foreigners and half-castes, as private property, and (c) natives, in which case Marshallese law would be expected to apply. An integral part of title investigation is the collection and recording of pertinent genealogies of royal families which claim to own land in the Marshalls.

Of primary importance is the question of policy with respect to the status and role of the paramount chiefs in modern Marshallese society. The present directive to administrators to adhere to native custom wherever possible is too general to guide officials confronted with local controversies over the rights and responsibilities of chieftains, especially as regards tribute and taxation through copra proceeds. The Marshallese are now waiting for the administration to set a policy regarding the proper division of copra monies, as had been standardized throughout the Marshalls in German and Japanese times. If the principle is established that land belongs to the royal families and that other natives are in effect tenants, the paramount chiefs will have claim to proceeds from the sale of copra produced on their lands; furthermore, if it is decided by the Marshallese or otherwise that coconut trees are an integral part of the chiefs' properties, the chiefs will be entitled to a still larger share of the copra returns. If the administrative policy is to support the institution of chieftainship, more responsibility should be placed on the paramount chiefs, such as assuming the tax burden of their subjects and the expenses of hospital and other relief cases within their jurisdiction, in order that natives can no longer charge that their chiefs are not worth their salt and hence why support them. On the other hand, if the paramount chiefs are to be ignored by the administration in its relations with the native population, the chiefs' share in the copra proceeds should be held to a minimum, or at least left to the discretion of the people through their Atoll Councils. In any case, it would seem advisable to continue the present practice whereby the trader pays the purchase price for copra directly to the workers or by way of their atoll magistrates, leaving any further division of the copra proceeds to the workers themselves.

A land court should be established at the Marshall Islands level, to consist of three members from the Marshalls' population -- one from the chieftains' class, one from the commoners, and one to represent the half-castes' interests -- and one administrative officer who has had

experience with problems of land adjudication in native territories. This court should convene as soon as possible to settle land disputes which have arisen between chiefs, between a chief and his subjects, and between the subjects of one or more chiefs, in those cases where native officials at the atoll level (magistrate and council) cannot reach a satisfactory settlement. The court should also be responsible for the codification of Marshallese concepts of land ownership and land use, to be worked out in conjunction with native representatives from all areas in the Marshalls and from every social or economic section of the population. Thereafter, such a code should form the basis for settlement of property controversies, but should remain flexible enough to permit modification when local land concepts undergo change, as they are at present under Western influence. Topics to be covered in the code should include inheritance rules for various kinds of property, other categories of property transfer than inheritance, and the privileges and responsibilities of both chiefs and commoners where property is concerned.

Adequate protection should be provided natives as regards their interests in land, which is a basic necessity for their economic well-being. Alienation of native land should be permitted only where absolutely necessary for United States military security, or where direct benefit to the natives can be successfully demonstrated. Claims by natives against the Japanese Government for land purchased or otherwise acquired for military purposes after 1936 (when the Japanese began construction of their island fortifications) should be investigated as soon as possible. All such transfers, and particularly those where native populations were relocated or where compensation was not forthcoming or frozen in Japanese "trust funds," should be nullified and the lands redistributed among the natives with due respect for inequities arising from soil destruction by coral overlays or asphalt and concrete runways. Likewise, investigation should be completed immediately, and action taken, to settle native claims against the United States for land taken or leased for military purposes. Wherever additional land is needed for military installations in the Marshalls (probably a minor consideration since bases in this area are being closed down rather than expanded), care should be taken to avoid acquisition of land already occupied by natives or utilized by them as a source of food and materials.

## V. LABOR

### A. WAGE LABOR

#### 1. Categories of Work

Less than five percent of Marshallese have ever worked for wages at any one time, since they are normally occupied with subsistence activities — mainly fishing and agriculture. Before the war, a few natives were employed as wage laborers on commercially operated coconut plantations at Kili, Ujelang, and other islands in the Marshalls. Occasional recruitment of Marshallese for Japanese sugar estates on Saipan occurred early during the past administration, but was discontinued after the wholesale importation of Okinawan labor to the Marianas. Marshallese who preferred the sea found opportunities to work for the Germans, and later for the Japanese, as dock hands and masters of sailing craft which were engaged in trading and commercial fishing. Other natives unloaded cargo from steamers on the wharves at Jabor. At Jabor where a concentration of foreigners existed, natives, both men and women, gained employment as house servants, shopkeepers, carpenters, and workers in copra press, soap factory, fibre processing plant, and shipyards. About half of the Marshallese who worked for wages in Japanese times were employed by the Administration, and received salaries as hospital assistants, school teachers, policemen, and village chiefs and headmen. A small number of natives worked as teachers and pastors for the Boston Mission at Jabor and throughout the atolls. In general, native employees were male, Marshallese women being preoccupied with subsistence activities and piece work such as handicraft.

During the war and a few years preceding, the Japanese conscripted natives for work on military installations, such as leveling runways, erecting gun emplacements and tank traps along the ocean shores, and constructing concrete office buildings and shelters for military activities.

Since the American occupation of the Marshalls, approximately the same number of native wage workers have been employed as laborers on the Administration payroll at camps on Eniwetok, Kwajalein, Roi-Namur, and Majuro, as workers and storekeepers for U. S. Commercial Company, and as island officials. Military Government has recruited natives from all the atolls to work on projects associated with the military operations, such as P-X and Ship Store, laundry, mess-hall, cleanup detail, paint shop, tailor shop, barber shop, beaching seaplanes, operation of vehicles and heavy construction equipment, telephone switchboards, and numerous small tasks. Natives are also employed in the administration of native affairs as office clerks, interpreters, teachers, hospital orderlies, nurses, medical practitioners, magistrates, scribes, and policemen. The U. S. Commercial Company, in its trading activities, employs a small number of men as stevedores, warehousemen, storekeepers, interpreters, carpenters, motor mechanics, and office assistants.

## 2. Availability of Labor

The available labor supply is difficult to calculate in an area characterized by a native subsistence economy. The presence of some 10,000 Marshallese in the islands does not mean that all or any considerable part of that population are able or willing to work for wages. Acquisition of food supplies from the land and the sea, building and repair of housing, attention to normal household duties, copra production and handicraft -- these very necessary activities in the community life keep most adults fully occupied, and the presence of the latter in the community is essential to its normal functioning. Even the Japanese recognized this, and when their military preparations became more extensive shortly after the war began, they imported thousands of Koreans and Japanese convicts. Under American direction, all non-native labor has now been repatriated to the Orient from the Marshalls.

Seasonal variation in labor requirements in the Marshallese community is not great. During the summer and early winter, there are breadfruit, pandanus, and arrowroot to be processed for preservation and storage by the combined efforts of the community, and natives are loath to leave for military labor camps at that time. But in the period of scarcity of food from March to May, wage labor is more attractive, especially if food supplies can be purchased in the trade stores with the wages earned.

Reasons given by Marshallese for desiring to work at the military bases range from an eagerness to view American movies and USO girl shows, to the advantages to be gained in learning new skills and the English language. Probably one of the primary motivations, however, is the opportunity to forage about the camps and accumulate surveyed or surplus food, clothing, tools, and other items which are regarded as priceless by the native due to their scarcity in the outlying atolls. Every group of returning laborers takes back bales and boxes of "loot" to be distributed at home among family and relatives. Men are more eager to work for the military if they are able to bring their families with them to the labor camps; with single men, of course, this factor is less important. In general, it appears unlikely that the small demand for native labor by military establishments in the Marshalls will ever work any hardship on native communities, if recruiting is distributed evenly among the atolls and not confined to a few atolls near the bases. Also it seems at present that sufficient natives are still intrigued by the attractions and the economic advantages of military base life to cause no apprehension on the part of recruiting authorities.

Earlier reports by Germans and Japanese have indicated that Marshallese natives are lazy and unwilling to work. This statement is proved unfounded by observations of natives at work in their own communities -- fishing, tending crops, and other kinds of work. The experience of American service personnel with native labor at military bases has already demonstrated that the Marshallese are quick to learn new skills and that they apply themselves well when intelligently directed. Lacking

able direction, they may be observed to work in spurts -- toiling uncomplainingly at hard labor when pressed or encouraged, but slacking off and malingering when their foreman or supervisor leaves them alone. Native laborers will work harder and longer if they have a pride in their work, or if they can turn a chore into a game; for example, those who work on boats or near the water appear to gain more satisfaction from performing their assigned tasks because of their love for the water and the prestige which attaches to good seamanship in Marshallese society. They are eager to work with engines and motor equipment in order to learn more about something which is quite new, and fascinating, to them. Though it has been said that the Japanese failed to obtain results with a system of badges and honors designed to increase motivation of native workers, it has been observed today that Marshallese are quite susceptible to such rewards if the system is administered intelligently.

Marshallese in the military and U. S. Commercial Company labor groups are directed by American service and civilian personnel. Because of the language difficulty, frequently a native or a half-caste who shows ability to supervise men and to speak English is the intermediary and, thus, the actual supervisor of the crew. In the Marshalls, the employment of half-castes as foremen is not resented by natives working under them, but precautions should be taken to avoid using half-castes exclusively in supervisory positions, as continuance of this practice will only serve to widen the economic gap between the two ethnic groups. At present, it is true, that half-castes generally have the best qualifications for better positions because of their background and education; however, educational opportunities should be made available to natives so that they may compete on equal terms with the half-castes in economic activities. Socially, the half-castes though acting as supervisors are treated by the Administration as natives, and are housed and messed with natives and denied the same privileges at military bases as are natives.

Better supervision of native work crews is needed. The Marshallese are quick to pick up new habits, both good and bad. On one occasion, a crew was loading packaged goods onto a landing craft for transport to native stores; each man was carefully depositing his burden in place until the American foreman carelessly tossed one package into the boat, breaking the package open and exposing the trade goods to the weather. Thereafter, it was noticed that the native laborers were less careful and in the ensuing hour several packages were damaged by them through carelessness. On another occasion, the influence of the foreman on work output was well demonstrated. A young American civilian in charge of a native warehouse crew was accustomed to arrive late on the job and frequently to leave his workers unattended while he spent his time elsewhere. A noticeable increase in work production of the group resulted several months later when a young half-caste was put in charge of the same crew -- he led his men in the work, stripped to the waist, and set an example which they followed willingly in a competitive spirit. These examples are not given to censure any individual, but to illustrate how important it is to have intelligent and enlightened supervision for native work groups in order to receive the most from their recruitment.

The efficiency of Marshallese laborers on the bases has been shown to increase as they learn English and become more able to understand directions and commands. At Majuro, the USCC trader offered English instruction to his native help, and in less than six months was able to raise very man two pay grades because of his increased usefulness in trading operations. Indeed, one of these men, who knew practically no English when he was recruited, learned enough English in six months to take over the duties of storekeeper in the handicraft shop on the base -- explaining prices and articles to customers, making change, and keeping records of his daily sales.

### 3. Conditions of Labor

The accompanying table of monthly wages paid for native labor in the Marshall Islands will give some idea of the relative wage standards established by German, Japanese, and American administrations. It should be pointed out that these figures do not take into account the relative purchasing power of the mark, yen, and dollar over the years. Although reliable statistics are lacking on the cost to native purchasers of trade goods imports, all indications are that a unit of wage income buys far less today than it did in pre-war years under either German or Japanese administration. On the basis of quoted wage standards alone, it is apparent that common labor was paid less in German and Japanese times, but that semi-skilled and skilled workers received more then than now. Natives should be allowed under the present Administration to participate in more skilled activities and be provided with training opportunities to allow them to do so, and should be paid on the basis of their skills and not just as "natives". Advancing them to higher paid categories will put more money into the islands when the Marshallese need every cent they can get during this period of rehabilitation.

Marshallese wage laborers are accustomed to being paid in cash plus rations (three meals a day -- rice, bread, sugar, corned beef, and canned salmon or sardines). This is because eight hours of day labor leaves no time for a man to catch fish and collect fruit, and his employer is expected to furnish the food. In the outlying atolls, where schoolteachers, medical practitioners, and village officials work on a part-time basis and live at home with their families, no rations are expected since the employees of the Administration have time to procure their own food through fishing and agriculture. During Japanese times, rations included  $1\frac{1}{2}$  pounds of rice per person per day, but during the war the Japanese were forced by shortages to cut that ration in half. The Marshallese who work for wages have in the past bought their own clothing and provided their own housing.

Hours of work before the war amounted to 48 per week, generally from 7:00 a.m. until noon, and from 1:00 p.m. until 4:00 p.m. Occasionally night work was required, with or without compensation, depending on circumstances. Double time was paid on Sunday in order to offset the Marshallese natives' unwillingness to transgress the mission ban on Sunday labor.

Comparison of Monthly Wages Paid for Labor  
in the Marshall Islands

Category of Work	German Period (Dollar = 4 Marks)	Japanese Period (Dollar = 4 Yen)	Present Administration
<u>Common Labor</u>			
Men	\$ 7.50 and food	\$ 5.00 and food	\$ 12.00 and food
Women		3.50 " "	9.00 " "
<u>Semi-skilled</u>			
Artisans 3rd class	15.00 " "	11.25 to 17.50 and food	15.00 " "
Artisans 2nd class		30.00 " "	18.00 " "
<u>Skilled</u>			
Artisans 1st class	42.50 " "	60.00 --	24.00 " "
Native camp leaders			30.00 " "
<u>Subprofessional</u>			
Interpreters 3rd class			24.00 " "
Interpreters 2nd class			40.00 " "
Interpreters 1st class			55.00 " "
Teachers 3rd class		10.00 --	24.00 " "
Student nurses			9.00 " "
Nurses			15.00 " "
<u>Professional</u>			
Advisor on native affairs			70.00 " "
<u>Native Island Officials</u>			
Magistrates (under 200 pop.)			7.50 --
Magistrates (200 - 500 pop.)			10.00 --
Magistrates (over 500 pop.)		8.75 --	15.00 --
Headmen		5.00 --	6.00 --
Scribes (under 200 pop.)			6.00 --
Scribes (200 - 500 pop.)			7.50 --
Scribes (over 500 pop.)			10.00 --
Nurses aids			5.00 --
Medical practitioners 3rd class			18.00 --
Medical practitioners 2nd class			24.00 --
Policemen		7.50 --	5.00 --
Storekeepers			24.00 --

According to the terms of the mandate given to Japan by the League of Nations no forced labor was permitted except in the case of essential public works and then only with adequate compensation to the worker. Whenever the Japanese administration wished to mobilise native labor for public works, the matter was discussed in council with village officials, who were given entire responsibility for recruitment, the government supplying plans and supervision. No wages were ever paid the workers in these cases, although some expenses were met by the administration as regards building materials. During peacetime, forced labor existed only as a penal sanction. Even today, when justice is meted out by native magistrate for disturbance of the peace and other misdemeanors, the prisoner is given a term of hard labor on some community work project; meanwhile he lives at home and enjoys complete freedom outside of the required working hours.

