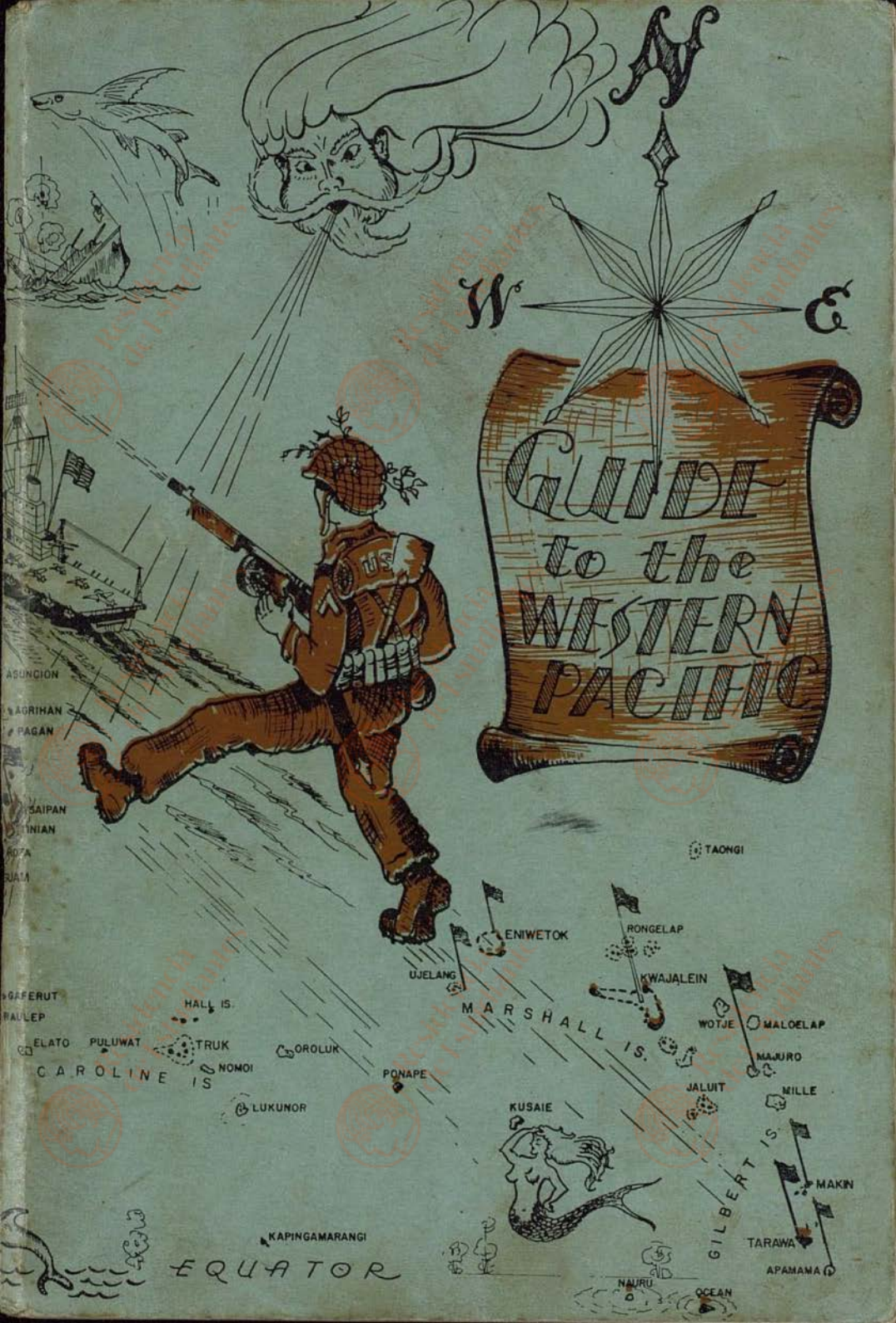
GUIDE
to the
WESTERN
PACIFIC
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ASUNCION
AGRIHAN
PAGAN
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MARSHALL IS.
WOTJE
MALOELAP
MAJURO
JALUIT
MILLE
GAFERUT
RAULEP
HALL IS.
ELATO
PULUWAT
TRUK
OROLUK
NOMOI
CAROLINE IS
PONAPE
LUKUNOR
KUSAIE
GILBERT IS.
MAKIN
TARAWA
APAMAMA
KAPINGAMARANGI
EQUATOR
NAURU
OCEAN

RESTRICTED

GUIDE

to the

WESTERN PACIFIC

For the use of the Army, Navy, and Marine Corps of the United States of America.

CinCPac—CinCPOA Bulletin
No. 126—44
August, 1944

GUIDE

to the

WESTERN PACIFIC

"Stepping Stones to Japan"

Table of Contents

"Stepping Stones to Japan"

The islands like Kwajalein, Saipan, and Wake,
Or Tarawa, Marcus, and Yap
Sound funny or queer to American troops
When they look them up on a map.

There's Engebi, Rota, the Bonins and Truk,
Majuro, Namur, and Palau,
Formosa, Kusaie, Eniwetok, and Roi,
Plus Ponape, Guam, and Davao.

These tongue-twisting, weird, unpronounceable spots
Point the way that our forces will go
Through the skies, on the seas, over mountains and plains
To knock out our Nipponese foe.

INTRODUCTION

Americans ought to like the Pacific. They like things big. And the Pacific is big enough to satisfy the most demanding.

It was "discovered" in 1513 by the Spanish explorer Balboa who crossed the isthmus of Panama to see its shimmering blue waters stretching out into apparent infinity. He was rewarded by his country for this deed by being created "Admiral of the Great South Sea."

The name "Pacific" was given to the ocean seven years later when the Portuguese, Magellan, entered it from the Atlantic through the straits which now bear his name at the southern tip of South America. He and his men were so weary of the antarctic blasts which battered his ships and so grateful for the mild trade winds which blew him northwest through the placid waters that the adjective "pacific"—peaceful—came naturally to his mind.

Now neither Balboa nor Magellan was the first white man to see the Pacific. Marco Polo and his fellow Venetian adventurers had sailed its western waters from China around the Malay Peninsula to other Asiatic ports long before. But they did not know its vast expanses. They probably thought of it as a narrow body of water along the China Coast.

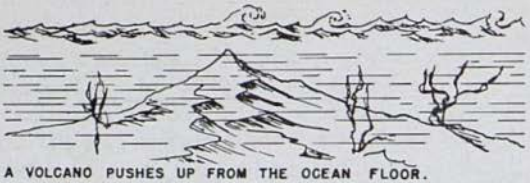
Magellan's name has stuck. It's a pleasant name, a kindly name, and often the ocean lives up to its name. Other times it does not. The Pacific has terrific storms—typhoons; its waves pile up to mountainous heights; its continental shores and islands have been the arenas of many bloody battles long before the Japanese struck at us at Pearl Harbor.

The stormy, blood-soaked Pacific is the biggest thing in geography—the biggest thing we know on our globe. It covers about 64,000,000 square miles—enough water to cover every acre of land on the globe, with enough left over to cover another Africa. It's the bluest of the oceans and the warmest. And, it's the deepest.

Off the Philippines in the Mindanao Deep soundings reached bottom at 35,424 feet, farther down than Mt. Everest is up. The western part of the ocean has many of these "deeps"—trenches in the ocean floor where in impenetrable darkness live weird sea creatures which defy human imagination. The average depth is about two and a half miles.

In only one respect is the Pacific outclassed by other oceans—it is not as salty and so it is harder to swim in the Pacific than in the Atlantic. But it's salty enough to make drinking it dangerous.

In this survey of the Pacific only that section north of the equator,



A VOLCANO PUSHES UP FROM THE OCEAN FLOOR.

THE VOLCANO ERUPTS, THRUSTING ITSELF ABOVE SEA LEVEL.

THE VOLCANO, NOW QUIET, STARTS TO SINK, AND A FRINGING CORAL REEF FORMS ON ITS SHOULDERS.

STILL SINKING THE MOUNTAIN SUPPORTS A BARRIER REEF WITH A LAGOON BETWEEN THE ISLAND AND THE REEF.

THE MOUNTAIN HAS SUNK. ONLY THE REEF REMAINS— A TYPICAL PACIFIC ATOLL.

JICPOA D-1082

BIRTH OF AN ATOLL

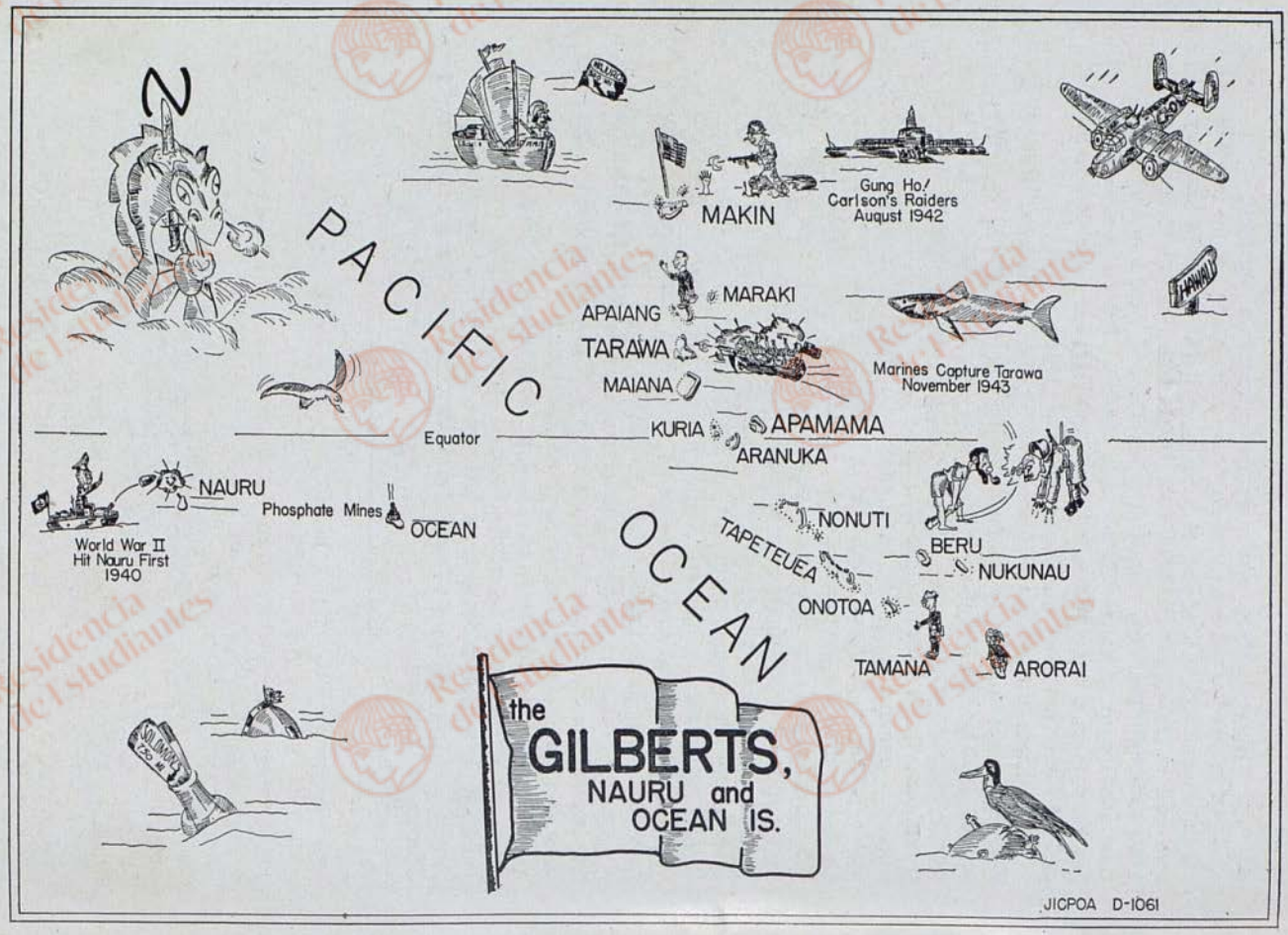
west of 180 degrees (the International Date line) and south of 40° North will be considered. The map in the center of this book shows this area with the various island groups to be treated noted.

Even in this limited zone, the distances are enormous and warfare becomes (mainly) a problem of supply, or logistics as the military men call it. It's 3,400 nautical miles from Honolulu to Yokohama, 4,600 nautical miles from Honolulu to Manila, and 1,750 nautical miles from Manila up to Tokyo. If a convoy sails at 250 miles a day it's not hard to understand why it takes time to mount our offensives and why only the most essential articles are shipped.

The islands of the north and west Pacific are for the most part of volcanic origin and are in varying stages of development. In some groups, such as the Marshalls, the original mountain peak has sunk below the surface and only the coral reef which once surrounded it remains. These are called atolls. Others, like Truk in the Carolines, consist of mountains which have sunk part way, leaving bodies of water—lagoons—between the mountain and the coral reef built up on the submerged shoulders of the mountain. Still others, Guam, for example, are tops of volcanic peaks with the coral reef attached to the shore line and no lagoon between it and the island. The purpose of this pamphlet is to give in outline form the main facts about each of the islands and groups of islands in this area—a little about their history and geography, some information on their people—what they look like, where they came from, how they live and how they earn their daily bread.

American soldiers, sailors, and marines know by this time that the isles of the Pacific are not quite up to Hollywood standards. But they will find much that is strange and interesting.

This book is to help them get along in these places which formerly were not even known by name to most Americans but which are destined to become as familiar as their own backyards to hundreds of Americans from Maine to Texas, from Minnesota to Louisiana, from Florida to Washington.


PACIFIC
OCEAN
MAKIN
Gung Ho!
Carlson's Raiders
August 1942
MARAKI
APAIANG
TARAWA
MAIANA
Marines Capture Tarawa
November 1943
Equator
KURIA
APAMAMA
ARANUKA
NAURU
Phosphate Mines
OCEAN
World War II
Hit Nauru First
1940
NONUTI
TAPETEUEA
BERU
NUKUNAU
ONOTOA
TAMANA
ARORAI
the
GILBERTS,
NAURU and
OCEAN IS.
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THE GILBERTS
and
OCEAN and NAURU

"Tarawa."

The very name sounds like a bugle call and like a bugle call it has gone echoing around the world, awakening memories of other great American victories, informing the enemy that for him the sun is beginning to set, and assuring free men everywhere of our eventual victory in the Pacific.

Until the Marines stormed ashore on this Gilbert Island beach on November 20, 1943, these islands were of interest mainly to geographers, navigators, beachcombers, missionaries, and traders. But now everybody knows that here began the march to victory over a treacherous, cunning, and determined foe.

The Gilberts are a crescent-shaped group of islands lying across the equator some 2,000 miles southwest of Honolulu. They are a British Crown Colony along with the neighboring island of Ocean, 250 miles to the west. Nauru, 100 miles beyond Ocean, is jointly owned by Britain, Australia, and New Zealand.

South and southwest of Ocean and Nauru is nothing but water for 600 miles until the voyager sights the Solomons and the Santa Cruz Islands. In this arena were fought the sea and air battles of Santa Cruz and Cape Esperance which helped check the Japanese advance toward Australia and made possible the offensives in the central and southwest Pacific.

Accident, whales, coconuts, and the Bible

White men are really not strangers in this area, for they were brought here for different reasons as long ago as 300 years before World War II. The first island to be sighted was Makin, discovered when the last of the great Spanish explorers, Pedro Fernandez de Quiros, sailed by without going ashore in 1606. But trade with the Far East continued by way of Africa, and for 150 years Quiros' discovery was forgotten. When wars between Spain and England aroused interest in the Pacific, the British sent Commodore "Foul-Weather Jack" Byron, in 1764, to look around. Curiously enough, he managed to sail right through the Gilberts without sighting any of the islands except Nukunau, still called Byron Island on some charts. It was left to two other Britons to put the Gilberts on the map. Captains Marshall and Gilbert wanted to sail from Australia to China in 1788. It was probably the first time that such a trip had been tried,

and, as the area north and northwest of Australia was unknown, they started to circle around to the east to take advantage of the westerly winds. After six months sailing they anchored off an atoll, probably Apamama, where the natives wondered greatly at the ship which had been painted red to arouse their interest.

Other islands of the group were visited and named for various members of the crew. Captain Gilbert's name was given to the group itself by other merchant ships and American whalers that followed in his track.

One of these whalers, in 1784, sighted Nauru which her skipper named "Pleasant Island." Finally, in 1804, Ocean Island was discovered.

Although many ships passed through this region, with a few stopping for fresh water and food, for many years the only white inhabitants were a few beachcombers who lived a dangerous and profitless existence among the natives. Aside from the fact that there seemed nothing of commercial value to attract outsiders, the natives, especially in the Gilberts, were a war-like race. Clad in coconut-mat armor and armed with sharks-teeth swords and the tail of the poisonous sting ray, they fought each other in frequent wars, and occasionally included the massacre of a few whites in the general sport. America, engaged in trade with the Orient in the famous "Baltimore Clippers", became interested in this area and, in 1841, Congress sent Lt. Charles Wilkes, USN, to explore the Gilberts, where he was amazed at the beauty of the women and the passion of the men for tobacco.

Enter the missionaries

The most important event, however, in the opening of the Gilberts to the outside world was the coming of the missionaries. The greatest of these were the Rev. and Mrs. Hiram Bingham, who arrived at Apiang from Boston in 1857 to preach the old-time gospel, translate the Bible into Gilbertese, and endure great privations. The missionaries arrived none too soon, for until then the natives had met only the worst type of whites: thieving copra traders, immoral beachcombers, and "blackbirders", who kidnapped natives to sell them into virtual slavery. Some of the natives adopted such "civilization" only too well. Tembinoka, king of Apamama, set up a little dictatorship of his own where he and his favorites, armed with guns, indulged in orgies of whiskey and a game of poker in which the king was always the big winner (he was dealt two hands). The white man's afflictions, venereal diseases, measles, scarlet fever, and such, killed many of the natives who had no immunity to them. At Ocean and Nauru, the natives split into two groups, and alternately cringed at opposite ends of their tiny islands and fought in the no-man's land in between, until at last the missionaries persuaded both sides to disarm. At the request of the missionaries, England finally annexed the Gilberts and Ocean Island, while Germany was given Nauru. During the first World War, Australia captured Nauru, which was given

by the League of Nations to England, New Zealand and Australia under a joint mandate.

World War II hit Nauru first when, in 1940, German raiders sank several ships offshore and shelled the island. Soon after her attack on Pearl Harbor, Japan seized the Gilberts, and fortified Tarawa, Makin, Ocean, and Nauru, using them as bases for patrols across our lines of communications with the South Pacific and as outer defenses for the Marshalls and Carolines. On February 1, 1942, an American naval task force hit the Gilberts in the first of many of such raids and, on August 17th of the same year, Carlson's Raiders landed on Makin from submarines. Before retiring, they wiped out the Japanese there. The Japanese returned, rebuilt their installations on Makin, and threw up defenses on Tarawa which they confidently expected would cost us a million men and six months to take. But American courage and power smashed through, the Marines taking Tarawa in four days and the Army Makin in less time, Makin being less strongly protected. Unfortified Apamama was occupied with little opposition. These Gilbert bases became the jumping-off places for our next move against the Marshalls and today are way stations on the air routes to the western Pacific.

The 16 island groups of the Gilberts are, or were at one time, typical atolls—long reefs surrounding a lagoon, with small sandy ribbons of land, four to 15 feet high, covered with palms and bushes, dotting the reef, usually on the eastern side. Part of some atolls have sunk, leaving only a coral fragment surrounded by a fringing reef.

Phosphate

Ocean and Nauru are very unusual islands and the reason is one word: phosphate. These two islands produce almost one-tenth of the world's supply of this valuable fertilizer. The islands were once atolls, which several times sank under the water and rose again. Now they are high plateaus, with a narrow fringe of flat coast and a wide fringing reef. In the center of the plateau is found the phosphate rock, with high coral pinnacles scattered through it. Much of the interior is covered by a dense growth of bushes, with several small lakes, while all cultivation and houses are on the coast. Just where the phosphate came from is a matter of dispute, but it is thought that guano or the decay of the remains of marine life probably had something to do with it. Whatever its source, its value is so great that after the last war the private company which started to work the diggings was taken over and run jointly by the British, Australian, and New Zealand governments. Elaborate machinery was set up to handle the rock; Chinese and Gilbertese labor was imported. The rock was loaded on hand cars or cable cars, dried in kilns, and loaded aboard ships either by lighters through the surf at Ocean or by a large steel cantilever crane at Nauru.

The islands of the Gilberts depend chiefly on their one cash crop, copra, the dried meat of the coconut, which is used in the manufac-

ture of soap, animal feed, candles, and oleomargarine. In times of depression there is little market for this crop and the islands are hard hit. A few traders have been allowed on the islands to supply the natives with cloth, fishhooks, tinned foods, and especially tobacco, but the British have not encouraged whites to come to the islands, preferring to foster native cooperatives for selling the copra. Since the arrival of the Americans, the trade in native handicraft, mats, shell necklaces, and such has flourished.

Democracy, Ltd.

The Gilberts and Ocean Island are a part of the Gilbert and Ellice Crown Colony, administered by the Resident Commissioner, who lived at Ocean and was assisted by six commissioners. Much of the local administrations carried on by the natives themselves, who have shown ability for taking part in a system of government which closely resembles the ancient tribal practices. Each atoll is governed by a native magistrate and native policemen, assisted by a council, the *kaubure,* consisting of elected representatives of each village, and a scribe, or secretary. The government of Nauru, conducted jointly by New Zealand, Australia, and England, is similar to that of the Gilberts.

What manner of men are these?

The Gilbertese are Micronesians, with light brown skins and fine physiques, the men averaging about five and a half feet in height. About 28,000 of them, approximately 200 per square mile, crowd these atolls, one of the few places where native depopulation is not a problem. Just before the war, 2000 of them were allowed to move to unpopulated islands of the Phoenix Group, 300 miles to the east. There are a few half-castes, some of them part-Germans who fled from the Japanese in the Marshalls. Gilbertese, a blend of Polynesian, Malay, and Melanesian, is the language generally spoken, but a few can speak some English. Pidgin English is never used. About three-quarters of the people can read Gilbertese. Ocean Island has a population of about 2400, of whom only about 1000 are natives of this island ("Banabans" they call themselves), the remainder being Gilbert and Ellice Islanders. The population of Nauru consists of 150 Gilbertese and 1800 Nauruans, who are only vaguely related to the Gilbertese and speak a mixed language of their own.

These people are active and intelligent; having adjusted themselves to European innovations with a minimum of disorganization and conflict, their self-confidence and morale remain high. The British insured their possession of their lands, paid them a high rent for the phosphate areas, helped ease the impact of new ways; consequently, the natives are definitely pro-Allied. The Ocean Islanders contributed $38,000 to the British Spitfire Fund. The Gilbertese, forced to work for the Japanese for little money and less food, welcomed the Americans and helped them whenever possible. It is well to remember that the native will expect the white man

to be friendly, helpful, and sober, for this is the type to which he has been accustomed for the past 30 years.

Jeeps and taboo

The natives have retained something of their old culture, to which they have added much that is new. Tobacco is a necessity to most of the men, and hitch-hiking a ride on a jeep is only the latest addition to their way of life.

Their villages are generally out of bounds for service personnel, but some of the men come to work for the Americans and occasionally stage one of their famous dances. Their houses are simple affairs, consisting usually of a thatched roof resting on posts, with an elevated floor. A taboo of sacredness surrounds the community house, a large pavilion that serves as a meeting place for the village. On Ocean and Nauru, the British had established many of the conveniences of an American small town, with athletic fields, running water in some of the houses, electricity, and paved roads. The natives lived in neat, well-kept villages on the coastal plain.

Like all Micronesians, the Gilbertese are careful of their bodies, although they are not quite as interested in clothes as were the missionaries, who tried to clothe the women in decent, shapeless "Mother Hubbards." The scarcity of cloth during the Japanese occupation was used by the natives as an excuse to go back to the grass skirt, although there may often be bathing trunks under it. Some of the women still follow the old custom of bleaching their skin with vegetable juices. Old men may still wear a skirt or *lavalava* of bark cloth, but a skivvy shirt and shorts are more common.

One of the common means of ornamentation is to rub dirt into cuts to produce a design of raised scars. Unlike most Micronesians, Gilbertese men often let their beards grow.

It is not uncommon to see the natives bathing nude. One chief on Makin complained to a U. S. officer that the troops were laughing as they watched the women bathe. When the officer offered to stop the men from looking, the chief told him to let them look, but to keep them from laughing.

Due to the activities of the missionaries and native preachers, most of the natives are Christians, and are very strict, especially about Sunday. But there is still some fear of sorcery, usually practiced by burning a lock of hair or nail paring of the intended victim. A few of the other taboos with which their life was once surrounded still exist.

Not only are the natives very adept at dancing, in which they tell of their martial glories in pantomime, but they are also perfect water dogs. In ancient times in their little outrigger canoes with sails of coconut mats they ranged the Pacific, navigating by the sun and stars.

Their daily bread

These master mariners are also good fishermen. Weirs of rocks are built on the reefs and fish herded into them, to be left high and dry when the tide goes out. Other fish are caught by poison, nets,

hooks, and spears. The tiger shark is hunted with no other weapon than a spear or knife, a practice not recommended to service men.

Fishing is important because the natives have always lived close to the subsistence level. The palm furnishes food, drink, shelter, and clothing. Taro yields poi, a paste which most Whites find rather insipid. The fibrous fruit of the pandanus gives a sweet, slightly nourishing juice and some starch when industriously chewed. Pigs and chickens are kept, but eggs are never eaten; meat is eaten only on great occasions. Local foods are supplemented by bully beef, salmon, rice, and other imported foods for which the natives are acquiring a taste.

Water is always a problem on these islands. Rainwater is collected in cisterns from roofs whenever possible. This is supplemented by brackish wells. This water should not be drunk without medical approval.

Down where the trade winds blow

Water is scarce because rain runs through the sandy soil fast. Although the islands are subject to alternating seasons of drought and of excessive rain, the average is about 70 inches, more than is generally found in the U. S. What rain there is usually comes in short violent showers. The determining factors of the climate are the trade winds, the means of locomotion of the old sailing ships. From November through April they blow steadily from the northeast and east. From May to October, the winds shift to southeast and east. In between these seasons, there are periods of shifting winds and calms, with occasional storms. The temperature remains fairly constant at about 82°F., dropping somewhat at night, but although the humidity may be high, the steady winds make the climate equable for white men. Until a good, deep tan is acquired, it is best not to go about uncovered. The direct rays of the sun plus its glare on the white sand and the sea will produce a painful burn.

Quick, Henry, the Flit

Although the climate is, on the whole, kindly, there are a few problems of health arising from it. New troops in the area frequently experience "line island fever", a slight disruption of the digestive system caused by exposure to an unfamiliar climate. The most serious enemy to health is the mosquito, which on Apamama and several of the other islands carries filariasis, and may carry malaria. Flies, which breed in half-eaten coconuts, are also carriers of disease. Syphilis and gonorrhea are common. The natives are also susceptible to measles, chicken pox, and tuberculosis. Cuts and abrasions which in temperate climates would quickly heal are here more serious and take longer to heal; shoes should be worn when swimming to avoid coral cuts which easily become infected. A word of warning on the native toddy: it produces symptoms similar to those of gonorrhea, and makes the drinker fighting mad.

Fish and things

Many of the fish encountered in the water will be strange to the newcomer. They should not be eaten unless the natives do so, for

several varieties are poisonous. Other hazards to the unwary swimmer are lagoon eels with razor-like teeth, sharks, and clams which can grip the foot like a vise. A few varieties of small coral snakes are very deadly. Yet the natives enjoy the water unworried by these slight inconveniences, and swimming parties are organized at atolls occupied by American forces. Particular care should be taken at Ocean and Nauru, where the surf is dangerous.

Although the waters are quite alive with marine life, there are few animals on the islands. Geckos, a kind of lizard, are everywhere and should be protected because they eat insects. Brown rats, which feed on coconuts and garbage, came ashore from the first sailing ships. There are not many species of birds. Frigate birds are tamed by the native kings as falcons. The numerous centipedes and scorpions are not dangerous, although their bite is painful.

Such are the Gilberts—a big area of ocean dotted by a few coral islands, suddenly thrust into the limelight by war. The climate is kind; natural enemies are few. The natives are amusing, intelligent, helpful and moral. Americans have a special interest in these islands, hallowed by the blood of brave men who died on their beaches.

THE MARSHALL ISLANDS

Kwajalein, Eniwetok, Majuro—these are strange names to American ears. Five years ago only a handful of Americans had ever heard of the islands; now to thousands of soldiers, sailors, marines, those names have become as familiar, if not as popular, as Hoboken, Kansas City, and San Diego. Our men have fought there. They are living and building in the islands now. Many more thousands will know them before we reach Tokyo. Here, then, is some information on what Kwajalein is like and those other islands of the Marshall group which dot the Pacific on the way to Japan.

Where they are

Lying a few degrees west of the International Dateline and on both sides of Latitude 10° North, the Marshall Islands are an eastern extension of the Caroline Islands, which in their turn stretch on west nearly to the Philippines. Thirty-four low-lying atolls and single islands, arranged roughly in two parallel chains running NNE-SSW, make up the Marshall Islands.

As do most of these Pacific island groups, the Marshalls cover a lot of water. The sea area occupied by these atolls is roughly 375,000 square miles, an area equivalent to about one and one-half times the size of Texas. By contrast, the total land area of the group is only 74 square miles, one twentieth the size of Rhode Island, the smallest state in the Union.

Nearly all of the Marshalls are atolls and not isolated islands. None of the islands within the atolls is very large; they are all practically flat. The major atolls in the Marshalls have deep water lagoons relatively free of outcropping coral. Herein lies much of their importance to the Navy, for the lagoons provide excellent anchorages for our ships.

Why worry about them?

Even with their small land area, however, the Marshalls are of great strategical importance. Together with the Carolines and the Marianas, they formed an important link in the far-flung outer defenses of the Japanese Empire. They served as advance bases in Japan's rush for conquest in the South Pacific. While in Japanese hands, they were a constant threat against our shipping lanes from Hawaii to Australia.

The picture changed mightily when we moved in. The Marshalls immediately became spearheads of our advance to the west. From here the first land based bombers took off to blast powerful Truk in

the heart of the Carolines. From Kwajalein and Majuro, planes left almost daily to bomb Wotje, Maloelap, Mille, Jaluit, Marshall atolls to the east of our bases, held by the Japanese after we moved in behind them but left by our forces to "wither on the vine." The Japanese discovered that these islands, which they had called unsinkable aircraft carriers, were also not maneuverable.

From a tourist point of view, at any rate, the unspoiled Pacific atolls are lovely places and quite up to the reputation they had in pre-war stories of the South Seas. However, some of these atolls on which we are established are now changed beyond recognition. The terrific bombardment we gave the principal islands back in January and February 1944 destroyed all installations and vegetation. And a bulldozer can do about as much damage, from a scenic point of view, as a bomb. There is no glamor and hardly a palm tree on islands like Kwajalein and Roi. The smaller atolls, those we haven't developed, still retain their beauty; and there are trees to be found on the very small islands in the principal atolls. But the islands which Americans are most likely to know intimately look depressingly like army camps the world over.

"Civilization" comes to the Marshalls

Nobody knows when the natives who inhabit the Marshalls first came there. They may have come as early as 1200 A. D. when the Carolines, Marianas and Gilberts were settled. Several theories are advanced as to where they originally came from. They may have been fishermen driven in their canoes far from their homes by adverse winds. They may have been forced from the larger islands to the west by more powerful invading tribes. Or it may be that these natives were just plain adventurers and set out in their canoes to see what lay to the east, in much the same spirit that sent the pioneers in our own country traveling westward. We do know that the first white man to sight the islands was a Spaniard, Garcia de Loyasa, 34 years after Columbus discovered America. The Spaniard was followed by others of his countrymen during those amazing days of discovery, and then for nearly two hundred years the islands were virtually forgotten. In 1788, however, two Englishmen, Captains Gilbert and Marshall, rediscovered a number of the southern atolls, and the whole group now bears Captain Marshall's name.

The early explorers apparently got along well with the Marshall Islanders; at least there are no records of serious altercations. Trouble started, however, when New England whalers started visiting the islands in the 1820's. Although received at first with cordiality, the whalers' brutality, particularly in their relations with women, brought the wrath of the natives down on them. There were killings on both sides, and the white men came to be feared and hated. Ships were looted, crews slaughtered, and for years the Marshall Islanders bore the reputation of ferocious savages. This wild state of affairs continued until 1885 when peace was enforced by the Germans who established a protectorate over the islands.

The Germans did establish order. Prior to their assumption of power, the Marshall Islands had been ruled by native clan chiefs, some of whom held control of an entire atoll or a number of neighboring atolls, others who controlled only small islands within an atoll. The chiefs warred with one another to extend their territory (although their wars were rather puny according to our standards); occasionally a king arose who possessed sufficient strength and initiative to extend sovereignty over a considerable area. When the Germans came, the power of the chiefs gradually waned. Although the Germans dealt with the natives through the king, thus preserving at the least the form of the native political structure, there was no question about who actually held the power.

The Germans ruled in the Marshalls until the outbreak of World War I; while they were occupied elsewhere, Japan moved in. At the peace conference at Versailles, when the problem of who should get what was being debated, it was found that Japan and Great Britain had a secret treaty which ceded to Japan all former German possessions in the Pacific north of the equator. This of course included the Marshalls. With Japan already in physical possession, little could be done about it. Japan was therefore granted possession of the Marshalls under what was called a Class C mandate. By terms of the mandate Japan was to promote the physical and moral well-being of the natives and, among other things, to refrain from building fortifications and military bases. At first Japan probably complied with the terms. But by the time she withdrew from the League of Nations in 1935, there had already been rumors current that strong fortifications were being built in the Marshalls and other Japanese mandated islands. The Japanese emphatically denied the rumors. At the same time they refused to allow foreigners to visit the mandated territories. Aside from missionaries, only two or three Americans had visited the Marshalls before we blasted our way in early in 1944.

The Marshallese—their clans and chiefs

Where the natives came from, what their racial origin is precisely, are debatable. They are called Micronesians, as are the natives of the Carolines and the Marianas. In a racial sense they have much in common with the Polynesians, who settled in Hawaii and parts of Samoa. They have less in common with the Melanesians, the inhabitants of Fiji and the Solomons.

Natives of Hawaii look a great deal like the Marshall Islanders. The latter are a little darker than Hawaiians and not as big; but in general they have many of the same physical characteristics. Dorothy Lamour did not come from the Marshalls, and GI's will be disappointed if they expect to find her twin sister. They just aren't made that way.

The clan is the most important unit in the social structure of the islands. Members of a clan are united by blood ties through the female side of the family. A man does not pass on his own clan membership to his children. They are associated with the clan of the

mother. Inheritance and rank are also transmitted through women. A man's heir is not his own son, as we would expect, but his brother or his sister's son. While a man is nominally head of his household, in fact it is usually the wife who wears the pants.