In the years just prior to the war when the Japanese began to recruit husky, young natives for labor on military installations at Jaluit, Wotje, Kwajalein, Eniwetok, Mill, and Maloelap, the selection of individuals was left entirely to the village magistrate so long as the quota for his area was filled within the specified time. The procedure of the native official was to select the required number of men and ask them to show cause why they should not be sent to the Japanese bases to work; if anyone begged off, someone else in the village would have to take his place -- a procedure which created resentment and bitterness between natives and their officials. If the magistrate could not produce the laborers, he himself was punished by the Japanese. At first, conscripts were taken for one year, but later as the natives began to rebel, the Japanese shortened the service to six months. At the bases, native workers were crowded into barracks and given rations, but no clothing. The rations were poor, say the Marshallese, and the pay was only 20 sen per day for common labor (semi-skilled labor received twice as much, and foremen got \$2 per day for supervising labor groups and for punishing their fellows when production lagged). The laborers at Wotje worked from 8:00 a.m. to 5:00 p.m. every day, leveling the airstrip and building forms and pouring concrete for shelters and gun emplacements.

Marshallese desiring to work at American military labor camps today are recruited from all of the islands for a period of six months, during which time they are free to leave, providing transportation is available, in case of sickness, need, or death at home; some have taken advantage of this. Anyone who wishes to remain longer may sign on for another six months, after taking leave for one month if he desires; quite a few natives do stay one year, especially if their families are not far away. The administration does not encourage natives to bring their families with them to the labor camps because facilities are limited, but some tents are provided for family use and natives are messed at a community kitchen (cooking is often supervised and carried out by natives with supplies provided by the Administration). At Majuro camp, out of 240 native laborers during the spring of 1946, 60 percent were married, but only a few had their families with them.

On one occasion at least, in 1946, the Administration was unprepared to carry out its part of the labor contract; when the termination date arrived, the natives were packed and ready to leave for home, but no shipping was available and the labor camp supervisor had failed to provide other transportation. Frantic action on his part finally resulted in the natives being returned to their homes, and new recruits picked up, by air transport drafted for the emergency.

## B. OTHER FORMS OF LABOR

### 1. Cooperation and Group Participation

The character of the geographic environment influences to no small degree the organization of work on a cooperative basis within a Marshallese community. The comparative abundance of food crops, such as breadfruit, pandanus, and arrowroot, at certain seasons and the critical shortage at other seasons necessitates the preservation and storage of large quantities of food — an activity best undertaken through the cooperation of many workers to process the food when it has attained the desired degree of maturity and before it becomes spoiled by neglect. For example, breadfruit of the variety best suited for preservation must be picked and processed within a very short time, and members of the community will work together night and day to finish the task to avoid loss of the fruit through spoilage. Again, the many stages in the reduction of starch from arrowroot and the nature of the apparatus employed, render that task easier if many people cooperate, each contributing his share to the successful completion of the project.

Some activities on the water require the participation of a number of men, and are impossible to execute otherwise. In handling the average outrigger canoe, three men are required to change sail in tacking on a course; larger canoes require more crew. When beaching or launching the craft still more men are required to haul the heavy canoe to or from the water. In executing a fish-surround, 15 or 20 men are necessary to drive the fish into a concentrated area where they can be trapped or speared in shallow water by still other men.

In erecting a shelter or community building and in applying thatch to walls and roof, an otherwise long and arduous job is accomplished in a relatively short time when many workers contribute their labor in group participation. In this task, as in all others where group activity occurs, the social accompaniment is an important factor, for chatter and laughter and the prospect of a concluding feast and entertainment make a game of what other peoples would consider drudgery. It is the same principle which operated in the days of American pioneers when husking bees and house warmings were regular and frequent affairs.

In Marshallese group activity, the work group ideally forms about the nuclear family and includes the relationship within the hwij of the man or his wife, according to the nature of the work; e.g., construction

of a house on property allotted to the woman's bwii would be carried out primarily by members of her bwii, who would henceforth have a claim to that house as bwii property. Occasionally more distant relatives and neighbors are drawn into the work group through associational ties. Leadership in the work project is supplied by an older male or female of the bwii or by a member who has special talents in the work at hand. In building a house, men cooperate in cutting timbers from pandanus and breadfruit logs, hewing them to the proper shape, fitting them together, while the women gather dried pandanus leaves for thatch, fashion them into sections to be tied in place on the roof frame by the men. When one individual of the bwii has a first birthday or marries, bwii unites to prepare the feast which always forms the main event -- each member contributing some item of food, (roast breadfruit, fried fish, husked coconuts, roast pig, or baked bread), preparing the food in small work groups of a size consistent with the capacity of the earth-ovens used, and bringing the contributions to the home of the host member. In the production of copra, where the land on which grow the coconut trees is held in common by members of one bwii, they cooperate in collecting the nuts as the latter fall to the ground, in bringing the nuts to a common clearing where they can be husked and cut open, the meat extracted and laid to dry in the sun. Because of the many hands involved and the proportionate time allotted to different production stages by various individuals, it is almost impossible to calculate the number of hours it takes one man to process one ton of copra.

There appears to be no problem, where group work projects are concerned, in obtaining the proper contribution of labor from each member of the community. Those unwilling to do their share eventually find themselves in the position of requiring the labors of others, and being refused if they themselves had malingered on previous occasions. An additional incentive to group participation in certain economic activities is provided by the authority vested in the paramount chief to deprive any recalcitrant of his tenant rights to the land which is the very basis of the subsistence economy as practiced in the Marshalls; each native is required by tradition to tend the root and tree crops on his allotted land, to keep his shelters in good condition, to take part in copra production, and to make the best use of the raw materials provided by his land.

Visiting groups from other atells are always ready and eager to contribute their labors to work activities in the host community, such as collecting firewood for the women, digging new wells, cleaning up yards and the forested areas toward the outer shore, painting canoes or repairing canvas sail. In turn, the host group will provide meals and special feasts, song and dance, and other services.

## 2. Specialization

As in the case of most societies, the Marshallese recognize fairly distinct categories of work which are considered as proper for one sex or the other; in some kinds of work there is overlapping and both sexes participate.

Activities usually reserved for men are characterized by being difficult or dangerous, involving heavy labor, or having to do with esoteric knowledge and community leadership. Thus, males are occupied with work in wood (canoe and house building and wooden handicraft), with all fishing and canoeing, with most agricultural labor (tending taro patches, clearing forested areas, planting new trees, and harvesting the fruits thereof), with making sennit cord and rope from coconut fiber, with husking coconuts and climbing trees, with the care of pigs and chickens, with most of the work in copra production, and with official duties within the community. On occasion, men may also tend the children while their wives are busy with other things, may tailor some of their own clothing, may assist in the preparation of food (especially on feast days), and may even do some processing and weaving of leaf fiber in handicraft production.

Women usually have responsibility for preparation of daily meals, for plaiting and weaving of leaf materials into baskets, mats, wall panels, and handicraft, for tending to the early education and needs of the children, for collecting firewood and drawing well water, for washing clothes, for keeping house and yard in good appearance, for sewing and repair of clothing, and for preparing the earth-oven. Sometimes, women engage in the production of copra, the harvesting of root crops, and the care of chickens.

There has never been much individual specialization in the Marshalls even today when Western skills are being acquired by many native men and women. Every individual is expected to be relatively independent and self-sufficient in economic activities allocated to his sex. Each man, for example, should be able to do simple carpentry, sail a canoe, fish and dive, climb a tree, husk a coconut, and make copra; while a woman, to be any good as a wife, has to be able to cook, tend children, keep the house and yard clean, sew, and weave products from coconut and pandanus leaves.

In recent times, some individuals (particularly in the half-caste population) have become expert at building sailboats designed along Western lines, have learned the rudiments of motor mechanics, have received specialized training in carpentry (at the Japanese school for woodworking at Palau), have become accustomed to work with modern tools and to use cement, lumber, and iron roofing in house construction. In the old days, certain skills were rewarded by grants of land and special privileges from the paramount chief -- skills, such as tattooing, medicinal knowledge, navigational lore, wise counsel, administration of land holdings and supervision of tenants, and war prowess -- but many of these talents now go unrewarded. Today, the Administration offers special opportunities to natives with specialized training in such positions as schoolteacher, medical practitioner, nurse, interpreter, and village official; mission work provides opportunities for native pastors.

### 3. Copra Labor Unrest at Likiep

The present labor unrest at Likiep atoll is the culmination of a series of misunderstandings between the Marshallese workers and the half-caste landowners regarding the exploitation of copra resources. Changes wrought by European influences on the native economy, and the clash between the proponents of private property and those of group control, have combined to create a tense situation along racial lines at Likiep. Before the present administration attempts to adjudicate the controversy, it should be thoroughly conversant with the background of the case and with all of its ramifications; some stand will probably have to be taken with regard to the conceptual framework -- either Marshallese or European -- to be followed in matters of property and labor relations at Likiep, for the reason that the two economic systems do not appear to be compatible.

When Jortaka, the paramount chief of northern Radak, in 1877 signed over his rights in Likiep atoll to Antone De Brum, who acted as agent for A. Capelle and Company, agreements were subsequently drawn up to determine the working relationship between Likiep natives and the new owners. In January 1880, 34 Marshallese at Likiep placed their marks on a document in which they acknowledged their full understanding of the land transfer and renounced all claims to Likiep for themselves and their descendants. They further agreed to remain at Likiep subject only to the new owners' approval, to work for the owners at a wage rate to be determined, and to leave Likiep at any time held desirable by the owners (provided the latter delivered them free of charge to another atoll under Jortaka's control). By the terms of a companion document, they would be allowed to remain at Likiep only on condition that (1) they do not destroy coconut trees planted by the owners, (2) they behave in an orderly manner, and (3) they work for the owners on the coconut plantations at the current wage of two dollars per month to be paid in trade goods. Six months' notice was regarded as sufficient to require any native to terminate his residence at Likiep.

At the time of the land transfer, some Likiep inhabitants chose to leave the atoll in order to avoid becoming tenants on the land of A. Capelle and Company. Thus, it was necessary for the new owners to import natives from other atolls to assist in the development of the copra plantations. From Maloelap, De Brum's first Marshallese wife brought some of her relatives, and others joined these later; their descendants today live on the western side of Likiep atoll from Aikene to Rongelap Islands. From Mejit, where civil war made living uncertain, Marshallese natives escaped in their canoes, making a landfall at Likiep to become tenants of the European landowners; later, their relatives and friends, hearing of the Mejit colony at Likiep, joined them and more names were added to the labor roster. From this group, De Brum chose his second wife, and today Mejit people at Likiep are to be found mainly in the eastern islands of the atoll -- from Eniej to Jaldeniej. In the southern Marshalls, at that time, Mili and Arno were also under the cloud of civil strife, causing some natives to seek refuge at Maloelap, from where they were subsequently sent by Jortaka to Likiep. Capelle had many friends

among the Marshallese of southern Radak and was able to persuade a few of them to locate temporarily on his plantations at Likiep; many Mili people today reside at Maat and Emijwa Islands at the north end of the atoll. The descendants of the original Likiep inhabitants work on the land at Maat Island under the leadership of an old woman, Limejlok; at Emijwa Island under the alap Labingwitok; and at Jebal Island. It is reported that during the early period of copra development at Likiep, natives from Yap, Truk, and the Mortlocks (Nemoi) in the Carolines were brought in on short contracts but were subsequently returned.

The new owners drew up a list of all property on the atoll, to include pigs, chickens, trees of all kinds, and root crops; on the basis of this inventory a two-fold division was made -- half for the needs of the tenants, and half for the benefit of the owners. Throughout the German period, the owners furnished the natives with necessary food, clothing, and materials in return for their complete output of copra -- an arrangement which is said to have been satisfactory to both parties. The only cash paid out by the owners was a commission to the alap (who acted as a foreman or supervisor for the owners); at first the alap was given one German mark for each bag of copra processed by his people, but later this amount was increased to two marks, and just before 1914 to three marks per bag. A bag of copra averaged 100 pounds in weight.

The first seeds of dissension among the workers appear to have been sown when Joachim De Brum, the only son of Antone's first wife, revealed to the natives the existence of a "will" in which De Brum and Capelle had stated that their initial investment of time and labor in the plantation development would be satisfied with the full proceeds for one generation, and that it would be proper during the second generation for the owners and workers to share equally in the returns from copra production. (According to native informants, one planting of coconut trees will produce for two or three generations, after which replanting is necessary to replace worn-out trees). This intended philanthropy of Joachim's, which occurred early in the Japanese period, apparently back-fired when other half-castes at Likiep insisted that any equal sharing of copra proceeds would necessitate the curtailment of supplies to workers, as had been the practice until then. In addition, the Japanese administration seems to have saddled the owners with certain taxes and medical expenses, which the owners argued would have to be shared by the workers under any new system. The workers, having once been informed that they were entitled to 50 percent of the copra proceeds, ignored the responsibilities which they were expected to assume and clamored for a straight 50-50 sharing of the profits. Their alaps, disgruntled by the increasing prices paid for copra to the owners and the failure of the latter to adjust the alaps' commission correspondingly, led the fight to bring about a revision of copra profits distribution.

About 1926 a party of four alaps from Likiep sailed to Jabor (Jaluit) where they petitioned the Japanese administration for a change in the Likiep copra situation. (Three of these alaps are still living and form a part of the present core of worker discontent at Likiep).

Before this appeal to the government, Likiep natives had ceased copra production altogether pending a more equitable distribution of profits. Only the half-caste owners were then processing copra for export, preferring to maintain the plantations themselves rather than surrender to the demands of their native workers. The Japanese administration rendered a decision in favor of the natives, establishing a flat 50-50 division of the proceeds between owner and worker (no more supplies had to be issued by the owners to the workers, as previously). For several years thereafter, Japanese traders bought Likiep copra for cash, paying 50 percent to the half-caste owners and 50 percent to the alaps (who in turn paid three-fourths of that amount to the workers themselves).

Additional friction was caused in the thirties, when the half-castes grew accustomed to ship copra in their own boats from Likiep to Jabor for direct sale to traders at higher prices. Instead of taking ¥140 per long ton for copra at Likiep from Japanese traders as they made their rounds of the Marshall atolls, the half-castes saved shipping charges and assured themselves of ¥180 and ¥200 per ton at Jabor. Naturally, they pocketed the additional profits as their due, but the native workers at Likiep saw only that all the work of processing the copra was done by themselves for ¥70 out of ¥200 per ton. Just before the war, the Japanese administration standardized the division of copra proceeds for the entire Marshalls (the half-caste owners at Likiep were treated in the same category as the paramount chiefs on other atolls). The price of copra was pegged at ¥90 per long ton outside of Jaluit; the chiefs and the half-caste owners received ¥45, the alaps got ¥10, the natives who processed the copra were given ¥30, and ¥5 was retained by the Japanese trading combine as a commission or handling charge. After October 1941, the ratio of distribution was altered to 35 : 10 : 30 : 15.

The war and the resultant population dislocation at Likiep interfered with copra production, and the last pickup of the product by Japanese traders was made in October 1942. After that, the plantations were neglected for the more pressing needs of food and shelter. Underbrush grew up in the groves, drying-sheds fell apart, copra knives became rusty, and warehouses were utilized for other purposes. When the American forces arrived at Likiep in 1944, they found the population in poor health and poverty after three long years of privation and of suppression by the Japanese military. The demands for food, clothing, and shelter claimed the attention of Military Government, and until 1945 no assistance could be directed toward rehabilitating the copra industry at Likiep.

By the middle of 1946 only three pickups (about 50 tons) of copra had been made at Likiep by the U. S. Commercial Company, due to the inadequacy of American shipping in the islands and to the tardiness of the workers at Likiep in resuming their former occupation. The workers now look about them and see their relatives and friends on other atolls relinquishing only 10 to 25 percent of their copra income to the chiefs, while the Likiep natives give up 50 percent according to the pre-war arrangement with the half-caste owners. As they had demanded 50 percent in Japanese

times, now they ask for 75 percent. In defense of their position, the natives truthfully say, "We do all the work, husk the coconuts, cut them open, remove the meat, dry it in the sun, carry it over land and water to the central warehouse, while the owners sit in their palaces and do nothing but spend half of the money they get from the sale of our copra." Even half-castes in other parts of the Marshalls admit that Likiep natives were being "squeezed" too much by the De Bruns and the Capelles before the war, and that the half-castes treated their workers like "slaves" -- swearing at them and otherwise forcing them to produce their quota of copra (one of the De Bruns reports that, in Japanese times, the administration required each worker to process 40 kilograms of copra every day, six days a week, or be put in jail, assigned to road repair, or even possibly beaten by the police).

On the other side, the half-castes complain that it is difficult to get the natives to work, and that they have to "force" them to produce as much as five sacks of copra a month. Some workers have left their homes on the far side of the atoll to take up residence on Likiep Island in order to be near their children at school; these are told by the half-castes to take their babies and go home where there is food, as there is not enough for all on Likiep Island. Other natives have moved to Likiep Island to be ready when the trader arrives to sell their handicraft (at which they can earn more money than at copra production); these are threatened by the owners to get off the island and work on copra, or the trader will not buy their handicraft.

In January 1946, natives and half-castes met in council with Military Government officials, at which time the workers presented their demands for 75 percent instead of 50 percent of the copra proceeds. The administration officer, after hearing both sides of the matter through an interpreter who happened to be one of the landowner's heirs, replied, "Those who are not satisfied with things here at Likiep are free to leave and establish a home on another atoll; the government will provide the necessary transportation." But the workers have lived long at Likiep and have no place else to go, so the officer added, "Wait awhile -- it is too late this trip to do anything about this. Draw up a petition, in the meantime, signed by every worker who wishes to see the copra proceeds divided otherwise. Send it to Military Government at Kwajalein." Such a petition was formulated by the alapa, signed by nearly 250 workers, and sent to Kwajalein.

Nothing more was heard from Military Government until six months later when a special party arrived by plane from Kwajalein on another mission quite apart from the copra trouble. At the council meeting which took place, however, the natives were asked if all was well at Likiep; no protest was voiced (in spite of the fact that native labor unrest had increased in the six months which had passed) for the reason that this time the government interpreter was a half-caste who was very friendly with the Likiep landowners, and the natives had no other English-speaking individual to represent them. Following the meeting, the trader notified the Likiep owners that the price of copra was being increased from \$40

per long ton to \$40 per short ton, a difference of \$4.00, which it was suggested would take care of the owners' expenses in handling the copra until it was sold to the trader. Later, one of the owners told the leaders of the workers that from that time all handling charges would be borne by the half-caste owners, but he failed to inform them of the price increase, slight though it was.

The cost of handling the copra after it is processed has long been a sore point between the two groups at Likiep. Handling consists of transportation of copra from the worker's land to the central warehouses (one on Likiep Island and one on Emijwa Island), grading and weighing, resacking when necessary, and transportation from the warehouse a few hundred yards to the shore and the ship's boat of the trader. From that point, handling is done at the trader's expense -- five or six natives are usually needed to lead the copra from the boat into the hold of the ship. In Japanese times, it appears that the owners withheld part of the workers' share to cover handling costs. After the war, however, Kwajalein natives told the Likiep workers that they paid too much, and when the workers protested to the owners, the latter told them to do the work themselves and no percentage would be withheld. If the natives have no boat or canoe with which to haul their copra across the lagoon to the warehouses, they borrow a craft from the half-castes, operating it themselves (one half-caste indicated that for lease of a boat the native was charged ten cents per hundred pounds of copra hauled, but natives say that no service charge has ever been made). Despite the July arrangement, whereby the owners will receive \$4.00 per ton to cover handling costs, it appears that native workers will still have to transport their copra to the warehouses at their own expense.

Americans interested in the Likiep copra dilemma have various ideas concerning the relative income of individual half-castes and natives or of either group as a whole. It has been estimated, for example, that Likiep has about 70 half-castes and 250 native workers; if each group receives 50 percent of the copra proceeds, it would follow that the owners have about a three-to-one advantage in terms of per capita income. On the other hand, the owners plead that they cannot break even on what they receive, considering the "high costs" involved in the maintenance of warehouses and boats for use in the copra business. Some light may be shed on a confused situation by the following analysis of copra production data for the year of August 1941 to August 1942 (the last year in which Japanese traders bought Marshallese copra for export).

About 105 long tons of copra were produced in the year 1941-1942, and were sold to Sisambu (Japanese trading combine) at \$90 per ton -- nearly \$10,000. While the output in 1941-1942 was only 25 percent of the average copra yield in the thirties, it will serve as a basis to compute the relative incomes of owner, alap, and worker at Likiep. The atoll's population of 560 is divided into 70 half-castes (40 adults and 30 children under 21 years) and 490 natives (275 adults and 215 children) -- a proportion of one half-caste to seven natives. Out of \$9,498 (the price brought by the 1941-1942 copra yield) the half-caste owners took \$3,922,

the alaps and workers together got ₪4,221 (alaps, ₪1,055; workers, ₪3,166), and ₪1,355 was retained by the Japanese traders as "commission."

On the basis of these figures, the per capita return from copra for half-castes was about ₪60, and that for natives about ₪10 (some allowance being made for the smaller population then existing due to labor conscription and other dislocation). This ratio of six-to-one is actually increased to perhaps eight-to-one when one considers the fact that some half-castes also worked at the production of copra with their own hands, and that in such cases received the shares of both worker and owner.

Dissatisfaction over copra profits division at Likiep occurs not only between half-caste owner and native worker, but also between native alap and native worker, because of non-payment since the war of the alap's commission by the worker. The trader, at present, pays the copra money to the magistrate; the latter passes 50 percent to the owners and 50 percent to the workers, leaving the matter of alap payments to the individual worker. In Japanese time, the alap's share was considered a legitimate one, because of his responsibility toward the workers of his family with regard to medical expenses and other matters. Today, however, the administration bears all hospital expenses, and the collection of taxes has been very sporadic; thus, the younger brothers of an alap resent having to pay part of their copra profits to him just because he is their elder brother.

In 1941-1942, the names of 50 alaps appear in the Likiep copra records (15 of them half-caste, the rest native). Their share of the copra proceeds for that year totalled ₪1,055 (in normal years, as a group they would have received over ₪4,500. Some alaps have a much greater income from this source than others, according to the amount of land under their supervision and the number of workers in their families. Thus, in bukon 1 of Likiep atoll (Likiep, Lado, and Biebe Islands) where 15 alaps received one-ninth of the copra proceeds (₪304), one native alap topped the list with ₪100 as his share, another got nearly ₪60, and four half-caste alaps averaged ₪20 each; the remaining alaps received less than ₪10 each, some as little as ₪2 and ₪5. Likewise, the individual income of workers varied considerably, depending on the labor and ambition contributed to the task.

It is revealing to note the complicated system of distribution of copra profits which prevails among the half-castes themselves. At present, Anton De Brum, the magistrate at Likiep, is paid a lump sum for all copra picked up by the trader on one trip. Anton redeems the receipts given by the trader to individual workers for their sacks of copra, to the amount of 50 percent of the total value of the copra. The remaining 50 percent of the money is divided according to the district (bukon) from which the copra was produced -- that from bukons 1 and 4 is shared equally by the two half-caste families, that from bukon 5 goes to the Capelles, and that from bukons 2 and 3 to the De Brums. In terms of actual income, the copra production of 1941-1942 yielded a total of ₪8,922 to both families, or ₪2,292 from the joint plantation districts (₪1,146 to each family), ₪630 from the De Brum districts, and ₪1,000 from the single Capelle district. Thus, the total Capelle share was ₪2,146, and the total De Brum share was ₪1,776.

Anton De Brum, as magistrate, turns the Capelle share over to Fredy Capelle and Karl Hahn, respectively the only surviving son of the original Capelle and the German husband of Elise Capelle, Fredy's sister. Fredy and Hahn are responsible for further dividing the supra money on the basis of equal shares for the six children of Adolph Capelle or their heirs -- one share for Fredy, one share for Elise, one share for the eight heirs of Edward, one share for the four heirs of William, one share for the adopted son of Adolph, Jr., and one share for the five heirs of Godfrey. In all, about 40 of the 70 half-castes at Likiep belong to the Capelle family and share the Capelle profits according to the above formula.

In like manner, the De Brum share must be divided among the heirs of Antone, the original De Brum, although by a different formula. After expenses are deducted, the seven heirs of Joachim, the only son of Antone's first wife, are given 15 percent of the total (this is because Joachim was the mainstay of his father when the coconut groves were being first developed). The remaining 85 percent is divided into eight equal shares among the heirs of Antone's second wife -- Antone, Jr., Melanter, Capelle, Mamiel, Katrin, Tamar, the heirs of Rosi, and the heirs of Domingo. Some of the dissension which exists between Joachim's heirs, headed by Raymond De Brum, and the heirs of Antone's second wife is probably due to this system of distribution; the two branches of the De Brum family, though second and third generation respectively, are actually about the same age level.

Although it appears from the supra records as though the Capelle half-castes received more money from the produce of their land than did the De Brums, the latter tend to work harder in the groves themselves and are able to increase their total income by receiving both shares to which they are entitled as owner and worker. The Capelles are generally less industrious, take life easier, and try to live on the income they derive as landowners.

a. Recommendations. In attempting settlement of the labor controversy at Likiep, the first step might well be the issuance by the Administration of a statement as to the legality of existing documents relating to the transfer of Likiep and to the conditions imposed upon native workers. It is probable that the land transfer is valid (the circumstances of sale by Jortaka to Antone De Brum are reminiscent of the purchase of Manhattan Island, New York, from the Indians), but the documents should be scrutinized for validity in terms of American law. As regards the old labor contracts, however, it is assumed that they are no longer binding on the descendants of the contracting parties. The problem which remains is the legal position of natives occupying land privately owned by the half-caste De Brum and Capelle families -- a new contract or understanding between the two groups is essential. Anton De Brum, the magistrate of Likiep, has access to copies of all pertinent documents; these should be filed with the Administration for safekeeping and for ready reference by interested parties.

When the records pertaining to the case have been clarified and recorded, a council meeting, or better still, a series of meetings, should be held at Likiep. Proceedings should not be hurried, careful attention being paid to each point introduced for discussion; the situation is a very serious one where the Likiep population is concerned. Alans, half-caste owners, and native workers should be adequately represented at these meetings. With an American administrative official presiding, the discussions will necessarily be conducted through the medium of an interpreter (Marshallese - English). The choice of interpreter is a crucial matter. He should have a reputation for accuracy of translation, both as to fact and as to sentiments implied in native idiom; in addition, he must have the confidence of both half-caste and native as to his impartiality in the Likiep dispute. This point cannot be over-emphasized. There are several interpreters in the present employ of Military Government, particularly Dwight Heine and Maaj Hane, who are considered to be neutral in their attitudes about Likiep. The two interpreters just mentioned have refused consistently to assist Military Government at Likiep for fear of arousing ill will against themselves from one side or the other depending on the outcome of their interpreting. An intelligent administrator may be resourceful enough to overcome their hesitation and utilize their talents in solving the Likiep dilemma.