Each clan has a chief; and above the individual chiefs there is usually a king who, himself a chief, has managed by war or intrigue to gain control over his neighbors. His influence may extend over several islands in an atoll, or possibly over several atolls. All land was owned by the clans and administered by the chiefs, who assigned individual plots to the commoners. In the old days the king, the chief, held absolute authority over those of lower social rank. All commoners paid him tribute in the form of produce from their land. He could give or take away property, claim sexual rights over any woman in the clan, marry three or four wives, and even condemn to death, quite arbitrarily, anyone who met his displeasure. Immediate chief's families, who formed a sort of nobility, held many of the same privileges. And even though under the impact of German and Japanese rule much of the chief's power was shorn from him, class distinctions are still maintained, and the nobility retains considerable power and influence.

A common native language is spoken throughout the Marshalls. Differences are small enough so that natives from one part of the archipelago can understand those from other atolls without too much trouble. Some English is spoken by a few natives who attended American missionary schools. More natives, particularly the younger ones, have a smattering of Japanese gained from the public schools which the Japanese maintained at Kwajalein, Jaluit, and Wotje.

Grass skirts and skivvy shirts

Originally the natives bothered very little about clothing which was confined largely to loin cloths and fiber skirts. Under the influence of the missionaries, however, a feeling of shame at nakedness was introduced; and for the women the Mother Hubbard, with high neck, long sleeves, ankle-length skirt, took the place of the abbreviated skirt. Today both men and women wear European clothing, often ill fitting and badly matched; but it serves the purpose. "Skivvy" shirts are particularly prized.

In the early days islanders lived on what they could grow readily and on fish and shellfish. Staples of their diet were coconuts, breadfruit, pandanus, taro, and arrowroot. Contact with outsiders has given them a taste for other foods such as rice, bread, flour, sugar, tea, and tinned meats. Under war conditions the natives have had to be crowded together on islands too small to produce enough for them. The result is that they are heavily dependent on our forces for food.

Hymns vs. hulas

As long ago as the 1850's Protestant missionaries came to the Marshalls and started converting the natives from their pagan beliefs. Before the war there were over twenty preaching stations throughout the archipelago. The missionaries' success was considerable, for over four-fifths of the islanders are said to be at least nominal followers

of Protestant Christianity, and about one-third of them are active in the church. Missionary influence in other fields has been proportionally great. In considerable degree it was through their efforts that good relations were re-established between the white man and the natives. Further, the natives liked and trusted the missionaries; they extended that liking and that trust to include the whole American people. An excellent foundation for good relationships between our forces and the islanders has thus been laid.

In spite of the ready conversion of the natives, however, the principles of Christian morality have probably not had a far reaching effect. The efforts of the church to the contrary, smoking is widespread, and when the natives can get hold of illegal liquor they drink it. Even less success has been achieved in efforts to raise the levels of sexual morality. The natives have never placed any particular value upon virginity among women or continence among men. Casual sexual relations before and after marriage still continue despite vigorous efforts of the missionaries.

In the old days chiefs were so suspicious of their wives that when a chief left an island for a visit, all men capable of arousing temptation had to leave the island too. This despite the fact that death was the penalty for a commoner's having relations with a member of the royalty.

Natives are adept at plaiting mats, baskets, and small trinkets. Some of the designs they employ are intricate and artistic. And like other Micronesians, the Marshall Islanders are remarkable skillful canoemen. With a system of navigation all their own, they sail their tiny outriggers from atoll to atoll with complete nonchalance.

Diseases

When the white man came to the Pacific islands, he brought with him, along with whiskey and firearms, disease which took a fearful toll among the natives. The diseases were new to them; they had developed no immunity whatsoever. Chicken pox, which is easily thrown off by Americans, killed thousands. Smallpox, typhoid, influenza—these new scourges decimated whole islands.

In the Marshalls venereal disease had a particularly ghastly effect. The great majority of natives there now have gonorrhea in a more or less active state. Otherwise, too, their health is generally poor. Yaws, ringworm, and other skin diseases are very prevalent. The common cold, flu, and tuberculosis are widespread, and mortality from the latter two is high. Leprosy has been known for many years. Although the birthrate is said to have remained fairly stable for a number of years, inherited venereal disease among children is common with blindness and mental disorders which accompany it.

The natives and the Americans

The natives seem glad to have us in the islands. The Japanese, particularly after the war started, were harsh task-masters. If the islanders didn't work to the satisfaction of the overseers, they were beaten. When the Japanese abandoned Majuro, they forced many of

the young men and women, against their will, to go along. While the natives were too apathetic and far too weak to do much protesting against the Japanese, they are unmistakably happy to be rid of them. Their good feeling toward our people they have proved many times over. It must be remembered, too, that they knew of Americans through the missionaries whom they liked and trusted.

Military necessity has caused the natives to be segregated on minor islands of those atolls we have developed. There they govern themselves within the framework imposed by our own Military Government regulations.

Heat and rain

It's hot in the Marshalls. The temperature is around 80° or 82°F. most of the time with remarkably little variation from season to season. However, the trade winds, which blow steadily from the northeast from December through March, moderate the heat considerably. Evenings, particularly, during that period are pleasant. In summer and autumn the winds shift and decrease in intensity. It is during this period that the rains come, particularly in the more northerly atolls. Kwajalein gets about 80 inches of rain a year, approximately twice what Pennsylvania gets, for example; and the more southerly atolls get twice as much as Kwajalein. In the south, rainfall is fairly evenly divided throughout the year, but around Eniwetok in the north almost all the rain comes in the summer and early fall. Storms are apt to occur between August and November, and while typhoons are rare, they have been experienced in the area.

The natives got their water from shallow wells or by storing rainwater. The wells are brackish and generally contaminated; our forces use that water only for showering, laundry, etc. We distill all our drinking water, and there is enough, so no one goes thirsty.

Mosquitoes and flies swarmed the islands until our forces got there and did a clean-up job. Now, at least on the larger islands, they aren't much of a problem. Swimmers must keep an eye out for water snakes and eels. There are poisonous varieties of both; but unless stepped on they probably won't cause trouble. Generally speaking, the closer to native encampments one gets, the more undesirable is the animal life found.

Our medical men have done a good job in eliminating disease carriers, enforcing strict sanitary controls, and getting good water. The result is that the Marshalls are healthy; they are hot, often uncomfortable, but there is little actual disease among our forces. One reason for this condition is that there has been little contact between the natives and our men.

What grows there

Quonset huts and tents are the most profuse growth on the main islands we occupy. In arguments with trees, the bulldozers always win. So on islands like Kwajalein, Roi, and Eniwetok, there are few trees worth speaking of. Smaller islands along the lagoons are thickly covered with tropical growth. Coconut palms and pandanus

are the most prominent and both furnish food for the natives. The breadfruit and papaya trees are also important for their fruit. Among food plants are the arrowroot, taro, and yams. On the less practical side, ferns, scaevola bushes, and exotic flowers including orchids grow in profusion, particularly on the southern atolls.

There isn't any big game. The only mammals in the Marshalls were rats until dogs, cats, pigs, and the like were introduced from visiting ships. There are many kinds of insects, ranging from butterflies to centipedes. Among the birds to be found, in addition to domesticated chickens, are the following: cuckoo fruit pigeon, heron, jungle fowl, plover, the frigate bird, tern, and noddy. But there are few birds where we have built airstrips.

As for fish, the lagoon and the ocean are full of them. There are many species, most of them good eating, but some are said by the natives to be poisonous; anglers who want to eat what they catch, had better get expert advice first. This can be easily accomplished by observing the kinds of fish natives eat. Turtles and various kinds of shellfish are common.

WAKE

Wake will always be remembered by Americans with mixed feelings—with pride for the courage of its 517 Marine, Army, and Navy defenders and with grief and shame that the survivors of that gallant band could not be saved. A mere pin point in the North Pacific, Wake's tiny land gave it value only as a plane stop on the air route west and as an outpost for Midway and Hawaii.

But the devoted sacrifice of our men, battling against enormous odds with grim, sardonic humor has made Wake a name which will be forever cherished by our people.

A mighty handful

All three branches of our armed services were at Wake on the fateful morning of December 8, 1941, Wake Time, when the Japanese struck. There were 379 officers and men of the 1st Marine Defense Battalion commanded by Major J. S. P. Devereux, a Navy medical group of seven, an Army signal detachment of six, Navy shore-based personnel totalling 64, twelve officer and enlisted pilots of Marine Fighting Squadron 211 and ground crews amounting to 49—a garrison of 517. In addition there were 70 Pan American Airways employes and 1,200 civilian laborers working under contract on the channel. So vigorously did these forces defend the island that the astounded and angry Japanese asserted there were at least 4,000 troops ashore.

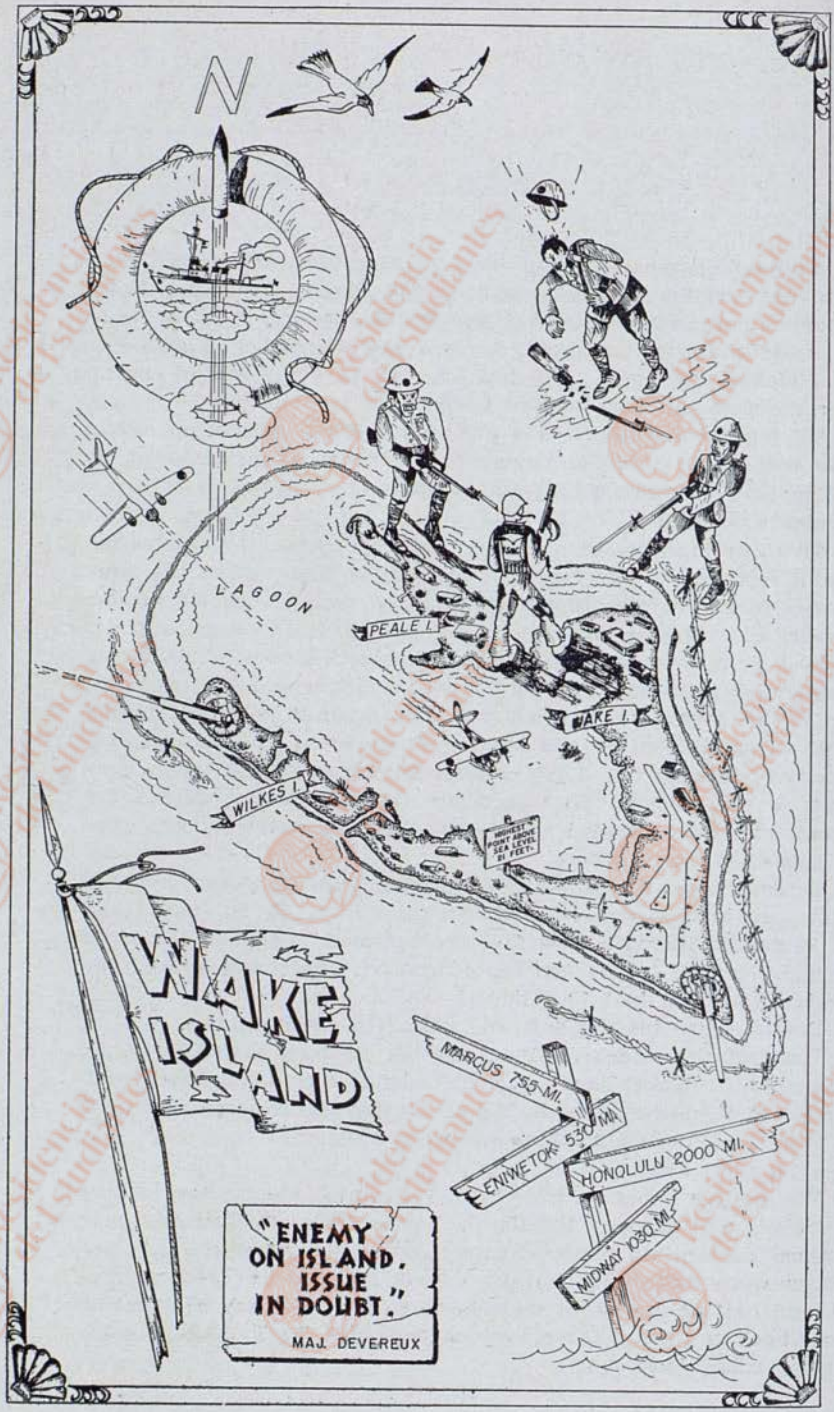
Defenses were limited—six 5-inch naval guns, 12 3-inch anti-aircraft guns in three batteries of four guns each, 18 .50 calibre and 30 .30 calibre machine guns plus the automatic weapons and rifles normally carried by the Marines comprised Wake's fire power. The Marine Squadron had 12 Wildcats—F4F's.

But they had infinite guts and unlimited determination.

Word of the attack on Pearl Harbor reached Wake at 7 a.m. December 8 (Wake Time) and the island went immediately into a state of readiness. Four of the 12 fighter planes were sent aloft to patrol and the eight others were dispersed.

Japs hit early and often

Within five hours 24 two-engined Japanese bombers were over the island and dropped 100 100-lb. bombs. This attack would have crushed the will to resist of many outfits—seven of the precious planes were destroyed, 23 men were killed, others were wounded, and half of the stores were burned. The next day 27 bombers came back and killed three aviation personnel, 55 civilians, but the Marine fliers downed one.


N
LAGOON
PEALE I.
WAKE I.
WILKES I.
HIGHEST POINT ABOVE SEA LEVEL 21 FEET
WAKE ISLAND
MARCUS 755 MI.
ENIWETOK 530 MI.
HONOLULU 2000 MI.
MIDWAY 1080 MI.
"ENEMY ON ISLAND. ISSUE IN DOUBT."
MAJ. DEVEREUX

On the 10th the bombers were back again, bombing and strafing. Finding resistance feeble the Japanese admiral decided all he had to do was sail in and take the island and the next day 12 warships, including light cruisers, destroyers and gunboats with two transports appeared off the island.

As they approached the ships' batteries opened up, but Major Devereux held his fire. Closer and closer came the ships, guns flashing and shells bursting around the Marine installations. Still Devereux refused to answer. Not until the enemy was only 4,500 yards offshore did he give the signal, "Open fire". Shooting at this short range, the Marine gunners tore the Japanese task force to pieces. Two destroyers and a gunboat were sunk; others were damaged and fled smoking from the scene. The Marine pilots picked out a light cruiser which had separated from the other ships and sent her to the bottom. At noon that day the bombers also attacked, losing two of their number, but shooting down one of our planes.

On the 12th the usual 27 bombers were overhead, dropped their cargo of eggs, and got away unscathed. But an enemy submarine that ventured in too close was sunk by one of the four remaining Marine planes. The next day passed without an attack while all hands worked feverishly to repair the defenses of the island and prepare for the next assault. The next five days witnessed daily plane attacks in which three enemy planes were shot down and one American fighter was lost. December 20th was the last peaceful day the defenders were to enjoy. The weather was bad; mist hung over the island; enemy planes were grounded.

A squadron of dive bombers came over on the 21st and on the 22nd 17 bombers, attacking in the early afternoon, did heavy damage. Only one battery of anti-aircraft guns was left intact.

"Issue still in doubt"

The Japanese began to move in the next day and at noon carrier-based planes joined land-based bombers in an all-out assault on the battered atoll. Before their own planes were knocked out of the air, the Marine pilots shot down several of the enemy.

But the sands were running out. At 1:45 the next morning, December 23rd, Major Devereux flashed word to Hawaii that his guns had opened fire on enemy ships approaching the island. An hour later he sent, "Island under gunfire. Apparently landing". The Japanese were pouring men ashore, driving in the Marine defenders from machine-gun pits and foxholes. Enemy ships were pounding the atoll to bits. Not even the inspired courage of the defenders could overcome the power the enemy had unleashed. Yet at 5 a.m. Major Devereux sent the message which now ranks with "I have just begun to fight" and "Don't give up the ship" when his communicator tapped out:

"Enemy on island. Issue in doubt."

The last word came from Major Devereux nearly two hours

later, repeating that enemy forces were ashore, ships were moving in, and that two destroyers had been beached.

Not even then could the enemy immediately overpower our men. They fought on for several hours until finally completely overwhelmed. And so shortly before noon on December 23rd, Wake Time (December 22nd Hawaii and United States Time) Wake fell. It cost the Japanese far more than they expected or wanted to pay for it. Its defense rallied the soul of Americans and gave our country another enduring memory of American heroism to rank with the defense of the Alamo or Custer's stand on the Little Big Horn.

Developed by Pan American

Although the roving Spaniards of the 16th century undoubtedly knew Wake Island they made no attempt to claim it and it was finally "discovered" by Captain Wake of a British trading schooner in 1795. It seemed of no particular value and Britain did not even bother to raise her flag. More than 100 years later the Stars and Stripes were planted on its coral sands by Captain E. D. Taussig of the U. S. S. BENNINGTON.

With the extension of airlines around the globe in the 1920's and 1930's, Wake's location suddenly gave it real importance. It is 2,000 miles from Honolulu, 1000 miles beyond Midway, and 2,650 miles from Manila. It became essential to Pan American for its line from the United States to China by way of Manila and in May, 1936, that company began the construction of a commercial air base. Four years later the Navy began to develop it for air and communication service.

Three square miles

The total land area of the three islets which make up the atoll is only three square miles. The islets, Wake, Wilkes, and Peale, form a "V" with its open end facing northwest and its point southeast. Only scrub brush grows in the small space left without installations of one kind or another.

The Navy had only partially organized the island for defense, but the Japanese poured materiel into the atoll with a free hand, attempting to make it impregnable against all but the heaviest assault. Its beaches bristled with machine gun emplacements and rifle pits; barbed wire clogged all landing areas; heavy coastal guns were mounted in well revetted positions.

The lagoon provides a good landing area for seaplanes but is not deep enough for any but small surface craft. The Americans built a good landing field which was improved by the Japanese.

Troops who have seen Midway, Johnston, or Canton will know what to expect at Wake—limited land area, coral beaches reflecting the sunlight with blinding glare, water limited to the amount that can be distilled from the sea, and the sense of being lost in the boundless ocean which washes its beaches.

The temperature averages around 80 degrees with very little difference between the seasons. Rainfall is about that of many places

in the United States—34 inches annually—with most of it falling from July through October. The northeast trades blow over the atoll all year round with an average velocity of 10 knots but occasionally reaching moderate gale strength. In fact, the weather is so uniformly pleasant that it becomes tiresome and men on station will probably long for a few days of bad weather or a first class blizzard.

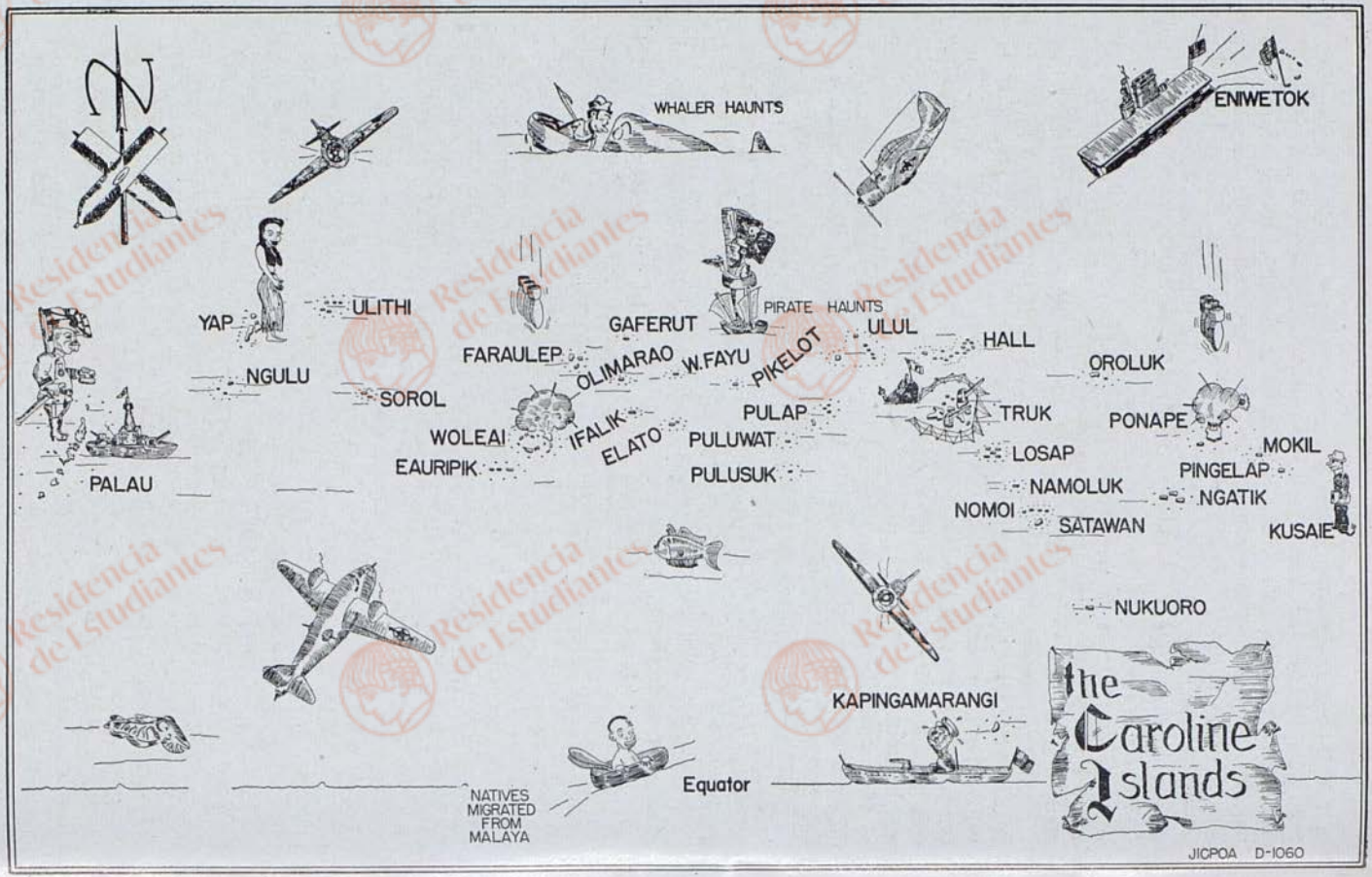
Report on the channel

No, there's not much to Wake except for its importance as a stop on an airline and as an outpost for plane and surface ship spotting. But the brave men whose blood seeped through its coral sands have made it a symbol of what is best in our national character.

The grim humor of its defenders can best be illustrated by a final chapter from the saga of its defense. Shortly after noon on December 18th, after 10 days of bombing and after beating off the enemy's attempt to land, Major Devereux reported to Pearl Harbor on the progress of the channel which had been under construction when the war broke.

He regretted, he said, that he had been too busy to give a report on the work before. It was impossible to work at night without lights. Day work was difficult because of the air raids. Bombing had reduced available equipment. The civilian workers were not happy about their situation. At this point, he apologized, no date for completion could be set. And he concluded with the words: "To be understood that relief from raids would improve outlook."

No wonder the Japanese claimed there were 10 times the number of men defending Wake as were actually there.


WHALER HAUNTS
ENIWETOK
YAP
ULITHI
GAFERUT
PIRATE HAUNTS
FARAULEP
OLIMARAO
W.FAYU
PIKELOT
ULUL
HALL
NGULU
SOROL
OROLUK
PULAP
TRUK
PONAPE
WOLEAI
IFALIK
ELATO
PULUWAT
LOSAP
MOKIL
EAURIPIK
PULUSUK
PINGELAP
NAMOLUK
NGATIK
NOMOI
SATAWAN
KUSAIE
PALAU
NUKUORO
KAPINGAMARANGI
The Caroline Islands
NATIVES MIGRATED FROM MALAYA
Equator
JICPOA D-1060

THE CAROLINE ISLANDS

Running due south from the Japanese island of Honshu is a string of small islands—among them the Bonins and the Marianas—which is met just north of the equator by another group of islands—the Carolines. The Carolines form the horizontal stroke of an inverted "T" and because of their geographic position are of great importance in the Pacific war. The Japanese developed them as advance naval, air, and supply bases for their attempted conquest of New Guinea, the Bismarcks, the Solomons, and Australia, and for the defense of Japan itself. For the United Nations they can serve as bases to blockade surviving enemy elements in the southwest Pacific and as stepping stones on the road to Tokyo. A glance at the map will show how the Carolines dominate the movement of seaborne traffic through the north Pacific in both a north-south and east-west direction. Were it not for their location, however, the Carolines would be of little importance because they contain few natural resources to excite either statesmen or business men.

Islands are well scattered

They don't look like much on a map and they aren't very big, but the Carolines are spread out over a large area of the Pacific. The actual land area of the 48 clusters of 600 islands and islets which make up the group is only 525 square miles. But the ocean area they occupy amounts to 820,000 square miles or an area roughly one-fourth the size of the United States. It's 1,700 nautical miles from the eastern to the western islands of the groups and 550 miles from north to south. Soldiers and sailors stationed at different bases in the Carolines might easily be as far apart as if some were in Kansas City and others in San Francisco.

Spaniards here first

The adventurous Spanish explorers of the 16th century discovered most of the Carolines first and on the basis of their exploits, Spain laid claim to the entire group. But not until 1868 did Spain name them "Carolines" in honor of their king, Charles II. (The Latin equivalent of "Charles" is "Carolus.") But Spain made no real effort to colonize or develop the islands. Her concern was the conversion of the natives to Christianity and in the late 1800's Spain's control was contested first by Germany and then by Great Britain. A possible war was averted by the decision of the Pope, to whom the powers referred the argument, giving the islands to Spain but ordering that free access for trade be allowed all the nations.

A struggle between Spanish Catholic missions and American

Protestant missions also developed, each side having varying success so that today the people of the Carolines belong to both of the great branches of Christianity.

After the Spanish-American War the American missionaries in the Carolines hoped the United States would take them over from Spain but our country displayed no interest and Spain sold them to Germany. That country developed the islands for the copra trade and enjoyed a virtual monopoly until World War I ended its control. Japanese naval squadrons sailed in and took over, and Japan continued to rule the islands under a mandate granted by the League of Nations in 1920.

Most of the Carolines is under water

Although scholars are not certain, some think that long ago what is now the Carolines was part of the continent of Asia. During the centuries of the earth's development the edges of Asia settled below the surface of the Pacific leaving only the tops of the mountains sticking out. Since that time some peaks have continued to settle, leaving only a ring of coral to mark where once a mountain reared its head above the waves. All of the 48 clusters of islands which make up the big group are coral except Yap, which is of rock, some of the Palau group, and Kusaie, Ponape, and Truk which are volcanic. So while only small land masses appear above the sea, below is the great submerged plateau which was formerly part of the Asian mainland.

The climate's not too bad

Because of the great distance over which the islands are scattered there are differences in climate between the eastern and western parts of the group. These will be discussed in more detail in descriptions of the more important islands. But in general the climate, aside from the heavy rainfall, is not too hard on white men. The thermometer sticks around 80°F all year around with humidity of from 84 to 86 per cent. It rains a good deal especially in the eastern area where Kusaie with 255 inches annually is reported as one of the world's wettest spots. Rain in the western islands ranges from 105 to 141 inches. April and May are the wettest months and January and February the driest. But as a matter of fact it is likely to rain any day in short but fierce tropical downpours. There is nothing like these downpours in the States.

The northeast trade winds blow over the islands from fall to spring. Then the winds in the eastern islands become light and variable with occasional thunderstorms and gales. In the western islands the southwest monsoons (rainy winds) blow from spring until fall. The Carolines lie in the hurricane belt and these violent storms—typhoons as they are called—may visit the islands at any time with destructive force. Men from our Middle West or Florida know what damage these "twisters" can do. Some of the islands were in the past so devastated by typhoons that they never recovered.

The people of the Carolines, especially the older ones, are said to like Americans. Fortunately for us their most recent experiences

with our people have been with decent, honorable men and women—the missionaries.

The Carolines have had no experience with Americans as rulers and those living today do not know us as traders, or soldiers or sailors. They remember us as missionaries and so they will expect, as one student writes, "Americans to be kindly, earnest, and well-mannered people with strong moral principles."

No one knows absolutely when the present people of the Carolines came to the islands. Among the many puzzles which bother archaeologists are the massive stone structures found on Kusaie, Ponape, Palau, and Yap. These consist of canals, walls and courts built of enormous blocks of stone which could be moved only by men with some knowledge of engineering. They are probably the remains of a Polynesian civilization which preceded the arrival of the ancestors of the modern natives.

The natives, who number about 35.000, are almost all Micronesians, people who are about midway in racial development between the advanced Polynesians like the Hawaiians and the backward Melanesians we found in the New Hebrides and the Solomons. They are far superior to the Melanesians, and Americans who have had experience with the black men of New Guinea or the Solomons will find the Carolinians much smarter and quicker to learn. The Carolinians seem to combine a mixture of Mongoloid stock, shown by the fold of the eyelid observed in many, other Asiatic stocks from the southwestern sections of the continent, and negroid admixtures probably from intermingling with the Melanesian tribes in the course of their migrations. There are a few Polynesians and Chamorros, the latter Micronesians with some Spanish and Filipino blood. Some students think the people of the Carolines followed the great Polynesian migration westward about 1200 A.D.; others think they came sooner. Malaya is probably their ancestral home because the trip by canoe is not too difficult. As late as 1930 Palau natives sailed from that island to Davao in the Philippines. It is evident that the people have lived in the islands a long time because physical differences have developed and their language has split up into four main dialects with infinite variations.

The clans

Early Caroline life was, and to a reduced degree still is, governed by a clan organization with a complex system of allotting rank and privilege. All descent is through the mother, so that a man joins the clan of his wife and his children belong to her clan. The chiefs and elders of the clan occupy varying positions of power in the different islands. In general their power is less in the eastern and greater in the west Carolines. Wherever American missionaries exerted influence they broke down the barriers of clan and privilege and the general trend toward addition of western ways has led to extinction of the system whereby land was held by the chiefs. Each clan has its totem—animal, bird, or fish sacred to it—and no native ever eats his "totem."

The Carolinese are usually short, slender, and lithe. The color of their skin is light brown and their hair is dark brown or black, usually wavy but sometimes fuzzy. Noses and mouths are large. Whether the women are beautiful or not depends on the individual observer but it is generally agreed that after their youth is passed they become too plump for American standards of beauty.

They grow their own food

For the most part the people have always been and still are farmers and they grow enough food to support themselves. Among their products are breadfruit, coconuts, taro, bananas, pandanus, arrowroot, yams, sweet potatoes, tropical chestnuts, almonds and sugar cane. Europeans introduced tobacco, melons, cucumbers, pumpkins, manioc, and papaya. The Carolines also grow hibiscus to get fibre for rope and in the western islands the areca palm and betel pepper for chewing.

The natives are not commercial farmers; they grow primarily for their own needs. But the Japanese who came in developed truck farms. The Germans and the Japanese have fostered agriculture, the Germans pushing the growing of coconut palms to increase copra production, while the Japanese have run experimental stations to study possibilities for new crops, plant diseases, and other problems.

Meat production has always been a small item in the islands' economy. Pigs, goats, and cattle in limited numbers are scattered through the islands. In recent years commercial fishing, carried on by the Japanese, has been of great economic importance with dried bonito and tunny being the principal products. Taking of shell fish for buttons has also become an important activity.

The only hunting is provided by the fruit bats, or flying foxes, which the natives kill for their fur and meat. Rats, a major pest, are trapped; a few wild pigs are killed on some of the islands. The large native pigeon and green-colored fruit dove will provide good hunting and eating if the Japanese have left any. The handicraft, notably wood-carving, for which the islanders are famous, has almost completely disappeared as a result of the importing of western implements and products. The natives still make their own ropes, small fishing nets, canoes, and mats. The houses which they build have in most of the islands taken on either a western or Japanese appearance. Only in the western Carolines are the houses still patterned after those their ancestors raised. The forests provide the natives with firewood and charcoal and some lumber for construction purposes.

They have a long history

The Spaniards, the first rulers of the Carolines were, as noted above, interested in the souls of the people and their main effort was to convert them to Christianity. For the most part they let the Carolinians go their own way with little political control.

The rise of the whaling industry brought these people into sudden and unhappy contact with the white man. American whalers, ex-

tending their voyages out into the western Pacific, rediscovered the Carolines and barter trade developed. The seamen brought in fire arms, iron implements, and whisky. The natives gave them in exchange food, water, tortoise shell, and mother-of-pearl. Worst of American presents were venereal disease, small pox, and other diseases, mumps, measles, and whooping cough, which were mild in their effect on Europeans but devastating for the islanders because the natives had no resistance to them. The native population dropped, largely as a result of these American-introduced diseases, from over 100,000 in 1800 to about 30,000 in 1880, or approximately the current figure. The sailors ravished native women, stole, abused and outraged the natives so that they closed their islands to the whalers for some time. Many who tried to sneak in were killed.

Some sailors jumped ship, married native women, and settled down as permanent residents. From their marriages and those made by some of the traders sprang the numerous half-castes whose descendants make up a group with considerable prestige among their fellows.

Missionaries clean up

Moral conditions in the islands sank in the 1850's to a low level until American missionaries, sent from Hawaii, came to the Carolines. Unwelcome to the traders who resented the missionaries' effort to stop their cheating and debauching the natives, disliked by sailors who found them interfering with their carrying off native girls, the missionaries brought American standards of honesty and decency which probably saved the Carolines from destruction.

They had western medicine; they taught vaccination and sanitation; they opened schools; they planted churches and trained natives as missionaries to their own people. Largely through their efforts the falling birthrate was checked and a majority of the natives learned to read and write their own language.

When the Germans took over the islands, most American mission stations were turned over to Lutheran missionary groups although some American missionaries remained until expelled by the Japanese.

The moral standards of our country in the early 1800's which the missionaries gave to the Carolines seem a bit prudish when compared with those of the 1940's. The missionaries put "Mother Hubbards" on the native women; they opposed the dancing which seemed to them highly suggestive; they fought sale of liquor to the natives; they tried to check smoking; and above all they opposed the violation of the native women by visiting sailors. The situation was so bad, the missionaries had to be strict to save the natives from extinction. The missionaries made mistakes. In their desire to help the natives, they mixed in political matters. Some critics think it was a mistake to impose western moral standards on a leisurely, happy-go-

lucky people. But the missionaries were trying to overcome the evils other white men had brought to the islands and there is no doubt that it was their influence which was largely responsible for eliminating the bloody native wars, breaking down class distinctions, introducing health measures which saved the islanders from being exterminated by disease, and compelling westerners to deal honestly with the natives.

A lasting heritage

The missionaries left behind a changed people and today the Caroline standards of morals and behavior are very much like our own. The Carolinians are polite and they expect politeness and courtesy from Americans. They are hospitable, and they expect a return of their hospitality. They are modest among themselves and are angered by any "Peeping Tom" activities by others. Men and women both mature at an early age and while the missionaries attempted to delay the date of marriage they were not entirely successful. Some marry at 11 and 12. Marriages are arranged between the families of the couple although as in our country some youngsters whose parents do not give their consent elope. Smart Americans will avoid getting mixed up with Caroline women. It's a very serious offense to meddle with a married woman and the father and brothers of an unmarried girl will not look kindly upon the American who trifles with her. It is well to remember that even the prettiest of these girls may have gonorrhea and that many of the natives have skin diseases such as yaws which will give a man plenty of trouble.