Every attempt should be made to insure that both factions are able to present their arguments freely in open meeting, without fear of retaliation in some manner thereafter. Confidence of the local people in the administrative official is absolutely prerequisite to the free expression of half-caste and native opinions. In this respect, it is strongly recommended that the administration's representative be well acquainted with the Likiep population and their problems -- a new man assigned to this task would have ten strikes against him. The writer obtained the confidence of both groups at Likiep only after several weeks of face-to-face contact with individuals of both sides in their home surroundings.

It is suggested that a solution to the Likiep problem may arise simply by the free expression of ideas and a meeting of minds through a verbal airing of the disputed issues, somewhat in the manner of a New England town meeting. Unanimity has been reached in other situations by continuing discussion until some compromise is reached, without taking a formal vote. The administrative official would be well advised to avoid, insofar as possible, handing down any decision which would be distinctly advantageous to one group or the other. In such an event, there would be no alleviation of the bitterness which exists at Likiep, and the Administration would lose the cooperation of the group discriminated against in the decision. On the basis of sentiments expressed by native and half-caste at Likiep during the summer of 1946, it is possible that a compromise of 60 = 40, for worker and owner respectively, might be acceptable to both sides, especially if it can be demonstrated to the owners that increased output by natives, even though at a lower rate per unit of production, is to their advantage in terms of total annual returns.

As soon as a satisfactory compromise is reached, the terms and conditions should be incorporated into a contract, to be signed by representatives of both parties and to be recorded for future reference or amendment. Too many misunderstandings have arisen in the past because of the lack of proper records, as witness the various stories concerning the details of the original Likiep transfer. The matter of the alan's share in the copra proceeds should be included in any formal agreement between natives and half-castes; whether he should be given a share as in former times and his responsibilities correspondingly revived, or whether he be completely ignored under present changed conditions, is a matter best left to the decision of native workers themselves.

As regards the dispute over handling costs, it seems advisable that such costs -- which constitute a small amount, anyway -- should be borne by the Administration (or government trading agency). The expense involved in transporting processed copra from the worker's land to the central warehouse for pickup by the trader varies according to the location of the worker's land, and some workers should not be penalized because, by an accident of geography, they happen to live farther from the point of pickup than other workers. The copra could be purchased by the magistrate (acting as agent for the trader) at the point of origin, and all expenses incurred in subsequent handling of the copra (as the property of the trader) could be charged to the trader's account and paid for out of a fund administered by the magistrate in the trader's absence.

The present system of profits distribution among the half-castes seems to have caused some trouble between the various branches of the De Brum and Capelle families. However, this is a private matter and should be worked out by the half-castes themselves without administrative interference. The system operates on European principles of inheritance and does not clash with native customs, since in this matter the half-castes operate as Europeans and not as natives. The real clash of cultures is present where native and half-caste groups are in opposition.

## VI. RESOURCES

### A. COPRA PRODUCTION

In the Marshall Islands the production of copra, the dried meat of coconuts, has always surpassed in importance any other industry of a commercial nature. In 1937, the last year of normal trade before the war, copra valued at \$1,399,473 accounted for over 98 percent of all exports from the Marshall Islands to Japan. During the same year, more copra was exported from the Marshalls area than from any other district in the Japanese mandated islands -- 6,184 tons out of a total of 14,313 tons. (Figures on copra production in Japanese times are generally presented in tons, presumably the metric ton, which is 2,204.6 pounds or nearly one long ton.)

#### 1. Conditions of Coconut Cultivation

The coconut palm (ni) is one of the most abundant trees grown in the Marshall atolls. The natives select large nuts, thick through the middle, for planting. For maximum productivity, the nuts are planted about twelve inches underground and nine meters apart. Closer than nine meters, the trees are believed to receive inadequate nourishment from the soil; farther apart, the land is wasted. The natives claim that coconut trees grow better on land which is only a few feet above sea level, and that higher land (even on the low coral islands) is a poor site for a plantation. Likewise, trees are said to fare better if not too distant from the water, e.g., Maat Island (Likiep) which is about three-quarters of a mile wide is planted with coconut trees, even in the interior, but this example represents the maximum area for satisfactory results in quality of the product. On the other hand, in the drier northern atolls it is said that coconut palms which are planted too close to the outer shore do poorly, and a belt of 30 to 35 feet of scrub and sand is recommended as intervening between the water and the first line of palms. Natives believe that the salt spray in some way damages the trees, because in Jaluit, where the heavier rainfall can prevent the accumulation of salt encrustations on leaves and nuts, the coconut palms are reputed to prosper even though located at the water's edge.

Generally speaking, coconut trees in the southern atolls produce larger nuts and more abundantly than those in the drier northern atolls. Of the northern islands, Wotje, Aur, Maloelap, and Likiep are cited as the best producing areas. Trees mature sooner in the south, where three to five years is considered average as compared with five to ten years in the north, due to differences in rainfall and soil conditions. A mature coconut palm may gain a height of 60 to 80 feet, and will produce 10 to 15 clusters of coconuts, each cluster bearing 10 to 20 nuts. Trees are considered in their prime at Likiep when 30 to 50 years old, and are

expected to cease production after 70 years of age. One planting thus suffices for two or three generations; after that time the natives replant the area. In the production of coconuts, the Marshallese seek large nuts for copra, and small ones for drinking.

## 2. Commercial Development under German Direction

When Adolph Capelle arrived at Ebon in 1861, he set out to develop a copra industry in the Marshalls. He trained the Marshallese in the best methods of extracting and drying the coconut meat. By 1880, Capelle and his two partners had acquired extensive plantation areas at Jaluit, Ujelang, Kili, and Likiep. Prior to the Japanese occupation of the Marshall Islands in 1914, some 6,000 acres were devoted to coconut plantation in addition to groves of trees grown by the natives for their own subsistence needs. About 90 percent of the plantation area, consisting of small plots which averaged two and one-half acres, was owned and operated on a family basis. The natives tended the groves, planted new trees, thinned the maturing areas, and harvested and processed the ripe nuts.

## 3. Japanese Stimulation of the Industry

Under the Japanese, copra production in the Marshalls was considerably increased. Stimulus to the industry was given by government subsidies for increased acreage, improvements, and facilities. By 1938, the district of the Marshall Islands led the other districts in acreage planted to coconut palms -- about 28,400 acres, from which over 6,000 tons of copra was annually processed for export. Of this output, an average of 440 tons per annum was produced at Likiep under the supervision of the half-caste descendants of Capelle and De Brum; government-owned lands at Kili, Ujelang, and a few other islands yielded about 100 tons per annum as operated by Nanyo Boeki Kaisha.

Bounties were offered by the Japanese government to encourage greater production of coconuts, e.g., \$20 for planting 100 to 200 trees on land of more than one hectare, \$10 for thinning coconut trees and planting complementary trees and plants on groves of more than one hectare which already supported 100 to 200 trees, and 25 percent of the expenses involved in erecting new copra-drying facilities. Between 1922 and 1930, \$19,970 was spent in this way in the Marshalls, and resulted in 1,510 hectares of new land being planted to coconut palms and an increase in production of copra from 3,976 tons to 4,997 tons. Instead of random planting of trees, the natives were encouraged to lay out their groves in geometric pattern for more efficient exploitation. The extreme differences in the quality of copra produced from different areas in the Marshalls prompted the government in 1932 to establish stations where experiments could be carried out to increase the quantity and to improve the quality of copra. A system of copra inspection was instituted the same year for the examination of each lot of copra destined for export. Copra was sold monthly by native producers to Japanese brokers at trade stores located throughout the Marshalls; competition was keen among the

independent traders, although the bulk of the product was bought up by NBK and several other large Japanese companies.

#### 4. Native Methods of Processing Copra

The ripe nuts (vaini), required for copra, are easily detected by the brown color of the outer husk and by the presence of liquid within (if the swish of water cannot be heard when the nut is shaken, the inside has probably begun to fill with a spongy mass, the sprout, and is not suitable for copra). The nuts may be lying on the ground where they have fallen, or still be attached in clusters at the top of the tree. Men climb the trees, if necessary, with the aid of notches cut like steps in the trunk, and cut the nuts down with machetes. The mature nuts are husked by the men, who remove the tough outer covering by impaling the nut on the end of a pointed stake thrust into the ground at an angle, and ripping the husk off in several pieces. The husking may be done under the tree, or the nuts may be gathered together (perhaps 1,000 of them) at a central location near the drying racks, and the husking take place there. The nuts are transported about the plantation in sacks carried on the shoulders of men and women, or in light, two-wheeled carts which the Japanese had successfully introduced into the islands. Native workers periodically make the rounds of their coconut trees, the interval depending on the size of the groves: sometimes, two or three weeks is sufficient to process all the coconuts which have ripened in one area, while another grove may require a couple of months.

When the husking has been completed, it is a simple matter for men or women to crack the nuts in half with a sharp blow of a machete across the middle, baring the white meat within. If the weather is clear, the half-shells are laid out on plaited green coconut-leaf mats in order that the sun may shrink the white meat sufficiently to separate it from the shell, after which the meat is easily extracted and the shells thrown to one side. If the weather is cloudy, the meat must be cut out of the shell in two or three pieces with a prying action of a short-bladed copra knife, and dried over a small fire. Generally, workers will wait for sunny weather before extracting the meat from the nuts. On some islands, as at Likiep, the natives have been taught to chop the unhusked nuts in half with an axe, thus avoiding the separate husking and shell-cracking stages; the work proceeds faster in this manner, but the copra tends to pick up dirt when the nuts are cut open, and once opened the meat has to be extracted without delay (husking the nut first has the advantage of giving some leeway in case the weather suddenly turns cloudy).

When the meat has been removed from the shell, it must be dried as quickly as possible to avoid spoilage. The best method of drying is by the sun's rays; the heat of a fire may be substituted, but this method yields a poorer quality of copra and brings less money to the producer. In either case, the pieces of coconut meat are spread out on wide racks made with splints of bamboo or coconut frond-ribs or with a piece of heavy wire mesh to provide better ventilation from below. Three or four of these racks are fitted to slide in and out of a small shed thatched with

pandanus leaves. When the weather is good, the racks bearing the coconut meat drawn from under the thatch roof; when cloudy or raining, it is necessary to leave the racks under the thatch protection and to provide heat from a low fire of charcoal (made from discarded coconut shells) on the ground below. After four days in the sun, or a week over the fire, the copra is dried sufficiently and may be stored in gunny sacks for future sale to the trader. When natives husk and cut copra, they average about five hours each day they work, and spend the rest of the day fishing, collecting toddy, building or repairing houses and canoes, and working in the gardens and fields.

#### 5. Marketing of Copra by Natives

After copra has been properly dried and sacked, the native producer may store it at his home until the arrival of a trader, or he may transport it over land or water to a central warehouse on one of the larger islands of the atoll. When the trader calls at the atoll on his regular rounds, he buys the local product on the basis of its quality. Today, grading is left to the judgment of several half-castes employed by the U. S. Commercial Company. Until August 1946, prices paid for copra varied according to the method of drying and the condition of the product. In the northern Marshalls, copra is usually sun-dried; in the southern atolls it is more often necessary to resort to artificial heat. Best quality copra appears firm and white, and breaks hard and clean. Inferior grades are yellow to brown in color, and are sometimes pitted and moldy as the result of poor desiccation before storage. A sack of copra in which nearly all pieces are firm and white is graded Number 1; if half a sack of otherwise Number 1 copra is stained and pitted, the whole sack is graded Number 2. The following prices were paid for copra by USCC traders until August 1946, after which time only one grade of copra was distinguished -- good copra -- paid for on the basis of \$40.00 per short ton.

<u>Sun-dried Copra:</u>	Grade One	\$0.01785	per pound	\$35.70	per short ton		
	Grade Two	0.01685	" "	33.70	" "	" "	" "
	Grade Three	0.01604	" "	32.09	" "	" "	" "
<u>Smoke-dried Copra:</u>	Grade One	0.01735	" "	34.71	" "	" "	" "
	Grade Two	0.01635	" "	32.70	" "	" "	" "
	Grade Three	0.01554	" "	31.09	" "	" "	" "

The graders, who have had long experience in handling copra and in determining quality under the Japanese, sample the copra at the top of the sack or, if they are suspicious of the producer, dump all the copra out to detect the proportion of good and bad pieces. The grade assigned to the sack lot is marked with charcoal paint on the outside of the sack. The atoll scribe usually assists the grader in recording the name of the producer, the grade and weight of his product, and the price to be paid to him. After being graded, the sacks of copra are made secure by sewing the top closed; each sack is then weighed with a portable scale belonging to the trader. The natives have become accustomed to the metric system of weights; some atolls still possess old Japanese kilogram scales, but all copra produced since the war has been purchased on the basis of American pounds.

There have been charges recently by Marshallese that some of the USOC graders show favoritism in grading the copra of their friends or in being bribed with drink and other favors to overlook careless processing. Whether these charges are true or not, dissatisfaction with the system does exist among the native producers; the decision by USOC in August 1946 to buy only one grade of copra, as did the Japanese, will probably have reduced much of the discontent. It is interesting to note that although the best coconuts are produced in the southern atolls, the greater humidity and rainfall prevalent there make it difficult to dry the coconut meat properly; it is said that, when the Japanese offered prizes for the best quality of copra, the natives of the northern atolls, such as Wotje and Likiep, usually took the prizes for their sun-dried product.

#### 6. Post-war Rehabilitation of the Copra Industry

War damage to thousands of coconut palms in the Marshalls and the neglect of coconut groves by natives who faced more urgent needs of food and shelter following the last purchase of copra by Japanese traders in late 1943, have resulted in a situation which requires a major rehabilitation effort to restore copra production to the pre-war level of more than 6,000 tons per year. In 1945 a little more than 100 tons of copra was exported from the Marshalls.