The American who can sing and especially if he knows the good old hymn tunes will find himself immensely popular among the natives. They have never developed any musical instruments beyond a crude flute; a few can play a Japanese ukulele or mandolin. But they love to sing and almost all the tunes they know are the hymns the American missionaries brought them.

The church is a central point in their social as well as their religious life and much of the service is given over to singing. Virtually all the natives are nominally Christian, Protestant, or Catholic depending on the missionaries who have worked among them. Japanese Protestant missionaries have carried on the teachings of the American and German Protestants while Jesuits have replaced the original Capuchins who brought Catholicism to the Carolines. The Japanese also introduced Buddhism but it has had little appeal to the natives.

No spik English

Americans find it almost impossible to talk to the natives, because so few of the latter understand English, except in Kusaie. There, almost all the natives know English. But on the other islands only a few of the older people who went to school under our missionaries and still fewer of the younger people know it at all. Some know pidgin but the only language in common use aside from the

four principal native tongues is Japanese. The Japanese have given many of the younger natives elementary schooling in which the emphasis has been on Japanese. The native languages are not very different from each other and natives from one section can usually make those from other islands understand them. They may sound like Hawaiians to many Americans because all the dialects are of Polynesian-Malayan roots. Americans can do much by signs and gestures to make their meaning plain.

Watch that waistline

Americans who eat out a lot in the Carolines will have trouble with girth control. The basic food of the natives is starchy vegetables—breadfruit, taro, yams, sweet potatoes, and arrowroot. Usual main course at dinner is a pudding made of a mashed vegetable with a garnishing of meat, fish, or coconut shreds. Unlike us, the natives do not make meat the principal dish, undoubtedly because the supply has always been limited.

Water is scarce on most of the islands so they drink coconut milk, suck sugar cane, and have learned from the missionaries to make lemonade. Where soft drinks have been introduced they are very popular and canned milk is quite a dainty. Kava is drunk in some areas; palm toddy, although illegal, is brewed; the white man taught the natives to drink whisky and beer while the Japanese brought in *sake*. All alcoholic beverages have been outlawed for the natives, but here, as elsewhere, there is bootlegging. They do not use "dope" in any form.

Baseball, which the Japanese like, too, is popular in the islands and a game similar to soccer is played with a pith ball. Surf fishing on the reefs is very popular among young and old. Checker fanciers may find some native experts who can give them a good tussle.

What's the catch?

The Carolines aren't a tropical paradise by a long shot. Aside from the heat, humidity, and rain which are depressing to the white man and which sap his energy, all around are natives obviously suffering from various types of disease.

Gonorrhea is found among at least one-third of the natives and there is some syphilis. Yaws, a skin disease formerly thought venereal, is widespread. Other skin disorders such as psoriasis, boils, ringworm of various forms, including one which makes the victim's skin appear to be covered with scales, afflict the natives.

Tuberculosis, influenza, and other lung diseases take a heavy toll every year. And the enteric diseases—typhoid, paratyphoid, amoebic and bacillary dysentery, and various types of diarrhea—are common, spread by the hosts of flies which feed on human wastes and garbage which too often are not properly disposed of. Malaria is very rare but dengue is not. Many natives have hookworm, and occasional cases of filariasis (elephantiasis) are reported.

While the Japanese did try to improve the health of the natives

through sanitary regulations, ship quarantine, supervision of food and water, there were no special public health officers and in many sections the natives continue to defecate and throw garbage by their homes with resultant soil pollution—the common cause of hookworm—and spread of disease by insects.

And the insects are everywhere—flies, mosquitoes, body lice, fleas, sand flies, cockroaches, ants which take a man-sized bite, termites, ticks, wasps, beetles, scorpions, spiders and centipedes to help spread disease.

Bathers and fishermen must use caution in Caroline waters. There are poisonous sea snakes and the vicious moray eel is found everywhere. Fish with poisonous barbs and spines projecting from their fins may be caught. Swimmers must watch out for the sting ray, the jelly fish, and the giant clam. This doesn't mean that there is no swimming. There are many good beaches in all the islands but before going in it is wise to make sure that the beach is safe. Other fish are those usually found in tropical waters but the wise angler will eat none of his catch unless he is absolutely sure that he has a tunny, bonita, or other safe species. Some of the fish are harmless part of the year and are dangerously poisonous in other seasons.

No water which has not been boiled should be used for drinking because well or river water is likely to be polluted.

Some trees in the Carolines are dangerous. Laportea, a tree nettle, is found everywhere as is semecarpus, like poison ivy in its effect. In the western Carolines there are other trees with poisonous leaves and seeds. It's best not to pick plants or berries of any island unless natives are observed doing so.

With use of horse sense and observance of health rules laid down by the physicians, Americans can avoid infection or sickness, and live with a measure of comfort in the Carolines. The islands aren't in the same league with the United States and they never will be. But they are considerably better than the jungles of New Guinea or the Solomons or the damp, foggy, cold wastes of Attu or Kiska.

Once over lightly

It's obviously impossible to go into great detail about each of the 48 island clusters which make up the Caroline Group. Most of them differ only slightly from the others. Only the most important of the group—Kusaie, Ponape, Truk, Palau, and Yap—will be described in any detail although a few others will be mentioned briefly in passing. A full list of the islands arranged in alphabetical order will be found at the end of this chapter.

KUSAIE

Kusaie, which lies farthest east of all the Carolines is of limited importance from a military point of view. It has port facilities and an air field but from a tactical and strategic point of view its greatest value is as an outpost. But Kusaie has been the center for the reli-

gious and cultural development of the eastern Carolines. Here the American missionaries established their missions and training schools which gave the Carolines Christianity and their first glimpses of the democratic way of life. From Kusaie these trained natives spread religion and American ideas through not only the Caroline Group but other Pacific Islands.

Rain

Although Somerset Maugham wrote his famous story and play "Rain" about Samoa, he could just as well have set it in Kusaie because this island is one of the wettest places on the face of the globe. The annual rainfall varies in different sections of the island from 176 to 255 inches. As much as 10½ inches will fall in one day. Nowhere in our country do we have rains like these; even the wettest section, the Pacific northwest, receives only 100 inches annually.

Spring and summer are usually the rainiest seasons but actually it rains almost every day with showers in the early morning and late afternoon.

This means that goods rot; leather will mildew; guns, rifles, pistols, and all steel implements will rust rapidly unless coated with grease and oil. Clothing will get musty and fall apart unless dried and aired almost daily or kept in a hot closet. But the rain provides ample water in wells and rivers for drinking and washing. It should, of course, be boiled before drinking.

Kusaie actually consists of two main islands—Ualan, the only big island in the group, and Lele, the site of the village, and eight other low coral islets set on a fringing reef. The cluster is of volcanic origin and lies about 290 nautical miles south-southeast of Ujelang in the Marshalls and 2,500 miles southwest of Honolulu. Ualan, the main island, is about 42 square miles in area and eight miles across at its widest point. Lele is a small island, partially man-made, nestling in the side of Ualan at its northeast section.

A valley runs east-west near the northern end of Ualan dividing it into two sections. The northern is dominated by Mt. Buache or Mantate, 1,946 feet high, and the southern section has many peaks over 1,000 feet, the highest being Mt. Crozer, 2,064 feet. On the north and east, the coast is sandy; mangroves cover the south and west coastal area. Except for the valley the interior is densely forested, rugged, almost impassable. A trail runs through the valley from the settlement on Ualan opposite Lele Island to Coquille Harbor and Mwot Mission on the west coast.

Trade winds blow

Kusaie lies in the belt of the northeast trade winds and its average temperatures of 81 to 82 degrees are made bearable by 10 to 15 knot winds. The trades blow from December to April when the winds shift to the east and southeast. Squalls break usually in the summer and winter and rarely a typhoon may sweep over the islands. The western side of the island has more rain than the eastern be-

cause the mountains force the moist air of the easterly winds up where it is cooled and the water vapor condenses into rain.

Massive ruins

No American visiting Kusaie should miss the massive ruins on Lele Island. The walls, 15 feet thick in some places and rising 15 to 20 feet in height, enclose an area which may have been used as a burial ground or as a fort. With the walls are canals, built of the same basalt rock. First visitors to Kusaie thought the rock had been chipped to its six-sided shape, but exploration of the island showed that these were natural prisms. The builders of these walls probably used coconut trees as levers to move them and to make inclined planes to slide them into position. They were floated on rafts from the quarry to their present position.

The native tradition is that a war-like race from the northwest once conquered the island and built the walls as a fort. Other tradition has it that here was the burial ground of the kings who once ruled the island. Perhaps both are right and the "warlike race from the northwest" merely adopted the former cemetery as a good defensive position.

Spaniards, whalers, pirates, and missionaries

Kusaie was discovered by the Spaniard Saavedra back in 1529 but dropped out of sight as far as white men were concerned until 1804 when Crozer, an American whaler, found it again. Its plentiful supply of water and food, the hospitality of the natives and especially the charm of their women made Kusaie a popular wintering place for the whalers. Here, as elsewhere, the Americans wore out their welcome. They stole and beat the natives when they protested; they cheated them in trade; they raped their women. Some "blackbirders" came and carried off their men to be sold as slaves in other islands. The natives rose and drove the whalers out and not until 1840 was peace restored between them and the whaling ships permitted to return.

About the middle of the century Kusaie became so notorious that the American missionaries who had worked so successfully in the Hawaiian Islands decided to clean up conditions. In 1852 Mr. and Mrs. Benjamin Snow came to Kusaie over the violent opposition of the traders, who knew they would try to protect the natives from their ruthless dealings, and of the whalers who knew their arrival meant the end of moral laxity. Mr. and Mrs. Snow began immediately to instill Puritan morals into the Kusaians. Illegitimate sex relations were fought; use of liquor was denounced; dancing was frowned upon; even smoking was attacked but without much success. After 10 years the Snows went to the Marshalls, having trained enough natives to carry on the work. During their absence, the pirate, Bully Hayes, made Kusaie his headquarters. In 1879 missionaries returned and obtained a grant of land at Mwot to establish a mission. A school was opened and later the Gilbert Islands School was

transferred to Kusaie. Another school was opened at Lele and Kusaie became the center for Protestant religious work in all of Micronesia. In 1941 when the last missionaries left, churches with schools attached to them were scattered around the island coast.

Kusaians are religious

The missionaries left their mark on Kusaie. All of the 1,200 natives are nominally Christian and about half belong to the church at Lele, where the Congregational Church doctrines, taught by the missionaries, are still followed. Not all the pagan ideas of the natives have disappeared; even good church members may believe that the spirits still inhabit the cloud-wrapped mountains. But the people are devout with daily prayers in their homes and a full day of worship on Sunday. They will not willingly work on Sunday and will resent any irreverence toward their churches and religious customs. They have our standards of behavior and infractions of the moral code are punished by suspension from the church.

The missionaries with their story of human brotherhood and the dignity of the individual shattered the old clan system with its kings, high and low chiefs, and feudal property system. The natives still belong to the clans and avoid marriage with a member of the same clan. But the power and influence of the king and chiefs have waned. Property ownership is individual rather than feudal today.

The natives have adopted western dress and are above the average in cleanliness of person and clothing. The women launder clothes daily and whenever possible starch the duck pants worn by the men. They bathe frequently—two and three times a day. Nearly all speak or understand English.

They're not lazy—they just don't care for money

Europeans who have been to the eastern Carolines think the people are lazy because they cannot be coaxed to work by offers of wages. The truth is the natives attach no prestige to having a lot of money. All they care about is a reasonable amount of security; prestige comes automatically with age. But if work is organized as a game or other form of competition they become interested.

Kusaie was affected by the struggles for possession of the Carolines between Spain and Germany in the 19th century but because of its outlying position was not bothered as much as the other islands. The missionaries had the greatest influence on the people although the Spanish, German, and Japanese flags have flown over the island. The Japanese tried to make the natives speak Japanese by sending the children to schools but the missionaries had been so successful in making the people literate in their own language, Kusaian, that they have clung to it persistently.

Kusaie, while similar in most respects to the other Carolines, has a few health hazards of its own. In addition to the laportea or tree nettle and the semecarpus, similar to poison ivy, there is another

poisonous plant on Kusaie which wounds the skin on contact. At first the wound merely itches but unless successfully treated it will become a large abscess. Men whose hands or legs itch after walking through underbrush should wash them immediately with soap and water. Rats, which thrive everywhere on the island, present another problem. They will, of course, eat any food left exposed and may even gnaw shoes or other leather goods and clothing. Precautions must be taken to protect rations and personal belongings from their raids. Troops are warned that the swamps near Lele I. are full of the fungus which produces "athlete's foot."

PONAPE

Largest of the Carolines and of all the Pacific islands the Japanese held under mandate from the League of Nations is Ponape in the eastern Carolines. It lies northwest of Kusaie, 2,700 nautical miles southwest of Honolulu and 380 miles from Truk.

Like Kusaie it does not have great military value. The Japanese built airfields on it and used it as a minor advanced naval and supply base. But it never achieved the importance of Truk or Palau from a military point of view. Commercially it has greater importance as a source of copra, tapioca, and dried fish. It has bauxite deposits—a source of aluminum. Politically it has been the administrative center for the eastern Carolines under the Spanish, Germans, and Japanese who have in succession governed the islands.

The Ponape cluster consists of the main island of Ponape, 23 small basalt islands lying immediately adjacent to it, a number of islands made up of earth deposited by rivers and rainwater washing off Ponape, and 15 coral islets set in a barrier reef. Ponape Island is roughly circular, 145 square miles in area and about 13 miles across. It is deeply indented by bays while its interior is covered with dense tropical forest, cut by deep river gorges. It has many mountains over 1,500 feet, the highest being 2,579 feet. Two rivers, the Tawenjokola and the Kapinpilap, plus numerous smaller streams drain the interior, washing down sediment to form offshore the deposit islands mentioned above.

The sea coasts vary from rugged cliffs to mangrove swamps. On the southeast, the reef lies close in to the shore but on the northern side of the island it is barrier reef with a lagoon between it and the main island.

It rains here too

Although not as wet as Kusaie, Ponape has plenty of rain. Its average annual downfall is 184 inches spread through 309 days. In other words, it rains almost every day and as much as 9½ inches have been recorded in 24 hours. January, February, and March are the "driest" months although it's hard to apply this adjective to a month where it rains at least eight inches. But in April and May it really comes down, averaging 19 inches a month.

Ponape's climate is controlled by the northeast trade winds. Winds blow generally from the northeast through east to south with average velocity of five knots. Thunderstorms and rain squalls are common and Ponape lies on the edge of the typhoon breeding area. Clouds usually cover almost the whole sky and always hang on the mountain tops. In three years of weather observation only 10 cloudless days were recorded. Fog is common in the early morning hours but it is driven away by the rising sun.

Health is the same as that of the other islands but there is no malaria or dengue.

"Place of Lofty Walls"

The ruins for which Ponape is famous are even more massive and pretentious than those of Kusaie. Called by the natives *Nan Tauach* or "Place of Lofty Walls," they consist of a complicated system of canals, walls, and terraces along the shore at Matalanim.

They too, are of basalt prisms, the walls being made of a row of stones laid lengthwise topped by a layer laid endwise, a layer lengthwise, and so on. In some places they rise 40 feet and are eight to 15 feet thick. The natives say that the walls were reared by a "black people" whom their ancestors killed off when they settled on Ponape.

A political and religious battleground

Lots of blood has been spilled on Ponape since the first white man came to the island. After its discovery, possibly by Saavedra in 1525, but more certainly by Quiros in 1595, Ponape was rarely visited by westerners until the American whalers began sailing in early in the 1800's. Here was repeated the sad story of so many other Pacific islands—friendly natives abused, robbed, and ravaged by the white man. As at Kusaie and Truk the natives refused to take this treatment lying down. Ships were attacked; their crews either killed or driven off. And Ponape regained isolation until about 1840 when peace was patched up and the Americans returned. A period of great moral laxity followed until the American missionaries from Hawaii arrived in 1852. The Ponape traders and whalers wanted Dr. Gulick, who came to Matalanim, and Mr. and Mrs. Sturges, who went to Ronkiti, no more than their colleagues in the other islands. And a long struggle began with the missionaries trying to instill western moral codes and stop the ruthless exploitation of the natives while the traders and the whalers did everything in their power to undermine the missionaries and drive them out.

Soon this little war became absorbed in the efforts of Spain to make Ponape a real colonial possession. Although she had claimed the island since its discovery, no real effort was made to exert control until 1887 when a governor, accompanied by 50 Filipino soldiers and some Capuchin priests and lay workers, arrived from Manila. The traders welcomed the Spaniards' arrival, hoping to use them to oust the American missionaries. The Spaniards moved at once against the missionaries, rejecting their land titles and seizing some

of the mission property. One American, Rev. E. T. Doane, protested so vigorously that he was sent to Manila. The governor began construction work but almost immediately had a revolt on his hands. His paymaster embezzled the natives' pay and the latter put on a runaway strike. The governor sent some troops after them and the natives killed nearly all the soldiers. The natives then forced the governor and his assistants to take refuge on a ship in the harbor until relief came from Manila. Some of the natives from the districts of Not and Jokaj relented, fed the Spaniards and asked for forgiveness through the priests. The latter secured for them an amnesty and the natives became Catholics.

More trouble

The Spaniards began to build roads to the Protestant districts of U, Matalanim, and Kiti and to establish Catholic churches beside the Protestant missions. When one native Protestant protested and was jailed, the three districts rose in revolt, doubtless aided and abetted by the missionaries who saw their whole work in the island in peril. There was bitter fighting and the Spaniards were badly cut up. The surviving troops and the Capuchin priests were saved by being taken into the American missions.

Matalanim was finally captured from the sea, but the revolt was still going on when an American corvette came in to see what all the shooting was about. After hearing the story, the American commander advised the Americans to pull out until peace was restored. This they did and as peace was never restored under Spanish rule, the Americans did not return for 10 years.

Under German rule which began in 1899 the islands were temporarily pacified and the American missionaries came back briefly. It was not long before they turned their missions over to German Lutherans and withdrew permanently.

The Germans had their troubles with the Ponapeans, largely because they tried to wipe out the feudal system of land tenure and operation. The chiefs saw that if the feudal system was destroyed they would get no income and in 1910 they roused the people to a revolt. The Germans never completely subdued the islanders but the Japanese who ousted them in 1914 did pacify the island. There has been no reported trouble since.

Clans and Chiefs

From the earliest days Ponape has been divided into five districts—Matalanim, U, Jokaj, Not, and Kiti. The island is divided among them like a pie so that each district has a cut of the seacoast and the interior. These districts were independent, and were ruled by chiefs. The people of Ponape were divided into clans and in each district there were two clans who were top dog. From the best of these two, a chief was chosen and under him were titled chiefs drawn from the two ruling clans. The other clans in each district

made up the commoners who did all the work and paid tribute to the chiefs who owned the land.

The Germans, as reported above, had a revolt on their hands when they tried to break this feudal grip but the Japanese have greatly loosened it. The missionaries, too, helped destroy the class lines and today, while distinction between "royalty" and "commoner" exists, it is not too important.

Earning a living

Most of the 5,600 natives are farmers, raising food to supply their own needs or producing coconuts for copra. A few are employed in the starch industry which has become a major Ponapean product. A few pigs and goats are raised and there is a slaughterhouse at Ponape. But beyond raising enough food to feed their families, the Ponapeans are not especially interested in working. They play little part in the big commercial fishing industry built up by the Japanese and are not even interested in raising vegetables for sale.

They dress for the most part in European-style clothes although an occasional grass skirt may be seen. Their diet is similar to that of the other Caroline islanders. They have their own language, Ponapean, which is one of the four main native tongues used in the Carolines.

More than three-quarters of them are Christians, divided almost equally between Protestant and Catholic Churches which are scattered throughout the island. In general Matalanim, U, and Kiti are Protestant while Jokaj and Not are Catholic.

TRUK

Lying in the center of the Caroline Group, athwart the main sea and air lines of movement north-south and east-west in the western half of the North Pacific, Truk is of great military and commercial importance. American commentators have frequently called it the "Japanese Pearl Harbor" because it bore to the Japanese Empire the same importance that our Hawaiian base has to the mainland of the United States.

Truk is 3,000 miles from Pearl Harbor, 2000 miles from Manila, and 1800 miles from Yokohama. Strong fleet and air forces based there can control or at least seriously hamper communications between the United States and Asia and the Philippines.

The Japanese from the beginning appreciated its importance and made it an important naval, air, and supply base for their war effort and a transshipment center for the commercial expansion of the islands under their control.

From the geologists' viewpoint Truk is one of the most interesting island formations in the world. Surrounded by a coral barrier reef is a huge round lagoon, 30 miles in diameter, providing one of the best anchorages not only in the Pacific but in the world. In the central part of the lagoon is a cluster of volcanic islands of various

sizes while smaller coral islets stud the barrier reef. There are about 100 islands in the Truk atoll and their land area is about 50 square miles.

A Japanese bastion

On the high islands in the lagoon the Japanese built airfields, docks, fuel tanks, storage buildings. Guns for use against surface vessels and planes were installed on the more important islands. Radar sets scanned the skies; a vital radio station linked Japanese forces in the Central and South Pacific.

Of the islands which rise from the lagoon the six largest are in order of size Tol, Moen, Fefan, Dublon, site of the main settlement, Udot and Uman. Eten, a smaller island and site of an airfield, lies just south of Dublon which is the civil and military center for the atoll.

These islands are of basalt, rugged, densely wooded, with mangrove swamps and fringing reefs around their coast lines. Mt. Tumuital on Tol rises to over 1400 feet, and Moen, Fefan, and Dublon have mountains of more than 1000 feet. The lagoon affords many places for sheltered anchorages; the Japanese used the area northwest of Dublon as their major fleet anchorage, while merchant ships and fleet auxiliaries generally lay in Eten anchorage south of Dublon near Eten island.

Although Truk was always a major shipping center for the Japanese, they built no piers for large ships and all vessels bigger than 2,000 tons had to be unloaded by lighters.

Not so wet

Truk's weather is not as moist as that of Kusaie and Ponape. Here, as in the other islands, the amount of rain in any area depends on whether it is on the lee or weather side of the mountains. In places as close as Eten and Dublon the amount varies from 129 inches at the former to 90 at the latter. During what is jokingly referred to as the "dry" season, January through March, it rains as much as it does in a year in lots of places in the United States. From June to October it rains even harder. The northeast trades are the main winds blowing constantly from December through May at from 15 to 30 knots. At other times they will blow from any point of the compass, bringing squalls and thunderstorms. Truk is close to the area where typhoons are born and in 1925 one struck the atoll, doing immense damage.

It's about as hot here as in the other Carolines—around 80 degrees—and the humidity is bad, too, averaging between 80 and 86 per cent.

Truk fought the whalers

Although Spain discovered the atoll and claimed it for three centuries, it was really opened up by the whalers, and in more ways than one. There was the same pattern—natives hospitable, whalers hot after women, fights, bloodshed, and then a grudging truce. Truk had no real outside government until Germany took over in 1899.

She was ousted by Japan in 1914. Native missionaries, trained at Kusaie and Ponape, brought Christianity to Truk and in turn Truk converts carried the faith to other islands near by. In 1885 the first white missionaries, Mr. and Mrs. Logan, came to the atoll but in 1907 direction of the missions passed into hands of the German Lutherans. Japanese Congregationalists came to Truk in 1920. Spanish Capuchin fathers introduced Catholicism in 1912, but they were expelled in 1914 by the Japanese who later admitted Spanish Jesuits to carry on the work. Today the natives are about evenly divided between the two faiths.

Trukese middlemen

In early days as today Truk was a trading center. While its natives did not voyage far themselves, they traded among the islands in their area and exchanged their own products with those the more venturesome natives brought from the outer islands. They traded liquor, wooden bowls, dye from turmeric, whetstones, oils, and mats. When the whalers came the natives obtained from them iron implements, firearms, European food and clothing, and liquor in exchange for tortoise shell and mother-of-pearl.

The Germans built up Truk as a copra-producing area and had a real monopoly until the Japanese took it from them in 1914. By 1930, however, dried fish had nosed out copra as the principal export from the atoll.

Most of the commercial work of the islands was done by the Japanese, the natives being quite content merely to raise enough food to feed themselves.

The Trukese speak Trukese

The natives, the most primitive found on any of the main islands, are darker than those on Kusaie and Ponape. They have their own language, closely allied to other Caroline dialects but substantially different. Few speak English; many have been taught Japanese but prefer their own tongue. Many of them can read and write Trukese, thanks to the missionary schools. There are about 12,000 natives, a third as many as there were a century ago. Here, too, the whalers killed thousands by the diseases they introduced and today the natives still succumb easily to tuberculosis and other lung diseases. Other diseases common to the tropics are found here and at least a third of the natives are believed to have gonorrhea. Syphilis is not so common but yaws is widespread. There is no malaria or dengue.

Most natives like and wear European clothing, the men wearing white duck shorts and the women dresses.

In their diet, tribal or clan organization, and customs they do not differ materially from other groups in the eastern Carolines. They, too, expect courteous treatment and will resent familiarity toward their women, and irreverence toward their churches and religious customs.

There are many other smaller islands and island clusters in the

eastern Carolines and on some of them the Japanese planted airfields or used their lagoons for seaplane landings.

Kapingamarangi or Greenwich Island, the most southerly of the Carolines, is of interest mainly because it and nearby Nukuoro, are inhabited by Polynesian natives like those of the Ellices or Samoa. They have been little affected by the white man's religion or culture and live much as did their ancestors. Kapingamarangi was used by the Japanese as a seaplane landing area for planes flying to the Solomons, New Britain, or New Ireland.

Puluwat, a coral atoll lying west of Truk, has an airfield, as does Losap to the southeast of Truk. And the Nomoi cluster, comprising Satawan, Etal, and Lukunor atolls, almost midway between Truk and Kapingamarangi, had an airfield and seaplane landing areas.

Other enemy installations such as radar, weather stations, and advance outposts were maintained on other islands in the eastern section, all of which are coral atolls like the Gilberts and Marshalls.

PALAU

The western Carolines are in some respects quite different in their climate, history, native customs, and living conditions, from the eastern Carolines. The two most important areas are the Palau (or Pelew) Islands and Yap, both of which will be given special attention.

Palau has great military and commercial importance and has been for years the center of Japanese political control of all her Pacific mandated islands. In this island group the Japanese operated a major military base, a fleet anchorage and supply base, an airfield, and seaplane bases.

Here are valuable deposits of bauxite, reported to run 25 per cent aluminum, some low grade soft coal (lignite), large guano deposits, from which come war-essential phosphates. The islands also produce shell for buttons, large catches of fish, copra, starch, and pineapple.

To defend this small treasure house of mineral, marine, and agricultural wealth, the Japanese built up strong defenses, not as complete as those at Truk, but more powerful than those normally built at an outlying base.

Look at the map

Palau's location gives it considerable strategic importance. One thousand miles west of Truk and only 530 miles from Davao in the southern Philippines, it commands the sea and air routes from China and Japan to New Guinea and the western Dutch East Indies. For this reason it was an important transshipment point for movements of enemy ships, troops, planes, and supplies to the southwest Pacific theater of operations.

The islands lie in a chain 20 miles wide running roughly north-northeast to south-southwest for 77 miles. Most northly is Babelthuap, which is also the biggest, while at the south is Angaur, rich in phosphate deposits.

There is a great difference in the physical make-up of the islands.

Babelthuap is volcanic with bauxite, manganese, and lignite deposits. The middle islands—Arakabesan, Koror, Aurapushekaru, and Malakal—are partially volcanic and partially coral limestone. The four southern islands—Urukthapel, Eil Malk, Peleliu, and Angaur—are all coral limestone with shore lines pitted with caves dug by the sea.

Babelthuap is about 23 miles long and four to eight miles wide. Its northern section where the bauxite mines are worked is rather bare; its southern section is hilly, crossed by many ridges, and not too heavily wooded. Its coast is lined with mangrove swamps with a few sandy beaches at odd intervals.

The four central islands, where most of the important installations are found, are hilly, wooded, and rugged. Koror is the center of military, naval, and political activity and a sizeable modern town has been built on its western side. The other islands have constructions of various kinds and their slender, twisted land masses provide good shelter for the fleet and merchant shipping anchorages in this area. Urukthapel also forms part of the shelter for the anchorages.

The Japanese built a good airfield and air arsenal on Peleliu. Eil Malk is of little importance while Angaur is valuable because of its phosphate deposits.

Climate's better here

Palau lies so far west that its climate is influenced mainly by winds from Asia rather than by the northeast trades. Average rainfall is 156 inches annually. It is not as wet as the islands in the eastern Carolines. Driest months are February, March and April. The rainfall then increases to July, the wettest month, and lessens rather steadily until the "dry" season ends.

The mercury averages about 80 degrees throughout the year, but it is not quite so humid as the more easterly islands.

Palau lies off the usual track of typhoons but when they do hit, they level everything in sight. In two successive years typhoons, one of them accompanied by a tidal wave, struck Palau causing immense damage and loss of life.

Britain's early interest

Palau's history among the Pacific Islands is unusual in that, bad as the white man's diseases were, they did not cause as much damage as storm, famine, and native wars.

Although a Spaniard, Villalobos, discovered Palau in 1543, the British were the first white men to have real contact with the islanders. Captain Henry Wilson's ship grounded off the islands in 1783 and he and his crew were rescued by the natives. They were given a hearty welcome and Wilson in turn gave the chief arms to fight his neighbors. The natives helped refloat Wilson's ship and after hoisting the British ensign on Palau, he sailed away. Seven years later Captain John McCluer, another Briton, arrived from Bombay with many presents for the chieftains and settled down for a long stay. But he pulled out in '94 and except for a return visit

by Wilson in '97, the English did not come back for 70 years.

In 1832 an American ship under Captain Bernard was wrecked off the Palaus but instead of going ashore, Bernard persuaded some natives to sail him and his crew in canoes to "civilization." They reached Tobi, most southerly of the western Carolines, in a state of collapse and were taken prisoner. Later Bernard and one crew member escaped in a Spanish vessel and two others later reappeared in America. Their stories of their adventures excited momentary interest in the United States—an interest which lapsed for more than 100 years.

Traders in politics

About 1840 traders began to invade the islands, receiving a warm welcome from the natives who bartered their products for firearms and who were so crazy to get iron that a ship at anchor, unless well guarded, would be stripped of all her iron fittings and implements in a single night. With the traders came syphilis, tuberculosis, dysentery, and an increase in the native wars. The new weapons—guns and pistols—soon became a cause of anger against the white men, those tribes who could not get them being naturally aggrieved against the traders who sided with their foes. The traders also mingled in local political struggles for control and were constantly in hot water as a result. Twice Britain sent warships to Palau because of native vengeance against a trader.

In the later years of the 19th century there came the succession of international jockeying for control which has been described elsewhere and in 1914 Palau, like the other Carolines, was easy prey for the Japanese Navy. Palau has been administered since 1922 as one of the mandated islands.

White influence not so strong

The people of the western Carolines are of the same stock as in the other Carolines—Micronesians, who came from southeast Asia. They have three languages—one spoken at Palau, one in the islands to the southwest, and the third on Yap and Ngulu. All are variations of the common mother tongue.

But they are far more closely related to Malaya than the people of the eastern Carolines. In Palau the influence of the white man on their way of life, their religion, and their morals has been negligible. On the other hand, the Japanese in the last 20 years have not been reserved in trying to teach them Japanese "culture." Their main success has been in getting them to wear Japanese clothes in place of the breechclout and grass skirt.

Formerly the natives went in for tattooing in a big way, covering their entire chests and backs with fanciful designs so that at a distance they looked as though they were wearing sport shirts. But the Japanese banned tattooing and the custom is dying.

The natives are cleanly and bathe two or three times a day. They dig pools which they line with stones to catch rainwater for

their baths. But when it has not rained for a few days, the water gets stagnant and provides a good way for the spread of skin infections and other diseases. After bathing the natives rub their bodies and hair with coconut oil as protection against the sun. Some paint themselves with yellow turmeric.

Nearly all chew betel which gives the teeth and lips a vivid reddish color like lipstick. The nuts of the areca palm, about the size of acorns, are wrapped in pepper leaves, coated with lime and chewed as an American chews a quid of gum or tobacco. Chewing produces a sharp-tasting fluid which is spat out. All around native villages are the red stains left by the betel chewers. Americans prone to experiment will find the first effects somewhat like those of their first cigar or cigarette, dizziness and possibly nausea.

American twist

The natives like tobacco and especially "American twist," a piece of strong tobacco like a licorice stick. The native tobacco, imported from the Philippines, and now grown on the islands, is also strong and bitter. The natives cram it in pipes or roll it in pandanus leaves to make cigars or cigarettes. Japanese tobacco has also been imported in recent years. Believe it or not, travelers say that Palau is noted for its fine cooking, the natives preparing dishes which compare favorably with those of western cooks. Their main foods are the starchy vegetables common to the Carolines, fish, and pork. To wash it down they use coconut milk, and, when the G-man isn't looking, palm toddy.

For a long time the sexual morals of the natives were, according to our standards, lax. As soon as they reached puberty, girls took lovers. Many served in the men's clubhouses where their favors were available to all. After marriage, fidelity was expected but it was always proper for the husband to offer his wife to his guest and the husband was permitted relations with his wife's sisters and other unmarried girls of the village.

When husbands found that the white man was willing to pay for his wife's favors, a system very close to prostitution sprang up, but under the influence of the missionaries in later years and efforts by the government this has been eliminated.

Today the morals of the natives are more like our own, and like our own, often observed in the breach. Even during the period of sexual laxity, the natives were always extremely modest and it is considered extremely offensive to touch any portion of a woman's body covered by her skirt. Reference to the sex organs or sex act in mixed company is also an offense. The native women are reserved and quiet in the presence of men.

Veneer of Christianity

Christianity was first brought to Palau by the Spanish Capuchins in 1886 but the effect of their work was doubtful. The Spanish government gave them support but church attendance was small. The children came to church schools because their parents were

punished if they did not. When Germany took over the islands, German Capuchins came in and gradually took over from the Spaniards. When the German authorities removed requirements for school attendance, it almost disappeared. The German church schools were excellent but the natives were not interested. The Germans had, however, some influence and this can still be detected among the older natives.

The Japanese forced most of the German missionaries out but permitted the Spaniards to return and today the Catholic natives number 2,100. Japanese Protestants who entered the field in 1920 had some success with adherents numbering about 1,400. But for many of the natives, especially those living outside the big towns and settlements, the universe is still filled with many gods—heavenly gods, nature gods, earthly gods, and lesser spirits. They see a typhoon not as a big wind, but as an angry god punishing men; they have gods for their village and gods for their own houses.

As a result their behavior depends on whether they follow Christian or pagan ethics. If they are Christians, their belief in right and wrong is about the same as ours. But if they are pagan an entirely different system comes into operation. An act is right or wrong depending on whether it is "taboo." For example, for a pagan it is wrong to eat the animal which is the totem of his clan. It is wrong to have relations with a woman of his clan. But with any unmarried woman of another clan if she is willing it's o.k.