Considerable destruction of coconut groves took place during the war. When Japanese soldiers had to forage for themselves, after being cut off from their home supply bases, they cleared areas for vegetable gardens, they cut off the tops of coconut palms to gain the heart-of-palm for food, and even the natives had to remove a surplus of coconut trees to gain land for the production of breadfruit, bananas, pandanus, and other food crops. American fliers bombed and strafed some islands where Japanese were known to be hiding out, and in their raids cut down and uprooted still more palms. Military installations, both Japanese and American, occupy island areas once covered with coconut groves.

The general cessation of activity in the surviving groves, except where natives continued to gather coconuts for food and to tap the coconut buds for toddy, resulted in deterioration of tree resources for production of copra. Coconuts sprouted on the ground where they fell; in four years they have clogged the open spaces between the older trees and will have to be thinned out, along with other bush which has grown up. Other areas, such as Likiep where land was planted to coconuts 60 or 70 years ago, have passed their prime as producers; the old trees must be replaced with new coconut plantings.

The Marshallese have already begun to restore their coconut palm resources in anticipation of a revival of the copra export trade, but progress has been discouragingly slow. Two factors have combined to produce this lassitude: (1) lack of shipping by the trading agency and irregular schedules, and (2) competition from other income-producing activities, such as handicraft and wage labor at military bases. Assurance of regular and frequent pickup schedules is necessary to avoid

spoilage of copra stored overlong in the atolls -- natives say, "We will begin to make copra when we know it will be picked up." The Marshallese have been anxious generally to return to copra production, but they claim it is not worth their while, as compared with the income they can gain from other labors. Recent notice by the U. S. Commercial Company of a copra price increase from forty to eighty dollars per ton should be a considerable stimulus to native endeavor and dispel much of the lethargy which has prevailed in the copra-producing islands.

In island areas untouched by the war, the Marshallese believe that the pre-war peak of copra production can be reached and even passed in a few years, once production has got underway. They point to many acres planted to coconuts just before the war; these are now ready to produce, and should increase the potential output. On islands devastated by bombing and strafing, however, it will be five or ten years before commercial production can be achieved; this is especially true in such atolls as Wotje, Mili, and others which were occupied by Japanese military forces right up to the end of the war. Besides restoration of coconut groves, the natives require assistance in rebuilding their warehouses and drying sheds; they also need wire mesh for drying racks, and copra knives and machetes for cutting copra and clearing bush.

## B. HANDICRAFT PRODUCTION

The production of handicraft for sale to non-natives has become the foremost native industry in the Marshall Islands since the war. The demand for Marshallese handiwork by souvenir-conscious Americans -- especially the thousands of technicians assigned to the Marshalls in 1946 for Operation Crossroads -- has greatly exceeded the capacity of the islanders to produce. To date, the administrative emphasis on handicraft production has brought to many Marshallese a purchasing power which cannot be satisfied because of the scarcity of trade goods in the islands. Although the production of handicraft under the Japanese was a minor industry as compared with copra production, the former now competes successfully with the latter as a source of cash income for natives, and has been a primary factor in delaying the rehabilitation of the copra industry. It appears that handicraft manufacture will continue to provide the Marshallese with a primary means of outside income. Since handicraft is produced essentially by women, and copra by men, there is good reason for the two industries to complement each other in assuring the Marshallese with a more dependable economic base in view of the vicissitudes of the world copra market.

### 1. Japanese Organization of Handicraft Production

Under Japanese official direction many Marshallese women engaged in the production of handicraft articles during their spare time. The administration customarily placed orders for a stated amount of certain handicrafts to be produced in the atolls within a limited period. The atoll magistrate was responsible for delivery; if the people within his

jurisdiction failed to cooperate, threats of jail and whippings were employed by both Japanese and magistrate to produce the required quota of handicraft. Articles made in the island communities were sold by the Japanese at Jabor or exported to Japan. The natives received much lower prices for their work than under the present American administration. Comparatively little handicraft was sold by natives directly to Japanese visitors or crew members on the vessels which periodically dropped anchor at each atoll; traders were concerned only with the purchase of copra and the sale of trade goods, and had nothing to do with the marketing of handicraft.

Of articles preferred by the Japanese, the finely plaited coconut hat topped the list and brought the Marshallese worker as high as ¥8, although most hats were purchased for ¥5. Other favorite items were plaited coconut belts (¥3 to ¥3/50), plaited coconut cigarette-cases (60 sen to ¥2/50), coconut leaf fans (those with tortoise-shell centers brought ¥5, while plain ones were taken for as low as ¥1), plaited pandanus baskets of various sizes (¥1/50 to ¥2), and plaited pandanus mats -- sleeping mats, small table mats, and large floor mats of varying sizes and width of fiber (the price paid for mats is said to have been very low -- ¥2 to ¥5 -- and the demand for mats was not great). Some shell necklaces, model outrigger canoes, and wooden throwing-sticks were produced for casual trade, but natives report that no "dellies" (hot dish pads made of coconut leaf) were made in Japanese times.

In each atoll, a Marshallese woman was appointed by the administration to maintain standards of quality and quantity of production in the work of the other women. These supervisors visited the islands within their jurisdiction to confer with producers of handicraft, and to teach them better methods or new fashions as desired by the Japanese consumers. Where their efforts resulted in improved production, the atoll appointees were given "presents," or prizes, by the administration. Awards of money, clothing, and other attractive items were conferred each year at Jabor for the best handicraft of each category produced in the Marshalls; each handicraft producer attached to her work a slip of paper bearing her name as an aid to identification in the final judging. Marshallese mat-weaving techniques were considered so superior by the Japanese that two women were sent from the Marshalls to Ponape and Kusaie in order to instruct the women of the eastern Carolines.

## 2. American Support of Handicraft Industry

When the Marshalls were invaded by thousands of American servicemen, the demand for souvenirs from the islands soon surpassed the capacity of Marshallese to produce handicraft. Marketing of the native products was first organized by Military Government officers, who established prices for the different articles on the basis of estimated time spent in production (at the basic rate of 40 cents per day), bought the handicraft from the natives for cash, and sold it to service personnel in PX's and Ship Stores in the Marshalls. Late in 1945, the whole task was turned over to

the U. S. Commercial Company, together with other economic responsibilities; in general the same practices have been continued with some modification of the previously established pricing schedule.

In order to satisfy the current demand for handicraft by American personnel and to take every advantage of that demand for the benefit of the native economy, the Administration has declared that all available means be exercised to further the marketing of native handicraft. Prices are subject to alteration by local Naval authorities on advice of Military Government and USCG. Articles purchased from natives for sale in service stores at Kwajalein, Majuro, and Eniwetok receive a 10 percent mark-up, of which half goes to the local Military Government unit, to be turned into a Naval Working Fund, and the other half is intended to cover handling costs by USCG.

Handicraft produced today by Marshallese natives for sale to USCG traders may be assigned to four general categories, according to the dominant material used -- coconut leaf, pandanus leaf, shell, and wood. Processed coconut leaf, bleached white or dyed one of a variety of colors by means of aniline dyes, is predominant in the manufacture of cigarette cases, "dobbies," fans, trays, bracelets, cup coasters, flat coasters, watchbands, and grass skirts. Processed pandanus leaf of varying widths is plaited into a variety of products, including mats (sleeping, table, and floor), baskets, purses, hats, grass skirts, and bracelets. Shells are sold by natives for their intrinsic ornamental appeal, and are also attached to leaf-fiber manufactures, such as belts, bracelets, and necklaces. Native woods are carved into walking canes, model outrigger canoes, bath clogs, letter openers, throwing-sticks, and cigarette boxes (the last often inlaid with mother-of-pearl).

### 3. Processes and Techniques of Production

a. Coconut leaf. Several young coconut fronds (kinij) are cut just before they begin to unfold (neap tide is considered the best time for cutting), and are taken to a central place where a group of women and girls strip the green leaflets from the midribs. Each frond is halved lengthwise by splitting the midrib at the tip and pulling the two sections apart. The worker then starts at the butt end of one section and bends each leaflet out and away from the midrib, along which it has lain in the immature stage. With her teeth the worker bites the tip end of each leaflet in such a way as to part the leaf rib from the two halves of the leaflet, and with a single motion the leafy parts are stripped from the rib. Thus, a pile of tender green leaflets is accumulated, and the frond rib with leaflet midribs still attached is discarded.

In the next stage, the tough integument of the leaflet must be separated from the softer body, with the aid of a knife and a smooth-sided kerosene tin. The thick end of the leaflet is held in the left hand, tough side down and firmly against the tin, while the knife, in the right hand, is placed at an angle on the fleshy side of the leaf, its edge away from the worker. With a shrill, tearing sound, the leaf is pulled

back sharply against the knife edge, being transformed into a thin strip which hangs like wet tissue paper from the thick leaf stub. This filmy material is tossed immediately into a pail of clear water, and the softer body of the leaflet from which it has been separated is discarded.

When a quantity of stripped leaflets has been amassed, the water in the pail is changed several times, and the leafy batch is dumped into a basin of boiling water to be stirred for perhaps half an hour. Sometimes the juice of limes is added to the water in a further attempt to remove any tendency of the leaflet to stain when dried. After another washing in cold water, each leaflet is slit into two or three pieces with a pin or the edge of one's fingernail. If the leaf is to be dyed, the bleached pieces are transferred from the boiling bath to a bath of American aniline dye purchased in the trade store. For 24 hours the strips are suspended from a line, like a weekly washing, and must be drawn taut from time to time to prevent curling. When properly dried, the pieces of coconut leaf have twisted into tight, string-like fibers.

The number of processed fibers acquired from a single coconut frond may run as high as 1,000; each frond yields from 200 to 300 separate half leaflets, each of which is further slit into two or three pieces. When several women cooperate, as they usually do, four or five fronds may be processed to provide enough leaf-fibers for several weeks of handicraft production.

b. Pandanus leaf. In the case of pandanus fiber, the requirements of the handicraft producer are best satisfied by a variety of low-growing pandanus which bears no fruit. The women pick the green leaves, place them back to back (ten at a time), and scrape off the thorny edges with an old coconut husk. The teeth are used in parting the midrib from the leaf at the wide end, and the thorny rib is stripped from the leaf in one motion. The green leaves are laid flat on a mound of heated coral pebbles for a short period before being spread out on the ground for more gradual drying in the sun; they are finally bound into rolls of 10 to 20 leaves preparatory to being softened by pounding with a heavy Tridacna-shell beater. During the pounding process, the rolls of leaves become separated along the line of the removed midrib.

The pliant leaf, light greenish-brown in color and measuring about two inches by 20 to 30 inches, is then slit into various widths as required in the manufacture of different kinds of handicraft. Nature has provided the pandanus leaf with closely spaced, parallel ridges running lengthwise in the leaf; these lines are turned to advantage by the Marshallese as a measure of width. Since each line is called ar, a strip of leaf two lines wide (about 3/32-inch) is ruar, three lines is ililar, four lines is amen ar, five lines is lalin ar, and six lines is ililim ar (about 1/4-inch). Any strip wider than ililim ar is termed mejerik (these may be 3/8-inch to 3/4-inch in width); the exact width is determined, not by counting the lines, but by using a sample of leaf which is pinned to the worker's dress. Large floor mats are fashioned from pandanus fibers of the category mejerik, sleeping mats are usually plaited

with amen ar and lalin ar, and small table mats and the finer mats of old are ruar and lilar (ruar is rare today because such fibers should be processed from a special variety of pandanus which has grown to be scarce in the flora of the Marshalls). The outer edges of each leaf, roughened by wear during the drying and pounding processes, are removed by inserting a pin or one's fingernail at one end of the leaf and running it the length of the leaf. The desired width of fiber is achieved in the same manner.

In the preparation of pandanus leaf for handicraft use, the women work alone, or in pairs -- for sociability. The work proceeds slowly from one stage to another; drying may take place one day, pounding the next, and the dried leaf rolls may be stored for some time until the need for more fibers arises, when the rolls will be opened and the leaves slit to the proper width, depending on the type of handicraft being produced. Pandanus leaf fibers are usually natural or bleached in color, and rarely are dyed.

c. Hibiscus bark. Lengths of hibiscus wood, four to five feet long, are cut in the bush, and the bark stripped off in wide sheets. After being soaked in fresh or salt water, the inner bark can easily be separated and, when dried, is split into many layers with a knife, thus providing thin, textile-like strips of fiber -- each several inches wide. The light tan color of the fiber at this stage is usually altered, by immersion in a bath of aniline dye. For utilization in plaited handicraft, the hibiscus fiber (lon) is slit with a pin or one's fingernail into the required width. Lon is employed as a decorative component in Marshallese handicraft, being worked into the plaited manufactures of cocconut and pandanus leaf to enhance the design.

d. Natural dyes. Coloring in Marshallese plaited work, before the advent of artificial trade dyes, was limited to black, orange-brown, and the natural shades of the fibers used.

Black is still obtained by mixing powdered charcoal (mali) with a liquor (jong) gained from scrapings of the pendant redicles of mangrove trees. The bean-like redicles are collected by women in the few mangrove swamps, and are soaked in fresh water for several hours before being scraped with small shells to remove the greenish-black coating. When these scrapings have been mixed with a little water, squares of cocconut cloth are employed to squeeze out a dark-green liquid (jong). Jong itself may be used as a dye (producing a khaki color) but is generally mixed with charcoal, from fired cocconut shells, to produce a dense black paint. To blacken a strip of lon, the fiber is laid on the flat surface of an old cocconut friend butt, and a generous portion of black paint is wiped on with a discarded segment of pandanus fruit. The first coat dries a matte black, but a gloss is achieved by the addition of a coat of jong.