Artistic

The natives are highly artistic and their abilities are seen in their textiles, their woodwork, and their tattooing. The men's clubhouses have paintings which are very much like the Egyptian. They show bodies in full but heads in profile. Native dances are like the Hawaiian hula and the people love to sing. Some have compared their songs to Gregorian chants.

They are great sportsmen, wrestling, spear-throwing, foot-racing, tug-of-war, swimming, and diving contests, a game like volley ball, prisoner's base, and above all, baseball, being popular. Under Japanese direction, sports have been promoted and teams from various localities play baseball and hold track meets.

Social and political affairs complicated

Here as in other islands, descent is traced through the mother, and the social and political life of the natives is bound up in the clan system. The clans are scattered thoroughly but small groups of the same clan live together in a community. Each clan has a totem of an animal, fish, or plant. Life is governed by a complicated system of order of precedence with the ranking chiefs forming a council and the top chief acting as headman.

There's no use going into detail except to point out that the chiefs and especially the headman are important personages and exercise not only the power that the natives grant them because of their po-

sition and long tradition but have been given authority by the Japanese who used them as part of their government. Courtesy to chiefs will pay dividends; discourtesy may cause grave trouble.

About four-fifths of the natives support themselves by raising their own food or working on the copra plantations. The other one-fifth work in the phosphate or lignite mines, in the forests, as commercial fishermen, or as government servants. The natives are not hard-working according to our standards, but if their interest can be aroused they are capable of hard and prolonged labor. Any one planning to hire natives should remember that there are taboos which prohibit work at certain seasons.

Palauan homes are still built in the ancestral style. The Spanish, the Germans, and the Japanese all failed to influence their architecture. Houses usually have high gabled roofs supported by corner pillars. The roofing is either thatch or matting. The men's clubhouses *(Abi's)* are painted and carved with diagrammatic histories of the clans and should be preserved if possible.

Native health is bad

Diseases which plague the natives in Palau are those found elsewhere in the Carolines—skin diseases, enteric diseases, lung diseases, and venereal disease. Syphilis is now rare but gonorrhea is prevalent. Malaria is rare, but dengue is unfortunately fairly common. A few cases of filariasis are reported. The Japanese instituted sound health measures but were unable to stamp out the major cause of infection—the spread of disease by insects which breed and feed on improperly disposed garbage and human waste.

The best way to avoid disease is to stay away from the native villages.

Rats, bats and insects

Rats are a great pest. Palau has the fruit bat which is harmless but can be a nuisance. There are lots of harmless lizards. They should not be killed for they eat flies and insects. Two kinds of snakes, identity not reported, are on Palau. Until advised to the contrary, it would not be wise to make pets of them. Insects are the great evil of the islands—flies, fleas, mosquitoes, vicious ants, termites, and many other flying and crawling things make life miserable. Small sand flies are particularly vicious on the small islands of the group. In addition, there are poisonous trees, tree nettles, a plant like poison ivy, and other vegetation to poison, burn, or sting the inquisitive. Even some of the vegetables, the bulb yam, wild yam, bitter manioc, and arrowroot are poisonous unless cooked.

This is a country where the old adage "look before you leap" should read "look before you leap and then never leap."

The same precautions are advised before fishing and swimming that were given earlier. Water is rather scarce. Natives depend largely on rainwater collection in cisterns and barrels.

No unboiled water should ever be drunk.

YAP

Yap is one of the few places in the world where a man can leave his money on his front door step and have no worries about anyone stealing it. It's an island where the breechclout and grass skirt are the sole articles of dress. It's a place where the natives give you a gleaming black smile for their teeth are stained ebony. Quite a place, this little island cluster with the funny name. Twenty-five years ago the United States, or at least the government, was quite excited about Yap and we had rather strained arguments with Japan over its control. Today our arguments are more pointed and this time the interest of the whole country has been focussed on it.

A cable station

Yap has a little iron ore, some bauxite and asbestos deposits, and produces coconuts to make copra. But its real importance has been as a cable station and it was over the operation of this station that our row with Japan in 1919 and 1920 developed. A German and Dutch company operated a cable from Guam in the Marianas to Yap where it split into two lines, one to the Dutch East Indies and one to Shanghai. An American company operated a cable from San Francisco through Honolulu and Midway to Guam where it split, with one line going to Japan through Nanpo Shoto (Bonins) and the other to Shanghai through Manila. The American company operated the Guam-Yap link of the former cable for the German-Dutch owners, and this gave America an alternate route from the United States to China through Yap if her own line was cut or failed.

When Japan took over German possessions in the Pacific in 1914 she took the Yap cable with them and substituted Nawa in Nansei Shoto (Ryukyu) for Shanghai as the northern terminal.

At Versailles in 1919 President Wilson did not give American approval to this seizure, but he failed to put his reservation in formal language and when the League of Nations, which we refused to join, gave the Japanese the German islands as mandates there was no mention of our interest in the Yap cable. Our government protested to Japan and after some rather heated arguments we signed a treaty with the Japanese in 1922 giving us full rights to use the Yap cable. But we then lost interest and did not pursue the matter further.

But the dispute brought Yap into the news and our papers were filled with articles kidding the government for worrying about a place called "Yap." This ridicule now seems a little silly.

Cartwheel money

What particularly amused the newspapermen of 1919-20 was the fact that Yap money consists of huge stones shaped like cartwheels or mill wheels. They are so heavy that a single man or even several men cannot move them without machinery. So the wealthy resident of Yap piles his fortune in his front yard and thus has the satisfaction

of having his financial position flaunted before his neighbors' eyes.

Funny money indeed. But give the natives credit for being smart enough to think of the idea of money. This originality paid dividends because it enabled the people to buy other natives' products rather than barter for them. Yap money is a stone called aragonite which is quarried on Palau and the Yap natives became expert navigators in the course of sailing to Palau to fight for and to mine their money.

Later a smart American Irishman named O'Keefe made himself almost king of Yap by sailing his ship to Palau, digging up a lot of "money" and bringing it to Yap where the natives gave him everything they had in exchange.

Dark laughter

American advertising men would go crazy in Yap trying to write a toothpaste ad. For their common descriptions of gleaming white teeth and flashing smiles would not fit this place. Here the natives stain their teeth black, using swamp mud and herbs, to produce a brilliant ebony hue. The stain will wear off along the edges of the teeth, giving a startling effect when the owner smiles.

As on Palau the people of Yap are confirmed betel chewers, spitting red juice all over the place. As the betel stains the lips red, the color combination of lips and teeth is really something. Tobacco is smoked from the cradle to the grave.

Grass skirts

Breechclouts for men and breechclouts or grass skirts for women are the usual dress. The women's skirts are especially full and heavy. Although the sex life of the natives has always been somewhat loose according to American standards, both men and women are very modest.

Americans must be careful in bathing or relieving themselves to make sure no native women are nearby. Their husbands or fathers would resent such immodesty. As at Palau, mention of sex or sex organs in mixed company is strictly N.G. The men who wear combs are the free men and the height of the comb indicates their social status. Tattooing of the entire body is common and some puncture the ear lobes, inserting various articles until the lobe is stretched to a string reaching the shoulders.

The Yap natives bathe, but not as frequently as their Palau neighbors. Coconut oil is used to grease the body after bathing and as the oil heats up and turns rancid the smell is not exactly pleasant.

The food on Yap is about the same as elsewhere in the Carolines—mainly starchy vegetables with some pork, fish, and an occasional fowl to garnish. Coconut milk is drunk everywhere and palm toddy, although illegal, is popular. The various governing countries have forbidden the sale of alcohol to the natives.

Homes and clubhouses

Westerners have had little influence on Yap houses. Natives still build them as their fathers did. They are usually six-sided with

four corner posts made of tree trunks from which supporting beams are strung, while three to five central pillars support the rooftree of the high, gabled thatched roof. The walls are of reed and are pierced on each of the six sides by a door which also serves as a window. The interiors are ornamented and talismans and charms of all kinds hang on the walls. The floors are board or clay covered with mats. Cook houses are separate from the living house. The men's clubhouses are bigger and more ornate than the family homes. They are built along the coast on stone piers and whole communities join to erect them. Sometimes a village will go into heavy debt for its clubhouse. Here the council which runs the village meets and at other times it provides sleeping quarters and a center for social activities for the men. No women of the village are permitted, but girls "kidnapped" from other villages are brought in as the joint property of the club members.

Pagans at heart

While the Spanish and German Capuchin priests who labored among them won some of the natives to Catholicism and a handful of Protestants exist, the natives are pretty thorough-going pagans. Taboo is the dread thing in their lives. From dawn to dusk and from the cradle to the grave the native lives in fear of violating some pagan prohibition.

The religion is one of many gods—high and low, heavenly and earthly, foreign and domestic. The natives even have magic baskets with charms against poisoning and illness. There are magic formulas muttered when doing this act or that. Visitors should be extremely careful to avoid offending against taboos and never enter any native house or settlement without an express invitation.

The men of Yap are among the finest dancers in the world. Some travelers say they are rivaled only by the African natives in the Lake Victoria area of that continent. The men love to dance and will do so at the slightest invitation. They will expect those for whom they dance to pay serious attention and to applaud only when the dance is finished.

The dances which tell in pantomime the history of their land last for many hours and Americans who can spend only a half hour should not ask for a dance. Normally a whole afternoon or evening is required and the dancers will expect some tangible appreciation in the form of food or tobacco.

The Japanese tried vainly to break up this dancing but they found that if they wanted the people of Yap to work they had to let them dance. "No dance, no work" is their motto.

Found by a Portuguese

There is little to comment on in the early history of Yap which had similar experiences to Palau. Worthy of note is that a Portuguese, da Rocha, discovered Yap before the Spaniards arrived, but Portugal never claimed the islands. It passed successively through Spanish, German, and Japanese control. It assumed some importance in the present war because of the cable station and the construction of an

airfield by the Japanese. But basically it is an agricultural area with almost all the natives engaged in raising enough food to meet their own needs, plus coconuts for the copra trade.

Four islands

Yap is of rock, an unusual fact because the other Carolines are either volcanic or coral. It consists of four large islands and ten small ones, all surrounded by a coral reef. Its land area totals about 83 square miles. Yap or Western Island is the largest of the four and makes up the southwestern half of the group. It is hilly in the north while its southern section is gently rolling. Between it and Gagil-Tomil Island to the east lies Tomil harbor, the only good anchorage in the group. Its limited area has prevented Yap from becoming an important naval base or commercial port. North of Gagil-Tomil is Map Island and north of it Rumung. All of the four except Rumung are connected by causeways.

The climate is similar to that at Palau but Yap is even closer to the typhoon belt than Palau. Spanish padres set up a typhoon observatory at Yap and in the course of years of observations of these storms were able to track them accurately and foretell when one would strike. Twisters struck Yap in 1925 and 1934, the first flattening 93 per cent of all the structures on the islands. There are many earthquakes but they are so slight that they usually pass unnoticed.

WOLEAI

Halfway between Truk and Palau is the coral atoll of Woleai which provides an anchorage and land and seaplane landing areas. It is about five and a half miles long, three miles wide, and 15 miles in circumference. It is a typical atoll, similar to others in the Gilberts, Marshalls, and Carolines, and its people are similar to those described above.

The list of the 48 island clusters which make up the Caroline group follows:

Angaur	Lukunor	Pingelap
Ant	Merir	Ponape
East Fayu	Mokil	Pul (Pulo Anna)
Eauripik	Murilo	Pulap
Elato	Nama	Pulusuk
Ital	Namoluk	Puluwat
Fais	Namonuito	Satawal
Faraulap	Ngatik	Satawan
Gaferut	Ngulu	Sonsorol
Ifalik	Nomwin	Sorol
Kapingamarangi	Nukuoro	Tobi
Kayangel	Olimarao	Truk
Kuop	Oroluk	Ulithi
Kusaie	Pakin	West Fayu
Lamotrek	Palau	Woleai
Losap	Pikelot	Yap


FARALLON DE PAJAROS
Supply Reef
MAUG IS.
ASUNCION I.
AGRIHAN I.
PAGAN I.
ALAMAGAN I.
GUGUAN I.
Zealandia Bk.
SARIGAN I
ANATAHAN I
PHILIPPINE SEA
MEDINILLA I.
SAIPAN I.
TINIAN I.
AGUIJAN I.
ROTA I.
GUAM I.
MAGELLAN ROBBED HERE
the Marianas Islands
JICPOA D-1035

THE MARIANAS ISLANDS

It doesn't seem possible looking at a map of the Pacific with its thousands of islands, that Magellan could have sailed almost completely across it and not have sighted land. Yet, after going through the straits at the southern tip of South America, he and his men went so long without raising a single island that they were reduced to eating rats and leather before they sighted their first land, Guam, on March 6, 1521. Because the natives looted his ships, Magellan named Guam and other islands of the group "Las Islas de las Ladrones" (The Islands of Thieves).

Other Spanish explorers visited the islands, but it wasn't until 1564 that Admiral Miguel Lopez de Legaspi landed on Saipan, by orders of Philip II, and proclaimed Spanish sovereignty. He renamed the islands "Las Islas de las Velas Latinas", after the lateen sails used by the natives. During the next hundred years Spanish galleons, plying between Mexico and the Philippines, frequently stopped in the islands to take on food and water.

The first Europeans to remain in the islands were a few of the crew of the Spanish ship *Concepcion,* which was wrecked off Tinian in 1638. In 1668, Spain sent Jesuit missionaries and soldiers who brought the islands under effective Spanish control. The islands were renamed "Marianas", in honor of Queen Maria Anna, widow of Philip IV of Spain and patroness of the Jesuit missionaries.

War, famine, and disease

The natives received the missionaries and soldiers with hospitality and even with enthusiasm. The priests quickly established missions on several islands; the soldiers lived on Guam and Tinian and made little effort to enforce Spanish authority other than the religious. Soon, however, all those who resented the growing influence of the missionaries banded together to oppose them. A series of rebellions broke out, and it wasn't until 1694 that the Spanish were able to put down all resistance. By that time there were few natives left to cause trouble, for the wars, famine, and diseases introduced by the Spanish had reduced the native population from around 100,000 in 1668, to 3,700 in 1710. The intermarriage of the Spanish and Filipino soldiers with the native women produced half-castes who inherited resistance to western diseases and this helped save the natives from complete extermination, but soon the half-breeds began to outnumber the pure native population.

War sometimes has its funny angles. Because of very poor com-

munications, the Spanish governor at Guam didn't know about the Spanish-American war until the morning of June 20, 1898, when the U.S.S. CHARLESTON steamed into the harbor and opened fire upon Fort Santa Cruz. Even then, the governor was informed merely that the Americans were saluting the port, and not until the captain of the port and the Army doctor tried to board the warship did the Spaniards learn that a state of war existed. The next day, the governor, his staff, and the Spanish and island troops surrendered and were taken to Manila. When the war ended in 1899, we kept Guam but permitted Germany to buy the rest of the Marianas and all of the Carolines from Spain for $4,500,000.

With the outbreak of World War I, the Japanese took possession of the German Marianas and in 1920 Japan was allowed to control the Caroline, Marshall, and Marianas Islands as a mandate under the League of Nations. Guam was thus isolated in the midst of Japanese possessions. We maintained a pitifully small garrison, a force so small that when the Japanese attacked on December 10, 1941, we could offer but little resistance and the occupation was completed in one day.

The Marianas are, however, no longer a network of the Japanese defense system. Opening their assault on June 14, 1944, American marines and soldiers charged across the southern beaches of Saipan Island, driving the enemy into the mountains. The way for the attack had been paved by preliminary plane and ship bombardment from the greatest naval force the world has ever seen.

While the troops were engaged ashore, a Japanese task force of battleships, carriers, cruisers, and destroyers, hoping to catch our armada short of fuel and ammunition, sailed up into the Philippine Sea where it was put to ignominious flight with heavy losses by our carrier planes.

Occupation of Saipan was completed in less than a month after the fiercest and bloodiest struggle of the entire Pacific War up to that time and the Stars and Stripes wave over the island.

Shortly thereafter came the successful assaults on Guam, restoring that island to its rightful owners—the people of the United States—and on Tinian.

Within bombing distance

Today, the Marianas provide a highway from the western Carolines north to Japan. Naval and air power based in these islands can cut Japanese supply lines through the central Pacific and force her to use the South China Sea which lies between the Philippines and the South China Coast. Planes, especially the new Superfortress, can bomb Manila, 1,400 miles distant, and Tokyo, 1,350 miles from Guam.

The Marianas, formerly guardian of Japan's southwestern flank, lie to the south of Japan, and stretch in a general north-south direction for some 435 miles, about the airline distance from San Diego

to San Francisco. South of the Marianas are the Carolines, and to the west are the Philippines. The north islands of the chain lie about the same distance above the equator as the island of Hawaii. Together with the Marshall, Caroline, and Gilbert Islands, they make-up the island groups of the Pacific known as Micronesia (Little Islands).

A volcanic chain

There are only 17 islands in the chain, 14 separate islands and one group (Maug). Most of the islands are small and unimportant. Only in the southern part of the chain do the islands have sufficient size to be important economically and from a military viewpoint. The four principal islands, Guam, Saipan, Tinian, and Rota, account for seven-tenths of the total land area of 450 square miles. Aguijan, Asuncion, Guguan, Maug, Medinilla and Pajaros are of such little importance that no one lives on them. The other islands are named Anatahan, Sarigan, Alamagan, Pagan, and Agrihan.

The Marianas are quite different from the Marshalls and Gilberts. They are more like the Hawaiian Islands, though the elevations aren't as great, for they, too, are the volcanic peaks of a gigantic mountain range which rises almost six miles from the ocean bed in the deepest known parts of the Pacific Ocean. Time has softened many features of their volcanic origin, especially in the southern part of the chain, where the peaks have been worn down, plains and plateaus have been formed, and soil has accumulated. Several of the islands, Anatahan and Sarigan for example, are the tops of extinct volcanoes. Pagan, Asuncion, and Pajaros, are active volcanoes, with fire and smoke coming from their craters. Maug, which consists of three tiny islands, is the remains of a partly submerged, collapsed volcanic cone.

Before the Spanish arrived, the southern Marianas presented a picture of creeping vines, coconut trees, mangroves, extensive grasslands, thickets, and forest clad hills. Today, this picture has been decidedly changed, for savanna has encroached on the forest, and large areas such as the extensive sugar plantations have been turned over to food production. Hibiscus, primroses, orchids, prickly pears, mountain roses, sweet acacia, and frangipani brighten the landscape. The mangrove, mulberry, palm, corkwood, bay cedar, and screw pine trees are found on most islands. One plant, the swordgrass, is to be especially guarded against, for it can give a very nasty cut.

The plant life of the northern Marianas is similar to that of the southern group, but the varieties are fewer and the vegetation very sparse except where the volcanic soil has accumulated.

Many kinds of birds live in the islands. Among the more important are the booby, gannet, courser, curlew, dotterel, duck, frigate bird, gallinule, godwit, heron, kingfisher, noddy, plover, rail, snipe, tattler, tern, tropic bird, and turnstone. The smallest of the four species of wild dove or fruit pigeon is considered the most beautiful

bird in the islands. It is sometimes mistaken for a parrot, but there are no parrots on the islands.

The only mammal native to the Marianas is the bat. The more important of the two species is the fruit bat or flying fox, called *fanihi* by the natives. Rats, especially the brown rat, abound. Among the domesticated animals, the commonest are dogs, pigs, cattle, and carabao, although cats, goats, sheep, and horses have also been brought in. The Spaniards imported deer which multiplied so fast they became a pest.

The only snake is a harmless, slender black snake which looks like an earthworm. Of the three kinds of lizards, the iguana is the most striking. The rare hawk-billed turtle is the most interesting of the three types to be found. Toads have been introduced into the islands, but there are no frogs.

Warm, humid, and wet

The Marianas have a tropical oceanic climate with comparatively high and uniform temperatures, very high humidity, and plenty of rain. Although the seasons are not as marked as in the United States, the same general seasonal variation is found, with the hottest, most humid, and rainiest months occurring in the summer. The thermometer hovers around 79°F, with little change the year around, except that the northern Marianas are a little cooler than the southern. Although the humidity is very high, it is not as bad as in parts of the Carolines, and more variation and usually fresh breezes afford some relief. The average annual relative humidity is about 82 per cent. Although it rains a great deal, not as much falls as in the Carolines. Saipan has a yearly average rainfall of 83.5 inches, but the amount varies from island to island, with the northern ones having less rain than the southern islands. Long rains are infrequent, most of the rain falling in sudden, heavy showers. Rainfall varies so much from year to year that droughts have occurred, but most days of the year have some rain.

Light thunderstorms occur throughout the year, especially during the summer. *Churadas,* line squalls, come in the early months of the year. Storms are more frequent and violent in the southern than in the northern islands. The season of the most serious storms, typhoons and typhoon-type tropical disturbances, is from August to the middle of December, November being called *Sumonsong* (remain-in-the-village time) by the natives. At least one damaging storm hits the Marianas each year.

A long journey

The nature of the land, the climate, and Europeans have played a great part in determining life in these islands. The Marianas were probably settled by the same wave of migration from southeastern Asia that went to the Caroline, Marshall, and Gilbert Islands. Many physical and cultural resemblances link the Micronesians to the Polynesian people of the eastern part of the Pacific.

Spectacular archaeological remains of an earlier culture are

found scattered in abundance through the Marianas, particularly on Guam, Rota, Saipan, and Tinian. They consist mainly of double rows of stone columns, three to sixteen feet high, capped with round pieces of coral.

The Chamorros

The Chamorros, found everywhere in these islands, are the result of the marriages between the native women and Spaniards and Filipinos. There are also some Chinese, Japanese, and other racial mixtures. This does not seem to have had any particularly noticeable effect on the physical appearance of the Chamorros, although some are fairer than their ancestors. The modern Chamorros are light brown in color, with round heads. broad faces, high cheekbones, the Mongolian eye fold, and short flat noses. The men average about five feet four inches in height. The hair, though sometimes wavy, is usually straight, black, and scanty on the face and body.

Although the Chamorros are the true natives of the Marianas, some Carolinians were permitted to settle on Saipan in the nineteenth century. They look somewhat like the Chamorros, but they are darker, their heads and faces are narrower, the Mongolian eyefold occurs less frequently, and their hair is more apt to be wavy.

The Chamorros and Carolinians are greatly outnumbered by the Japanese. Before the present war started, there were about 24,500 natives (Chamorros and Carolinians), and 44,000 Japanese.

Nix on kanaka

Kanaka, the Polynesian word for "man," has often been used to distinguish between the natives who came from the Carolines and the Chamorros. It is considered insulting by the Carolinians, who are proud of their ancestry, and they should be referred to as "natives". The Chamorro language, which is spoken by most of the Chamorros, is a distinct language, but has a close relationship to some of the Malayan tongues of southeastern Asia and the Philippines. The Chamorros have borrowed many Spanish words, but they pronounce them in their own way. Many learned Spanish, and a number still speak it. German was also learned by some during the German occupancy. On Guam, all the people speak some English. The Carolinians speak the language of the islands from which they originally came. Japanese has been taught in the mandated islands since before 1920, but neither Japanese nor Spanish has taken the place of the native tongues.

The missionary influence

As a result of the Spanish and German missionary activity, Roman Catholicism is well established. Although most of the Carolinians have no religious faith and seldom go to church, practically every Chamorro and many Carolinians have been either exposed to or converted to Catholicism. The native religion today is a mixture of Christianity and paganism. The older Chamorros, especially, hold to many superstitions and taboos. Life is full of

religious celebrations, observances, and rites of the church. Sunday is devoted almost entirely to rest and worship at mass and vespers.

The natives consider it irreverent to work on Sunday, and will resent being asked to do so. Desecration of a church or of a cemetery will make the natives very angry. Some of the islanders in isolated districts who retain elements of their native religion consider spoiling of the ground, even by spitting on it, extremely irreverent. Many of the natives have seen Americans. They do not thoroughly understand them and many do not respect Americans whom they judge by their own rigid standards of conduct. Morever, they have a tendency to distrust non-Catholics, particularly Protestants, and the United States is regarded as a Protestant Country. The friendship of these natives will have to be won.

There are few Protestants in the islands. A few natives are Buddhists, and nearly all of the Japanese belong to that religion. Tenrikyo, a Shinto sect, was active on Saipan.

No Mother Hubbards, but—

The missionaries didn't try to put the native women in Mother Hubbards but they decidedly changed the native costume. In the good old days the Chamorro men wore nothing, except for an occasional breechclout. The women wore a short skirt of woven fibers, with the upper part of the body bare. The typical attire today is European clothing, Filipino or Spanish style, for both men and women. The younger set frequently wears modern clothes made from cheap Japanese cloth.

The men have adopted the European customs of cutting the hair short and shaving, but the women wear their hair long and parted. The women have abandoned their old custom of staining the teeth black. No one gets tattooed.

Many of the women, especially the younger ones, may look attractive, but it should be remembered that gonorrhea is widespread among the natives, and chancroid and yaws are prevalent. Although syphilis is relatively rare among the natives it occurs among the Japanese. The unmarried native girls were formerly very lax in their sexual behavior, but they are considerably more strict today under the influence of Christianity. This is particularly true of Chamorro girls who are well-chaperoned. Sexual approaches to a married woman have always been taboo, and are not tolerated by the natives.

Class distinctions

The natives have a definite social structure which has been greatly influenced by the Spaniards. They are also well aware of European standards of conduct and politeness and will expect American officers, in particular, to be courteous, especially in dealing with priests, women, and the aged.

The Carolinians are regarded by the Chamorros as social inferiors, and the two native groups form a lower and an upper caste between which there is practically no intermarriage and only

the smallest social contact. The Chamorros themselves are divided into two classes. A few Chamorros form an upper-class aristocracy and hold most of the land which has not been taken over by the Japanese. They are usually better educated, better dressed, and more pious than the remainder of the native population.

With the great importance of class distinction goes a fixed form of etiquette. Great respect is shown to superiors, particularly to the priest. Family relations clearly reflect the Spanish influence and parents and grand-parents are held in highest esteem. The native is apt to greet acquaintances in Spanish and to bow. When a young person meets a superior, or someone to whom he owes respect, he kneels on one knee and kisses the hand of the adult. The old hospitality, typical of Spanish California or old Hawaii, is found only in the remote settlements. There the stranger is still invited to eat and spend the night; however, in the more populated areas, although fruits and cigars are offered him, he is asked to pay for everything he receives.

No grass shacks here

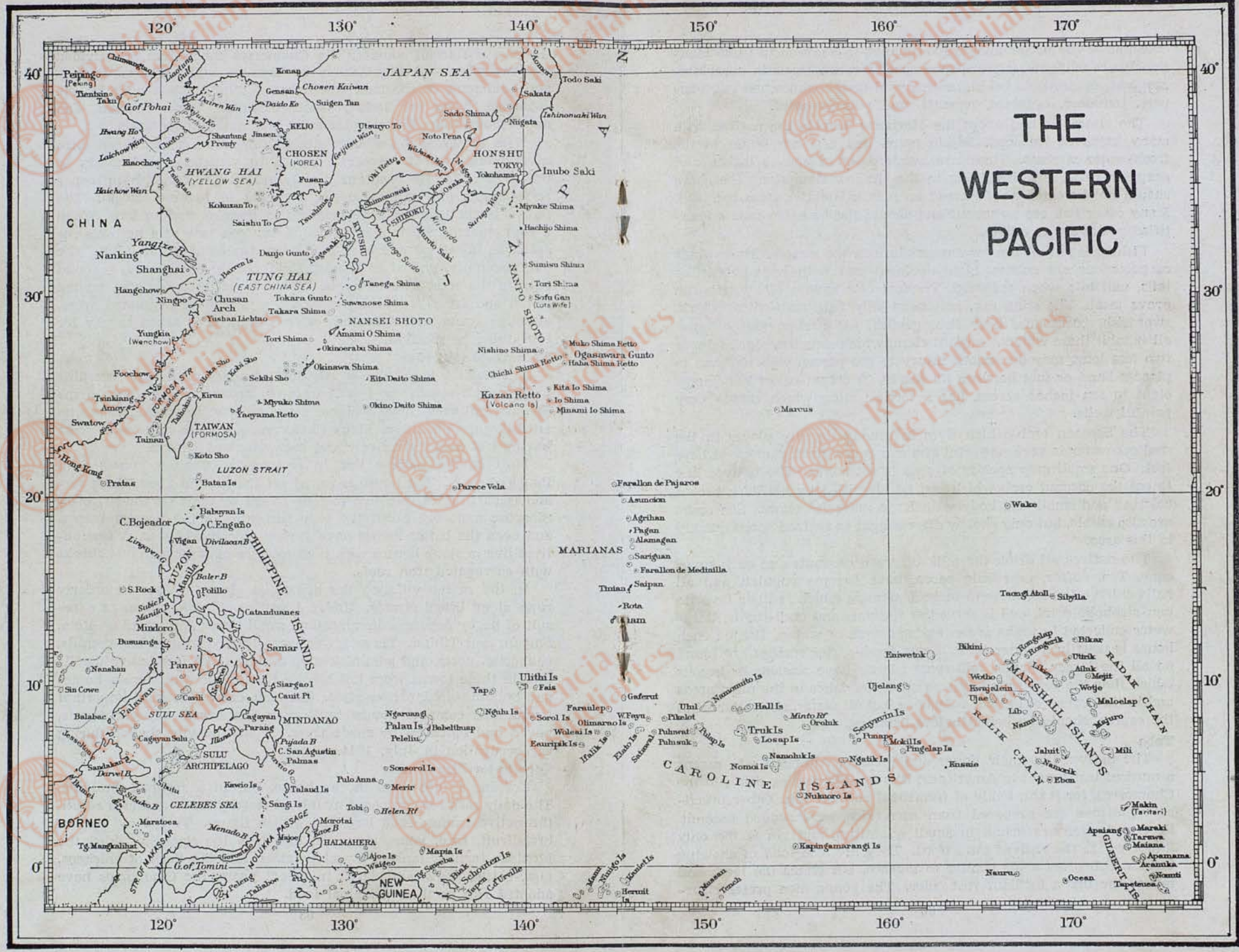
The natives have a relatively low standard of living, according to European standards; the Chamorros, however, who cling to the Spanish influence, have a higher standard than the Carolinians who are still quite primitive. Many Chamorros are quite well-to-do, some having travelled extensively and been educated abroad.

Most of the natives live in rectangular wooden houses with thatched roofs. The house is raised off the ground about three feet and is partitioned into two to four rooms by mats or woven reeds. Sleeping mats are about the only furniture in the poorest homes, and even the better homes have very simple furnishings. A few natives live in stone houses with tiled roofs or in Japanese style shacks with corrugated iron roofs.

In the native villages, the homes lie close together in orderly rows along broad streets. Under Japanese administration, as a result of heavy Japanese immigration, small towns sprang up on Rota, Saipan, and Tinian. These towns were located around sugar mills, refineries, ports, and administrative centers. The few native dwellings in these towns were lost among the far more numerous homes and buildings in Japanese style. Garapan, one of the most important towns, had compact houses built on a few broad, straight streets, paved and bordered by shade trees. It was heavily shelled during the occupation in July, 1944.

Taro to tortillas to rice

Cooking is not done in the house, but in a separate building. The daily menu is composed mainly of starchy foods and as a result the native women soon lose that girlish figure. To the old diet of breadfruit, taro, yams, coconuts, and fish, the Spanish added the Mexican tortilla, tapioca, sweet potatoes, and the flesh of chickens, pigs, cattle, goats, and deer. In recent years, the Chamorros have adopted rice as their principal food.


THE WESTERN PACIFIC
120°
130°
140°
150°
160°
170°
40°
30°
20°
10°
0°
JAPAN SEA
CHINA
HWANG HAI (YELLOW SEA)
TUNG HAI (EAST CHINA SEA)
SULU SEA
CELEBES SEA
LUZON STRAIT
PHILIPPINE ISLANDS
SULU ARCHIPELAGO
CAROLINE ISLANDS
MARIANAS
MARSHALL ISLANDS
RADAK CHAIN
RALIK CHAIN
GILBERT IS.
NANSEI SHOTO
NANPO SHOTO
KAZAN RETTO (VOLCANO IS)
OGASAWARA GUNTO
TAIWAN (FORMOSA)
HONSHU
SHIKOKU
KYUSHU
CHOSEN (KOREA)
BORNEO
MINDANAO
LUZON
SAMAR
PANAY
PALAWAN
HALMAHERA
NEW GUINEA
Peiping (Peking)
Tientsin
Takn
Gof Pohai
Liaotung Gulf
Chimampo
Konan
Genzan
Chosen Kaiwan
Daido Ko
Suigen Tan
Dairen Wan
Port Arthur
Liaotung Pen
Hwang Ho
Laichow Wan
Chefoo
Shantung Promty
Jinsen
KEIJO
Utsuryo To
Noto Pena
Wakasa Wan
Oki Retto
Fusan
Tsingtao
Kiaochow
Haichow Wan
Kokuzan To
Saishu To
Tsushima
Shimonoseki
Kobe
Osaka
Nagoya
Suruga Wan
Sado Shima
Niigata
Aomori
Todo Saki
Sakata
Ishinomaki Wan
Inubo Saki
Miyake Shima
Hachijo Shima
Sumisu Shima
Tori Shima
Sofu Gan (Lots Wife)
Muko Shima Retto
Haha Shima Retto
Chichi Shima Retto
Kita Io Shima
Io Shima
Minami Io Shima
Kazan Retto (Volcano Is)
Marcus
Wake
Farallon de Pajaros
Asuncion
Agrihan
Pagan
Alamagan
Sariguan
Farallon de Medinilla
Saipan
Tinian
Rota
Guam
Parece Vela
Ogasawara Gunto
Nishino Shima
Okinoerabu Shima
Okinawa Shima
Amami O Shima
Kita Daito Shima
Okino Daito Shima
Miyako Shima
Yaeyama Retto
Sekibi Sho
Koto Sho
Kirun
Tsinkiang
Amoy
Foochow
Swatow
Tainan
Hong Kong
Pratas
Batan Is
Babuyan Is
C. Bojeador
C. Engaño
Vigan
Divilacan B
Lingayen
Manila
Baler B
Subic B
Manila B
S. Rock
Polillo
Catanduanes
Mindoro
Busuanga
Nanshan
Sin Cowe
Cuyo Is
Cauit Pt
Siargao I
Balabac
Cagayan Sulu
Jesselton
Sandakan
Darvel B
Tawi Tawi
Sibutu
Kawio Is
Talaud Is
Sangi Is
Tobi
Helen Rf
Palau Is
Peleliu
Babelthuap
Ngaruang
Yap
Ngulu Is
Ulithi Is
Fais
Gaferut
Faraulep
Sorol Is
Olimarao Is
Woleai Is
Eauripik Is
Ifalik Is
Elato Is
Satawal
Puluwat
Pulusuk
W. Fayu
Pikelot
Uhl
Namonuito Is
Hall Is
Oroluk
Minto Rf
Truk Is
Losap Is
Tulap Is
Namonuk Is
Nomoi Is
Ngatik Is
Ponape
Mokil Is
Pingelap Is
Kusaie
Ujelang
Eniwetok
Bikini
Rongelap
Rongerik
Utirik
Bikar
Taongi Atoll
Sibylla
Wotho
Kwajalein
Ujae
Lib
Namu
Ailuk
Likiep
Mejit
Wotje
Maloelap
Majuro
Jaluit
Namorik
Ebon
Mili
Nukuoro Is
Kapingamarangi Is
Sonsorol Is
Pulo Anna
Merir
Mapia Is
Ajoe Is
Waigeo
Gebeh
Schouten Is
Biak
Japen
Cape Urville
Mansinam
Manokwari
Kaniet Is
Hermit Is
Mussau
Teoch
Nauru
Ocean
Makin (Taritari)
Apaiang
Maraki
Tarawa
Maiana
Apamama
Aranuka
Nanuti
Tapetenea
Tg. Sipolok
Tg. Mangkalihat
Maratoea
Menado B
Gorontalo
Tahabor
Peleng
Str. of Makassar
Gulf of Tomini
Molukka Passage
Morotai
Kroe B
Majoe
Tg. Saweba
Tg. Sepera
Cape Urville
Mussau
Teoch
Manus
Ninigo Is
Kaniet Is
Hermit Is
Namonuito Is
Ujelang
Eniwetok
Bikini
Rongelap
Rongerik
Utirik
Bikar
Taongi Atoll
Sibylla
Wotho
Kwajalein
Ujae
Lib
Namu
Ailuk
Likiep
Mejit
Wotje
Maloelap
Majuro
Jaluit
Namorik
Ebon
Mili
Kusaie
Ponape
Mokil Is
Pingelap Is
Nukuoro Is
Kapingamarangi Is
Nauru
Ocean
Makin (Taritari)
Apaiang
Maraki
Tarawa
Maiana
Apamama
Aranuka
Nanuti
Tapetenea

Some of the better known food plants, in addition to those mentioned, are mangoes, papaya, sweet potatoes, muskmelons, pumpkins, cassavas, maize, lima beans, onions, wild figs, bananas, guavas, peppers, tomatoes, eggplant, peanuts, and pomegranates.

The waters in and about the Marianas provide the natives with many kinds of sea food. Edible perch and eels are found in the fresh-water streams. There are hundreds of species of lagoon and deep-sea fish. The fish living in the shallow flats along the shore should not be eaten as they feed on polluted matter from the land. Many other fish are poisonous and should not be eaten unless identified positively as edible.

Fishing is not all fun for dangers lurk in the waters. Many kinds of poisonous sea snakes, highly colored and with wide-paddlelike tails, will bite when cornered. Tropical eels have a bite which can prove fatal. The sting ray, poisonous jelly fish, man-eating shark, swordfish, barracuda, tiger fish, garfish, sea urchin, and octopus, all inhabit these waters. A giant clam, which sometimes grows over two feet long, may do serious injury to the person who happens to place a hand or foot between its valves. A cream-colored anemone, eight to ten inches across, has a terrific sting which causes very painful welts.

The Samoan crab which lives in muddy or silty places in the shallow water is very powerful and can cause great damage to bare feet. One small grey species of crab is poisonous. The natives like to eat the coconut crab which can be identified by his dark brown coloring and small soft body with large powerful claws. Sea crabs are also edible, but only shortly after caught as seafood spoils quickly in this area.

The natives all drink the milk of green coconuts and suck sugar cane. Tea, coffee, especially cocoa, have become popular, and all natives have learned how to make lemonade which is their favorite non-alcoholic drink and is served at festivals and cock-fights. Rain-water collected in tanks is the major source of water. Behind each house is usually a water tank. Some fresh-water springs are found on all the larger islands, and some islands have streams or brooks which flow the year round. There are a few lakes in the plain areas and in the craters of extinct volcanoes, but all water, no matter what the source, should be boiled before drinking.

Tuba

The natives like their liquor and tobacco. Although *tuba* means a musical instrument to Americans, it is an intoxicating drink to the Chamorros, for it is a toddy of fermented coconut sap. Other intoxicating drinks are prepared from corn, rice, or shredded coconut. Beer and wine are drunk in small quantities, and gin is the only liquor which the natives can afford. They are also fond of chewing betel which gives a lift similar to tobacco, but stains the teeth and makes the lips a brilliant rust color. The young men prefer cigar-

ettes or cigars; the older people, especially women, like to smoke a pipe or simply smoke the tobacco in small strips without further preparation. There is commonly a tobacco garden near each native house.

An ounce of prevention

Although European residents of the Marianas are reported to enjoy fairly good health except for occasional cases of dysentery, the general health of the natives is poor, and the less one treats with the natives, the better his chances to avoid diseases. Venereal diseases have already been mentioned. Skin diseases, eczema, boils, contagious impetigo, parasitic diseases, and streptococcus infection are prevalent among both the natives and the Japanese. Leprosy is present, and although the Japanese have segregated the lepers in asylums, the natives do not consider it contagious. Infectious colds, influenza, and tuberculosis are widespread. Poliomyelitis and cerebro-spinal meningitis have occurred in epidemic proportions. Mumps, whooping cough, measles, chicken pox, diphtheria, scarlet fever, intestinal diseases, trachoma, eye diseases, tetanus, beri-beri, filariasis, and dengue fever are found throughout the islands. Smallpox is rare, as is malaria.

In addition to diseases, insects can make life in the Marianas most uncomfortable. Houseflies are a decided pest on most of the islands. Mosquitoes are found everywhere, and although the malaria-bearing mosquito has not yet been introduced into the islands, the bearer of dengue fever and the nocturnal mosquito are both present. Some bees and wasps can inflict a very painful sting. The red biting ant, or fire ant, likes to get into bedding and is a most annoying bed companion. The bite of the South Seas Needle Ant, a large black ant, causes a sharp pain and leaves a red mark.

Centipedes and scorpions abound, and although neither is fatal, the bite is very painful. The *lamp bug* is a small beetle which gathers around lights; it has a bite which causes a skin eruption. If the beetle gets into coconut toddy, the liquor is poisoned and causes severe illness.

Fun and games

The Chamorros are a musical people and have simple forms of amusement. Most any occasion becomes the cause of celebrating. The raising of a house is a community affair, with songs, jokes, and gallons of tuba. Fiestas, a result of Spanish influence, are held for weddings, baptisms, and Catholic holidays, when there is much eating, singing, and dancing. The native dances have been almost completely replaced by such dances as the waltz, polka, mazurka, and quadrille. The original games included contests of speed and strength in the water, spear-throwing, wrestling, and foot-racing. Under the Spanish, card games, cockfights, and tossing coins at the raised end of a corn cob largely replaced the native games, but in recent years baseball and volleyball and other active sports have

become popular. The evening is spent in some form of recreation, occasionally in attending a movie or cockfight, more often in chatting with the neighbors. The Chamorros had flutes, a monochord, and shell rattles; but during the Spanish regime these were replaced by the harmonica, accordion, violin, mandolin, and harmonium. In recent years the Japanese ukuleles and guitars have become popular.

With Japanese immigration came houses of amusement. These were mainly in the form of hotels and restaurants, with geisha girls, bar-maids, and waitresses. The Japanese also built motion picture houses and theatres.

Decorative art was almost completely lacking among the Chamorros, except for their crude native pottery. Most of the native crafts have disappeared, except for work in tortoise-shell and textiles. The natives tan hides, make sandals, do blacksmith and silversmith work, make soap and charcoal. The usual products made of palm and pandanus leaves found in the islands of the central Pacific are made by the natives—among them baskets, mats, and hats.

THE PHILIPPINE ISLANDS

In December, 1941, overwhelming Japanese forces struck treacherously at the Philippines, bringing to a temporary end the wardenship of the United States over these islands. The United States had promised independence for the Philippine Islands in 1946. This, too, was interrupted by Japanese aggression.

Now we are on the way back. The American soldier, sailor, and marine will be a part of the force that will restore the justice and humanity of American influence to this area. Its people have a great fighting tradition; these Malay peoples we call Filipinos are among the finest fighting men in the world. Today, thousands of them are in our armed forces. Their participation in the defenses of Bataan and Corregidor will forever remain a stirring chapter in the history of this war.

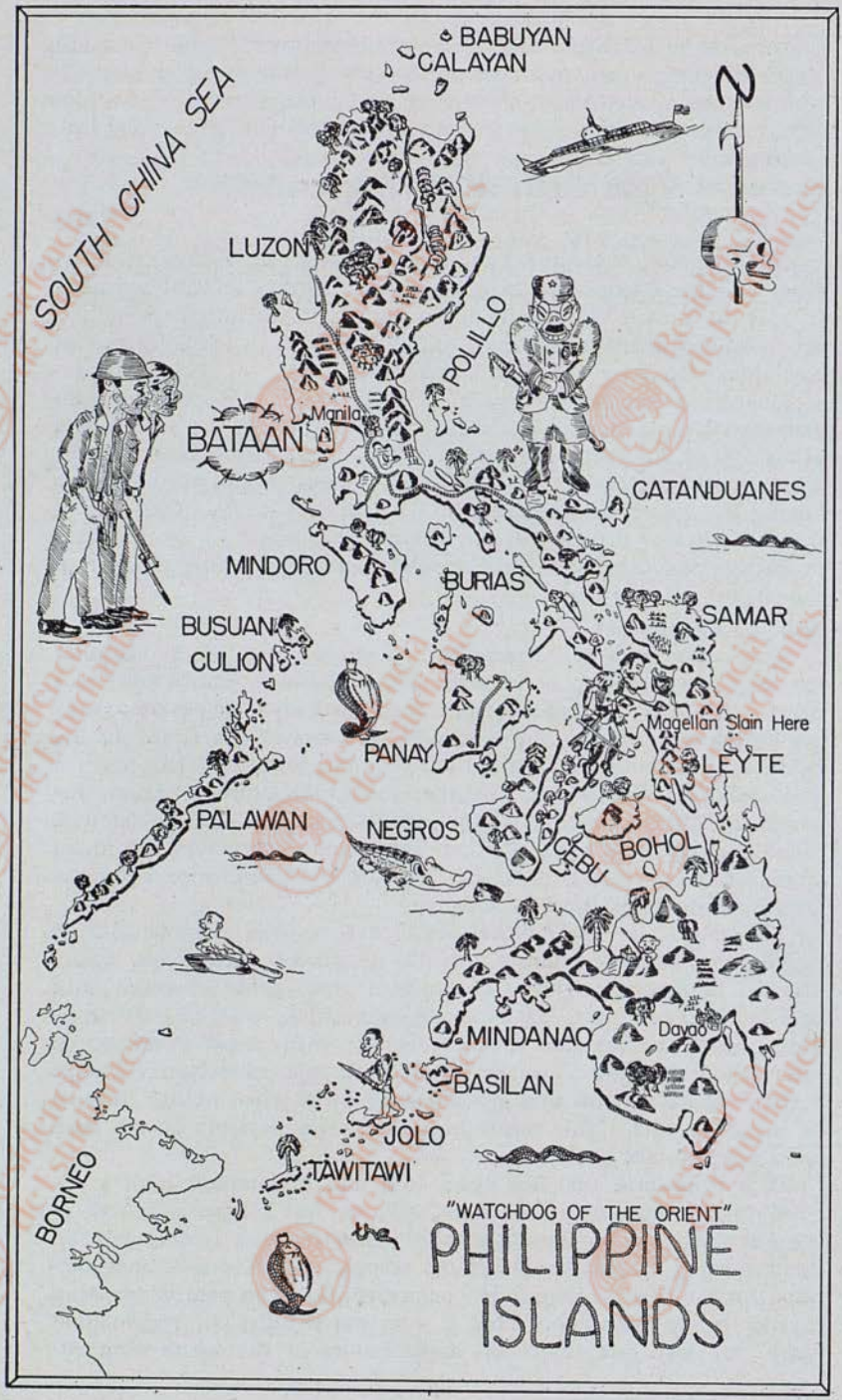
Tropical melting pot

They, like us, are the product of a melting pot of civilizations, for they are made up of strange (and sometimes conflicting) elements of Malay, Indonesian and Indo-Australian tribes and they are sprinkled with the blood of a dozen races of the East. In the north is to be found an affiliation with the Chinese dating from a day centuries ago, when Koxinga, the great Chinese pirate, invaded the Philippines with 14,000 men. Tribesmen of Borneo, Java, Sumatra, and India have left their mark and everywhere are found traces of the curious little black Negritos who were apparently the first inhabitants of these Islands.

The product of this melting pot of nations (the Filipino and his cousin, the Mohammedan Moro) is a sturdy jungleman, easily aroused to fanaticism and possessing a great pride of race. Mix together a Protestant, Catholic, Mohammedan, and idol-worshipping pagan; to that, add a great facility with edged weapons, an inter-tribal distrust; a veneer of Spanish and American customs; a Babel of 87 dialects and a considerable oratorical ability in each of these dialects. The result is a composite portrait of the man we generally call a Filipino.

It is important that we know him and understand him.

With our defeats in 1941 and 1942, we lost plenty of "face" in the Far East, but the Japanese, although successful, temporarily, in their military efforts, have through arrogance and lack of consideration for the peoples they have conquered, failed to gain widespread loyalty or co-operation. This is our opportunity to regain that "face" we lost. As unofficial ambassadors of the white man re-


BABUYAN
CALAYAN
SOUTH CHINA SEA
LUZON
POLILLO
Manila
BATAAN
CATANDUANES
MINDORO
BURIAS
SAMAR
BUSUANGA
CULION
Magellan Slain Here
PANAY
LEYTE
PALAWAN
NEGROS
CEBU
BOHOL
MINDANAO
Davao
BASILAN
JOLO
TAWITAWI
BORNEO
"WATCHDOG OF THE ORIENT"
PHILIPPINE
ISLANDS

turning to this area, Americans will be charged with "acquiring face" when they enter the villages of the Filipinos and Moros. To do this, Americans must know them and their customs, must know what pleases them and what offends them, must appreciate their variety of religions and must respect those religions.

Strategic importance

Located squarely between the Orient and the western limits of the Occident, the Philippines stand as the watchdog of the Orient. Unless they control the Philippines, the Japanese cannot reach the rich southlands and obtain the tin and rubber of Malaya, the quinine and oil of the Netherlands East Indies, or the tungsten of Burma. With the Philippines, we can obtain these strategic materials for ourselves. And more important, we can reach China, and thence, Japan.

The Philippines on the map may seem to be just another chain of unimportant tropical islands. Yet, this chain is more than a thousand miles in length, reaching from the Bashis in the north in the shadow of Formosa to within 15 miles of British North Borneo in the Bay of Darvel. There are 7,083 islands, of which 2,441 have names. They range in size from Luzon and Mindanao, comparable in size to Kentucky and Indiana, down to pinpoint coral reefs without names.

The Philippines are big islands and important islands, not only from a strategic point of view but also in their own natural resources and the wealth in the soil. If the Japanese could subjugate, colonize, and properly develop the Philippines, they would be well on the way to their dream of a far eastern empire controlled from Nippon.

Although there are only 17,000,000 inhabitants in these islands, their potentialities for development are very great. It has been estimated that Mindanao island, which now has a million inhabitants, could support a population of more than 10,000,000. Furthermore, these islands are rich agriculturally, minerally, and in timber and fish. They are a "natural" as a part of the expansion scheme of Japan. The finest hardwood in the world grows in the Philippines in the forests of narra, molave, yakal, and tindalo as well as in the smaller stands of ebony, rosewood, and sandalwood. The hills contain chromium, gold, iron, and copper. The waters of the Philippines contain a tenth of all the fish species known to science. The soil is rich and capable of producing rubber, hemp, rice, and coconuts, as well as all varieties of tropical fruit. The Philippines are well worth keeping out of the clutches of Japan.

The Japs have had their chance and they missed the boat. American service men are going back to help finish the job we began more than 40 years ago.

First impressions of the Philippines may be of the mountainous, heavily wooded character of the islands and the irregular coastline. In fact, the Philippines have a coastline of more than 12,000 miles—half the distance around the globe!

Generally speaking, the islands are of volcanic and coral formation. The mountain ranges are numerous and run in a northerly and southerly direction. Most of the ranges are under 6,000 feet in height, but individual peaks are much higher. Mount Apo, west of Davao Gulf in Mindanao, rises to 9,610 feet. The country in the interior is generally rugged, with three-fourths of the land surface having a slope greater than 10 degrees.

The several thousand islands of the Philippines are divided geographically into three main groups with these, in turn, subdivided into half a hundred provinces corresponding roughly to our states. These are scattered over an area equivalent to a triangular section of the United States with the points of the triangle at New York, Kansas City and New Orleans. The three main geographical groups, occupying respectively the north, central and southern portions of the archipelago are:

1. LUZON and adjacent islands, Marinduque, Mindoro, Catanduanes and several smaller islands.
2. VISAYAS, comprising Samar, Leyte, Bohol, Cebu, Negros, Panay, Masbate and many small islands.
3. MINDANAO and SULU, including Mindanao, Palawan, the entire Sulu Archipelago with all minor islands.

Some idea of the distances involved may be gathered when one compares the 760 airline miles between New York and Chicago with the following:

Manila to Pearl Harbor	4,800 miles
Manila to Tokyo	1,750 miles
Manila to Singapore	1,400 miles

All kinds of climate

The Philippines, lying well within the tropics, have a hot, moist climate. Optimistic authors of travel booklets describe it as agreeably warm, with beautiful mornings, pleasant afternoons, and cool nights. Unfortunately, however, the Philippines are the real tropics with many of the tropical handicaps experienced in the Solomons and elsewhere. Healthier than the Solomons—yes—but still definitely tropic.

Along the coast the temperature varies only a few degrees from a year-around average of more than 80°. Nearly everywhere, the humidity is extremely high, ranging from 90 per cent in the morning to 70 per cent in the afternoon.

In the interior, the lowlands may be oppressively hot, while the higher plateaus will be comfortably cool. Baguio, located about 175 miles north of Manila at an elevation of nearly 5,000 feet, is representative of the mountain stations. Here, the yearly average temperature is 66°, with a difference of about four degrees between the hottest and coolest months. The temperature drops sharply after sunset and the residents of Baguio usually sleep under blankets.

Precipitation varies greatly according to region and season. There are three general rainfall zones in the Philippines: east, west, and interior. The time of the rainy seasons in the eastern and western zones depends on the winds. The interior is consistently rainy. In general, the dry season extends from monsoon to monsoon. Rainfall in the three zones may be summarized as follows:

East Coast Zone—Dry: April to July. Wet: October to December. The eastern coast of the Philippines, extending from Luzon to Mindanao, receives more than 100 inches of rain a year. The average monthly rainfall from October to December varies from 25 to 40 inches, but only three to six inches of rain fall monthly from April to July. During the rainy season, rain occurs on nine days out of every 10 and up to 16 inches may fall in a single day.

West Coast Zone—Dry: January to April. Wet: June to December. The west coast receives about the same amount of precipitation as the east coast, with a difference in timing.

Interior Zone—There is no well defined rainy season in the interior and it is a safe assumption that it may rain at any time. Usually the wettest months in the interior are May to January but the difference is not great. The maximum rainfall in one day will not usually exceed 10 inches although there are areas, such as Baguio, where 356 inches of rain have been recorded for a year, with an almost incredible amount occurring in a single day.

Winds and "twisters"

The prevailing winds, which have such an influence on the weather, may be generally divided into three classes—monsoons, tradewinds, and typhoons.

The Northeast Monsoon is characterized by its steadiness and uniformity. It has considerable force and, prevailing from October to May, it brings the coolest temperatures to the islands. Likewise, it brings the heaviest rains to the east coast.

The Southwest Monsoon prevails from May to October, bringing heavy rains to the west coast. Cloudy and rainy weather may be expected during most of this season.

The Trade Winds blow from an easterly direction, are of moderate force and hardly distinguishable from the northeast monsoon. They are the driest of all winds in this area and during the period of their dominance, March and April, there is a tendency toward clear skies with frequent thunderstorms in the afternoon and evening.

Typhoons are simply whirlwinds, more commonly known in the United States as cyclones or tornadoes. They have a vortex 11 to 16 miles in diameter and may affect an area up to 400 miles wide. They generally travel in a westerly direction in the Philippines at an average rate of 12 miles per hour. Within the storm, the average velocity is 50 miles per hour with gusts up to more than 100 miles per hour. However, the Philippines are not strictly typhoon country.

These storms usually curve away from the islands, affecting only the northern areas and then only rarely.

A long history

The Philippines have had many names and many masters. No one can say where or when their strange, unwritten history begins. The earliest people left no records and only a few speculative facts remain to link the islands with a past that is almost incredibly ancient. We know that the Ming emperors called them the "Islands of the Luzones" and that they sent them trading junks with brassware, porcelain, silken cloth, and little copper bells. Returning to China, these junks carried pearls and precious woods. Ptolemy, the Egyptian geographer, charted the Philippines as the "Maniolas," and the Phoenician traders skirted their coastlines in quest for gold. In their turn, the wandering Portuguese, greatest of all ancient navigators, called them "The Islands of the West".

Then Magellan came in 1521 as their official "discoverer" and gave them their first historical title. The "Archipelago of Saint Lazarus," he called them, a name that fell into discard when Magellan went down before the poisoned arrows of the natives of Mactan Island, near Cebu. In 1543, Ruy Lopez de Villalobus named them "Islas Filipinas" in honor of Don Felipe, crown prince of Spain. And so the name remained "Philippine Islands" while Dutch, Portuguese, Javanese, Bornese, Chinese, Japanese, Spaniards, English, and Americans scrambled for a foothold through centuries of constant warfare.

In 1898 they became the property of the United States and the development began that was stopped by the southern advance of Japan. The transfer of the islands to us by Spain did not end the strife in the Philippines. Active warfare persisted for almost four years and guerilla fighting continued in certain areas throughout the entire period of American occupation. Some of the bloodiest jungle war of our military history was waged by the Philippine Constabulary and the regular army of the United States who undertook jointly the pacification of the Mindanao jungle.

The net result of the American occupation of the islands was a plan for independence for the 80-odd tribes of Malays who inhabit the islands.

Meet the people

Three great religious elements make up the population of the Philippines. We will consider them in order of age.

1. PAGANS—Oldest of the strata of population are the Negritos, tribes of dwarf blacks, broad-headed, broad-nosed, and frizzy haired. They, apparently, were the first men to inhabit the islands and where they came from, no one can say with authority. They survive today only as scattered bands of Bataks, Atas, and Mamanuas in the hills, retaining their primitive religious beliefs, their legends of the Great Flood and of the creation of mankind from blades of grass. They use the bow and arrow and the blowgun, with darts poisoned from the

juice of the Upas tree and they are a timid and negligible proportion of the population. It is quite possible that our troops will never see a Negrito during their duty in the islands.

A second group of pagans are the long-haired Indo-Australian hillmen whose ancestry is buried deep in prehistory. They apparently came down through the Khyber Pass into India and thence to the Indies and to the Philippines. They are a slender, brown race, with faint indications of Caucasian ancestry. We know little about them today. They live in the mountains and are represented by various tribes of Bilaans, Subanons, Tirurays, Mandayas, Manobos, Bagobos, Montescas, Tagbanuas, and several others. The hillman is timid and he cannot be trusted. He will say what he thinks his interviewer wants to hear. He probably has no loyalty and he will remain indifferent and passive to the war. To him, Americans will probably represent only a change of masters and he will not be greatly concerned. He is a mystic; an idol-worshipper with strange beliefs and superstitions. Some are moon-worshippers; others have forest deities; all live in a spiritual world of their own that a white man will not be able to penetrate. They believe in omens and goblins and ghosts and demons. They have been oppressed for centuries and they will be afraid of strangers. Americans must win their loyalties if they can for they are valuable woodsmen, trackers, and guides.

Fighting men

2. MOHAMMEDANS—The second great religious group within the Philippine population are the Mohammedan Moros of Mindanao and the Sulu Archipelago. There are a half million Mohammedans in the southern Philippines, a fierce, proud people. It will pay to understand them and get along with them for they are potential good friends of ours.

These Mohammedans were named Moros by the Spaniards, who confused them with another great Mohammedan people, the Moors of North Africa, who also were fighting Spain. Actually the Moros are an Indonesian people who were a part of the great migration of nations northward from India. They came to the Philippines many centuries ago, forcing the long-haired pagans into the hills when they took over the seacoasts of the islands. The Moros are fairly recent converts to Mohammedanism; they embraced the religion about the year 1400.

Today, the Moros are confined to the southern islands of the Philippine group and are found mainly along the coastlines of southern Mindanao and the Sulu islands. Two exceptions to this statement are a large colony of Moros on the shores of Lake Lanao and another sizeable group in interior Cotabato Province south of Lake Lanao. Although the Moros profess the Mohammedan religion, they are not orthodox Mohammedans. They have adopted only those portions of the religion that appeal to them.

The Moros number only about a half million, but they are a potent force as they are among the finest individual fighting men in the

world. They too, are magnificent amphibious warriors, at home on land or sea. Their edged weapons, the *kris, barong* and *kampilan,* are credited with being the equal in temper with the best blades of Toledo and Damascus. The Moros have a capacity for absorbing lead that is almost incredible. When aroused to a pitch of fanaticism they are very hard to kill. For more than 300 years they fought Spain to a bloody draw. They are great junglemen and adept at ambush and surprise; today, they keep the Japanese out of a great deal of Mindanao.

These are the Moros

The Moros are divided into tribal groups, all differing slightly in manners, customs, and dress. Also in dialect. Two minor tribes, the Bajaos and the Yakans, still have numbers of pagans who have not yet adopted the Koran of Mohammed. The Moro tribal organization is as follows:

(a) Maguindanaos—A federation of tribes under the Sultan of Mindanao. They live in Cotabato Province and in smaller numbers along all the southern coastline of Mindanao. They number approximately 200,000. Some of the Maguindanaos of the interior, particularly in the region back of Sarangani Bay, gave American authorities plenty of trouble as late as 1930. They are fierce fighting men.

(b) Lanaos—These are among the toughest of all of the Moro tribes. They are famous for their construction of fortified works or *kotas,* from which they fought a savage warfare against American troops in the early 1900's. To them is credited the construction of the largest fort ever built by a Malay people—a great fortress on Lake Lanao that was defended by hundreds of brass cannon. On the east side of Lake Lanao, these Moros were still unruly up to the opening of hostilities with Japan. They number approximately 200,000.

(c) Sangils—A small and relatively unimportant tribe that has been greatly diluted with pagan blood. They number only a few hundred and are found in Davao Province.

(d) Yakans—A tribe of mountain Moros, many of whom are pagans. They are among the most interesting of the Moro tribes and notable for their different appearance from other Moros. They greatly resemble the American Indian in features and in the manner of wearing their long hair. They are excellent boat builders, furnishing the other tribes with *garays, vintas, sapits* and other types of outriggers.

(e) Sulus or Tao-Sugs—Known to us as "Sulus," to themselves as "Tao-Sugs," this is the most important Moro tribe. They live in the islands of Jolo, Patian, Pata, Lugus, and Tapul and are also found in numbers throughout all coastlines of the southern Philippines. Their tribal costume is a pair of skin-tight pants, resembling a wrestler's tights. They wear short dark jackets of moderate color shades. They are well put together, with a tremendous shoulder development. Their capital is Jolo (pronounced Holo) and their temporal ruler is the Sultan of Sulu.

(f) Samals—This is the fisherman tribe. They live in the Samales group and other island groups south of Jolo. From this tribe were recruited the terrible pirates who terrorized the Far East for centuries. They are among the world's best small boatmen. It was they who constructed and operated the greatest slave-trading center in the East. From this slave base on Sarangani Island, they supplied the harems of the Orient with captured women of all nations. The Samals raided Manila as late as the 19th Century, taking Spanish women from the streets of the metropolis for the slave block. The costume of this tribe consists of short jacket and distinctive Samal pants, wide, baggy and brilliant in color. Americans must not be fooled by their pink or baby blue rayon pants. The Samals are tough citizens.

(g) Bajaos—The "sea gypsies," so called, because they seldom set foot upon the land. They spend their lives in their small outriggers, roving the entire Sulu Archipelago. They are not Mohammedans and are looked down upon by other Moros because of their manner of living and their filthy habits.

The Moro at home

Moro titles of rank which it is helpful to know are:

Sultan—highest religious and political authority; *Wazir*—prime minister; *Datu*—principal adviser or tribal leader, or war chief; *Panglima*—judge; *Maharajah*—various grades, corresponding to the military ranks of colonel, major, etc.; *Imam*—secondary priest; *Pandita*—head priest; *Salip*—honorary title of respect; *Hadji*—one who has made the pilgrimage to Mecca; may be identified by his wearing of the fez.

Because the Moros are not orthodox Mohammedans, their Panditas and Imams have less authority than in other Moslem countries. The Datus are the men to deal with if possible for they are the real rulers of the Moros. There are but two Sultans in the Philippines; the Sultan of Sulu and the Sultan of Mindanao. There were, however, as late as 1936 some 32 minor potentates who had usurped the title of "Sultan" as they held forth in territories somewhat larger than that usually controlled by a Datu. The two actual Sultans are descendants of a long line of royalty that originated in Borneo and Arabia. The present Sultan of Sulu is the 25th in line of descent and the Sultan of Mindanao is the 21st.

The marriage ceremony

The Moro marriages are usually arranged by the fathers of the bride and groom. The customary age is 15 for both men and women. The Moro boy buys his wife and the couple may not live together until seven days after the ceremony. The price of a bride varies from 25 to 500 pesos. The bride shaves her eyebrows and paints her face thickly with a white powder resembling flour. The actual marriage ceremony is very simple, consisting of placing the hand of the man upon the forehead of the woman and reading a few verses from the Koran.

The Moro maidens hold a ceremonial bath at nine o'clock in the evening during the annual ceremony dedicated to fertility. At this time a Moro custom known as *Magsaggow*, or elopement, is in effect. The young man is permitted to lie in wait near the swimming pool and to swoop down upon the lady of his choice and carry her away to the house of the Datu. Successful elopement enables the boy to marry immediately after paying a standard fine of 50 pesos. He is thus able to save money and avoid a wait of four months. The father of the girl has the privilege of killing the abductor if he reaches the house of the Datu before the boy bears in the struggling bride to be.

A Moro baby is christened on the seventh day. A priest moistens the child's head and cuts a lock of hair as the name is repeated. The name of the baby is selected from one of seven names chosen beforehand by the parents. The names are inscribed on separate sheets and a small child a year or two of age selects a name at random.

Divorce is a simple matter of notification. The husband can repeat "I divorce you" three times and it is considered sufficient. There can be no appeal on the part of the wife. For the woman, divorce is less simple. She must have excellent cause and if granted a divorce, is forced to pay her husband double the amount of her dowry. She is not permitted to remarry for four months.

Music and dancing

The Moros have no written music but they possess a well developed sense of rhythm and have several instruments that they play by ear. Among them are the *biola* (violin), the *Daop-Daop* (cymbals), *Pulawta* (flute), *Soling* (another form of flute), *Kulaying* (Jew's harp), *Gabang* (bamboo piano), and the various drums and gongs known as *Agongs, Kulitangans* and *Gadangas.*

The dances of the Moros are the *Magsayaw* (spear dance), performed by two men fully armed in simulation of fight to the death; the *Magpanhaly Tauty* (fisherman's dance), representing a man fishing from a rock with the juice of the "toobly" tree which stuns the fish; the *Magpanhaly* (posture dance) performed by men and women; and the *Magloonsy* (love dance). This dance is performed in the moonlight by 16 girls and 16 men. Few if any white men have ever witnessed it.

All of the Moro dances are characterized by the same strict attention to posture and position of the hands that is also so characteristic of the dances of Java and Bali.

The funeral

Confession is made by the dying to a priest. After death the body is suitably prepared and placed upright in the center of a feast attended by all relatives. The body is then wrapped in a white cloth, white being the Moro color of mourning, and is buried in a shallow grave with the face turned toward Mecca. A round carved piece of wood indicates the grave of a man; a flat board indicates the occupant is a woman.

Fundamentally, the Moro is fonder of the Americans than of any race with which he has come into contact in his long and turbulent history. When the United States returns to the islands in force and has demonstrated the strength necessary to eliminate the Japanese, the Moros can probably be called upon to assist in mopping up. There remains, however, the fact that the Japanese have sent Jap Mohammedans into the region to strengthen their "Asia for the Asiatics" program and they will undoubtedly win over a certain percentage of the Moros.

There are several hotbed areas in the Philippines that were never completely subjugated. Among them may be mentioned the Lake Mainit region where a severe battle between tribesmen and Philippine Constabulary was fought only a few years ago. In this area, the Japs can probably make good contacts. Lake Lanao also has a troublesome percentage of malcontent Moros who may have accepted the Japanese. The islands of Pata and Patian have always been outlaw centers as were certain sections of lower Sula around Tawi-Tawi.

In general, the Moros will probably lean to us when we have displayed force in Mindanao but for a time, at least, it may be difficult to distinguish between the loyal and disloyal. Moros in newly occupied territory should not be trusted until their allegiances have been determined through approach to their recognized leaders.

It will be well to remember that to a Moro, the fight is the thing and that sometimes it is not so important to him which side he fights with.

Getting along in Mohammedan country

In Mohammedan country, visitors must remember that the Moros are a continent and moral people. Under their code, it is forbidden to even touch the hand of an unmarried woman. The surest way to get into trouble is to show interest in their women. No temporary arrangements can be made with high caste Moro women, although, as a guest, an American may be offered a woman by a Datu.

The Koran forbids the eating of pork. It is an insult to offer a Moro pork or lard or any pork product. He will be glad to have Americans kill the wild pig on his islands but he will not eat them.

The Moro does not usually touch alcohol as it is also forbidden by his religion. He should never be offered a drink.

Americans should avoid Mohammedan mosques and show respect when in the vicinity of a mosque. Friday is the Moro Sabbath and therefore the day for attending the mosque.

Among the pagan peoples of the Philippines and all other non-Mohammedan peoples, visitors can make the usual arrangements for a woman if they are willing to accept the possibility of venereal disease.

3. THE CHRISTIANS—The third great religious group comprising the population of the Philippine Islands is that of the Christian Filipinos. This classification includes some 15,000,000 people and

they, too, are divided into groups and distinguished by language and customs. The main groups are:

(a) Ilocanos—Province of Ilocos Norte, northwestern Luzon. They number some 2,500,000 and are one of the most dependable groups of tribesmen. They are agriculturists and the best travelers in the Philippines. They are the Filipinos seen mostly in foreign countries, many having migrated to Hawaii to work in the pineapple and sugar fields. Many of them show traces of Chinese blood, traceable to Koxinga, a Chinese pirate who invaded Luzon to remain for several years.

(b) Tagalogs—Central Luzon. They number about 3,500,000 and are the dominating tribe. From their ranks come the politicians and the professional men; they are the white-collar Filipinos of greater education than their fellows. They have had more contact with culture and civilization.

(c) Pangasinans—Central Luzon. They number about a half million and are agriculturists.