Orange-brown is provided through the use of the inner bark of a ground creeper (adat) which grows in profusion along the upper beach. Women uproot the vine, strip away the leaves, and peel off the bark. The inner fiber is separated from the tough outer covering and is rolled into

small coils for use at a later date, by which time the exposure to the elements will have transformed its color from light green to a shade ranging from brown to orange. Strips of adat are plaited together with pandanus leaf to produce beautiful designs in fine matwork. .

e. Splints. Midribs of green coconut fronds are processed by native women to provide sturdy splints for stiffening such handicraft articles as trays, fans, doilies, and flat coasters. The leaves and tough outer covering of the frond rib are cut away, and the rib is allowed to season properly. With a knife, each rib is split into a number of thin splints, and each splint is pared down to the desired dimensions -- about 1/16-inch by 3/8-inch, and five or six feet long. These pliant splints are wrapped, either singly or in multiple, with coconut leaf fiber and are joined or otherwise fitted into the pattern or form of the article being fashioned. In the case of fans, doilies, and flat coasters, a splint is wrapped with dyed coconut leaf fibers and arranged in spiral fashion, beginning at the center of the piece, to produce a flat article perhaps as much as eight inches in diameter.

f. Shells. Shells (libukwa) are not well differentiated in the Marshallese language. The four or five small shells (all likaitir to the native) which are used most in handicraft today are variously called "monkey-face," "gold-ringer," "black-lil," and "strawberry" by Americans and natives alike. Another small shell commonly employed in native leis is called alu, after the Marshallese term for necklace.

At low tide, sometimes after travelling across the lagoon in outrigger canoes to reach a profitable location, the men walk out on the reefs seeking the shells which have been trapped in the tide-water pools. These shells are buried in the sand along the beach for several weeks to allow complete disintegration of the animal bodies within the shells. When the shells have finally been washed clean of decayed meat and sand, they are sold individually to the trader or are attached by the women to fiber belts, bracelets, and necklaces.

Attachment of the shells to a piece of handicraft is achieved by passing a string through the shell opening, the aperture then being closed with a plug of cotton firmly tamped in place. The string is firmly looped through the fiber interstices of the belt on either side of the shell to hold it closely. In some islands, the natives have learned to make small replicas of turtles and other animals, using various shells and pipe cleaners in the same way as hobbyists in America are known to do.

g. Woodwork and shell inlay. In most Marshall atolls, saleable wood handicraft is limited to letter openers, bath clogs, double-ended throwing sticks, and simplified models of outrigger canoes. At Likiep, and at a few atolls which have been influenced by Likiep woodworkers, a better quality of work is exhibited and a wider range of handicraft items is produced, including cigarette boxes with fitted covers and coconut leaf doilies with veneer-like wood centers, both of which are usually decorated with inlaid mother-of-pearl.

Several native hardwoods are used, the most popular of which is kano, a beautifully grained, walnut-colored material. Pocket knives, hand saws, and a supply of sand paper and emery cloth suffice for most woodworking operations. More advanced work requires the use of chisels, planes, and coping saws with fine jeweler's blades. Craft items are laboriously sawed and whittled from massive blocks of wood cut from the gnarled and twisted trunks of struggling hardwoods. Well-sanded articles are given a glossy finish with floor wax or shoe polish.

In shell inlay, blanks are cut from large oyster shells (arir), and are layered, by means of a coping saw, to thicknesses of less than 1/8-inch. Both men and women spend hours smoothing and polishing the pieces of shell on worn whetstones. Flower and bird designs, drawn in pencil on pieces of paper, are transferred to the prepared shell and cut out with coping saws. Chisel and knife are used by the men to carve out the wood before insertion of the shell inlay. When a careful fitting has been achieved, the inlay is glued firmly in place with store glue or a paste made from rice flour. Small crevices which may occur around the edges of the inlay are filled in with glue and wood dust which has been carefully saved from previous sandings. The whole surface of shell and wood is finally sanded with a succession of increasingly fine papers and emery cloth.

h. Tortoise shell. The horny plates on the backs of hawk's-bill turtles provide tortoise shell for use as inserts in coconut leaf fans and dollies. Pieces of shell are cut to the desired shape and are sanded thin and smooth with sand paper and emery cloth. Holes are spaced at intervals along the edge of the shell insert for attachment to the fiber framework of the handiwork; sometimes a hand drill of foreign manufacture is used, but more often a wooden shaft pointed with a wire nail is twirled between the palms in native fashion.

#### 4. Purchasing Procedures and Practices

Upon the arrival of the USCG trader in a Marshallese community, an hour and a place are usually announced for the purchase of native handiwork; shortly thereafter, women, children, and a few men begin to file into the store or government hut with their handiwork wrapped neatly in white cloths or displayed openly and proudly. The trader and his native interpreter pass judgment on the wares of each native artisan and pay the natives in American coin and paper money. The work proceeds slowly, for each article is different, both in workmanship and in detail of form and design, and requires a considered decision as to quality in each case. The natives regard the occasion as one for social intercourse as well as for business, and they are loath to hurry or otherwise aid in terminating an exciting event in their relatively uneventful lives. From a large stock of handiwork, women choose only two or three items at a time for consideration by the trader, and thus are able to prolong their participation. Children are sometimes delegated to present their parents' wares to the trader, while the elder folks sit in the shade of a breadfruit tree and discuss all aspects of the occasion with their friends.

At other villages, the trader may require the magistrate to assemble all handicraft at the store where it can be bought in a single lot. Workers attach their names to their wares to enable the magistrate and his scribe to identify each article and the price set upon it by the trader; the workers are paid individually at a later time from the cash sum handed by the trader to the magistrate. Sometimes, the trading is accomplished in a few hours -- at other times it may take the whole day.

The number of handicraft articles, the graded values placed on them by the trader, and the sums involved are indicated in the following tables:

Handicraft Purchases -- Enelabegan (Kvaialain), May 9, 1946

Bracelets	42	(\$ 0.20 and 0.25)	\$ 8.70
Belts	23	(\$ 0.75 and 1.00)	18.50
Baskets	17	(\$ 0.50, 0.75, and 1.00)	12.25
Fans	3	(\$ 1.00 and 1.25)	3.50
Cigarette cases	3	(\$ 0.90)	2.70
Cup coaster	1	(\$ 0.35)	.35
<hr/>			
Total	89		\$46.00

Handicraft Purchases -- Likiep Atoll, June 11, 1946

Shellies	635	(\$ 0.35, 0.75, 1.00, 1.25, and 2.25)	\$797.60
Fans	83	(\$ 1.00 and 1.25)	101.50
Flat coasters (set of 6)	64	(\$ 1.15 and 1.25)	78.70
Belts	63	(\$ 0.75 and 1.00)	54.75
Purses	40	(\$ 1.75 and 2.00)	79.00
Trays	31	(\$ 1.25, 1.50, and 2.25)	42.50
Model outrigger canoes	23	(\$ 1.50, 2.00, 3.00, and 4.00)	64.50
Letter openers	18	(\$ 0.35)	6.30
Bracelets	7	(\$ 0.35)	2.45
Shells	5	(\$ 0.10)	.50
Cigarette boxes	3	(\$ 2.00 and 3.00)	7.00
<hr/>			
Total	972		\$1,234.80

Handicraft Purchases — Wotia Atoll, June 16, 1946

Belts	3,783	(\$ 0.75, 1.00, 1.25, and 2.00)	\$3,660.25
Doilies	48	(\$ 0.35, 0.50, 0.75, and 1.00)	42.20
Fans	35	(\$ 0.75)	26.25
Bracelets	34	(\$ 0.35)	11.90
Shells	30	(\$ 0.10 and 3 for 0.10)	2.00
Purses	29	(\$ 1.25)	36.25
Cup coasters	7	(\$ 0.35)	2.45
Flat coasters (set of 6)	3	(\$ 3.00)	9.00
Mats	3	(\$ 1.25 and 2.00)	4.50
Grass skirt	1	(\$ 1.25)	1.25
Watchband	1	(\$ 0.35)	.35
<hr/>			
Total	3,974		\$3,796.40

As may be noted from the above schedules, some handicrafts have been graded — according to the quality of work and to the degree of elaboration. The traders' judgments are largely subjective. Differences of judgment occur not only between traders in the same area, but also by a single trader in different areas. The range of workmanship is indeed so great that it is difficult to maintain any consistency in the pricing of individual pieces of work. Not only does the workmanship vary, but each worker takes a pride in the creation of new designs — in a stock of 500 articles of handicraft, such as doilies, fans, or shell belts, there will be no two items exactly alike, due to variations in design, shape, and color. To evaluate all of these factors in setting a price, sorely taxes the abilities of most traders. Add to this situation the fact that the trader is often compelled to rush his work in order to have his stock aboard the trading ship in time to make a safe exit from a reef-fringed lagoon before dark or a tide-change.

Standardization of handicraft prices in the Marshall Islands is complicated by the wide variation of workmanship between atolls. Some communities specialize in certain kinds of handicraft and attain a high standard of work in those categories, but in so doing they slight the production of others. Thus, some of the best cigarette cases in the Marshalls are produced at Utirik, where even the poorest case may be better than the best in one of the southern atolls. Traders working in these respective areas tend to develop a different set of standards for cigarette cases which are priced at 90 cents in both areas — and the Utirik worker receives no recognition for his superior workmanship. Such discrimination against good artisans recurs in the case of other items of handicraft. Mejit Island is the source of the finest table mats, Arno people produce beautifully matched sets of cup coasters, Wotje natives specialize in shell belts, from Ailing-lapalap and Ujae come the finest coconut leaf skirts, and Likiep workers excel in the manufacture of wood articles inlaid with shell. Local specialization often results from local availability of the raw materials, e.g., Wotje pandanus reserves were largely destroyed during the war, resulting in the dominance of coconut leaf and shells in handicraft produced at Wotje.

As previously mentioned, price schedules for Marshallese handicraft were established rather arbitrarily by the first Military Government officials in the Marshalls area. Prices were computed on the basis of the time required to produce an article -- at the prevailing wage for ordinary native labor, or 40 cents a day. It has proved to be almost impossible to compute the actual number of hours spent in the production of any article, because of the peculiar methods of work and the varying number of people who contribute in different degrees to the manufacture of a single object. A cigarette case, for example, requires the processing of coconut leaf fiber (several women cooperate to produce considerably more fiber than is needed for one cigarette case), the processing of pandanus leaf fiber (one or more women spend varying amounts of time and energy to produce material ready for plaiting), and the final assemblage of fibers in the proper form and design. If a woman devotes most of her time to the manufacture of a cigarette case, she may finish it in two or three days but, at best, Marshallese methods of handiwork are carried on intermittently, much as American women work at knitting or needlework in their odd moments. When finished with her work, the native who sells a cigarette case of standard quality receives 90 cents in cash -- which in 1946 would buy her nine pounds of rice, or two cans of stew-meat, or nearly four yards of calico, or a package of cigarettes for her husband.

A recent attempt at Majuro to obtain estimates of the time necessary to produce one cigarette case elicited the opinions of several women that 60 to 62 hours was a fair figure, but their menfolk appear to have had little concept of the work involved unless we are to consider seriously their estimates of 6, 10, and 12 hours. Marshallese women, when asked what articles of handicraft are most easily made for the most money, readily answered, "Belts, baskets, and bracelets." Cigarette cases seem to be priced about right, as are fans, doilies, coasters, and grass skirts -- at least as compared by the natives with the considerably lower prices offered in Japanese times. Mats, however, appear to be under-priced, as noted by the general reluctance of Marshallese women to produce mats of any kind, especially sets of fine table mats. Greater cooperation would be achieved from native handicraft workers if the prices of individual categories of handicraft were more consistent with the necessary expenditure of time and labor. If the prices for shell belts, baskets, and bracelets were lowered, the usual surplus of these items would be sharply curtailed, and if the prices for mats were increased, the production of these desirable articles would probably rise sufficiently to meet the demand.

Standards of workmanship should be established and adhered to. The rejection of products of poor quality, as was the practice in Japanese times, would quickly stimulate the natives to better performance -- much of the present work of poor quality is produced by young girls practicing and learning handicraft techniques. Many women are extremely proud of their fine workmanship, and the community recognized their superiority in this respect; it remains a wonder that they have continued to maintain these high standards when they continually see the poorer work of their neighbors bring the same prices as their own when sold to the USCG trader.

It is recommended that no attempt be made to standardize designs in Marshallese handicraft except where necessary to meet the requirements of the consumer, as in the case of sets of table mats, coasters, and doilies. Marshallese workers are quite individualistic about their work, and dislike to duplicate designs.

## VII. CONCLUSION

### A. POLICY CONSIDERATIONS

Throughout this report, specific recommendations have been made with regard to each major topic. In conclusion, it seems desirable to make several general observations in order to integrate the sections which have preceded.

The present plan of the Administration for a single headquarters unit to supervise the activities of all Marshallese is quite feasible. Especially has there been no need to maintain a separate administrative unit at Eniwetok, which falls within the Ralik, or western, chain of islands -- a single culture area. Kwajalein will probably be continued as logistical base for the Marshalls and, therefore, the center of shipping and trade operations. But Kwajalein -- devastated by war and poor in food resources -- is a poor site for the establishment of a native capital. Majuro atoll, on the other hand, is well suited to be the focal point of administrative supervision of Marshallese activities. It is strongly recommended that administrative headquarters, as well as the native hospital, central schools, and the Marshalls office of the trading agency, be established and maintained at Majuro. The present separation of administrative facilities at Uliga Island (Majuro atoll) from the main concentration of the atoll population at Majuro Island is satisfactory, providing adequate transportation and communication are maintained between these islands. Transient housing should be erected in the atoll for visiting Marshallese from outlying atolls, in order to avoid the tensions which might develop among the natives by the introduction of strange groups into the atoll community. Before the war, native visitors and other outsiders at Jabor village (Jaluit) occupied land leased from the Government and were independent, for the most part, of the Jaluit native population -- an arrangement which the Marshallese report to have been satisfactory.