(d) Pampangos—Southern Luzon. About 600,000 in number. They are an aloof tribe, remaining well within themselves and seldom marrying into other tribes. The men are jealous and fiery-tempered. It is dangerous to fool around with Pampango women.

(e) Bigolanos—Southeastern Luzon. An important tribe numbering 1,500,000. Not too friendly to strangers but peaceful by nature.

(f) Visayans—Middle islands of the central Philippines. Some 7,000,000 people make up this general classification in which are included the Boholanos and various other lesser tribes. These people are kindly and friendly to Americans. They are agriculturists, many of them living on the poorer islands where livelihood is precarious. They are the corn-eaters, in contrast to the other Filipinos who subsist mainly on rice.

The overwhelming majority of these Christians are Roman Catholic, more than nine-tenths embracing this faith. The remainder are Protestant, with a small minority belonging to the radical Aglipay church which is a native form of Catholicism sprinkled with black magic.

These Christian tribes have felt the full weight of the heel of Japan. Many of them have passively submitted to Japan; many more have engaged in active guerilla warfare against the Japs; a few have become active Jap collaborators. In dealing with these peoples, the sheep will have to be separated from the goats in the field.

Those dealing with them must keep in mind that in this group are certain hotheads who have never demonstrated any affection for the United States.

Filipino superstitions

At the top of this Christian group of Filipinos is a very small group of highly educated and well civilized men, the so-called *Ilustrado* class. But they are the exception. By far the largest proportion of the Filipinos still retain child-like superstitions and legends. The Filipino

tao, or laboring man, making up probably 80 percent of the population, is a simple creature, illiterate, and filled with superstition. A few of those superstitions are detailed here.

The balete tree, a species of strangling fig, produces a seed that flies through the air and adheres to another tree. The balete grows around the parent tree, killing it. The natives believe that the balete is the home of an *Asuan,* or ghost, that will send a poisonous snake to kill anyone who attempts to cut down the tree. This is made real to them by the fact that poisonous snakes often do live in the rotting tree that is inside the balete. The average native will not cut down a balete tree for any price or under any threat or pressure.

The limocon, a species of wild pigeon, has a peculiar call and is venerated by many of the natives. Much of the activity and planning of work by some Filipino tribes is built around the call of the limocon.

The natives believe that the soul of a man departs from the body when he is asleep. A man must therefore not be awakened suddenly or the soul will not have time to get back into the body. Consequently, awakening is a slow process and cannot be hurried. The Filipino will wake a man who leaves a call by a series of soft whispers, a long wait, another series of soft whispers and finally a gentle touch. It may take 15 minutes, but he believes in it. Those who wish to be awakened on the dot must make other arrangements or carry an alarm clock.

The large white ant hills dotting the islands are believed by many of the natives to be the homes of a small but powerful race of spirits who come out at night and walk around the house and yard. The houseboy will warn them to go away before he pours dishwater on the ground or throws away the garbage. It is to allow them to have time to get out of the way before things fall upon them. This sounds childish but it is an important belief of his and must be respected.

Americans will always feel like a tourist in the islands because no white man can ever get close to or completely understand the workings of the Malay mind. The native lives in a queer dream world of his own, coupled very closely with the jungle that is his home.

Questioning the native

An American who asks a native questions must remember the following points to save wear and tear on the disposition:

Although he will probably be anxious to please, the native will not want to be a bearer of bad news. He will want to say what he thinks the questioner wants to hear, not what is the truth. Depending upon the manner in which the question is put he may say that there are many Japs, few Japs, or no Japs in the village beyond.

The native is very literal minded and usually uneducated. Furthermore, his experience is often bounded by the valley in which he lives. He is very prone to exaggeration—he probably hasn't been there—even though he tells all about it, in detail.

Questions put in a negative manner produce misunderstandings. In nearly all languages except our own "Yes" means simply "I agree with you." The native will answer the question "There aren't

any Japs in that village, are there?" by saying "Yes." He means "You are right. There are no Japs in that village."

No one can be sure at first that the native is loyal. There are many tribes in the Philippines; some of them may have developed Japanese ideas. The local situation must be checked before full reliance is placed on the natives.

Time and distance mean little to the native. If he indicates that he will do something soon or by and by, it may mean this afternoon or next month. A spot he says is a few hundred yards up the road may be just that or several miles. "Tomorrow" is a wonderful word, as everybody who has been in the Philippines for a while finds out.

Pay and rationing of laborers

The standard wage scale for general labor in the Philippines before the war was one peso (50 cents) a day. This is enough to pay unless inflation during the Japanese occupation has raised the whole price level. The danger of paying more is that the laborer will work one day and then lay off two days to spend what he earned.

In addition to pay, it may be necessary to ration the men who are serving as *cargadores* or bearérs. The standard ration is a condensed milk can of uncooked rice per meal. To this, a cigarette or two per meal can be added. Arrangements for carriers are best made through the Datus or chiefs. After all the details are thoroughly understood, the bargain made must be kept. It is a mistake not to insist that the native keep to his bargain too. It is important that Americans make their word mean something. The native must get exactly what he deserves, whether it be a fine or a commendation or bonus. He will respect his employer the more for it.

The Malay is a proud person. *The American who strikes a native of the Philippines will make an implacable enemy who will never forgive or forget.*

Keeping in fighting trim

Tuberculosis is by far the most prevalent of all diseases in the Philippines. Some of the other common diseases are malaria, dengue, beri-beri, dysentery, typhoid, yaws, and venereal disease.

A few simple precautions will make life healthier and safer.

Drinking water must be boiled for at least 20 minutes or properly treated with chemicals. The population centers are along streams and plumbing facilities are non-existent. A stream of water in the hills that looks clean and inviting may be in use as a private sewer by natives above.

Raw vegetables should be washed carefully in a solution of potassium permanganate and then in pure water. It's safer and better to cook all vegetables.

Bananas with a broken skin are dangerous.

Going barefooted invites trouble. The soil is infected with fungus growths that will cause sores and ulcers.

Every scratch or break of the skin, however small, should be painted with iodine or mercurochrome, and immediately. Otherwise

a tropical ulcer may result which is very painful and difficult to heal.

Shorts are foolish for wear in the cogon grass. The grass edges are as sharp as a razor.

Thoroughly shaking out shoes and socks in the morning will get rid of centipedes and scorpions, both of which have a painful sting and like to crawl in such places at night.

Troops moving through the country must keep their eyes peeled for tree vipers lurking on the limbs of overhanging trees and for the many kinds of dangerous ground snakes, including cobras, which are everywhere.

All possible precautions must be taken against malaria as certain areas are very bad. In general, the malaria mosquito of the Philippines breeds in clear running water and not in the swamps. Therefore the foothills are the most dangerous and the low swamps the less dangerous as malaria centers. The swamps are full of mosquitoes but the chances are they will not be *anopheles*. In the hills, when encamped beside a clear, running stream, it is best if possible to stay under the net after the sun goes down.

The women, too, are dangerous. There is plenty of venereal disease, of particularly bad types, in the bush as well as in the towns.

Growing things

Two-thirds of the island area is forested with hundreds of varieties of trees and plants. Probably the best known of these are the trees producing the lumber known as "Philippine Mahogany." This is a trade name only as the wood is not mahogany. Quite often the trunks of the forest trees will be colorful with orchids which grow wild in profusion.

An important forest product of the Philippines is the bamboo, used by the natives in the construction of houses and for many other purposes. The large bamboo clumps are a distinctive part of the landscape.

Philippine rattan, used extensively for commercial purposes, may grow a thousand feet in three to five years. Strips of rattan are used by the natives instead of rope. It is called *bejuco* by the natives. The rattan is a good source of drinking water; by severing the vine at the root of the tree around which it grows, one may obtain a quart or so of sap water within a few minutes.

Conspicuous in the landscape, of course, are the coconut and other species of palms. The Philippines are the finest coconut country in the world, the nuts reaching maximum size on the island of Mindanao.

In northern Luzon visitors will see the old rice terraces of the Ifugaos, savage masterpieces of terracing, draining, and soil utilization. It has been estimated that it has taken 1,500 years to complete these great terraces. There are more than 12,000 miles of stone walls built without mortar, confining the terraces, and some of them 50 feet in height.

The Philippines have some 25 species of poisonous snakes, among them the following, to guard against.

Cobras!!!

The king cobra—This, the largest poisonous snake in the world, is found in many sections of the southern Philippines. It grows to a length of 17 feet or more and is a very dangerous snake. It will be often found in the high cogon grass in deserted coconut groves into which it comes to hunt rats.

The small cobra—Found throughout the islands. This snake, in several species, grow to a length of three to four feet. It can be recognized by its brownish-black color underlaid with yellow. It is similar to the hooded cobra of India except that the Philippine varieties do not have the distinctive spectacle markings on the hood. The snake may be encountered anywhere, particularly in coconut groves and near human habitations.

Tree vipers—Several species of tree vipers, very venomous, are found in the woods. They lie along the ends of branches overhanging the trails and are a dangerous menace. They may be recognized by a distinctive heart-shaped head and very slender neck.

Rice snake—This small green snake is found in the paddies (rice fields) and is a dangerous reptile. It probably accounts for more deaths than any other species of snake.

Sea snakes—There are several species of poisonous sea snakes. They can be identified by the vertically pinched tail, flattened to resemble a fish's tail. One species, brown in color with specks or spots, is a sea-going cobra and especially venomous. They may be seen swimming in schools, sometimes far from land.

Constrictors—The reticulated python, largest of the constrictors, is found in many areas. It is non-venomous but it may be dangerous as it grows to lengths in excess of 25 feet. Almost always found in the forest, it is particularly abundant on Basilan island and along the southern coast of Cotabato province.

And other critters

Major danger in the islands is the crocodile. This reptile is found in almost all the streams and rivers of the Philippines. Many of them are enormous in size, as long as 20 feet. They cannot be discounted when moving about in the river areas. The crocodile is responsible for many deaths annually in the East Indian archipelago.

Their favorite habitat is under the overhanging banks of slow rivers. When possible (and when consistent with military safety at the time) a hand grenade or two dropped into the water before swimming such streams is a wise precaution.

Iguana lizards—Ibids, the large land-lizards, non-venomous, are found in many areas. They are frightening in appearance, resembling a prehistoric monster with their longitudinal fins and bright colors. Some of them grow to a length of six to seven feet.

Scorpions and centipedes—Of great variety and growing to large size, they frequent shoes and hats. Some of the scorpions grow to a

length of eight to 10 inches. They are capable of inflicting a serious sting.

Sea-shore hazards—Several species of poisonous rockfish, zebrafish, lionfish, and others, lurk in the rocks along the water's edge. They have a poisonous spine on the back, which, if stepped upon, will inflict a serious wound. Some of these fish are almost invisible to the eye as they resemble the rocks in coloring and conformation. The sting rays, which lie buried in the sand at the edge of the water, are another hazard. They are capable of inflicting a severe and painful wound with their sharp tail spine that will hospitalize a man for weeks.

There are no predatory meat-eating animals dangerous to man in the islands. In the Philippines, only the deer, wild boar, and the civet cat are found. Only the boar can be classed as dangerous and then only if wounded or during the rutting season.

A single exception is the tamarao, a species of wild cattle found only on Mindoro island. This is classed as very dangerous game but the chances of meeting a tamarao are small.

The tame, domesticated carabao of the islands is not, however, noted for his friendliness to white men. We do not smell right to him. It is wise to give these animals a wide berth as they can be dangerous when aroused.

The forests of the Philippines are filled with birds of many species. There are at least a dozen varieties of parrot. Among the food fowl should be mentioned the wild jungle fowl, ancestor of all domesticated chickens, which is found in great numbers. It resembles closely a common Rhode Island Red chicken in size and coloration. Another fine eating bird is the large grey dove; the wood pigeon can also be classed as excellent food. The toucan, or hornbill, is edible and abundant and the rice paddies are alive with snipe.

For Isaac Waltons

The Philippines are a fisherman's paradise. Notable game fishes are the *taraguito,* a species of jack similar to the amberjack and yellowtail and reaching a weight of 40 to 50 pounds; the *tanguingue,* a large fighting kingfish of the mackerel family; the *rompecandado,* a species of the great barracuda, running in length to 12 feet, very dangerous, incidentally, to swimmers; the *lapo-lapo* in many species are representatives of the seabass and run in size from small reef bass and groupers to the enormous jewfish weighing as much as 600 pounds.

Whether hunting or fishing, Americans will do well to learn from the native. Several species of fish are highly poisonous, if eaten. The native knows which are safe. Any fish with green flesh or with flesh that turns green after cooking is bad. Vegetable feeding reef fish which eat nubbins of live coral are dangerous.

Recommended for deep sea trolling is a split bamboo rod, a drag reel capable of holding 400 yards of 12-thread line, and a good gaff hook. A belt and rod socket are practical necessities when fighting

a large fish. Size 7 spoon hooks (Wilson or McMahon) or white feather jigs will take fish if trolled along the reefs at the edge of deep water. A heavy wire leader and swivel are necessary as most of the Philippine fish have sharp teeth that will sever a line.

Trolling at about four miles per hour along a coral reef with 50 to 100 feet of line out will give best results. Fishing is usually not good immediately preceding and immediately following storms. The best fishing is usually found during the dry season, in good weather.

Currency, weights and measures

Unit of Philippine currency is the peso which was pegged to the dollar before the war, with a value of 50 cents. Bank notes came in denominations of 500 pesos to one peso. This currency will be greatly disturbed because of the influx of bales of Japanese "occupational pesos", printed for the purpose of looting the islands.

The coinage consists of silver pesos, 50-centavo, 20-centavo and 10-centavo pieces; nickel 5-centavo pieces and copper 1-centavo pieces.

The metric system is the official standard of weights and measures in the Philippines and the following equivalents should be kept in mind.

1 Gram	0.035	ounces
1 Kilogram	2.204	pounds
1 Metric Ton	2204.620	pounds
1 Liter	1.056	quarts
1 Centimeter	0.3937	inches
1 Meter	39.37	inches
1 Kilometer	0.621	mile
1 Hectare	2.471	acres

MARCUS

Outpost on the eastern and southeastern approaches to Japan is Marcus Island, a lonely little speck of coral, sand, and dirt 600 miles from its nearest neighbors, the northern Marianas and Wake. Tokyo, for which it does guard duty, is 1,000 miles to the northwest while our base at Eniwetok is 900 miles southeast. Only its isolated position gives Marcus any importance. Planes based on its airfield patrol the sea lanes to Japan; its radar sets scan the skies for planes; its radio station flashes warnings.

The island, triangular in shape with its apex pointing north, is only 740 acres in area. There are a few trees but most of them were leveled to permit the building of the two 4,000 foot plane runways which take up all its west and south sides. The rest of the island was used for fuel tanks, barracks, storage sheds and other installations.

Phosphate

Before 1940, two Japanese companies were engaged in digging phosphate but when the Japanese began to build the airfield, they suspended operations. There are no natives, the only population being enemy military and labor personnel.

Life on Marcus is healthy but dull. The small land area which limits space for recreation is the major problem. The temperature varies from 99° to 65° with the average in summer about 89° and in winter ten to 15 degrees cooler. The northeast trades blow over the island during the winter while the winds shift to east and south in the summer. Typhoons are fairly common in October.

What, no rain?

Marcus gets very little rain, making water a real problem. Rainwater caught in barrels and tubs from roofs must be supplemented by stills, and during the period of dry weather, occupying troops may be required to use sea water for bathing and laundry.

Possible snakes

Few white men have ever visited Marcus and information is scanty. But old reports cite many snakes and lizards as present and add that there are plenty of ants, flies, spiders, and lice. The lice are said to be poisonous; their bites quickly become ulcers. Land and sea crabs abound and the surrounding waters swarm with mullet, pompano, sea bass, and other fish.

Formerly gulls, terns, boobies, and man-o'-war birds were plentiful. How far they have been killed off by the Japanese who wiped out the albatross and gooneys is not known.

NANPO SHOTO

Nanpo Shoto, or "Southern Islands," is a chain of small volcanic islands running in a long line from almost the outskirts of Tokyo southward toward the Marianas. O Shima at the north is 65 miles from Tokyo. Minami Iwo Jima at the south is about 300 miles north of the Marianas.

The Japanese word *shoto* means "large group of islands." Breaking down the large group, Nanpo Shoto falls into three smaller geographical divisions: at the north, the Izu Islands; in the center the Ogasawara Gunto or Bonin Islands; in the south, the Kazan Retto or Volcano Islands.

Only in a military sense are these islands of any value. Their proximity to Japan and the fact that they guard the immediate approach to Tokyo give them great strategic importance. Capture or neutralization of Nanpo Shoto means the elimination of the outer defenses Japan has erected along her southern approaches.

Ogasawara, Savory, and de Torres

The islands of Nanpo Shoto are Japanese in all respects. The people, the language, the customs are those of the Japanese mainland. In the north, the Izu Islands were first settled hundreds of years ago by wandering fishermen from the Kii Peninsula and Kyushu in Japan. These scattered groups were rapidly reinforced after the great civil war in Japan in the late 1500's, for beginning in 1601 the islands were used as a place of exile for political prisoners. Between 1610 and 1866 over 1800 prisoners were exiled to Hachijo Jima. After the restoration of the emperor in 1867, many more Japanese flocked to the islands.

The Bonin Islands were settled much later. They were discovered by a Japanese, Sadayou Ogasawara, in 1593. Because they were uninhabited, they were called *bonin*, a corruption of the Japanese word meaning "no men." Ogasawara's attempt to colonize the islands failed, and they remained *bonin*. In 1823 an American whaler stopped at Haha Jima and claimed it as an American possession. Two years later an English ship visiting Chichi Jima, a few miles to the north, claimed the islands for that country. And in 1828 the Russians put in their oar. All this claiming, though, led nowhere.

The first permanent settlers to arrive were a strange group. They consisted of several Englishmen, Portuguese. and Italians, 17 natives of Hawaii, and one American, Nathaniel Savory, from Massachusetts. These people stayed. They claimed British sovereignty, but Commo-

dore Matthew Perry, who visited Chichi Jima in 1853, proclaimed that the islands rightfully belonged to Japan who had first colonized them in Ogasawara's time. Commodore Perry bought, for the United States, some land at Futami Ko, the harbor at Chichi Jima, intending that it should be used as a coaling station. He appointed Nathaniel Savory agent, but after the Commodore left, the project was dropped.

Japanese colonists came and went, but Savory remained the top man in the islands. However, in 1875 the Japanese finally made formal claim to the Bonins; they sent four commissioners from Yokohama, and by the time the British got around to protesting, the Japanese were well established.

Savory and his followers stayed in the Bonins, intermarried with the Japanese, and gradually became assimilated. After 1900 more and more Japanese emigrated to the Bonins and a ban was placed upon any but Japanese coming there. All traces of European civilization have been blotted out. A few descendants of Savory and his compatriots may know some English. Otherwise, however, the effect of their colonization has been wiped out.

The Volcano Islands (Kazan Retto) were discovered in 1543 by the Spaniard, Bernard de Torres, and were then forgotten for 130 years. An Englishman named Gore, the next man to visit the islands, called them the Sulphur Islands. Gore was followed in 1805 by the Russian explorer Krusenstern. Because of the original discovery, Spain claimed jurisdiction; but this and other claims were never backed up, and not until the Japanese came in 1887 were there any colonists. By 1891 Japan had a firm enough grip on Kazan Retto to incorporate it into the Ogasawara Branch Administration.

Strictly Japanese

All of Nanpo Shoto is peopled by Japanese, most of whom came from the Tokyo district. The descendants of the original Caucasian and Hawaiian settlers have lost their racial identity by intermarriage. Tokyo, or standard, Japanese is spoken throughout the whole group. The total population in 1940 was 39,328.

The religion of the Nanpo Shoto is that of the Japanese mainland. Buddhism and Shintoism predominate with most people belonging to both religions. As a result of the European settlers' influence, some of the inhabitants of the Bonins are Christians, while Christian missionaries from Japan proper have introduced the religion into the Izu Islands.

All the islands of the Nanpo Shoto are under the jurisdiction of the Tokyo Prefectural Government and are administered as an integral part of Japan. The two political parties which were paramount before 1940 have been abolished. When the military took over, a single government-supported party, The Imperial Rule Assistance Association, was established. It is organized along the familiar Fascist party lines and is a vehement supporter of the "New Order" for Asia and elsewhere.

Nanpo Shoto stretches southward in such a long line that the climate varies considerably from one end to the other. Seasons in the Izu Islands follow those of the United States fairly closely. The coolest months are January and February when, however, the temperature rarely gets below 40°. The height of summer is in August when the thermometer averages around 79°; humidity in summer and winter is generally high. A heavy rainfall is probably the most disagreeable feature of the climate. Hachijo Jima gets an annual rainfall of 138 inches, which is a lot of rain. For comparison, New York State gets between 40 and 45 inches a year. The wettest month at Hachijo Jima is October when over 21 inches fall. The record for one day is 11 inches. December is relatively dry with seven inches for the month. Westerly winds predominate the year round with winds of the summer months, however, showing considerable variability. From December through March the winds are strong, averaging 21 or 22 knots. These islands lie in the path of typhoons which may occur almost any month in the year. They strike most frequently in August, September, and October.

Conditions are different in the Bonin and Volcano Islands. They are far enough south so that the lowest temperature in February, the coolest month, is rarely below 55°. The hot months are very hot. Temperatures in July sometimes get into the 90's; with the average humidity hitting around 90 per cent, days are very uncomfortable. Rainfall is less than half that experienced in the Izu Islands, with 62 inches about average. May is the wettest month and February the driest. During the cooler months, strong northwesterly winds blow most of the time. In summer, lighter south, southwesterly, and southeasterly winds prevail. September, October, and November are apt to have gales from the northwest and occasional typhoons.

Farms and factories

Although the economy of Nanpo Shoto is largely agricultural, only about 10 per cent of the land can be used for farms. The islands are all of volcanic origin (many of the volcanoes are still active); they are small, and are very rugged. Farms are larger than those of Japan, averaging about six and one-half acres, but many of them are necessarily on very steep slopes. Most of the land is covered with forests.

Economically, the islands are unimportant. The main diet is rice, but most of it was imported from Japan. The sweet potato is the largest crop in the Izu Islands and after it come millet, barley, wheat, taro, and vegetables. Bananas and oranges grow well. But most of this produce is sufficient only for the inhabitants. Considerable stock raising is done, and fishing is as important as agriculture. Bonito, mackerel, shrimp, lobster, pike, and cuttlefish are the chief catch. In good months the surplus catch was transported to Tokyo and Yokohama. The only industrial activities in the Izus are lumbering and brewing, neither of which amounts to much.

Down south in the Bonins and the Volcano Islands, sugar cane, vegetables, and dry grains are the chief crops. Very little rice is grown although rice is the staple diet. Sugar plantations are scattered all over the islands, and about 80 per cent of the acreage under cultivation is devoted to cane. Among the vegetables produced are yams, taro, squash, watermelon, cucumbers, and tomatoes. Tropical fruits such as papaya, bananas, mangoes, and oranges, most of them introduced from Hawaii, are in limited production.

Fishing is important here, too. About 575,000 pounds of bonito were caught annually, much of which was dried and exported to Japan. Whale, tuna, and shark formed an important part of the fisherman's haul.

The only industry of importance is sugar refining. But even the largest refinery, that on Iwo Jima, is of no great size. As a by-product of the sugar, alcoholic liquors are produced.

Standard of living

The people of Nanpo Shoto live much the same as do the people of rural Japan. From the American point of view their standard of living is low, but so is that of the entire Japanese working class. And while the people lack the conveniences of urban Japan, they don't have to put up with the dismal over-crowding so prevalent in Tokyo and nearby districts.

Houses on the islands follow the Japanese pattern. They are flimsy, frame, one-story dwellings, often built a foot or so off the ground. Poorer houses may be only partially floored, and the floored area is often used as a platform for drying fish. Generally there are only a couple of rooms separated by sliding paper panels, and practically none of the houses have windows.

THE IZU ISLANDS

Like all Nanpo Shoto, the Izu Islands are volcanic with some of the volcanoes still active. The four principal islands are: Hachijo Jima, Miyake Shima, Nii Shima, and O Shima.

HACHIJO JIMA—Hachijo Jima is the southernmost large island in the group; it lies about 150 miles south of Tokyo. In 1940, 8,750 Japanese lived on the island scattered in and near several villages, chief of which is Okago. Two extinct volcanoes rise to heights of 2,300 and 2,800 feet respectively, and the rest of the island with its rocky cliffs and shores is correspondingly rugged. Fishing and agriculture are the most important activities, although the total value of all products in 1936 was only some $40,000. Manufactures include small scale brewing, production of camellia oil, ice manufacturing, and the generation of electric power.

The island is rather heavily wooded, principal trees being the camellia, red hazel, black pine, oak, and camphor. The Japanese used the trees chiefly to make charcoal, much of which they exported to the main islands of Japan.

Health conditions are good, with flies and mosquitoes no particular problem.

The Japanese fortified Hachijo Jima and had an important airfield there.

MIYAKE SHIMA—Miyake Shima, one of the most northerly of the islands, had a population in 1940 of about 5,200. This island, again, is rugged, consisting chiefly of a conical-shaped volcano scored deeply by valleys running down its sides. Last activity of the volcano was in 1940.

Agriculture, fishing, and forestry are the chief occupations of the people, although probably none of them get very rich. At the village of Tsubotu the Japanese had a lumber mill, a brewery, and a camellia oil factory.

NII SHIMA—Nii Shima is another one of the islands in Japan's backyard. Honmura, its principal port, is only 86 miles south-southwest of Tokyo. Mountainous like the other islands of the group, Nii Shima is broken by cliffs and valleys and is rather heavily wooded. About 4,400 people lived there in 1940, most of them engaged in agriculture, fishing, forestry, and minor manufacturing. Total value of their produce in 1933 was a little over $100,000.

O SHIMA—Of all the islands in the Izu group, O Shima is closest to the Japanese mainland. It lies in the mouth of Sagami Nada, the entrance to Tokyo Kaiwan, only 65 miles from Tokyo itself. The island is naturally of great importance to the Japanese and has been heavily fortified.

Why men leave home

About 10,000 people lived on O Shima in 1940, and because of its proximity to Tokyo, there was considerable traffic between the two places. Indeed, the attractions of the bright lights were apparently so great that a law had to be passed calling the young men of O Shima back to their island.

The island consists of a large volcano cone with a second cone, still active, rising up from the crater. The floor of the crater is a large expanse of sand and lava known as *Sahuku* (the desert). Valleys and steep cliffs covered with trees break up the slopes of the volcano.

Because of poor roads and the labor shortage which resulted from the migration of young men to Tokyo, O Shima is relatively undeveloped economically, and there is much unused land. Cattle raising is the major industry. There is ample grass for grazing, and many people found cattle raising to be lucrative and much less work than fishing or plowing. They shipped considerable milk and meat to the Tokyo-Yokohama area. Other inhabitants fish and make charcoal for export. Dry grains are grown but little rice because of the water shortage.

Older houses on O Shima have thatched roofs, newer ones have corrugated iron roofs to catch rainwater. Stone walls are often built around houses to serve as windbreaks.

THE BONIN ISLANDS (OGASAWARA GUNTO)

The Bonins are the central group of islands in Nanpo Shoto. Futami Ko, the principal harbor, is 523 miles from Yokohama, 834 miles from Guam. They form a natural link in the chain extending north from the Marianas to Tokyo.

Geographically, the Bonins differ little from the Izu Islands. They are small, mountainous, fairly heavily wooded, with steep, rocky coastlines. Chichi Jima and Haha Jima are the only islands of much importance in the group. Both were heavily fortified by the Japanese, and Chichi Jima is given added significance because its harbor, Futami Ko, is the only usable harbor of any size in the area. The inhabitants not only live on the edges of volcanoes, they have to put up with earthquakes too. In 1930, for instance, 11 shocks were recorded at Chichi Jima.

In 1940 about 4,300 people lived on Chichi Jima and the small islands nearby. Most of them were concentrated in the villages of Okamura and Ogi Ura. Included among these are the descendants of the early European and American settlers, the "naturalized people", as the Japanese call them.

Many whales were once caught in this area, and the people still get much of their food from the sea. Those less nautically minded raise sugar cane, vegetables, and some tropical fruits.

The story for Haha Jima is very similar. About 1,900 Japanese lived there in 1940, most of them in and near the village of Okimura. They, too, fish and raise sugar cane and vegetables.

Health conditions throughout the Bonins are generally good. The Japanese brought along with them a few communicable diseases, such as diphtheria, typhus, and para-typhoid. But, on the other hand, there are practically no snakes (Haha Jima has some small snakes resembling vipers), mosquitoes are not troublesome, and there are no house flies or scorpions. Worst pests are a species of green fly and numerous ants.

THE VOLCANO ISLANDS (KAZAN RETTO)

The Volcano Islands are the most southerly of Nanpo Shoto. And of this small group Iwo Jima, sometimes called Sulphur Island, is the only island of any importance. Its importance is almost entirely military and lies in the fact that the island has enough flat ground to accommodate airfields. The Japanese built several strips and fortified the area.

Otherwise, Iwo Jima has a little over 1,000 inhabitants who make their living by growing sugar cane and vegetables and by fishing. Some of them work at the sugar refinery on the island. Considerable quantities of sulphur are present on the island, but not much use seems to have been made of it.


KEELUNG
TAIHOKU
TEA
GIRAN
JAPANESE CYPRESS
RICE PADDIES
MT. SYLVIA 12,500 FT.
PINEAPPLES
SAVAGE HEAD HUNTERS
KARENKO
SUGAR CANE
BANANAS
NARROW GAUGE RAILROAD
MT. MORRISON 13,000
GIANT BENIHI TREES
CAMPHOR TREES
TAINAN
TAITO
TAKAO NAVAL BASE
FORTIFIED ZONE
TAKAO
N
SCALE IN MILES
10 0 10 20 30
Formosa
[TAIWAN]
JICPOA D-1040

FORMOSA

Formosa, or Taiwan as it is called by the Chinese and Japanese, lies about 100 miles off the southeast coast of China, about 700 miles southwest of Japan, and about 200 miles north of the Philippines. Its position at the crossroads of the China Seas has largely shaped Formosan history and gives it an important role in the present struggle.

Formosa, the beautiful

That's the meaning of the name given to the island in 1590 by Portuguese sailors. In the year 600, the Chinese had occupied a group of islands lying about 25 miles west of Formosa, and the Portuguese later named these islands "Pescadores", after the fishermen who lived there. But the ferocity of the head-hunting natives on Formosa had kept the Chinese away from that island, and had given Formosa an unsavory reputation. The only people who could stand up to the savages were the equally blood-thirsty Chinese and Japanese pirates, who for centuries made shipwreck on that island the greatest peril in the China Seas.

It was not until the period between 1650 and 1700, when China was torn by civil war, that Chinese refugees began to flee to Formosa. There with true Chinese determination they gradually pushed the savages back into the mountains. During this immigration the Dutch became interested in the commercial possibilities of the island and established a fort and trading station on the west coast near Tainan. Always out to beat the Dutch, the Spanish built Fort San Salvador on the north coast at Keelung, and the two countries settled down to a gentlemanly little war while the Chinese immigrants looked on and the savages took on all comers. In the end the Dutch won but their victory was short lived, for they in turn were driven out by Koxinga. This remarkable man, the son of a Chinese freelance and a Japanese mother, gathered a motley force of Chinese and assorted pirates, and in 1662, after a siege which lasted a year, drove out the Dutch. Koxinga's pirate kingdom was in turn overthrown in 1683 by the Manchu emperors of China. But life under Chinese rule was just about what it had been before; "every three years a disorder, and every five years a rebellion" ran the Chinese proverb. The emperors had little interest in this distant province and sent out governors who did not even understand the language of the people; while the headhunters, pushed out of the best lands, fought both rulers and ruled.

In spite of this hectic life, the Chinese population grew from approximately 1,000 in the year 1600 to 3,000,000 in 1900. By the middle of the 19th century, still another disturbing element came on the scene with the economic penetration of the country by Europeans, who forced the Chinese rulers to allow ships to trade in camphor, sugar and opium. This in turn brought more trouble because the Europeans, who were not always careful of their methods, wailed loud and long when the pirates too found this trade "profitable". Several times the British and French bombarded towns and sent landing parties ashore on forays. Even Japan, awakening from the isolation of the Tokugawa Shogunate, opened her eyes to the possibilities of this unruly neighbor, and in 1874 Japanese forces spent several months ashore in retaliation for one of the piratical outrages. The Japanese later put the fighting knowledge which they acquired of the country to good use, when war broke out between China and Japan in 1894. Japanese forces occupied the Pescadores with the result that the Pescadores and Formosa were ceded to Japan by the Treaty of Shimonoseki in 1895. Japan's troubles had only started, however, for Formosa continued to live up to its reputation for trouble-making. The Formosans revolted, formed a republic which lasted about a month, and settled down to several years of guerilla warfare, which was only gradually put down and still flares up occasionally. The headhunters in their mountain villages continued to resist both the Chinese and Japanese and are not completely conquered to this day. Some of them are still enclosed inside a continuously policed *"Aiyu-sen"* or guard-line, a 360-mile fence of which 230 miles are electrified.

The immovable aircraft carrier

Even before the present war Japanese newspapers spoke of Formosa as the "immovable aircraft carrier in the line of the southward advance". It was from Formosa that the first airraids against the Philippines were launched. Naval, air and supply bases were established at Bako in the Pescadores and at Keelung and Takao, thus making a stepping stone to the Philippines, a base for attacks on the south China coast, a routing station for shipping, and a vital link in Japan's economy in war and peace.

The apparently rosy prospect that the Japanese hold out to Asiatics is the "Greater East Asia Co-prosperity Sphere"; the subject peoples get a fine-sounding name and the Japanese get the "prosperity". This is well illustrated in Formosa, one of the first of Japan's acquisitions and, supposedly, a model to attract other victims. Although the standards of living of the two countries were almost identical when Japan acquired Formosa, after 50 years of Japanese rule the Formosans get only three-quarters as much food per person as the Japanese, who get little enough. Not only is the food lacking in quantity, but its quality is not sweetened by the fact that the Formosan-Chinese have to worship once a month at

a local Japanese Shinto shrine in order to get even that. Although Japan pointed with pride to industrial development in Formosa, industry was run almost entirely by Japanese monopolies, under Japanese bosses, on Japanese terms. The Formosans were the hewers of wood and the drawers of water, borrowing money from Japanese at extravagant rates to pay high Japanese taxes, part of which went back into Japan by indirect means or direct grants, while another large part was used to support the Japanese bureaucracy and the fortification program. Such money as was spent on irrigation and other projects was invested with the sole purpose of providing more food for Japan.

Brother Asiatics

The Japanese claim that they and the Formosan-Chinese are brother Asiatics, but they maintain the position of a tyrannical elder, and supposedly wiser, brother. The island has been governed by Japanese who were appointed by the imperial government and advised by local Japanese business men. To these men and their children went the best jobs, the best schools, medical care, in other words, the gravy. The Formosans got what was left, plus a large dose of propaganda about how well off they were under Japanese rule. On the whole this never went down very well with the Formosan-Chinese, who was proud of his heritage of Chinese culture. Some of the aborigines, impressed by Japanese strength, joined Japanese labor battalions, but most of the savages remain apathetic or absolutely hostile to Japan. The entire population is restless and the "Free Formosan Government" of revolutionaries set up in Chungking in Free China claims that occasional sabotage continues. The basis of Japanese local government has been the *hoko* system which appeals to the strong oriental feeling for the family as a unit. Ten families make up a *ho*, with a headman who is responsible for the activities of all the families under him. Ten *ho* make up a *ko*, and similar joint responsibility. Each *ho* or *ko* is responsible for the activities of all its members with appropriate punishment for all if one commits a crime.

Mountains and plains

Formosa is an island shaped like an elm leaf, 249 miles long in a north-south direction and 93 miles wide at the widest point. The inhospitable east coast is lined with several ranges of mountains which come down to the coast in spectacular cliffs several hundred feet high. Two of the mountains, Mt. Morrison (Niitaka) and Mt. Sylvia (Tsugitaka) are about 14,000 feet high—the tallest in the Japanese Empire. What few rivers there are in this region are short and swift, often flowing through deep gorges. Toward the western coast, long gentle slopes end in a broad coastal plain. The Pescadores to the west consist of seven flat, wind-swept minor islands and 56 minute islets, with a total area of only 48 square miles.

The island lies across the Tropic of Cancer, the dividing line between tropical and temperate regions. Its location gives Formosa value to Japan, for here for the first time Japan was able to get tropical raw materials. At low levels, the temperature of Formosa resembles that of Florida. Frost is very rare, snow, even on the mountains, is almost unknown. In the winter—the dry season—the northeast monsoons prevail, while in the summer, the southern monsoons bring rain and storms. Typhoons, which occur chiefly between April and December, are frequent and violent, with winds sometimes reaching a velocity of 86 miles per hour. During the winter season, rainfall is about five inches a month, falling in heavy showers. Rainfall on the windward slopes is higher than on the leeward side. A volcanic area, Formosa experiences as many as 330 earthquakes a year, but few of them are serious.

Vegetation is generally luxuriant and tropical in character. From the palms and tropical fruit trees of the western plain, it is only a short step to the slopes of the lower mountains with their dense jungles of various growths—the many-trunked banyans, the graceful tree-ferns that often attain the height of palms, and the ever-present bamboo grass. Here is found a profusion of flowers, such as the butterfly orchid, and the pink azalea, while the trees are festooned with long streamers of moss. A little higher are plateaus covered with camphor laurel, the largest tracts of these trees in the world, while still higher up grow the forests of pines, spruce, and cedar. Here is found the giant *benihi*, the second largest tree in the world, similar to the redwoods of California, and the valuable *hinoki* or Japanese cypress. Still higher the rocky peaks of the mountains are but sparsely covered with bushes.

Although there is an abundance of vegetation, there is little wild life. Birds are relatively rare. Many water buffaloes and cattle, the common beasts of burden on the farm, are found. Snakes constitute the only real problem; there are 11 known poisonous land and eight sea varieties. Avoidance of all of them is advised.

And now, the people

In spite of 50 years of Japanese rule, there are only about 300,000 Japanese civilians on the island, as opposed to 140,000 savages and 5,500,000 Formosan-Chinese. These Formosan-Chinese are not all alike. Most of them come from the Fukien district of China, just to the west of the island. They are a hospitable and amiable people who have settled throughout most of the farming districts in the lowlands. The Hakka people, who come from the hills of Fukien and Kwantung provinces in China, have a background not unlike that of gypsies; they retain their own ways and dress and keep to themselves in the northwest and in the foothills where they have intermarried with the aborigines. Still a third group of Formosan-Chinese, speaking their own dialect, are the 100,000 Can-

tonese who live chiefly in the cities, where they are regarded almost as foreigners.

Among all these Formosan-Chinese groups ties with the mainland of China are strong—not with China as a whole but with their home district. Their common means of communication are the written characters which they can all read, no matter what their dialect. Only about 45 out of every hundred can speak any Japanese at all. As a whole, they are intelligent but self-centered, interested only in their own locality. Most Formosans know little or nothing of the United States or the other Allies for the Japanese have seen to it that only their own version of world news is heard. In dealing with strangers they are apt to be crafty, but with friends they are open, generous, and kind. They despise the Japanese but usually follow the line of least resistance and obey their conquerors. The Hakka people are generally the tallest, and their women, who wear their hair in a high top-knot, have never followed the practice of foot-binding which cripples so many of the oldest Fukien women. These Hakka are adventurous and warlike; it is they who have always been most actively anti-Japanese.

In normal times the Japanese civilians were scattered about the island in administrative posts. The top administrators did not look upon themselves as Formosans, but as public servants who must put in a period of service away from Japan. The majority of the Japanese however were men who came to Formosa to get rich quick, and to stay. They were aggressive and arrogant toward the Formosan-Chinese. So strong was their desire to maintain their identity that they insisted upon segregating themselves in the cities, even importing special Japanese and Korean prostitutes and geisha girls for their own use. Physically, these Japanese are short and stocky, resembling the lowest class of Japanese fishermen and farmers.

The original Formosans

The original Formosans were the aborigines, called "savages" by both Japanese and Chinese. At present they are divided into two classes—(1) about 116,000 who are called *Pe-pa-hwan* (subdued savages) who have sworn allegiance to the Japanese and adopted Chinese civilization in varying degrees, and (2) the *Chin-hwan* (wild savages) who are largely untouched by outside influence. It is these "wild savages" who have been continual troublemakers. Physically and culturally they resemble the mountain peoples of northern Luzon in the Philippines and certain other mountain tribes in the East Indies. In appearance they remind one in some ways of South American Indians. They are divided into numerous tribes, differing considerably among themselves and hating each other only slightly less than the Chinese and Japanese interlopers. Curiously enough, the legend that they were well treated by the Dutch still persists among some of them and they

have been kind to some white men, but it would be a mistake to count on it. They may have forgotten their history. They are a proud and independent people, agile and physically tough, superb hunters, fishermen, and woodsmen, but apt to deteriorate when away from their mountain homes. In their sex relations they are highly moral. Like children they give way to their feelings, alternating between periods of great joy and fits of anger. Their least attractive habit is head-hunting; for among the tribes of the north and central mountain ranges the possession of an enemy's head adds greatly to a young man's sex appeal. It is only slightly reassuring to know that they are not also cannibals, or that some of the western tribes rarely practice the sport. In their relations with these natives, the Japanese have always used a firm, if not cruel, hand, employing poison gas, airplanes, and artillery as well as the subtler weapons of civilization. These methods have been only fairly successful, but the number of savages has gradually declined as usually happens when a primitive society comes into contact with an unfriendly higher civilization. Japanese policy has been to keep them in their mountains, attacking them only when they made forays into the lowlands.

Religion

The Japanese, pursuing their policy of "Japanization", have tried by government subsidization to force on these people their own Shinto religion, the worship of the Emperor and ancestors. Most of the Formosan-Chinese, although forced to keep Shinto shrines in their homes, have retained their own religion, a combination of the folk-beliefs of ancestor-worship, Buddhism, Confucianism, and Taoism as practiced in China. The aborigines are animists, worshipping spirits living in trees and rocks and animals. Christian missionary activity among the Formosan-Chinese before the war produced about 7,500 Catholics and 41,000 Presbyterians.

Under the Japanese, education was but another vehicle in "Japanization". Japanese children were well educated, but Formosan-Chinese children received only a rudimentary education, and that was aimed chiefly at teaching them Japanese. The one university is at Taihoku; this again is reserved largely for Japanese. All newspapers are controlled by the Japanese, and printed in that language. The same applies to the radio, which is of less importance since few people can afford a set.

Health points

The Japanese made some progress against epidemics, but there are still many hazards to good health. Sanitation in the crowded cities leaves much to be desired for the people tend to be dirty and infested with vermin. Raw food should not be eaten because human excrement is a common fertilizer. All water must be boiled or treated. The following diseases are prevalent: malaria, dengue fever, typhoid, amoebic dysentery, all venereal diseases, typhus,

relapsing fever, tuberculosis, influenza—just about every disease in the book. Parasitic diseases are prevalent; raw or inadequately cooked fish is an especially dangerous carrier. Since direct exposure to the sun from April through October is a serious risk for whites, some sort of protective head-gear should be worn.

The health problem is aggravated by the crowded condition of the cities. An Oriental city is incredible to an American, with the shouting of the peddlers, the firecrackers of a Chinese funeral procession, the clatter of the *geta* or wooden clogs, the masses of blue-clad Chinese, the strange smells. Although there are some rather modern sections most of the cities will bear little resemblance to anything American. The largest city is Taihoku (population 340,000) at the north end of the island, with the port of Keelung (population 100,000) just to the east. On the southwestern coast lie the other two main cities, Tainan (population 131,000) and Takao (population 118,000). But since Formosa is primarily an agricultural island, the majority of the people live in scattered villages or in wood and mud houses in the fields, surrounded by tall bamboo hedges to keep away bandits and savages.

How they earn their living

Although there are some mining, textile manufacturing, and metal work, the chief activities are either agriculture or the processing of agricultural products. Most of the land is owned in small plots by farmers or rented from large concerns at high rates. Rice is the main crop; because the climate is so perfect, two crops a year can be grown in the muddy paddies, while the dry fields produce one crop a year. Rice is a government monopoly, and its price and distribution are carefully regulated. Other government monopolies are salt, camphor, opium, tobacco, and alcohol. Approximately 13,000,000 tons of sugar cane are grown a year but the Formosans get little of it; most of it is exported to Japan. Most of the tea plantations are in the northwest part of the island. Oolong is the principal type export but the scented Pouchong is also produced. Large quantities of bananas, pineapples, and other tropical fruits are sent to Japan. The Japanese at first tried to limit the amount of opium produced, but this policy has been changed; today opium plays a double role as an ally of the Japanese, bringing them money and weakening the will of the people to resist. In the Pescadores, fishing is still the chief industry. Formosa's prosperity is hampered by the lack of communications, for, although there are railroads on both the east and west coasts, the two systems have not been connected over the intervening mountain ranges. Little cars pushed by coolies on narrow-guage tracks are the only means of transportation in some sections.

Nine-tenths of the world's supply of natural camphor comes from Formosa. Chinese loggers cut the giant trees, while others stand guard against the savages. The chips are distilled in crude

stills, each tree producing about $5,000 worth of camphor. In addition to camphor, the vast forests yield millions of board feet of lumber a year.

The Japanese were wise when they took Formosa, for it has been a vast storehouse for them. But, although they thought to use it as an unsinkable aircraft carrier pointing south, in our hands it points north, toward Japan.

NANSEI SHOTO

Spread like a net across the eastern entrance to the East China Sea is a string of Japanese islands called Nansei Shoto or "Southwestern Islands." They are also known to travelers as the Ryukyu Islands or the Loochoo Islands. While they have little economic importance to Japan, their location gives them immense strategic value. They command the sea approaches to the China coast between Foochow and Shanghai and in Japanese hands have made the East China Sea a Nipponese lake.

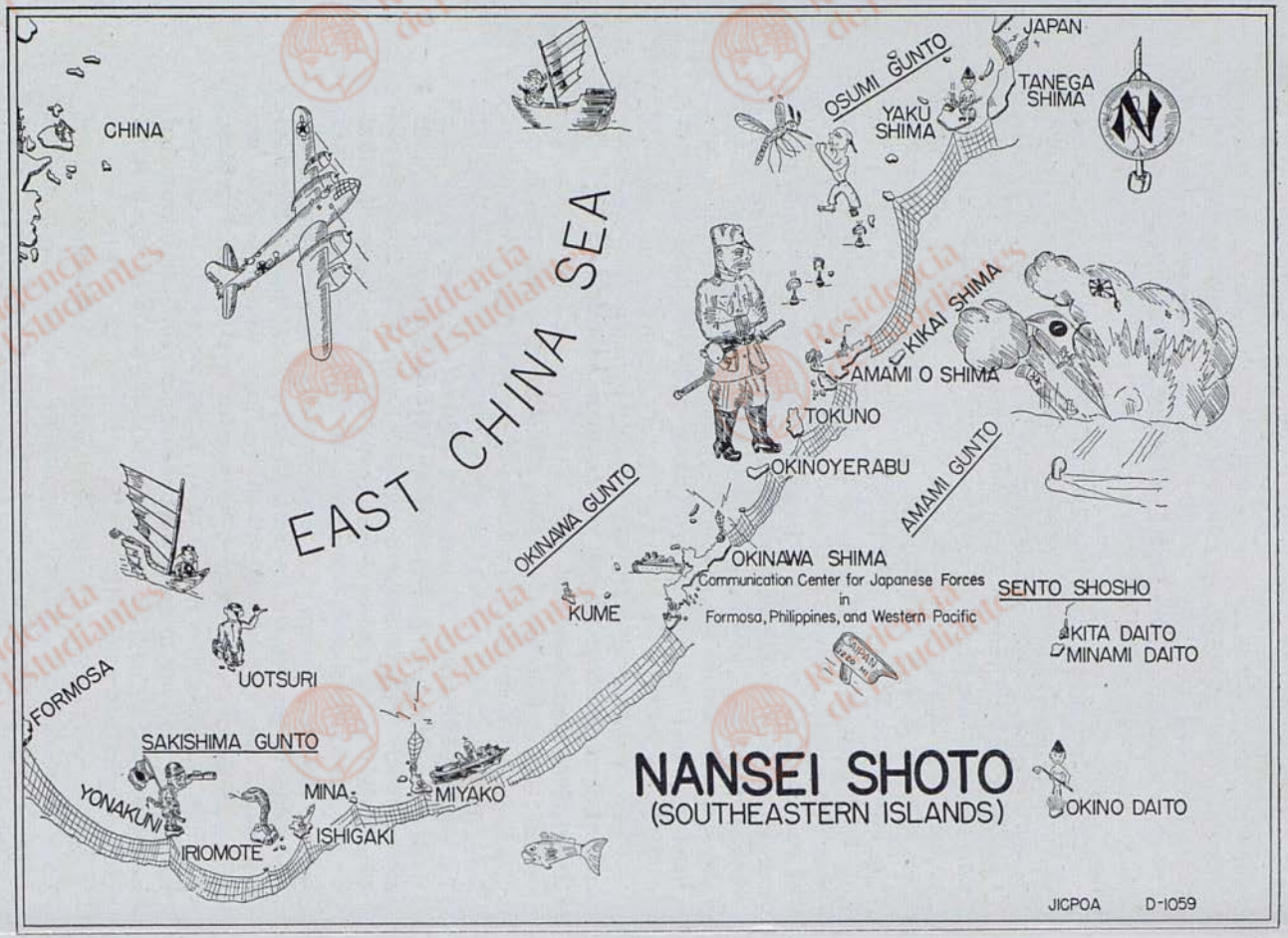
They actually extend some 570 miles from a point 60 miles east of Formosa almost to the southern tip of Kyushu Island, one of the main islands of Japan. None is very large, but they provide enough area to permit construction of airfields and supply depots. Several excellent anchorages for war vessels and fleet auxiliaries are scattered through the chain. They are as modern as many sections of Japan and are quite different from the more primitive Micronesian Islands.

They provide real "Stepping Stones to Japan" for any force moving from Formosa against the Japanese homeland.

Their history antedates ours

The Nansei Islands are a good reminder to Americans of the youth of our country. The Chinese have records of their people going to the islands as early as 650 A. D. while the first king of the islands, Tinsunshi, "Grandson of Heaven", is believed to have started his reign not long thereafter. His descendants ruled until shoved rudely from their throne by Shunten, scion of the Japanese Minamoto family, who had been expelled from Japan. In 1372 China demanded that the Kingdom of Loochoo (as it was then known) pay tribute and the island kingdom did, keeping up its friendship at the same time with the rulers of Japan. But near the end of the 16th century when the king refused to help the Japanese against the Koreans, he was in trouble. After settling with the Koreans, the Prince of Satsuma descended on Loochoo and forced the king to acknowledge Japanese rule. He agreed but also continued to pay tribute to China. It's not easy for a small country with powerful neighbors.

So matters continued until 1879 when the Japanese, opened up to western civilization by Commodore Perry 20 years before, began consolidating all the semi-independent kingdoms and principalities scattered through her islands. The Loochoo or Nansei


CHINA
EAST CHINA SEA
JAPAN
OSUMI GUNTO
YAKU SHIMA
TANEGA SHIMA
KIKAI SHIMA
AMAMI O SHIMA
TOKUNO
OKINOYERABU
AMAMI GUNTO
OKINAWA GUNTO
OKINAWA SHIMA
Communication Center for Japanese Forces in Formosa, Philippines, and Western Pacific
KUME
SENTO SHOSHO
KITA DAITO
MINAMI DAITO
FORMOSA
UOTSURI
SAKISHIMA GUNTO
YONAKUNI
IRIOMOTE
ISHIGAKI
MINA
MIYAKO
OKINO DAITO
NANSEI SHOTO
(SOUTHEASTERN ISLANDS)
JICPOA D-1059

days of freedom were over. The islands were made part of the Japanese Empire. China naturally protested. A conference was held but the only satisfaction the Chinese received was a "So Sorry" from the Mikado's diplomats. And when Japan crushed China in the war of 1894-95 and took over Formosa, the last Chinese claim to the Nansei Islands was extinguished.

Government today

The southern section of the island chain now comprises the prefecture of Okinawa while the northern islands are part of Kagoshima Prefecture. The prefecture under the Japanese system is something like a state in America except that our states have a large degree of independence and control over their own affairs which the Japanese prefectures do not.

We elect our governors; the Japanese prefectural governors are appointed by the prime minister at the suggestion of the Home Affairs Minister. The governor is advised by an elected assembly but he is the boss, answerable only to the ministers back at Tokyo. Within the prefectures are numerous local governmental units—shis (cities), machis (towns), and muras (villages or townships). These have elected assemblies which choose a mayor or headman, whose acts can be vetoed by the governor. There are no local courts, like our state courts, and no local police.

In Japan political power is centralized and works from the top down, rather than from the bottom up as in our country.

Being part of Japan, the Nansei citizens elect representatives to the Japanese Diet (Congress) and the usual political parties struggled for the election of their nominees. Today, with Japan a military dictatorship, the Diet has no power and winning a political election is meaningless.

A racial potpourri

The first inhabitants of the Nansei Islands were probably Ainus and Kumasos, the same people who first lived in the Japanese islands. Other racial strains present are the Malay, the Korean, the Chinese, and, greatest of all, the Japanese.

Most of the people are short with dark hair, sometimes wavy and sometimes straight, with olive skin. The effect of Chinese immigration is seen more often in the cities of the archipelago, and in the northern islands the people can hardly be distinguished from the Japanese.

Their language is for the most part Japanese with some using Satsunan Japanese. Ryukyuan is spoken in the southern islands. Scarcely anyone knows English but one may occasionally meet a Christian, educated by American missionaries who worked in the islands, who understands our tongue.

Population centered on a few islands

More than a half of the population of 820,000 lives on Okinawa Jima, one of the most important of the islands. Other large groups

live on Amami O Shima, Tanega Shima, and Miyako Jima. The largest city in the whole group, Naha, on Okinawa, has 66,000 residents.

Most of the people work on the soil, producing sugar, the principal crop, sweet potatoes, rice, or soy bean. Fishing and manufacturing employ relatively few. The standard of living is even lower than the Japanese level and long before the war a great outward movement began. In the past 25 years some 60,000 emigrated to Japan, Hawaii, Brazil, Peru, the Philippines, Argentina, and the Japanese mandated islands where they hoped to improve their hard lot.

Why stay?

There isn't much to hold a man in Nansei Shoto. The farms are small; the land which can be cultivated is very limited; and the sugar market collapses from time to time, producing widespread economic depression through the islands. Nor are the islands particularly pleasant. There are malaria and some typhus. The islands are filled with venomous snakes—a pit adder called *habu* and another adder, *mamushi*, said to resemble our copperhead. Bites from these kill many each year. Some reports say the venom kills within an hour. These snakes climb trees and bushes, making any hikes off the main roads hazardous. No one should go out at night without a light in areas where the snakes are reported.

The climate is hot and muggy and rainfall runs as high as 120 inches a year in certain sections. Typhoons sweep across the island chain regularly, five or six a year being quite usual. The water supply is very limited.

Nor is there any prestige in coming from the islands. In fact it's the opposite. The Japanese look down their noses on the islanders and usually assign their recruits to labor battalions and other menial service. The Japanese officials in the islands hold themselves aloof from the people they are sent to rule.

For the souvenir-minded

Those who wish a good memento of a stay in Nansei Shoto should get a piece of the lacquerware for which the islanders are famous. They also make excellent textiles, especially pongee. Those who like it can buy the native *sake*. Other products of the islands are sugar, hats, food stuffs, and fish (both fresh and dried). Some phosphates are dug on one of the island groups and an aluminum plant is reported in operation. There is a little coal and some sulphur. But as stated earlier, the main value of these islands to Japan is their location.

Before going into the description of the island groups which make up the archipelago, a word about the names. The Japanese word *shoto* means archipelago or large group of islands. The Japanese would use *shoto* in talking of the Aleutian Chain. The word *gunto* means a group of islands, smaller than a shoto, and *jima* or

shima means island. Hence *Nansei Shoto* translated means "Southwestern Archipelago," *Sakishima Gunto* means "Sakishima Group" and *Yonakuni Jima* means "Yonakuni Island." *Shosho* means "small islands" when used as in *Sento Shosho*.

SAKISHIMA GUNTO

This group of 21 islands of varying sizes lies east of the northern tip of Formosa and is the most southerly of the Nansei Archipelago. The five most important islands are:

YONAKUNI—This island, about six miles long and one to two and a quarter miles wide, can provide limited anchorages for warships and has been used by the enemy as a look-out post. It is fever-ridden with a type of malaria which attacks the brain, *yayeyama*. Dysentery, typhus, and beri-beri are common. It has a population of some 4,600.

IRIOMOTE—A very hilly island, east of Yonakuni, it is almost square in shape except for a deeply indented peninsula at its southwest corner. Its main section is nine miles long and eight miles wide with hills rising to 1,400 feet. Along its north and east shores steep cliffs 600 to 1,200 feet high rise abruptly from the sea. Some coal is mined on the island and it has been used by the Japanese as a seaplane base and minor naval base. Health conditions are atrocious with yayeyama fever and dysentery prevalent. The poisonous pit viper, habu, is everywhere and wild boars are common. There are nine small islands clustered about it. Total population of Iriomote and its satellites is 5,800.

ISHIGAKI—Lying to the northeast of Iriomote, Ishigaki is also roughly square with a long peninsula extending from its northeast corner and a Y-shaped peninsula from its northwest corner. On it the Japanese built a small airfield and the bay on its western side provides a fleet anchorage. Seaplanes were also based on its waters. The northern sections are hilly, rising to 1,350 feet and its southern section is flat. With YERABU JIMA, lying just west, its population is 22,000 of which four-fifths live in Ishigaki town. Its principal products are sweet potatoes and fish. Cattle raising has become an important activity.

Health conditions are poor here, too, with yayeyama and dysentery common. Worst hazard are the snakes, habu and mamushi, and the leeches are so bad in the northern area that travelers cannot visit it in the summer time.

TARAMA and MINNA—These small, flat islands, northeast of Ishigaki, have no value other than their possible use for airfields.

MIYAKO—This island and its five smaller islands lying nearby are the most northerly of the Sakishima group. Shaped like a triangle, Miyako is generally low and flat but is crossed by a series of six ridges about 300 feet high. Malaria has been eliminated and no snakes are reported here.

The Japanese built two airfields on the island and used it as a

seaplane base. There is a radio station and an open fleet anchorage. Hirara, the second largest city of the Nansei Archipelago, lies on its west coast with 26,000 of Miyako's total population of 61,000 living there.

SENTO SHOSHO

The Sento Shosho is a group of small rocky islands 100 miles northeast of Formosa. Their size makes them useless for airfields and they have no value other than as outposts and look-out stations. They have no permanent population but during the spring and summer fishermen come to catch bonito off their shores.

DAITO SHOTO

This group consists of three small islands lying 350 to 430 miles south of southern Japan. They produce valuable phosphates and moderate amounts of sugar. Aside from their value as look-out stations, their principal military value would appear to be their possible conversion into airfields. The three islands are:

OKINO DAITO—A round island, ringed with coral reef, Okino Daito has phosphate deposits 10 feet thick. Some 1500 to 2000 workers are employed digging the phosphate and raising sugar cane. Health conditions are bad with typhus, malaria, and dysentery reported. There are no poisonous snakes but flies and rats are common.

MINAMI DAITO—Inhabited mainly by tenant farmers raising sugar cane, coconuts, and betel nuts, this island supports 2000 to 2500 people. Its health is similar to that of Okino Daito.

KITA DAITO—Most northerly of the group, Kita Daito produces phosphates and has a sugar refining plant. There were no military installations.

OKINAWA GUNTO

From a military point of view, Okinawa Gunto and Amami Gunto, which lies to the northwest, are the two most important island groups in the Nansei Shoto. The Okinawa Group, comprising some 55 islands with a population of about 460,000, has four airfields and many other potential airfield sites, two seaplane bases, a major fleet anchorage, many smaller sheltered harbors, and a naval base. This group is a vital communications center for the enemy's direction of his forces in Formosa, the Philippines, and western Pacific. The headquarters of the defense command for the Nansei Shoto are located in the group.

OKINAWA SHIMA—A long, narrow island made up of plateaus and ridges Okinawa is the key island of the whole group. Its population is 443,000 and Naha, a city of 66,000, is the largest in the Nansei Shoto. Okinawa is 67 miles long and three to 10 miles wide and its many bays afford sheltered or partially sheltered anchorages for warships of all types.

Nakagusuku Wan on its southeastern side has been used for operations and maneuvers by the Japanese fleet for many years.

Carriers and submarines train in its waters and a naval base with some repair facilities is located ashore. Naha Ko on the western side of the island affords anchorage facilities and a seaplane landing area. Seven other actual or potential harbors for various fleet units are scattered along the coast.

Three airfields are in operation—Naha Field, a former commercial airport taken over by the military, Yontain, 13 miles north of Naha, and Ie Shima 20 miles north of Yontan and just off the Okinawa coast. Naha is important as a staging field for planes flying between Japan and Formosa and, with the other fields, as a base for fighter and bomber action against our forces. The Japanese have fortified the island to a limited degree and its strength will grow as American forces move nearer.

Okinawa has considerable economic importance as a producer of liquor, lacquer goods, pongee, hats, sugar, sweet potatoes, and fish. Through Naha, its main port, go most of its exports to Japan, Formosa, and other islands of the Nansei Shoto. Naha boasts four railroads—a steam line running to the other side of the island, an electric line serving the city, and two horse-car lines. There is adequate water but it is polluted and produces much enteric disease.

Mosquitoes are very common and poisonous snakes, habu and mamushi, make country walks really dangerous. There are lots of wild boars and rats.

KUME—Kume and two other small islands with a total population of 14,000 lie about 47 miles east of Naha. The enemy has an airfield on Kume and and in adjacent waters there is a sheltered anchorage for a squadron of cruisers with destroyer escorts. Enemy seaplanes commonly land near Kume. Its water supply is very limited and the usual Nansei snakes are present.

KERAMA RETTO—A group of 17 islands of which Tokashiki is the largest lying 17 miles west of Naha has importance only as it provides potential fleet anchorages. The population of 6,000 is engaged in farming and fishing. Anyone detailed here must watch out for the usual snakes, habu and mamushi.

AGUNI—A fortified island lying 32 miles north-northwest of Naha, Aguni has the lowest standard of living in the Nansei Shoto. Its 2,800 people raise sweet potatoes and a little sugar.

TORI—This little island and the smaller islet of Irisuna are 12½ miles north-northeast of Kume.

TONACHI, KEISE, IZENA, and IHEYA—are scattered north and northwest of Okinawa and have little importance except as they might provide lees for warships.

AMAMI GUNTO

Northeast of the Okinawa Group is the Amami Gunto, a group of six sizable and four small islands. In military value they are second only to Okinawa having one and probably two airfields, one and

probably two seaplane bases, two minor naval bases, several good fleet anchorages, look-out posts, radio and cable stations. The islands support a population of 182,000 of whom about half live on the biggest island, Amami O Shima. Moving from south to north, the main islands are as follows:

YORON—It lies 12 miles northeast of Okinawa and is roughly circular, about three miles in diameter. Its 8,000 inhabitants are nearly all farmers, raising sweet potatoes, sugar cane, and rice. The enemy has a radio station in operation and its flat terrain would make the construction of an airfield an easy matter.

OKINOYERABU—Located 88 miles north-northeast of Naha in Okinawa, Okinoyerabu is about 10½ miles long and four to five miles wide. An agricultural area, it has only potential military value for airfield construction.

TOKUNO—Fourteen miles long and four to seven miles wide, this mountainous little island produces a little copper and good pongee cloth. Leprosy is reported and the poisonous snakes common to so many of the other islands. It, too, could support airfields.

TORI—Tori is an active volcano from whose northern peak smoke continually floats. It last erupted in 1901. It lies 34 miles west of Tokuno.

Jap strong point

AMAMI O SHIMA—The second largest of the whole Nansei Shoto, Amami O Shima is an extremely important military, air, and naval center. On its coasts are a number of excellent fleet anchorages, a naval air station, two naval bases, a seaplane base, radio and cable stations. The island has ample water, a rare condition in the Nansei Shoto, and produces sizeable amounts of pongee, sugar, liquor, and hats. It has a wide variety of agricultural products—sugar cane, sweet potatoes, rice, wheat, barley, and bananas and nearly every family has its own cattle.

South of the main city of Naze which is on its northwestern coast, the island is split into segments by six ridges running at right angles to the axis of the island. Between these ridges which are usually about 1,300 feet high, lie valleys ending in narrow bays. North of Naze are two ridges running north and south. The whole island measures about 30 miles in length and from three to 13 miles in width.

Off its southwestern coast is the long, irregular island, Kakeroma. The strait which runs between it and Amami O is called Oshima Kaikyo and within it lie several large and well sheltered fleet anchorages. The best of these are Satsukawa Wan and Kuji Wan.

Amami O is a fairly healthy place for the Nansei Shoto but is cursed with large numbers of habu and mamushi, wild boars, and rats. Christianity has been brought to the people by French Canadian Catholic priests and American missionaries.

The total population of Amami O and four nearby islands is

91,500, but more than half live either in Naze, population 22,000, or in the area immediately north of the city.

KIKAI—This jima, 27 miles east of Naze, has an airfield and is a look-out station for the enemy. Its 18,200 people manufacture mats, sugar, and pongee or raise sweet potatoes, sugar cane, and citrus fruit. Kikai has not only the poisonous land snakes, but several species of venomous water snakes infest its waters.

TOTARO GUNTO

This is a group of 11 islands, almost all of volcanic origin, and many are still actively smoking. They are of little military or economic importance. They lie between Amami Gunto and Osumi Gunto. For those who like to roll Japanese names around their tongues, the islands are: Akuseki Jima, Gaja Shima, Ko Shima, Kodakara Shima, Kogaja Shima, Kuchino Shima, Nakano Shima, Suwanose Jima, Taira Jima, Takara Jima, Yokoate Shima.

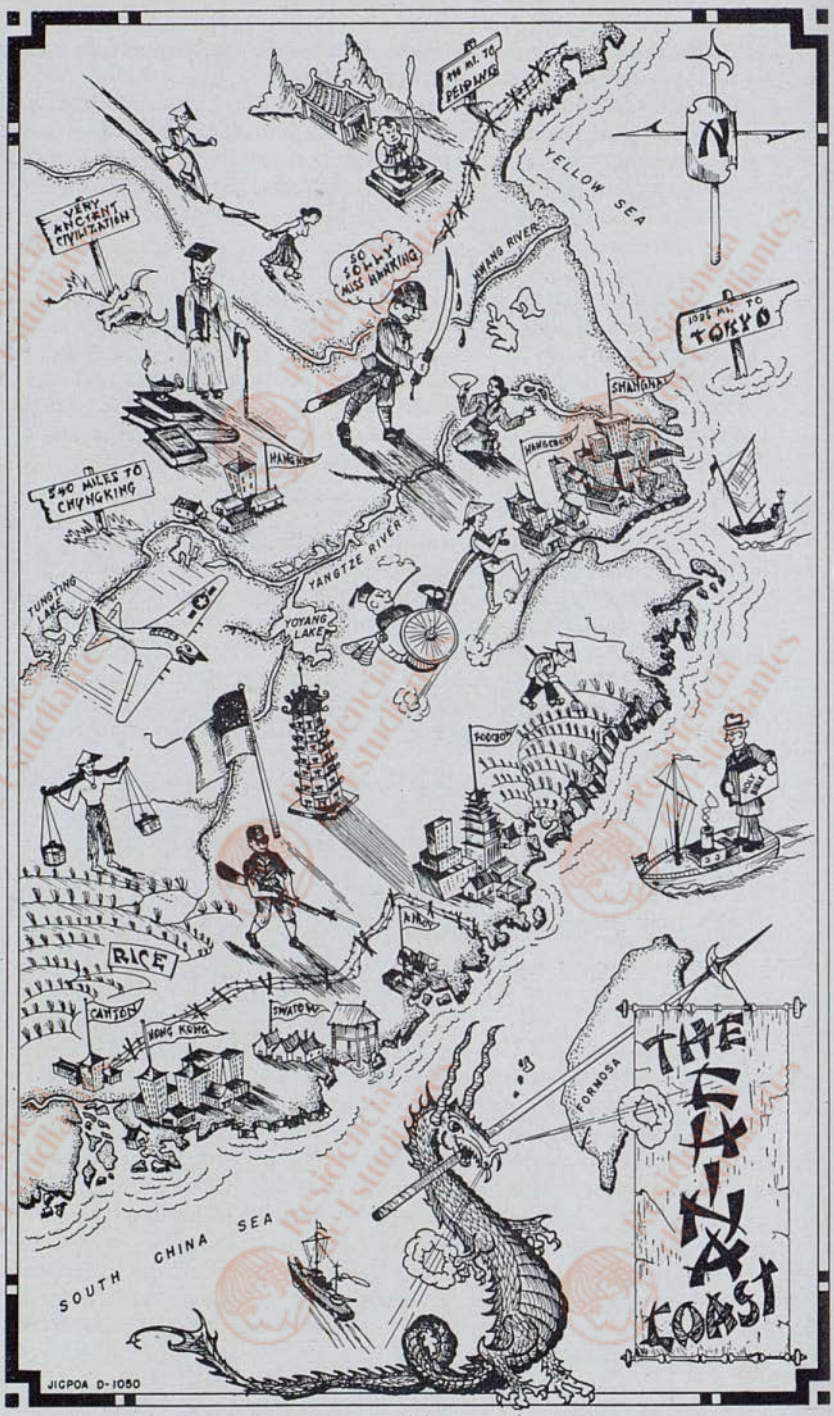
OSUMI GUNTO

Last of the seven Nansei groups is Osumi Gunto, a group of nine islands just off the coast of southern Kyushu, most southerly of the main islands of Japan. The group supports some 49,000 people engaged in manufacture, forestry, and agriculture. Many of the islands are of volcanic origin. The two most important islands are:

TANEGA SHIMA—About 31 miles long and three to six miles wide. It has a radio station, a limited anchorage, and a seaplane base. The dread mamushi lurks in its hills. Its 22,000 people farm, cut timber, or fish.