For administrative and other purposes, it may be found desirable to subdivide the Marshall Islands area into two districts; the cultural differences between the Ralik and Ratak chains provide an adequate basis for such a division. With Majuro serving as the focal point for Ratak activities, as well as for the Marshall archipelago, the choice of a branch base in Ralik rests between Jaluit (or Ailinglapalap) and Kwajalein. Both Jaluit and Ailinglapalap have for many decades been native capitals, providing ample dwelling space and food resources, which Kwajalein lacks. However, if Kwajalein continues to be maintained as a naval base, that atoll should probably be established as the branch base for the Ralik chain. Another important center of economic activity in the Marshalls is Likiep atoll. Considering the development wrought there by its half-caste population, Likiep is the economic capital of the islands, but its food resources would be inadequate to support a larger population which would result from the location of an administrative branch at Likiep.

Administrative officials assigned to field trips in Balik or Radak should be allowed to serve their full tour of duty in the same district in order to profit from the experience and understanding gained through months and years of contact with the special problems presented by each area.

In administrative relations with the Marshallese people, care should be exercised to ensure the proper representation of each faction or social grouping, such as half-castes, workers, youth, chiefs, and others. The choice of interpreters and other intermediaries presents many hazards to an equitable presentation of native opinions. The premium placed on a knowledge of the English language as a primary qualification for government employment gives a distinct advantage to individuals of certain economic groups, and serves as a possible means of discrimination against those individuals lacking a facility in English.

The necessity for alert and intelligent administrative personnel cannot be too greatly emphasized. Officials should be familiar with the general problems of civil administration and with the specific controversies prevailing among the Marshallese. Where disagreement exists between native factions, the Administration should strive to provoke a decision from the people themselves, in order to encourage a more democratic process wherever the people express a desire for change in that direction. Any administrative support of native chiefs or of the feudalistic system, which are fundamental aspects of Marshallese society, must be recognized as encouraging these institutions which are undemocratic in themselves. Yet where the natives profess a desire to retain their chiefs and the practice of tribute, their wishes should be respected in spite of the avowed intention of Americans to introduce democratic institutions among the Marshallese. To force democratic procedures on a people not desiring them is in itself undemocratic.

In the Marshall Islands today, there is no turning back to the aboriginal customs of past generations. As the result of many years of contact with American missionaries, German and Japanese traders and administrators, and American GI's, the Marshallese show no desire to forego the conveniences from the Western world which they have learned to appreciate. The Marshall Islands can no longer be maintained as museum exhibits -- that view is completely unrealistic; neither should all Marshallese be made over in the American pattern -- for the most part, they do not want it. The administrative policy should be one of presenting opportunities for advancement in social, economic, political, and educational matters, as individuals or communities reveal themselves ready and willing to take advantage of such opportunities.

Finally, whatever policy be established, it should be applied consistently, as a long-range program which looks ahead in terms of decades and not just for the next two or three years. Indecision and ambiguity at the planning level, and contrary implementation by field personnel on the basis of individual prejudices and dogmatic attitudes, are disastrous to native morale and a balanced economy. Administrative policy should be specific enough for the Marshalls area, as well as for the varied populations located therein, that interpretations of policy by shifting personnel will be unable greatly to affect the essential pattern of consistency.

## B. PROPOSED ECONOMY

Within the framework of a world economy, the relative position of a population of less than 10,000 occupying a land area of less than 70 square miles is such that the main emphasis necessarily must be placed on self-sufficiency. This situation in the Marshalls calls for increased acreage and utilization of food crops and greater use of marine resources. At the same time, decades of association by Marshallese with the agents of Western civilization have so altered the daily needs of the Marshallese that certain commercial imports must be considered as essential. These trade goods should be made available to the native population in the quantity required and in the quality and variety indicated by an expression from the native population. Since cash is needed by the Marshallese to buy these durable and consumer goods, every effort should be made by the Administration to develop the limited resources of the islands and to encourage native industries with the goal of augmenting the cash income of the islanders. Copra and handicraft will probably continue to be the main sources of income; each should be developed as complementary to the other in order to avoid the pitfalls of a one-crop economy.

Land use and ownership raise many problems which must be settled as quickly as possible to expedite an early return to economic normalcy. Some of these problems have been inherited from the German and Japanese administrations; others are the direct result of the war and the American occupation of the islands.

A balanced economy cannot be assured until regular transportation is provided for the delivery of trade goods and the pickup of native produce. Navy vessels should be supplemented, and perhaps eventually replaced, by a fleet of native ships and/or vessels operated by outside commercial interests. Transportation and communication facilities should be developed not only within the Marshall Islands but also between the Marshalls and other areas in Micronesia and in the Pacific. The advantages of specialization which exist within Micronesia should be fully utilized by the free exchange of local produce from one area to another. Outside commercial interests should be admitted into the area in the degree necessary to maintain free trade and transportation, with sufficient control exercised by the Administration to protect the interests of the natives and to prevent their exploitation.

APPENDIX "A"

Documents Relating to the Sale and Transfer of Likiep

1. Declaration of Title to the Imperial German High Commissioner for the Marshall Islands. Jaluit, May 17, 1887.

"Before me the undersigned Imperial German High-Commissioner for the Marshall Islands have appeared Charles Henry Ingalls, Adolph Capelle, and Jose De Brum, handed to me the following deeds concerning the Atoll of Likiep, viz:

- 1, d. Maloelab, August 14th 1877.
- 2, d. Jabwor, June 26th 1878.
- 3, without date in native language.
- 4, d. Likieb, January 30th 1880.
- 5, a deed of the same date.
- 6, d. Jaluit, Desember 30th 1883.
- 7, d. Jaluit, January 1st 1884.

and declared:

"In accordance with the just mentioned deeds the Atoll of Likieb belongs to us jointly. We intend to remain partners of the islands

1. Likieb
2. Loto
3. Mogil
4. Bibi and
5. Eniarmij

each of us for one third, and to divide the other islands as follows:

I. C. E. Ingalls shall own the islands of

- a. Killi
- b. Jabal
- c. Melan
- d. Kilamer
- e. Enieb
- f. Ajirow
- g. Bock in Keak
- h. Riri
- i. Kabelabelagen
- j. Tomil
- k. 2 islands called Eniriowganjirik
- l. Kedjin
- m. 2 islands called Bigerigerikdjen
- n. Bogelablab
- o. 2 islands called Beginneminemjerak
- p. Jaldonet

II. A. Capelle shall own

- a. Ele
- b. Gemogi
- c. Enineman
- d. Gabin

- e. Enidje
- f. Enidjelak
- g. Albada
- h. Bugenjilik
- i. Enirun
- k. Renarin
- l. Bodjen
- m. Begin
- n. Aijet
- e. Leen
- p. Medjud
- q. Dinagar
- r. Mille
- s. Mat
- t. Rongerik

III. Jose De Brun shall own

- a. Rongelab
- b. Bogelan
- c. Gabemur
- d. Matin
- e. Daka
- f. Anid
- g. Iugemur
- h. Odile
- i. Bird Island in the Passage
- j. Ageni
- k. 4 islands between Ageni and Likieb

"The houses built on the island of Likieb, (viz: two wooden stores, shingled; one copra house, shingled; office with cistern, shingled, a wooden powder house, some native houses, and a wharf) belong to the Firm, H. L. Tierman Venture, where of we are partners with Crawford & Co. in San Francisco. One wooden Dwelling house, shingled, cockhouse, etc., belong to C. H. Ingalls, one native house belongs to A. Capelle, and another native house to Jose De Brun.

"We request to record our property in accordance with the foregoing statements and to make out a deed for each of us with an English translation.

"Read in German, translated into English, approved and signed,

(Sgd) G. H. Ingalls

A. Capelle

Jose De Brun (X) his mark

(L. J.) D. W. Knappe"

2. Deed for the Transfer of Title to Likiep Atoll: Chief Jorteka to Jose De Brun. Maloelab, August 14, 1877.

"I, Yurrtaka, chief of Auhr, Maloelab, Erikub, Wotje, Likieb, and other islands of the Marshall Archipelago, on behalf of myself and all other persons having or claiming to have any estate, rights, title or interest in all that group of islands lying in latitude  $9^{\circ} 51' 30''$  north, longitude  $169^{\circ} 13' 30''$  east and known among my people as Likieb and named by Capt. Ketzuebe "Count Heidan Island" the northwest joint of said island being in latitude  $10^{\circ} 3' 40''$  north, longitude  $169^{\circ} 6'$  east and the south-east point in  $9^{\circ} 49'$ , longitude  $169^{\circ} 2'$  east.

"In consideration of merchandise consisting of cloth, hardware, cannon, muskets, ammunition, tobacco, etc. etc. to the value of twelve hundred and fifty dollars, paid to me this fourteenth day of August one thousand eight hundred and seventy seven by Jose De Brum, the receipt whereof is hereby acknowledged.

"I do hereby bargain, sell, release, convey, assure, and assign to the said Jose De Brum all and singular the before mentioned group of islands to hold unto the said Jose De Brum his heirs and assigns forever, absolutely free from all claims, encumbrances and demands whatsoever. And I, the said Jurrtaka, also hereby agree to and do accept of the purchase of said islands according to the tenor and effect hereof as witness my hand and seal at Maleelab, this fourteenth day of August, one thousand eight hundred and seventy-seven.

Jurrtaka (X) his mark

"Signed, sealed and delivered by the said Jurrtaka, the foregoing having been first interpreted to him by Isaac Madison and by the said Jose De Brum in the presence of G. H. Ingalls, Otto Löser and J. T. Elsen.

"Witness  
Isaac H. Madison  
H. Löser  
J. T. Elson  
G. H. Ingalls  
Lalik  
Jetenton"

3. Deed for the Transfer of Title to Likiep Atoll: Jose De Brum to Capelle and Company. Jaluit, June 26, 1878.

"Know all men by these presents that I, Jose De Brum of Bonham Islands, in consideration of the sum of eight hundred and eighty six dollars and seventy three cents (\$886.73) well and truly paid to me by Messrs. A. Capelle & Co. of Bonham Islands, Marshall group, and the receipt of which I hereby acknowledge, do hereby sell and absolutely convey to the aforesaid A. Capelle & Co. all of that group of Islands known as Likiep or Count Heidens Island situated in or about 9° 51' 30" latitude north of the Equator and in 169° 13' 30" longitude east of Greenwich, the same being more particularly described and designated in a deed bearing date August fourteenth, eighteen hundred and seventy seven and signed by Jurrtaka Chief of Likiep and other islands, together with all buildings, trees, reefs, harbours, and other appurtenances thereto and with all rights and privileges and concerning the same which were granted to me by the aforesaid deed and conveyance from Jurrtaka to myself, to have and to hold to themselves and their heirs and assigns forever without let, hindrance, ordain from me at any time. And I hereby declare that I had power to acquire the said Island and that I have now full right and power to dispose of and alienate the same from myself as recited in the foregoing.

"In witness whereof I have hereunto set my hand and seal this twenty six day of June in the year of our Lord eighteen hundred and seventy eight at Bonham Island, Marshall group. North Pacific.

"Signed, sealed and delivered in the presence of witnesses to signature,  
Jose De Brum

C. H. Ingalls  
James L. Young

(Apia, 4 September 1878, recorded)"

4. Contract of Tenancy on Likiep Atoll. Likiep, January 30, 1880.

"Be it known to all whom it may concern that we the hereafter subscribed natives at present residing and being the only inhabitants of the island of Likiep situated and being known on the charts as Likiep Islands in or about 9° 51' 30" latitude north of Equator and in 169° 13' 30" longitude east of Greenwich, and being the entire property of Jurrtaka, a chief and proprietor of several other islands of Radak chain, Marshall group, at present residing at Aur, an island of the said Marshall group, have been duly informed by the said Jurrtaka of his having sold, transferred and conveyed by a deed bearing date of fourteenth day of August, one thousand eight hundred and seventy seven unto Mr. Jose De Brum, called Antone, the heretofore described island of Ligieb, Marshall group, to him the said Jose De Brum, called Antone, entire and absolute property, possession thereof, and all the estates, rights, titles, interests, privileges, claims, and demands whatsoever thereof, together with all and singular the hereditaments and appurtenances thereunto belonging or in any wise appertaining and the reversions or reversions, remainder and remainders, rents, issues, and profits thereof which are belonging or appertaining to him, the said Jurrtaka, in his quality of being the sole and only owner and proprietor of the said island of Ligieb.

"And now this indenture witnesseth that we, the hereafter subscribed natives declare and by these presents do declare that we are fully informed of the bearing and meaning of the heretofore recited deed of sale of the island of Ligieb and that we hereby solemnly and truly declare that neither one or all of us has or have a right, title, interest, claim of property to any part or parts of the said islands of Legieb, but that we together or every-one of us in singular for himself and for his descendants or heirs hereby declare that we being up to this date and living on the said islands of Legieb, considering ourselves only subjects and tenants of the said Chief Jurrtaka, shall have or will live on the said island of Legieb only up to such date or day that the aforesaid Jose De Brum, now the only and lawful proprietor of the said island of Legieb may decide, and that during our stay or living thereon we shall work for him at such rate of wages as he, the said Jose De Brum, in his capacity of entire owner of the island of Legieb may agree to pay us. And we furthermore declare hereby that whenever the said Jose De Brum shall think fit or proper to prohibit our further work or living on the said island of Legieb, we shall peacefully and most obediently follow his command and go and settle on any other island belonging to our former and heretofore named Chief Jurrtaka, provided that the said Jose De Brum delivers us free of charge to such an island.

"In witness whereof we the undersigned natives have put our hands and seal hereto at the island of Legieb this thirtieth day of January in the year one thousand eight hundred and eighty.