YAKU SHIMA—Lying southwest of Tanega, this island produces magnesium and aluminum, fish, timber, and the usual farm products. It has a small sheltered anchorage and the enemy is said to have an airfield here.

Other islands of the group are Iwo Jima, Iwo Jima Shinto, Kuchinoyerabu Shima, Kuro Shima, Kusakaki Jima, Mage Shima, and Take Shima.


N
YELLOW SEA
HWANG RIVER
SHANGHAI
HANGCHOW
HANKOW
YANGTZE RIVER
TUNG TING LAKE
YOYANG LAKE
FOOCHOW
AMOY
SWATOW
HONG KONG
CANTON
RICE
FORMOSA
SOUTH CHINA SEA
THE CHINA COAST
JICPOA D-1050

THE CHINA COAST

Hong Kong to Shanghai

It is impossible to describe in a few words even a part of a country as big, as old, as complicated, and as fascinating as China. China proper, consisting of 18 provinces, has an area of 1,532,420 square miles (U.S.—48 states 3,026,789 square miles) and a population in the neighborhood of 400,000,000. China further lays claim to Manchuria and Inner Mongolia, now under Japanese control, Outer Mongolia, now under the U.S.S.R., Sinkiang, Chinghai, and Sikang, loosely affiliated with China (though Russian influence is strong in Sinkiang), and Tibet, which territory is practically independent. China is one of the oldest nations on earth. Like other ancient civilizations—Egypt, Ninevah, Babylon, Persia, Greece, and Rome—it reached a peak of power centuries ago and then declined into weakness. But unlike these dead empires China is coming back strong. Its virile, industrious, patient people, clinging to what is best in their ancient tradition and adopting the skills and inventions of the western world, are destined to take their place at the world's council table.

A land of contradictions

China is a land of contradictions. It is incredibly old yet everywhere are the machines and tools of the 20th century. The Chinese originated their own system of writing, of making paper, and printing. Yet only a few can read and write their own tongue. They invented gunpowder and possibly the cannon. Yet they so forgot the art of warfare that up to recently they have been "push-overs" for the aggressive nations. They invented civil service or the system of choosing government employes on the basis of ability. Yet their government fell into great confusion and anarchy was widespread. They made great medical discoveries; disease is rampant everywhere. They made important contributions along the lines of engineering, mathematics, architecture, and astronomy. Yet most of their people follow ancient superstitions, and consult soothsayers for advice. There are Chinese whose wealth is enormous but most of the people are terribly poor, living a hard life cursed by drought and flood, famine, diseases, and the extortions of money-lenders.

Here is found such beauty that it beggars description. And such filth and ugliness that westerners are revolted. The Chinese are polite, hospitable and generous. Yet they have devised the most fiendish tortures and can exhibit the most callous unconcern for the suffering of others. Their history shows them fighting like heroes and also running like cravens.

In short, almost any statement one might make about China and the Chinese would be true, so enormous is their country, so varied its people, so diverse the cultures which have entered into its history.

Natural "breaks"

China has been greatly favored by nature for the development of a great and powerful nation. Much of the immense land area is fertile; beneath the soil lie valuable minerals, the climate is varied; the rainfall over most of the country is adequate. What China has suffered from floods has been largely (as in America) due to the ruthless cutting down of mountain timber which formerly held the rainwater. There are no natural barriers strong enough to prevent movement from one part of the country to another but enough to allow for the development of local or district differences. Countless invasions both warlike and peaceful have brought new blood and new ideas to China. And even today after between 4000 and 5000 years of recorded history, the Chinese still have a "frontier"—large amounts of land awaiting development.

Early History

Little is known of the beginnings of the Chinese. Scholars digging up the remains of the earliest people say the first men lived in China between 100,000 and 500,000 years ago. These "dawn men" were apparently half-way between ape and man, walked upright, used tools, and knew how to handle fire. From these "hominids," as scientists call them, came the type of man we call "mongoloid." About 20,000 years ago the descendants of the hominids began their migration to Japan and possibly to America by way of Siberia and Alaska.

Historians say that China's real history—real in the sense of being supported by proof—began about 2000 B.C. Even at that early day they had made considerable progress along the road to civilization. During the 4000 years that have followed, the Chinese people have had every experience known to man. Their country was more than once the greatest empire on the face of the earth. They have been split up into tiny warring states. They have carried their conquests to Europe and the isles of the South Seas. And they have in turn been conquered by fierce warriors of more primitive peoples from the north, the west, the south, and the east. At one time they were the greatest Asiatic sea power. But they neglected their navy and so were easy prey for seafaring nations. They were once the greatest warriors in the East. But later years found their military strength negligible.

Many rulers

Chinese history is usually divided into "dynasties," the periods of time during which different families or races have ruled the land. The beautiful paintings, sculpture, chinaware, literature, and poetry for which China is famous are always dated by the name of the

dynasty in which they were produced. A Ming vase, for example, was made sometime between 1368 and 1644 A.D. There is space only to mention these different dynasties with their dates as follows:

B.C. 2205-1765—Hsia
1765-1122—Shang or Yin
1122- 249—Chou
249- 206—Chin
B.C. 206- 220 A.D.—Han
220- 589—Three kingdoms—Wei, Wu, and Shu.
589- 618—Sui
618- 907—Tang
907- 960—Five minor dynasties
960-1279—Sung
1279-1368—Mongol or Yuan
1368-1644—Ming
1644-1911—Manchu or Ching
1912- —Republic of China

But although the Chinese were conquered and ruled by other races such as the Mongols under the great Jenghis Khan and his grandson, Khubilai, and the Manchus, they have "conquered" their conquerors. Outside groups coming into China have been absorbed into Chinese culture and the Chinese way of life. Chinese traditions are strong and persistent. Two philosophers—Confucius and Lao Tzu, who lived 1500 years ago—still have tremendous influence on Chinese life. Neither the teachings of Confucius nor Lao Tzu are religions in the real sense of the word. But both have shaped the Chinese character and pattern of life.

Buddhism, brought to China from India early in the first century A.D., has played a tremendous part in China. It is more widely followed than any other religion and shrines and temples to the "Holy One" are everywhere.

Western influence

Westerners, Americans and Europeans, have shown the Chinese both their best and worst sides. And the Chinese attitude toward an American will probably depend on with which type of American he has been in contact. Western traders and merchants have been at different times decent and ruthless. Westerners have sent missionaries to preach Christ, doctors to heal the sick, teachers to open the mind. But westerners also sent troops to protect the opium trade and to take over Chinese soil. America has maintained gunboats in Chinese rivers and marine garrisons in Chinese cities.

American interest in China has been strong ever since the New England merchant captains began to tap the Chinese market and bring back her magnificent silks, her exquisite china and porcelain, her lustrous lacquer, and fragile figurines. China tea became a fashionable drink in American homes. While Catholic missionaries from Europe first brought Christianity to China, after the coming of the first Protestant, an Englishman, in 1807, American Protestant

and Catholic Churches began an extensive work in the country. American church people have taken a keen interest in the country and have sent thousands of preachers, teachers, and physicians to China. American commercial interests expanded their agencies in the country. The kerosene oil tin, the cheap oil lamp, and the cigarette became the symbols of America to tens of millions of Chinese.

For over a hundred years there was friction between the Chinese and the western states. The nations, backing up their merchants and missionaries with armed force, compelled China to make constant concessions, extorting privileges which angered the proud Chinese and which produced violent outbreaks against all foreigners. Typical was the Boxer Uprising in 1900 when hundreds of missionaries and merchants were slaughtered by fanatical roving bands inflamed to fever pitch against "the foreign devils".

During the internal struggle which marked China's life from the founding of the Republic in 1912 up to the present, westerners have repeatedly suffered.

America and Great Britain have eliminated one very sore point —extraterritoriality—the right Americans and Britons had in China to be tried in their own rather than in Chinese courts. The United States has changed its naturalization laws to permit a quota of Chinese to become citizens each year and thus has wiped out another grievance. But the Chinese memory is long and Americans who find their Chinese hosts somewhat reserved will understand that past injustices still rankle.

Late history

In its closing years after the Boxer Rebellion, the Manchu government became steadily more feeble. Finally in 1911 a band of young men and women, inspired largely by what they had learned of freedom and democracy in American schools and colleges or in American missionary schools in China, revolted, formed a party called the Kuomintang, overthrew the Manchus, and established the Republic of China with Dr. Sun Yat Sen as its first president. The Manchus called an old warrior named Yuan Shih-kai to win back their power but he could not stop the movement. Dr. Sun (Chinese family names are always written first) in the interests of harmony permitted Yuan to become president but named a loyal revolutionary, Li Yuan Hung, as vice president.

Stormy days followed for the infant republic. There was great internal disorder, World War I, Japan's infamous 21 demands on China, the secret treaties between England and Japan which emperiled Chinese territory, and finally the Nine Power Treaty of 1922, signed at Washington, in which the western powers and Japan agreed to respect China's integrity.

But internal disorder grew worse. Powerful bandits, the so-called "war lords", established themselves with armies which lived by pillage and blackmail in the various sections of the country. The

situation seemed hopeless. Russian Communists were at work on the borders and within the country; Japanese agents were plying their trade in Manchuria. Helpless China could do little to protect herself.

Dr. Sun's will

Then Dr. Sun, the great revolutionary who had proved very inept as an administrator, died. He left a will which had an enormous effect. This will "gave" China three things—democratic way of life, a higher standard of living, and elimination of all foreign special rights and privileges. Here was a program that gripped the imagination of all intelligent Chinese. And along with the publication of this will arose a young military leader, Chiang Kai-shek, who took over the Kuomintang. At first he worked with Borodin, the Communist leader. Later Chiang had German military advisers and his armies in battle with the Japanese showed the results of their excellent training methods.

Chiang began to unite the country, either destroying or winning over the war lords to his program. Only the Communists, with whom he broke, and whom his soldiers fought for many years, remained on hostile terms. Shortly prior to the opening of the Sino-Japanese fighting in 1937, an uneasy truce was patched up between Chiang and the Communists. Today, while the Kuomintang, and the thousands of Communist guerillas in northwest and north China, regard each other with suspicion, instances of actual hostilities have been rare and peace will probably be maintained between the two factions, at least until the Japanese are driven out.

Japan frightened

Japan, delighted to have China split into warring groups, became frightened as she saw Chiang welding a nation into being. And so in 1931 she manufactured the "Mukden Incident" in Manchuria and in the next two years occupied the three provinces of this territory as well as Jehol. The United States refused to recognize the state, Manchukuo, which Japan created with a puppet ruler.

In 1937 when Japan began her effort to occupy additional Chinese territory Chiang fought. His heroic soldiers surprised the the world, and especially the Japanese, by putting up a brilliant and stubborn defense of Shanghai, until forced to withdraw after about three months of heavy fighting. Since then Japan has overrun large sections of China, her ports, her principal inland cities, her roads, and her railways, but Chiang, using his best ally, distance, and fighting on his own terms, has succeeded in maintaining his government at Chungking. The Chinese have suffered terribly since 1937. Food is scarce; inflation is rampant; military supplies and weapons have been inadequate. But China has fought bravely and doggedly.

As Americans force their way to the China coast, as they engage the Japanese armies in China and their planes batter Japan

from Chinese bases, they are coming to the aid of a gallant ally who has been fighting the Japanese for five years longer than we have. China's history is long, brilliant, sad, and bloody. But her latest history promises to become the most brilliant of all the chapters.

The weather is O.K.

The climate of the China coast from Shanghai south to Hong Kong is for the most part rather pleasant. The temperature is mild, averaging about 60° throughout the year, although once in a long while snow falls in Canton in the winter. From November through March the winter monsoon season prevails with generally light rainfall and fine weather. April and May are marked by periods of calms as the northeasterly (winter) monsoons slack off. People on the coast will have to expect dust storms occasionally as the wind whips up the earth from the dry farms and rice paddies.

Summer is the rainy season as the monsoon, blowing now from the southeast, sweeps in from the sea with its vapor-laden air. Fierce downpours and thundershowers are common and fog is not unusual. Typhoons breed in this season and strike the coast most often in July.

The coast line

This strategically vital section of the coast rises from the sea to the belt of hills and mountains which parallels the shoreline. The only breaks are the deep indentations which mark the mouths of the rivers tumbling down from the hills. As these streams coursed to the sea during the centuries they have piled up at their mouths deltas of sand and dirt, creating level areas on which now stand cities—Amoy, Canton, Foochow, Hangchow, Hong Kong, Ningpo, Shanghai, Swatow, and Wenchow, to name the most important.

From the sides of the mountains once well forested, the trees were long ago cut and with nothing to hold the soil, the rains have washed away most of the once fertile topsoil. Vegetation today is mostly scrubby brush. Wherever possible the Chinese have terraced the hills and mountains to provide additional land area to grow rice and sugar cane.

The rice bowl

Symbol of life to the Chinese is not the loaf of bread, so familiar to us, but a rice bowl. One of the basic principles of Chinese life is that one must "never break another man's rice bowl". In other words, never do anything to anyone which will take away his ability to make his living. And from the small farms and paddies of this section of China comes much of the rice to fill the bowls of the always hungry Chinese.

The river deltas and terraced slopes near the rivers are used to the last inch for rice. Sugar cane is grown in the plains behind Swatow. Individual rice fields are small, with each man's paddy separated from his neighbor's by an earthen wall or dyke. Water for the soaking of the paddies is brought through canals, four to

ten feet deep, and when the rice is growing the fields lie under a thick blanket of water. It is almost impossible to walk through a rice paddy at this stage for the soil underneath is "bottomless" muck. The water is pumped from the canals to the individual paddies by primitive water wheels.

When it's harvest time, the water is drained off and the fields gradually dry and harden. In some areas it is possible to grow two rice crops a year, and in these localities the fields are under water most of the year.

The success of the harvest may mean actually the difference between starvation and life for the rice growers. American troops, it is hoped, will never break down dykes or canals or walk through a rice field unless such action is necessary for military reasons. The Chinese owner will not quickly forget the man who "breaks his rice bowl."

China has ample water, but it's loaded with death unless thoroughly boiled. The rivers, which are usually open sewers, provide plenty of water; ground water can be obtained almost everywhere by sinking wells. But the soil is polluted by human waste and water thus obtained must also be boiled or treated chemically before drinking.

The cities

"Teeming" is the word commonly used to describe the Chinese cities, especially those of this coastal area. Millions live chock-a-block in houses which the average American would describe as rabbit warrens or chicken coops. The smells, the noise, the dirt, the effect of jam-packed humanity are beyond description. Here the west and east rub noses with a vengeance. Through these cities Europeans — traders and missionaries, salesmen and physicians, soldiers and teachers—pushed their way into China. In the cities such as Hong Kong and Shanghai are large areas formerly occupied only by westerners, from which the Chinese were barred except as they were permitted to enter on business or as servants. Americans will see office buildings which remind them of New York or Chicago or San Francisco. Shanghai has the longest bar in the world; Hong Kong was in many respects a bit of Britain lying on the little island off Canton. The dance halls and other houses of amusement in these cities are famous the world over. Through these and the other Treaty Ports—so named because they were opened to trade by special treaties between the western nations and China—Amoy, Foochow, Swatow, and Ningpo—western ideas, western goods, western weapons, western virtues, and western vices poured into China. The Chinese of these cities are familiar, perhaps too familiar, with the white man. Many speak and understand English. They are shrewd traders and marvelous bargainers. Soldiers or sailors doing business with them must keep their wits about them.

But cheek-to-jowl with the imposing western office buildings

and the beautiful oriental homes and palaces are appalling slums and hovels. Human life in China is cheap, dirt cheap. Living is hard and grim; the struggle for bare survival is bitter. A poor man in the United States is a prince in comparison with the average Chinese farmer or working man. Chinese employers have been just as hard in "sweating" their employees as others. Girls and boys work terribly long hours for a tiny wage. Their fathers and mothers labor in the rice fields or in the cities for little more. And today the situation is worse than ever because the Japanese, fighting an economic war as well as a military war, have flooded the country with worthless money. Prices have been driven sky high. And with an unusual shortage of all kinds of goods, the average Chinese has a terrific time trying to make both ends meet. But with all the hardship and suffering the Chinese has never lost his great dignity, his courage, and sense of humor.

Diseases everywhere

First visitors to China are always shocked by the horrible effects of disease on its people. The filth in which so many live makes the spread of infection automatic. Every type of skin disease known to man covers faces and bodies with sores and scabs. Elephantiasis produces the grotesque swellings of arms and legs and other portions of the body. Tuberculars are everywhere. Venereal disease is common. All the enteric diseases—typhoid, dysentery, both bacillary and amoebic, are common, spread by the polluted water and foods. All kinds of flies and insects abound. Mangy curs run wild, scavenging for food and sometimes fighting with men for a discarded bit of garbage or offal.

On the surface the situation looks hopeless. But considerable strides have been made in improving the health of China. Modern medicine, aided by many Chinese traditional remedies which the western world has adopted, sanitation, preventive health—all are being practiced and are having their effect.

Those who object to the dirt, the smells, the disease should remember that the Chinese program of self-government has been checked by the war with the Japanese which has been going on since 1931. They might well admire the fortitude and strength of a people that can survive all the handicaps under which they struggle and maintain a courageous and determined face against their enemies.

Points for the individual service man to remember

1. No unboiled water can be drunk with safety.
2. All fruit must be peeled before eating. If a piece of fruit or a vegetable has a single decayed spot on it, the whole thing should be thrown away. Except in extreme emergency Americans should not eat or drink anything except that provided by their own mess. Chinese streets are full of open booths selling fruits, cakes, etc. Troops should not buy any of this stuff or eat it.

3. Troops should fill their canteens at every opportunity with water provided in their own mess. Thirsty men can take a chance on hot Chinese tea because the water has been boiled. But it is not safe to take a chance on the little Chinese cups in which this tea is served. The tea can be poured in a canteen cup and drunk but this only as a last resort. Breaking the above rules invites dysentery which at best will knock men out for two weeks and from which, at worst, men may never really recover.

Always "Chinese" — never "Chinamen"

4. The Chinese must be called "Chinese", not "Chinamen" or "Chinks". The Chinese is offended if called a Chinaman. Chinese place great importance on courtesy. Westernized Chinese will shake hands but one who clings to the older forms will fold his hands in his sleeves and bow. A bow in return is courteous acknowledgment. In conversation the Chinese will disparage his country, his home, family or his house, all his goods or anything else that belongs to him, at the same time praising all that pertains to the one to whom he is speaking. For example the Chinese words inquiring another's name actually mean "What is your honorable name". The words in reply mean "My humble name is". The other fellow is expected to shout down the Chinese insisting that the Chinese is the great and he the humble one. While the educated Chinese does not expect the foreigner to play this game at any length, the foreigner who calmly accepts all compliments of the Chinese without protest or return compliment will earn the latter's everlasting contempt.

5. The dealers and shop keepers do not mind bargaining and seldom expect to get the first price asked, but there is a minimum below which they can not or will not go. No rules can be given for this situation and each individual will have to work out his own case.

Bargaining should be kept on a good-natured basis. Soldiers who pay for what they get will be a novelty in most Chinese shops and will do a great deal to win the Chinese to our side.

6. The characteristics which will stand Americans in best stead in China are the same that help them anywhere—humor, politeness, interest, and decency.

Western Pacific Weather

	Temperature	Humidity	Rainfall	Rainy Season	Winds	Winds (Velocity)	Storm Typhoons Season	
Gilberts	74°-92°	67%-82%	80"-100"	Dec.-Feb.	NE-E-SE	8 mph.	Nov.-March	No
Ocean and Nauru	68°-96°	65%-80%	Range—13"-128" Mean—79"	Nov.-Feb.	NE-E-SE	10 mph.	Jan.	No
Marshalls	77°-89°	77%-89%	95"-157"	July-Oct.	NE-E	11 mph.	Aug.-Nov.	Yes
Wake Island	76°-83°	50%-70%	40"	July-Oct.	E-NE	10-14 mph.	July-Nov.	Yes
East Carolines	75°-85°	75%-86%	184"	Apr.-May	E-NE	12-14 mph.	Oct.-Dec	Yes
West Carolines	76°-87°	87%-90%	119"-255"	Apr.-Aug.	NE-E	12-14 mph.	Irregular	Yes
Marianas	76°-86°	82%	83"-90"	July-Oct.	NE-E	12-14 mph.	Aug. Dec.	Yes
Philippines (East Coast)	80°	70%-90%	120"-190"	Oct.-Dec.	Variable	Variable	May-Oct.	Yes
Philippines (West Coast)	80°	70%-90%	70"-100"	June-Dec.	Variable	Variable	May-Oct.	Yes
Philippines (Interior)	55°-70° Highlands 80°-90° Lowlands	70%-90%	100"-200"	May-Jan.	Variable	Variable	May-Oct.	Yes
Nanpo Shoto (North)	40°-80°	75%-85%	140"	Sept.-Nov.	W	15 mph.	Aug.-Oct.	Yes
Nanpo Shoto (South)	55°-92°	80%-90%	62"	Apr.-June	NW-SW	12-14 mph.	Sept.-Nov.	Yes
Formosa	70°-86°	75%-85%	45"-290"	May-Aug.	NE	Variable	June-Sept.	Yes
Nansei Shoto	60°-88°	75%-85%	80"-120"	June-Sept.	N-NE	15-20 mph.	Apr.-Sept.	Yes
China Coast	56°-84°	65%-96%	47"-65"	Mar.-Sept.	N-NE-SE	8-14 mph.	June-Aug.	Yes

DISTANCE CHART
WESTERN PACIFIC OCEAN

NOTE ALL DISTANCES ARE AIRLINE AND COMPUTED BY MERCATOR OR MIDDLE LATITUDE SAILING.

	APAMAMA	CHICHI JIMA	DAVAO	ENIWETOK (ENGEBI)	GUAM	HONG KONG	IWO JIMA	JALUIT	JOHNSTON	KUSAIE	KWAJALEIN (ROI)	KWAJALEIN (KWAJALEIN)	MAJURO	MAKIN (BUTARITARI)	MALOELAP	MANILA	MARCUS	MIDWAY	MILLE (MILI)	NAURU	OCEAN	PAGAN	PALAU (PELELIU)	PEARL HARBOR	PONAPE	ROTA	SAIPAN	TAINAN (FORMOSA)	TARAWA	TINIAN	TRUK (DUBLON)	VLADIVOSTOK	WAKE	WOLEAI	WOTJE	YAP	YOKOHAMA
APAMAMA																																				
CHICHI JIMA	2434																																			
DAVAO	2914	1527																																		
ENIWETOK (ENGEBI)	966	1462	2183																																	
GUAM	1913	830	1182	1037																																
HONG KONG	3750	1554	1129	2829	1818																															
IWO JIMA	2397	146	1393	1428	707	1502																														
JALUIT	412	2020	2625	557	1547	3365	1987																													
JOHNSTON	1394	2757	3845	1670	2667	4331	2800	1387																												
KUSAIE	711	1767	2233	382	1190	3011	1711	398	1753																											
KWAJALEIN (ROI)	658	1785	2487	337	1366	3168	1759	245	1416	360																										
KWAJALEIN (KWAJALEIN)	617	1822	2504	370	1387	3194	1793	204	1414	347	43																									
MAJURO	426	2046	2716	598	1615	3426	2023	117	1270	502	264	231																								
MAKIN (BUTARITARI)	168	2275	2828	813	1783	3606	2242	256	1327	604	496	457	259																							
MALOELAP	519	1985	2710	559	1590	3391	1966	191	1225	531	227	208	98	352																						
MANILA	3260	1404	529	2419	1378	604	1300	2917	4017	2539	2746	2768	2990	3143	2969																					
MARCUS	1838	660	1929	893	839	2190	693	1425	2101	1251	1182	1222	1433	1678	1361	1953																				
MIDWAY	1742	2144	3475	1515	2302	3730	2227	1526	815	1770	1418	1441	1424	1611	1336	3530	1561																			
MILLE (MILI)	359	2107	2749	654	1658	3476	2080	125	1274	525	323	285	66	194	160	3036	1497	1465																		
NAURU	418	2188	2513	782	1569	3377	2128	420	1738	423	597	558	524	415	611	2873	1669	1948	491																	
OCEAN	267	2307	2674	869	1715	3529	2253	407	1614	542	628	587	486	305	583	3030	1762	1900	437	161																
PAGAN	1977	573	1351	1031	289	1799	471	1579	2562	1269	1368	1399	1629	1829	1588	1443	589	2118	1683	1677	1810														
PALAU (PELELIU)	2415	1285	514	1678	722	1480	1140	2110	3346	1718	1977	1993	2202	2317	2200	903	1535	3026	2235	2007	2167	946													
PEARL HARBOR	2084	3294	4562	2358	3320	4892	3360	2098	711	2464	2122	2122	1981	2028	1928	4643	2670	1134	1985	2442	2324	3184	4022												
PONAPE	1013	1514	1940	370	891	2710	1445	685	1981	303	568	576	775	904	781	2238	1068	1883	808	688	827	989	1426	2684											
ROTA	1898	794	1228	1008	54	1834	676	1526	2625	1177	1340	1363	1591	1766	1564	1410	785	2251	1639	1562	1706	241	773	3274	880										
SAIPAN	1894	741	1279	988	123	1844	629	1514	2583	1176	1321	1344	1575	1758	1544	1438	716	2194	1626	1570	1711	177	834	3226	884	70									
TAINAN (FORMOSA)	3415	1210	1002	2486	1492	349	1152	3027	3970	2684	2825	2853	3084	3272	3046	506	1846	3382	3137	3060	3209	1453	1248	4536	2385	1504	1509								
TARAWA	76	2350	2859	887	1831	3653	2311	338	1391	641	582	542	359	103	452	3178	1763	1706	294	377	240	1890	2338	2085	942	1815	1811	3323							
TINIAN	1897	750	1269	995	110	1837	636	1521	2595	1180	1329	1354	1583	1763	1553	1429	730	2205	1632	1572	1713	188	821	3232	886	56	14	1504	1815						
TRUK (DUBLON)	1373	1305	1561	665	562	2356	1209	1064	2331	675	932	947	1153	1279	1154	1866	1022	2147	1187	1018	1170	738	1049	3025	379	565	591	2042	1311	588					
VLADIVOSTOK	3426	1085	2188	2466	1899	1531	1193	3003	3394	2809	2758	2798	3005	3255	2928	1802	1572	2616	3070	3233	3336	1658	2169	3755	2560	1870	1822	1335	3342	1829	2392				
WAKE	1208	1423	2499	522	1315	2946	1441	822	1380	863	597	637	783	1041	690	2632	763	1029	847	1190	1222	1186	2024	2000	886	1269	1222	2593	1140	1230	1117	2266			
WOLEAI	1839	1187	1087	1114	367	1938	1057	1538	2786	1144	1404	1418	1627	1748	1626	1421	1168	2528	1661	1457	1615	655	574	3471	854	414	482	1647	1774	469	474	2238	1503		
WOTJE	582	1911	2653	491	1525	3321	1893	216	1261	498	165	156	155	413	74	2907	1288	1324	222	632	622	1517	2142	1969	728	1498	1477	2976	514	1486	1098	2855	627	1570	
YAP	2213	1080	754	1431	450	1580	936	1886	3089	1496	1736	1755	1972	2101	1962	1051	1268	2752	2009	1821	1978	683	273	3757	1202	500	562	1301	2132	548	822	2044	1755	366	1901
YOKOHAMA	2848	518	1871	1885	1347	1551	645	2429	2945	2222	2184	2224	2436	2681	2363	1608	1000	2251	2501	2646	2751	1089	1731	3387	1992	1313	1259	1253	2765	1268	1814	585	1725	1701	2290	1560

STATISTICAL SUMMARY

	Discovered by	No. of Islands or Island Groups	Area (sq. mi.)	Population (excluding Japanese troops)	Race	Language	Principal Industry	Religion	Health Conditions (native pop.)	Control Prior to Dec. 7, 1941	Invaded by U. S.
GILBERTS	Spain-Gr. Brit.	16	166	28,000	Micronesian	Gilbertese-English	Copra	Christian	Good	Gr. Brit.	Nov. 1943
OCEAN I.	Gr. Britain	1	2.5	2,400	Micronesian	Banaban	Phosphate	Christian	Good	Gr. Brit.	
NAURU I.	U. S. A.	1	8	1,950	Micronesian	Nauruan	Phosphate	Christian	Good	Gr. Brit. Aus.-N.Z.	
MARSHALLS	Spain-Gr. Brit.	34	74	10,600	Micronesian	Marshalese	Copra	Christian	Poor	Japan	Jan. 1944
WAKE	Gr. Britain	3	3	None	——	——	Air Sta.	——	Excellent	U.S.A.	
CAROLINES	Spain	48	525	35,000	Micronesian	7 dialects	Copra-Fish	Christian-Pagan	Poor	Japan	
MARIANAS	Spain	17	450	24,500	Chamorro	Chamorro	Sugar	Christian	Poor	Guam (USA) Other Islands (Japan)	June 1944
PHILIPPINES	Spain	7083	115,600	17,000,000	Malay-Chinese Melanesian	Spanish-English-Dialects	Minerals Rice-Lbr. Copra Fish-Hemp	Christian Moslem Pagan	Cities-Good Country-Poor	U. S. A.	
MARCUS	Japan (?)	1	1.15	None	——	——	Phosphate	——	Good	Japan	
NANPO SHOTO	Japan	25	156	40,000	Japanese	Japanese	Farming Fishing	Buddhism Shinto	Good	Japan	
FORMOSA	China	1	13,800	6,000,000	Chinese-Formosan	Chinese-Japanese	Camphor Rice-Tea Sugar	Buddhism Shinto	Fair	Japan	
NANSEI SHOTO	China	116	935	820,000	Japanese	Japanese	Sugar	Buddhism Shinto	Poor	Japan	
CHINA (18 Provinces)	China		1,532,420	400,000,000+	Chinese	Chinese	Rice	Buddhism Taoism Christian Confucianism	Fair to Poor	China	

A PRAYER BEFORE BATTLE

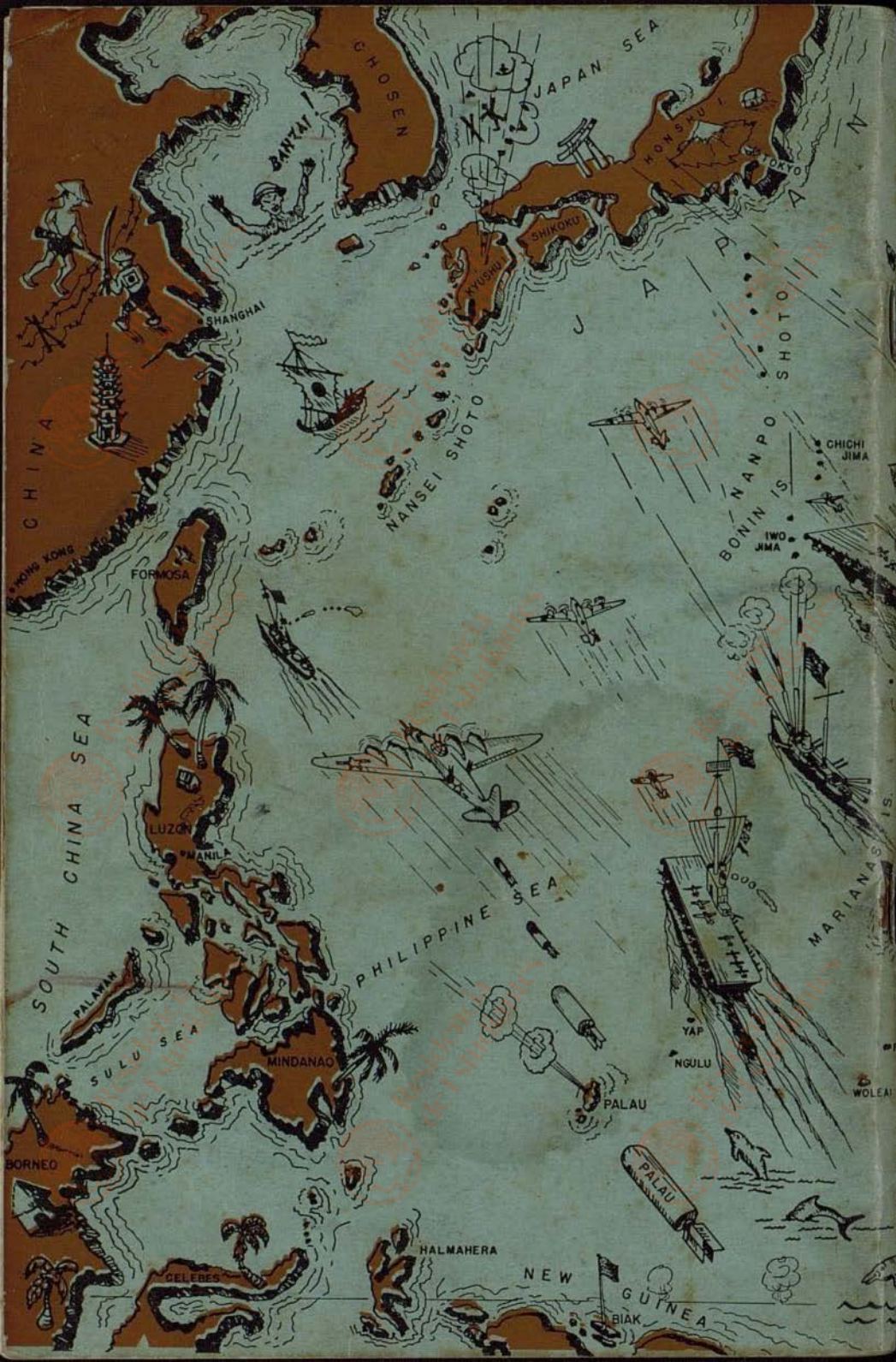
Almighty God, we are about to be committed to a task from which some of us will not return. We go willingly to this hazardous adventure.

We are ready to sacrifice ourselves for our country and our God. We do not ask, individually, for our safe return. But we earnestly pray that You will help each of us to do his full duty.

Permit none of us to fail a comrade in the fight. Above all, sustain us in our conviction of the justice and righteousness of our cause so that we may rise above all terror of the enemy and come to You, if called, in the humble pride of a good soldier and in the certainty of Your infinite mercy. Amen.

This prayer was contributed by General Dwight D. Eisenhower for a "Soldiers' and Sailors' Prayer Book" with a letter commenting:

"Here is a prayer that I once heard a company commander repeating to his men on a wet, cold night, just before starting a march to the front line. It struck me more forcibly than almost any other I have heard. Possibly the drama of the occasion had something to do with my reactions, but in any event it was a better prayer than I could compose. While I cannot repeat it verbatim I am sending it in words that approximate the original."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