"Signed, sealed and delivered in the presence of

W. Wolff  
P. Bleckert

Lekejrick X	Lajijben X	Lanskroro X
Jemorek X	Lejen X	Litatrikrik X
Lawatak X	Nake X	Lejeban X

Lamoni X	Lakioba X	Letan X
Rongla X	Lawake X	Labeki X
Labunto X	Langiari X	Lekanikar X
Lejek X	Lanajlib X	Anjejab X
Lometin X	Larkelan X	Laku X
Lanitwil X	Lobetwe X	Labrak X
Lomejinnij X	Hartok X	Lajim X
Lamina X	Lajmirer X	
Lajewrikrik	Lejaken X	

"I, the undersigned, Isaac Madison, being a resident of the Marshall Islands for the last fourteen years and of the island of Legieb of the same group in particular for the last two years, do hereby declare and certify, that the foregoing document has been duly translated and declared by me to the thereunto subscribed natives, that those natives are all the present inhabitants of the said island of Ligieb and that they are fully aware of and content with the bearing and meaning of such document.

"Legieb Island, Marshall group, the thirtieth day of January, one thousand eight hundred and eighty.

Isaac Madison

"Signed in the presence of  
W. Wolff  
C. Blackert"

5. Agreement between Natives and Owners of Likiep Island. Likiep, January 1, 1880.

"This agreement made and entered into this thirtieth day of January, one thousand eight hundred and eighty at Legieb Island, Marshall group, between the hereafter subscribed natives of the Marshall Islands, being at present inhabitants and residents of Legieb Island, Marshall group, aforesaid and hereafter called parties of the first part and A. Capelle & Co., owners of Legieb Island aforesaid hereafter called parties of the second part witnesseth

1. The said parties of the second part hereby agree to allow the said parties of the first part to continue to reside on the said island of Legieb on the following conditions only as tenants at will.

Firstly, that they, the said parties of the first part, agree and bind themselves not to destroy trees which may be planted by the said parties of the second part and not to trespass at anytime on any plantation which may be made or laid out by the said parties of the second part.

Secondly, the said parties of the first part promise and bind themselves to behave and conduct themselves in a peaceable and orderly manner during the time they are allowed to stay or reside at Legieb Island aforesaid.

Thirdly, the said parties of the first part agree further to work for the said parties of the second part during the time they reside as aforesaid on Legieb Island at current wages at the rate of two dollars a month, to be paid to them by the said parties of the second part from time to time in trade, and to obey all lawful commands and orders of any overseer or agent sent to Legieb Island aforesaid by the said parties of the second part.

2. It is distinctly understood between the two contracting parties as the basis of this agreement, that the said parties of the second part

have and shall have at any time full right and power, by giving six months' notice to such effects to order the said parties of the first part to vacate their premises and remove from Legieb island aforesaid.  
"In witness whereof the two contracting parties have hereunto set their hands and seals the day and year first before written.

"Signed in the presence of

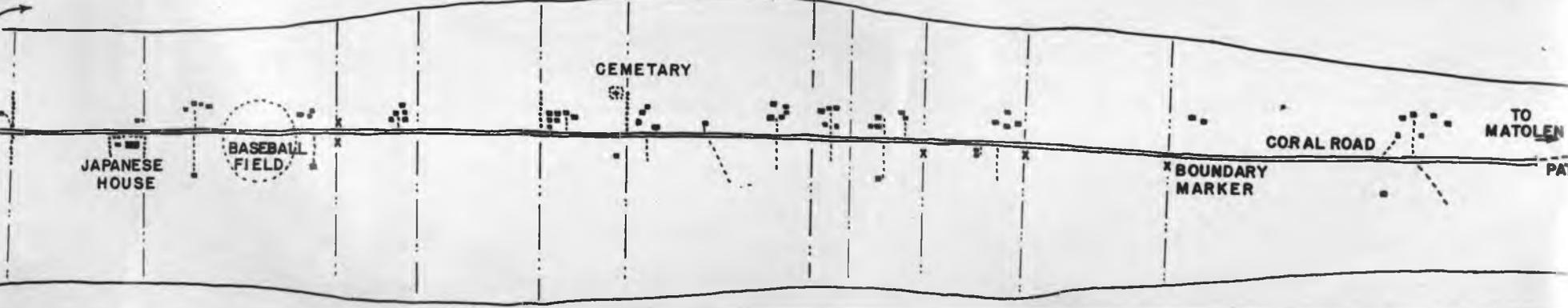
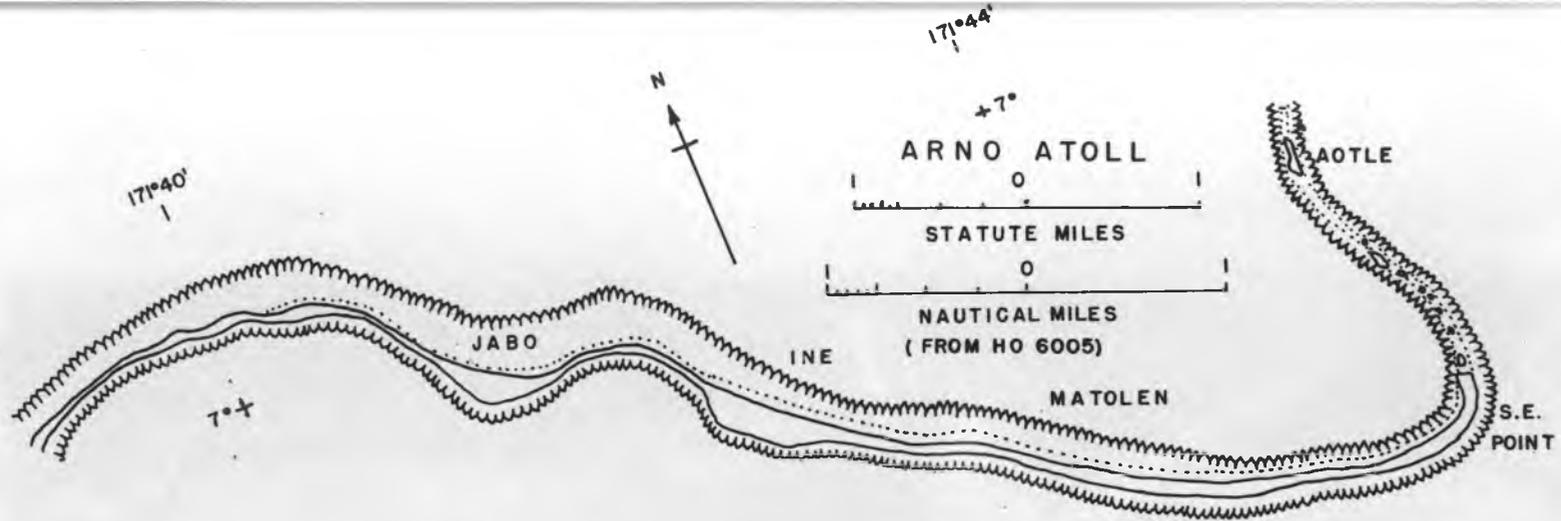
W. Wolff

C. Blechert

[signatures of same 35 natives  
as signed the previous document,  
and the signatures of the three  
partners in Capelle & Co.]

**PHOTOGRAPHIC SUPPLEMENT**

FIG. 1.  
 ARNO, sketch of Ine village,  
 showing pattern of typical  
 Marshallese community.  
 May, 1946.





**Fig. 2. MAJURO. Air view of Majuro Island, showing Marshallese village stretched out along lagoon beach.**



Fig. 3. MEJIT. Air view of Mejit Island, surrounded by reef.



**Fig. 4. MILI. Air view of the islands and reefs  
at the northwest corner of Mili atoll. 29 July 1946.**



**Fig. 5. LIKIEP. Lagoon side of Likiep Island with  
dwellings and boat sheds lining the beach, and an  
outrigger canoe under sail in the foreground.  
8 June 1946.**



**Fig. 6. ARSO.** Marshallese natives gathered on lagoon shore to witness arrival of visitors. 20 May 1946.



**Fig. 7. BONGERIK.** Village street in the newly-established community of Bikini evacuees. 11 May 1946.



**Fig. 8. LIKIEP. Dwelling group of a headman (alap), including large dwelling house, eating house, cook-house, and brackish well. 20 June 1946.**



**Fig. 9. RONGERIK. Sheet-iron roofing and cement cistern built to catch rainwater for domestic use. 11 May 1946.**



**Fig. 10. RONGERIK.** Interior of pandanus walled and thatched hut, with sleeping mats rolled up in the corner. 11 May 1946.



**Fig. 11. ARFO.** Men tie pandanus thatch to roof frame. The thatch has been prepared by women. 15 May 1946.



**Fig. 12. JALUIT.** Temporary native housing built of scrap salvaged from devastated Jaber town. 24 August 1946.



**Fig. 13. BONGERIK.** Family group in the doorway of a pandanus walled and thatched dwelling. 11 May 1946.



**Fig. 14. MAJURO. Dwight Heine, German half-cast from Ebon and adviser to Military Government on education. 1 August 1946.**



**Fig. 15. ARNO. Tsho, one of the two chiefs at Arno, dressed in Japanese uniform and wearing a medal presented to him as a chief by the American administration. May 1946.**



**Fig. 16. LIKIEP. Some leaders of the workers' group in the copra controversy. 29 June 1946.**



**Fig. 17. LIKIEP. Anten De Brum, magistrate and storekeeper, and his two daughters. 30 June 1946.**



**Fig. 18. LIKIEP. Taifun (left) and Laliij, lesser chiefs and magistrates at Ailuk and Wetje respectively. 30 June 1946.**



**Fig. 19. LIKIEP. Marshallese storekeeper weighing up rice for sale to native customers. 8 June 1946.**



PROPERTY OF THE UNITED STATES GOVERNMENT  
PHOTOGRAPHIC SERVICE  
WASHINGTON, D. C.

**Fig. 20. LIKIEP. Marshallese fisherman preparing to cast his throw-net for small mullet (teſ) along the lagoon beach. 9 June 1946.**



**Fig. 21. LIKIEP. Catch of mullet (teō) through use of a throw-net. 9 June 1946.**



**Fig. 22. JALUIT.** Marshallese woman using a grater to process ripe coconut for chicken feed. 24 August 1946.



**Fig. 23. LIKIEP.** Bottle prepared to catch the sap (iekare) from the cut inflorescence of the coconut palm. 9 June 1946.



**Fig. 24. LIKIEP. Apparatus for distillation of fermented coconut sap. 9 June 1946.**



**Fig. 25. JALUIT. Marshallese boy sucking the sweet pulp from a segment of pandanus fruit. 24 August 1946.**



**Fig. 26. ARNO.** A scraper (baka) is used to express the sweet pulp from segments of freshly roasted pandanus. 22 May 1946.



**Fig. 27. JALUIT.** Marshallese man and wife kneading preserved breadfruit (bwiru) preparatory to cooking for immediate use. 24 August 1946.



**Fig. 28. WOTJE. Outrigger canoe sailing before the wind between Wotje and Likiep atolls. 16 June 1946.**



**Fig. 29. LIKIEP. Five-ton sloop, the Dora, from Ailuk and outrigger canoe on lagoon shore. 30 June 1946.**



**Fig. 30. MAJURO.** Marshallese repairing the Marianna, a five-ton sloop belonging to the people of Majuro. 30 July 1946.



**Fig. 31. LIKIEP.** Marshallese girls washing clothes. 20 June 1946.



**Fig. 32. LIKIEP. Marshallese girls playing a game with a volleyball. 10 June 1946.**



**Fig. 33. LIKIEP. Baseball game between Wetje and Likiep teams. 21 June 1946.**



**Fig. 34. LIKIEP. Grove of young coconut palms about four or five years old. 20 June 1946.**



**Fig. 35. LIKIEP. Grove of mature coconut palms about 30 or 40 years old. 20 June 1946.**



**Fig. 36. LIKIEP. Removing the meat of ripe coconuts in the production of copra. 19 June 1946.**



**Fig. 37. LIKIEP. Copra drying-shed with removable racks for sun-drying copra. 20 June 1946.**



**Fig. 38. LIKIEP. Atoll scribe weighing sacks of copra on Japanese scale. 10 June 1946.**



**Fig. 39. LIKIEP. Natives loading sacks of copra into punt for transfer to USCC trading vessel anchored in the lagoon. 10 June 1946.**



**Fig. 40. ARMO. Stripping the coconut leaflets in preparation of fiber for handicraft production. 16 May 1946.**



**Fig. 41. ARMO. Drying processed coconut leaflets after their having been dyed. 16 May 1946.**



**Fig. 42. BONGERIK.** Marshallese girls plaiting bracelets from coconut leaf fiber. 11 May 1946.



**Fig. 43. LIKIEP.** Marshallese woman making a fringed fan of coconut leaf fiber and tortoise shell center. 20 June 1946.



**Fig. 44. JALUIT. Aged couple making dried pandanus leaves more pliable in preparation for handicraft use. 24 August 1946.**



**Fig. 45. JALUIT. Production of belts from processed pandanus and coconut leaf fibers. 24 August 1946.**



**Fig. 46. ARNO. Sewing border on a traditional Marshallese fine mat of pandanus leaf fibers. 16 May 1946.**



**Fig. 47. ARNO. Separating the layers of hibiscus fiber (lon) for use in handicraft production. 16 May 1946.**



**Fig. 48. ARHO. Applying black natural dye (*mami*) to strips of hibiscus fiber. 16 May 1946.**



**Fig. 49. LIKIEP. Marshallese man using Japanese coping saw to cut inlay design from a piece of oyster shell. 17 June 1946.**



**Fig. 50. LIKIEP. Women bringing their handicraft to the Town Hall for sale to USCC trader. 10 June 1946.**



**Fig. 51. LIKIEP. USCC trader buying handicraft from Marshallese natives. 10 June 1946.**



**Fig. 52. WOTJE. Outrigger canoes tied up at war-damaged pier near Japanese seaplane base. 15 June 1946.**



**Fig. 53. WOTJE. Bomb crater on former Japanese airstrip. 15 June 1946.**



**Fig. 54. JALUIT. Oil tanks and wreckage of pumping station at "Sydney Town" (Jabor village). 23 August 1946.**



**Fig. 55. JALUIT. Wreckage of shops and buildings in Jabor village. 23 August 1946.**